Fillmore and Piru Basins
Groundwater Sustainability Agency

Appendix E

United Water Conservation District Groundwater Model Documentation (United, 2021a, 2021b, and 2021e; Porcello et al., 2021)

Fillmore and Piru Basins
Groundwater Sustainability Agency

Appendix E-1

Ventura Regional Groundwater Flow Model Expansion and Updated Hydrogeologic Conceptual Model for the Piru, Fillmore, and Santa Paula Groundwater Basins (United, 2021a)

VENTURA REGIONAL GROUNDWATER FLOW MODEL EXPANSION AND UPDATED HYDROGEOLOGIC CONCEPTUAL MODEL FOR THE PIRU, FILLMORE, AND SANTA PAULA GROUNDWATER BASINS

United Water Conservation District
Open-File Report 2021-01
June 2021

WATER RESOURCES DEPARTMENT
UNITED WATER CONSERVATION DISTRICT

THIS REPORT IS PRELIMINARY AND SUBJECT TO MODIFICATION BASED UPON FUTURE ANALYSIS AND EVALUATIONS

ERRATA

This document dated June 15, 2021 replaces the previous document dated June 9, 2021. Changes include:

- Figure 2-12: Legend text edits
- Figure 2-25: Legend text edits
- Figure 4-58: Title edit
- Figure 4-59: Piru basin scatter plots were updated to include additional wells with "unknown" screen interval depths used in calibration analysis.
- Figure 4-60: Fillmore basin scatter plots were updated to include additional wells with "unknown" screen interval depths used in calibration analysis.
- Figure 4-61: Santa Paula basin scatter plots were updated to include additional wells with "unknown" screen interval depths used in calibration analysis.

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SUMMARY

United Water Conservation District (UWCD or United), a public agency, serves as a steward for managing the surface water and groundwater resources in the Santa Clara River (SCR) Valley and much of the Oxnard Plain. In the late 1980s, United's Board of Directors (Board) recognized that a groundwater flow model capable of addressing specific aquifer issues was needed and helped sponsor the U.S. Geological Survey (USGS) to develop a regional groundwater flow model (the "USGS model") for the basins in the Ventura County portions of the SCR and Calleguas Creek watersheds (USGS, 2003). From 2003 to 2008, with the help of consultants, UWCD continued to calibrate and update the USGS model. In 2010 the UWCD staff and Board determined that a new model that explicitly simulated each aquifer would be required to improve understanding of groundwater occurrence and movement within United's service area, and to forecast the effects of potential groundwater management actions under consideration.

In 2018, UWCD completed construction and calibration of a numerical groundwater flow model for the Oxnard and Mound sub-basins of the Santa Clara River basin (referred to herein as the Oxnard and Mound basins), Pleasant Valley basin, and the western portion of the Las Posas Valley basins (referred to herein as the West Las Posas Valley basin) (UWCD, 2018). The primary objective for development of that model ("Coastal Plain Model") was to provide an improved tool (compared to a previous model of the region constructed in the 1990s by the U.S. Geological Survey [USGS]) for forecasting aquifer-specific effects of potential groundwater management actions under consideration. In 2018 and 2019 UWCD staff updated the hydrostratigraphic conceptual model for Santa Paula, Fillmore and Piru basins and expanded United's numerical groundwater flow model to include those basins. This report documents the model expansion and calibration efforts that were completed in August 2020.

The expanded regional groundwater flow model ("Regional Model") uses the same finite-difference model grid spacing (2,000 feet), MODFLOW packages, simulation period (1985 to 2015) and groundwater model software - MODFLOW-NWT (Niswonger, et al., 2011) - as United's Coastal Plain Model.

In addition to including the SCR Valley basins in the Regional Model, there are three areas of difference between the Regional Model and Coastal Plain Model:

- Unconfined basin conditions and non-marine sediments predominate in the model expansion area, and significant interaction exists between surface water and groundwater
- Expansion of the outcrop area of the Mound basin and minor recharge component refinement and updates were included.
- The Regional Model adopts a daily time step to better simulate the highly variable SCR streamflow, while the Coastal Plain model utilized a monthly time step.

The Regional Model is well calibrated to simulate the groundwater elevations throughout the seven basins (Piru, Fillmore, Santa Paula, Mound, Oxnard, Pleasant Valley, and West Las Posas Valley). The Regional Model is sufficiently calibrated and discretized to inform regional groundwater management decisions and can provide meaningful interpretation of the inter-basin flow budgets between the seven basins within United's District boundaries in southern Ventura County.

The Regional Model generally simulates the streamflow routing and interaction between streamflow in the SCR and groundwater well, based on calibration of monthly average streamflow and stream channel recharge. Daily model simulations were used to capture the variability within a month and were instrumental in achieving satisfactory calibration (based on monthly averages). The simulation of the SCR streamflow routing is somewhat limited by assumptions and functionalities available in the stream package, resulting in underestimated streamflow at the Freeman Diversion. Therefore, rather than using the Regional Model, an existing surface water model was used to calculate daily streamflow at the Freeman Diversion, and subsequently to calculate diversions, artificial recharge, and surface water deliveries to the Oxnard and Pleasant Valley basins.

In 2016 UWCD contracted with three nationally recognized experts (Dr. Sorab Panday, Mr. Jim Rumbaugh, and Mr. John Porcello) to form a model review panel (the Expert Panel) to provide objective and critical review of construction and calibration United's new groundwater flow model. The Expert Panel concluded that the Coastal Plain Model was well constructed and well calibrated, is consistent with the conceptual model for the hydrogeology of the basins and is a good tool for simulating the effects of various water supply projects and management strategies (GSI Water Solutions and others, 2018). The Expert Panel has continued to review and advise United as staff has worked to expand the model up the valley of the SCR. In 2020, the Expert Panel completed a detailed initial review of the Regional Model and concluded that "The model calibration to both heads and streamflows is very good".

The completion of the Regional Model marks an important milestone of UWCD's effort in securing a working, well calibrated, and thoroughly reviewed regional groundwater model covering the United's service area. The Regional Model as well as the Coastal Plain Model can simulate the aquifer-specific groundwater flow to support its groundwater conservation and management. The Coastal Plain Model and the Regional Model have been used to simulate and analyze future groundwater conditions for the Groundwater Sustainability Plans (GSPs) of local Groundwater Sustainability Agencies, including the Fox Canyon Groundwater Management Agency (FCGMA), the Fillmore and Piru Basins Groundwater Sustainability Agency, and the Mound Basin Groundwater Sustainability Agency. UWCD has also used the Coastal Plain Model and Regional Model for internal project assessments, as well as supporting projects by local city and agency.

Looking forward, when more and/or newer data become available, UWCD will periodically (likely every 5 years) update and improve the groundwater models. Similarly, when new versions of

MODFLOW become available, UWCD will consider adopting new versions of MODFLOW, e.g., MODFLOW-USG (Panday and others, 2013), to take advantage of the technological improvement in new versions of MODFLOW.

ACKNOWLEDGEMENTS

We want to acknowledge the importance of the U.S. Geological Survey effort in the 1990s and 2000s to establish a regional groundwater monitoring-well network and construct the first MODFLOW model for the basins underlying the entire Santa Clara River and Calleguas Creek watersheds; their model was a critical “jumping-off point” for the Coastal Plain Model. United would again like to acknowledge the financial support provided by the Fox Canyon Groundwater Management Agency (FCGMA) and the Santa Clara River Watershed Committee when the Coastal Plain model was being developed. United would also like to acknowledge the various water and sanitation districts (including Ventura County Watershed Protection District), municipalities, diverters, farmers and other individuals that provided data to support development of the expanded Regional Model. Without the rich datasets that have been developed with great effort and consistency over decades in Ventura County basins the calibration of a regional groundwater flow model such as the one detailed here would be impossible.

The authors would also like to recognize the foresight, support and patience of United’s Board of Directors, General Manager and management team while we have worked to develop this tool. Significant contributions were made by other Water Resources Department staff, both past and current, and all those contributions were helpful and are appreciated. In addition, we thank and acknowledge the participants of the Expert Panel (Dr. Sorab Panday, James Rumbaugh, and John Porcello) convened by United to review and provide guidance for improving the model. The critical review by the Expert Panel has helped us develop a better model with confidence.

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1 INTRODUCTION

United Water Conservation District (United) is a California special district (i.e., a public agency) with a service area of approximately 335 square miles (214,000 acres) of southern Ventura County. United's service area includes the Ventura County portion of the Santa Clara River (SCR) Valley and much of the Oxnard coastal plain, including the lower part of the Calleguas Creek watershed, as shown on Figure 1-1. United serves as a steward for managing the surface water and groundwater resources within all or part of seven groundwater basins. It is governed by a seven-person board of directors elected by region, and receives revenue from property taxes, pump charges, recreation fees, and water delivery charges. United is authorized under the California Water Code to conduct water resource investigations, acquire water rights, build facilities to store and recharge water, construct wells and pipelines for water deliveries, commence actions involving water rights and water use, prevent interference with or diminution of stream/river flows and their associated natural subterranean supply of water, and to acquire and operate recreational facilities (California Water Code, section 74500 et al).

1.1 PURPOSE

This report documents the expansion of United's active numerical groundwater flow model domain beyond the Oxnard coastal plain to include the remaining groundwater subbasins of the SCR Valley within Ventura County, California. The coastal basins are connected subbasins in the larger groundwater system of the SCR Valley (California Department of Water Resources [DWR] basin number 4-004), but the common vernacular is to refer to them as basins. United's expanded groundwater flow model now includes the following basins: Piru (DWR 4-004.06), Fillmore (DWR 4-004.05), and Santa Paula (DWR 4-004.04; Figure 1-2). The recent effort of extending the numerical groundwater modeling builds from United's prior model development effort (Figure 1-3; United, 2018) which included the coastal basins of the SCR Valley (Oxnard (DWR 4-004.02) and Mound (DWR 4-004.03)) as well as the Pleasant Valley groundwater basin (DWR 4-006) and the western portion of the Las Posas Valley basin (DWR 4-008). With completion of the model expansion described in this document, United's Regional Model includes all basins within the District boundaries, and the portions of these groundwater basins that exist outside the District boundaries.

1.2 LOCATION

The SCR is located in Southern California, running 83 miles from the north side of the San Gabriel Mountains in Los Angeles County and through Ventura County until it meets the Pacific Ocean near the cities of Ventura and Oxnard (Figure 1-1). The SCR is the largest river in the Southern California region that remains in a relatively natural state (Los Angeles Regional Water Quality Control Board, 2006). The SCR flows through the Santa Clarita Valley within Los Angeles County,

then flows through a narrow and thin geologic constriction near the Ventura County line where the river and minor volumes of groundwater underflow enter the SCR Valley within Ventura County. The SCR flows west and southwest over the alluvial Piru, Fillmore, and Santa Paula groundwater basins before entering the coastal basins near the Pacific Ocean (Figure 1-2). Along the SCR Valley, recharge from the river is a major source of water supply for irrigation, municipal and domestic wells that rely on water stored in the underlying groundwater basins. The Piru, Fillmore, and Santa Paula groundwater basins constitute the majority of the portion of the study area that was added to the model as described in this model expansion report. However, additional areas outside the groundwater basin boundaries which are hydraulically connected to the basins were included in the model. The study area is described in further detail in Section 2.1, below.

1.3 PREVIOUS INVESTIGATIONS

Nearly all previous hydrologic investigations that have included the Piru, Fillmore, and Santa Paula groundwater basins have been part of broader regional studies. The first detailed hydrologic investigation that included these basins began in the late 1920s and was performed by predecessor agencies to the State of California's Department of Water Resources (DWR, 1933). This and other early investigations provided datasets and analysis of streamflow, groundwater elevations, and underlying geologic formations, and included estimates of water budget components for each of the groundwater basins (DWR, 1956; Mann and Associates, 1959). Beginning in the 1970s, investigations by the Department of Water Resources and Ventura County Public Works Agency began to refine the understanding of the basin settings through additional review and collection of data in order to support the first numerical modeling efforts related to water quantity and quality issues within the County (DWR, 1974 and 1975). Later, the United States Geological Survey (USGS) collected field data to contribute to and refine previous efforts for development of their numerical flow model (USGS, 1995); these efforts ultimately resulted in completion of a 2-layer MODFLOW model of groundwater and surface water flow within the SCR and Calleguas Creek watersheds (Figure 1-4; USGS, 2003). Local funding for development of the USGS model came from United, Calleguas Municipal Water District (CMWD), and the Fox Canyon Groundwater Management Agency (FCGMA).

The Santa Paula groundwater basin was adjudicated in 1996 (United Water Conservation District vs. City of San Buenaventura, original March 7, 1996, amended August 24, 2010). Members of the Santa Paula Basin Pumpers Association (SPBPA) and the City of San Buenaventura exercise rights to pump groundwater from the basin for reasonable and beneficial uses. Through this legal process, several investigations of hydrogeologic conditions were conducted, but numerical groundwater flow modeling was not applied (Law/Crandall, 1993; Bachman, 2015; DBS&A and RCS, 2017).

Following completion of the USGS (2003) model, United worked with consultants to attempt to refine and improve the 2-layer model for various regional planning activities (e.g. FCGMA and others, 2007), particularly related to overdraft issues on the Oxnard Plain and the resulting seawater intrusion concerns. United's efforts to refine of the USGS model ended by 2008. In 2012 United began initial development of a new numerical groundwater flow model for the basins of the Oxnard coastal plain in order to construct an "improved tool for simulating future occurrence and movement of groundwater within the study area" (United, 2018).

In addition to previous investigations related to the lower SCR Valley, several investigations took place during the 2000s focusing on the Santa Clarita Valley, located upstream of the Piru basin within the SCR watershed in Los Angeles County (CH2M HILL 2004, 2005; CH2M HILL/HGL, 2008). These efforts are relevant to development of the model described in this report, specifically the estimates of future streamflow and subsurface underflow entering the Piru groundwater basin from the SCR Valley East subbasin (Figure 1-2; this area is also referred to as the Santa Clarita Valley area). Currently, the Santa Clarita Valley Groundwater Sustainability Agency (SCVGSA) is working on an updated model for the East subbasin, based in part on the previous numerical groundwater flow models in the East subbasin, for GSP development. Coordination between SCVGSA, United, the Fillmore and Piru Basins Groundwater Sustainability Agency (FPBGSA) and the Mound Basin Groundwater Sustainability Agency (MBGSA) on developing assumptions for future land use, water use and hydrologic conditions has allowed for information from that updated modeling related to subsurface underflow from the East subbasin to be incorporated into United's modeling of the SCR Valley basins (Section 3.5.1.2).

The previous studies and estimated water budget component briefly described here are described in detail in United's Open-File Report 2020-02, titled *Summary of Past Groundwater Models and Water Budgets for the Piru, Fillmore, and Santa Paula Groundwater Basins* (UWCD, 2020). Water budget estimates from those prior studies are summarized in Section 2.6, below.

2 HYDROGEOLOGIC CONCEPTUAL MODEL

This section provides a summary of the hydrogeologic conceptual model for the area covered by United's expanded groundwater flow model. As previously mentioned, the Regional Model builds from the previous numerical model developed by United for the Oxnard coastal plain (UWCD, 2018) and incorporates the remaining groundwater basins along the SCR Valley within Ventura County (Figures 1-2 and 2-1). In order to construct the Regional Model in a manner that explicitly and accurately represents all major hydrostratigraphic units, United staff made a significant effort to review available geophysical well logs and lithologic data and build a hydrostratigraphic conceptual model for the study area. Section 2.5 of this report provides documentation of this updated Basin Conceptual Model (hereafter referred to as BCM 14), which incorporates some important changes in the understanding of the characteristics of aquifers and aquitards in the study area based on United's review of the data. The description of the hydrogeologic conceptual model generally follows the hydraulic gradient down the SCR Valley from Piru to Fillmore to Santa Paula.

2.1 STUDY AREA PHYSICAL SETTING AND LAND USE

The study area for this Regional Model report includes the Piru, Fillmore, and Santa Paula groundwater basins (Figures 1-2 and 2-1), which are now included in order to expand the Regional Model from the 2018 Coastal Plain Model (United, 2018). The SCR watershed has a total area of 1,625 square miles and a channel length of approximately 83 miles, and flows from headwaters on the north slope of the San Gabriel Mountains near Acton in the east to the Pacific Ocean in the west. The study area is oriented east to west and is bounded by the Topa Topa Mountains to the north and South Mountain to the south (Figure 2-1). The model domain contains about 29 miles of the main channel of the SCR and about 55,600 acres (86.9 mi^2) within the underlying alluvial groundwater basins (Piru: 10,900 acres (17.0 mi^2); Fillmore: 22,580 acres (35.3 mi^2); Santa Paula: 22,110 acres (34.5 mi^2)). The SCR watershed encompasses three significant tributary watersheds that flow into the groundwater basins of the study area—those of Piru, Sespe, and Santa Paula Creeks (Figures 2-1 and 2-2). Much of the flow in the SCR is derived from streamflow originating in the mountain regions drained by these tributaries.

In addition to expanding the model into the Piru, Fillmore, and Santa Paula basins, there were also minor changes made in the Mound basin. Specifically, the active model domain in Mound basin was expanded to correspond with DWR's 2019 groundwater basin boundary updates, and a general-head boundary used to simulate groundwater underflow between Santa Paula and Mound basins in United's 2018 model was eliminated (it became unnecessary when the model was extended to include Santa Paula, Piru, and Fillmore basins). In addition, some minor recharge component refinement and updates were implemented in the hydrogeologic conceptual

model (described in Sections 2.3.7, 2.3.9 and 2.7, below). Implementation of these modifications in the numerical model is discussed in Section 3.

Compared to the basins of the Oxnard coastal plain, urban development within the model expansion area remains relatively modest, with the dominant land use being agricultural. Figure 2-3 shows the extent of farmland and “urban/built-up” (municipal and industrial) land within the SCR Valley in Ventura County as of 2016, based on data available online from the California Department of Conservation’s Farmland Mapping and Monitoring Program (http://www.conservation.ca.gov/dlrp/fmmp). Figure 2-3 shows the expansion of urban and built-up land since 1984, immediately prior to the beginning of the historical model calibration period, in 6- to 8-year increments. Inspection of Figure 2-3 indicates that the majority of urban/built-up land within the study area was developed before 1985, with relatively minor expansion since that time.

Population nearly doubled in the unincorporated town of Piru between the years 2000 and 2010, but its area of urban/built-up land remains small, and the rate of population increase appears to have slowed between 2010 and 2019 (Table 2-1). The population and area of the Cities of Fillmore and Santa Paula are both significantly larger than Piru, with Santa Paula having about twice the population of Fillmore. Both cities have experienced lesser population growth rates relative to Piru since 2000, with both Fillmore’s and Santa Paula’s population growth at about 15%. Urban development often represents a conversion from agricultural land to largely impervious surfaces and typically results in reduced recharge to groundwater basins in the areas of urban growth, although the increased runoff and discharge of treated wastewater to percolation ponds in unconfined alluvial basins does result in some opportunity for subsequent recharge in areas downstream.

Figure 2-3 also shows the extent of agricultural lands within Ventura County as of 2016, based on Ventura County Agriculture Commissioner datasets. Within the areas of the expanded model domain, open space along the SCR and other tributary channels, as well as agricultural land, occupy the majority of the land area. The Piru basin contains approximately 5,920 acres of agricultural land (54% of total basin area), the Fillmore basin contains approximately 12,430 acres of agricultural land (55% of total basin area), and the Santa Paula basin contains approximately 10,660 acres of agricultural land (54% of total basin area). Citrus and avocados remain the predominant crop for all three basins – with citrus having been more so historically. Over the past 20 years the Piru basin has seen a significant conversion from citrus to row crops. Over the same time-period, the Fillmore basin also saw a significant conversion from citrus to row crops, particularly in the Bardsdale area on the south side of the SCR. Although less significant than in the Piru basin within the past decade, both the Fillmore and Santa Paula basins have seen an increase in the conversion from citrus to avocados, as well as major expansion of avocado acreage up the hillsides adjacent the valley floor in recent years.

2.2 CLIMATE

According to the updated Köppen-Geiger climate classification system (Rubel et al., 2017), the climate type for the study area is classified as warm-summer Mediterranean (Csb), characterized by warm, dry summers and cool winters with variable precipitation (i.e. sometimes wet). Santa Paula air temperature data from 1951- 2008 (available record period for National Climatic Data Center site number 7957) had a mean daily minimum air temperature of 48 degrees Fahrenheit, mean daily maximum air temperature of 74 degrees Fahrenheit, record minimum daily air temperature of 25 degrees Fahrenheit, and record maximum daily air temperature of 109 degrees Fahrenheit. The Fillmore and Piru basins typically show similar temperature trends, but minimum and maximums do vary slightly compared to the Santa Paula basin due to the increased elevation and a more inland location up the SCR valley and away from the coast. Long-term precipitation datasets covering the extent of the three additional groundwater basins (Figure 2-2) show similar statistics representing overlapping periods (Table 2-2).

Figure 2-4 shows the time-seies for annual (Water Year) precipitation totals for Santa Paula Gage 245 from water years 1850 – 2019 as well as the 5-year moving average. This plot highlights the decadal variability that is present within the study area, with wet periods bracketed by dry periods that range from several years to a decade. Several major wet years within the 1985-2015 calibration period drive the 5-year moving average far above the long-term average of 16.8 inches for the Santa Paula Gage 245 (Table 2-2). The Regional Model used precipitation data from 70 rain gauges in the region, which were used to interpolate monthly precipitation across the study area. The monthly totals were then distributed evenly across the month for estimates of direct recharge from precipitation (see section 3.5.2.3).

2.3 SURFACE WATER HYDROLOGY

The interaction between surface water and the underlying groundwater basins in the study area plays a significant role in the occurrence, movement, and quality of groundwater. In particular, the SCR flows westward into Ventura County (and the study area) from Los Angeles County, and receives large volumes of water from several primary tributaries within the groundwater basins of the study area, including Piru Creek, Sespe Creek, and Santa Paula Creek (Figure 2-1). Two smaller tributaries to the SCR are also gaged (Hopper Creek and Pole Creek), however many smaller tributaries from the surrounding mountains and drainages are ungaged (Figure 2-5). Surface water flowing in the SCR can percolate downward and recharge the underlying groundwater basins within the study area. In addition to United's Freeman Diversion Facility, there are several smaller active diversions for agricultural irrigation along the SCR. Availability and the quality of historical data on diversion rates for these smaller diversions is highly variable. Each of these subjects is discussed below in more detail.

2.3.1 SANTA CLARA RIVER

Downward percolation of surface flows in the SCR is the primary source of recharge to each of the groundwater basins within the study area. Its watershed extends well beyond the study area, draining a total area of 1,625 square miles (Figure 2-1). The primary source of surface water flows in the SCR within the study area is surface runoff from the largest tributaries discharging into the main channel (Piru Creek, Sespe Creek, and Santa Paula Creek) and surface flow entering the Piru Basin at the Los Angeles/Ventura County line (Figure 2-5). Flow in the SCR can be described as interrupted perennial flow, with certain reaches being predicably wet or dry in most years (SFEI, 2011).

At the eastern portion of the model domain, the Piru basin adjoins the SCR Valley East Subbasin (Eastern basin) at the Ventura/Los Angeles County Line. The USGS has maintained daily streamflow records near this location dating back to 1952. USGS streamflow gage 11108500 at Blue Cut ceased operation in 1996 after the USGS streamflow gage 11109000 was installed approximately 2.75 river-miles downstream at the Las Brisas Bridge. Streamflow in the reach between these two locations is observed to be fairly stable and the alluvial channel deposits are fairly thin, allowing for a reasonable assumption that flow consistency can be considered to exist between the two measurement locations. Daily data from these USGS gages was obtained from these gages and used as input for streamflow entering the eastern boundary of the Regional Model domain for daily simulations. Streamflow statistics for calendar years 1985 – 2015 are shown in Table 2-3.

United's Freeman Diversion is located 25 miles downstream (west-southwest) of the Los Angeles County line, approximately 1.5 river-miles upstream from where the SCR channel exits the Santa Paula groundwater basin, and approximately 11 miles inland from the Pacific Ocean. United maintains daily observations of streamflow and diversions at Freeman Diversion. The average annual discharge (water years 1950 to 2015) of the SCR at the Freeman Diversion is 266 cubic feet per second (192,400 acre-feet per year [AFY]). However, annual average discharge of the SCR, like most largely ephemeral streams in southern California, is highly variable, ranging from 6 cubic feet per second (4,100 AFY) in water year 1951 to 1,590 cubic feet per second (1,152,000 AFY) in water year 2005, as shown on Figure 2-6. Discharge also varies significantly on a monthly basis, generally peaking during the wet season (January to March), with lower and more consistent base flows occurring year-round in the Santa Paula basin during all but the driest years. More discussion on streamflow, diversions, and streamflow past Freeman Diversion in the model simulations is described in Sections 3.5.2.1 and 4.2.5 below. In addition to the stormflows that are present in the SCR flow regime, conservation releases that originate from Piru Creek are also present and discussed more in Section 2.3.2.

2.3.1.1 RISING GROUNDWATER AT BASIN BOUNDARIES ALONG THE SANTA CLARA RIVER

The Piru and Fillmore basins commonly discharge significant volumes of groundwater to the channel of the SCR when groundwater elevations near the basin boundaries are higher than the elevation of the river channel (DWR, 1956; Mann 1959; United, 2016). This "rising groundwater" commonly occurs near the boundaries between Piru and Fillmore basins, and between Fillmore and Santa Paula basins. These are locations where the groundwater basins are narrow, and geologic features at depth may also restrict regional groundwater flow down the valley. The water table may then intersect the ground surface elevation within the channel and the SCR, resulting in an increase in surface water flow (and a loss to the groundwater flow system). Measurements of rising groundwater at the Piru-Fillmore and Fillmore-Santa Paula basin boundaries are available for the period 2011-2019, which includes periods with high and low groundwater elevations. Observations were available for dry months only, as it is difficult to measure rising groundwater when streamflow is high and dynamic. For both basins, observed rising groundwater correlates well with groundwater elevations at selected wells, as shown on Figures 2-7 and 2-8. Locations of rising groundwater along the SCR in the study area are shown on Figure 2-9.

2.3.1.1.1 PIRU - FILLMORE BASIN BOUNDARY

The reach of the SCR within the "Piru narrows" is located about one mile upstream from the City of Fillmore (Figure 2-9), and displays perennial rising groundwater (a gaining stream reach) in most years. The gaining stream reach can extend upstream to the vicinity of Hopper Creek when the Piru basin is full, and the wetted channel reach retreats downstream towards the basin boundary as groundwater levels fall within in the basin. The channel of the SCR is commonly dry upstream of the boundary area in all but the wettest of years, and this area of the mid-Piru basin is sometimes called the "dry gap." Streamflow at the western Piru basin boundary has been observed to go dry following a period of drought. The SCR channel at the basin boundary was dry in fall of 2014 and for much of calendar year 2015. This is a rare condition, directly related to drought conditions and resulting low groundwater levels in the Piru basin (Figure 2-7). Rising groundwater discharging from the Piru basin will often percolate back into the groundwater system within Fillmore basin, though during wet periods surface water may flow all the way to the confluence with Sespe Creek and on to the Santa Paula basin.

2.3.1.1.2 FILLMORE - SANTA PAULA BASIN BOUNDARY

Near the Fillmore - Santa Paula basin boundary exists another reach of the SCR that displays perennial rising groundwater (gaining stream conditions) even in dry years (Figure 2-9). The upstream extent of the gaining stream reach is greatest when water levels are high in the Fillmore and Santa Paula basins, and length of the wetted reach decreases as groundwater elevations fall in the Fillmore basin. This reach flowed continuously during the dry conditions experienced in calendar years 2014 and 2015. Available manual stream gaging data collected by United near

the basin boundary suggest that surface water infiltration in this reach of the SCR is limited, and several variables (e.g., evapotranspiration, diversions for irrigation, interaction with the alluvial aquifer) remain difficult to quantify (UWCD, 2013). Additionally, river percolation under high-flow conditions remains undetermined, as channel conditions make high-flow measurements difficult to obtain. Higher percolation rates would be anticipated when flood flows inundate wider areas within the floodplain, although the duration of flood inundation is generally limited to a maximum of a few days per year (UWCD, 2013).

2.3.2 PIRU CREEK

Piru Creek is within the study area and flows over basin alluvial deposits just downstream from Santa Felicia Dam (SFD) (Figure 2-5). The USGS streamflow gage 11109800, with a drainage area of 425 square miles of the Piru Creek watershed, is located just downstream of the SFD penstocks. The gage is located upstream of the confluence from the SFD spillway channel, which receives flow only in the wettest conditions (the most recent spill event was in 2005). Daily data from the USGS gage at this location records releases from SFD and is used as input for streamflow entering into the Regional Model domain for daily simulations. Annual average discharges at this gage, with SFD spill data from an active USGS gage located just above Lake Piru, was added to the lower USGS gage data; therefore, annual SFD spill volumes are included in Tables 2-3 and 2-4.

2.3.2.1 LAKE PIRU CONSERVATION RELEASES

United's conservation releases from Lake Piru are conducted to provide groundwater recharge to the Piru, Fillmore, Santa Paula and Oxnard basins at times when natural runoff in the SCR watershed is limited. United contracts with the USGS to maintain the gage and records for daily release discharge volumes from Lake Piru. The conservation releases also help to sustain groundwater underflow that exists between the downstream groundwater basins, including the Piru, Fillmore, and Santa Paula basins, as well as the Mound and Oxnard basins. Released water that does not percolate into the Piru and Fillmore basins flows downstream to the Santa Paula basin, and is diverted at the Freeman Diversion for subsequent surface water deliveries and managed aquifer recharge operations in the Oxnard basin. The conservation releases typically span over a month to several months in order to optimize the recharge in the downstream groundwater basins.

Table 2-5 shows the measured distribution of released water to each basin for United's conservation releases from 1999 through 2015. Most of the released water is natural inflow from the Piru Creek watershed, but in many recent years a portion of the released water is imported State Water Project water (State Water) purchased by United and conveyed from storage in Pyramid Lake by way of middle Piru Creek (UWCD, 2014). Natural inflows originating from the portion of the watershed upstream of Pyramid Lake are mixed with State Water stored in Pyramid

Lake before being released to middle Piru Creek under the current inflow-outflow regime. Therefore, releases to middle Piru Creek often have a significant percentage of State Water, whether they consist of natural flows from the watershed or State Water purchased by United.

Due to drought conditions and low inflows into Lake Piru, United did not perform conservation releases between 2013 and 2015. The last time prior to 2013 that there was no conservation release was during drought conditions in 1990. United is, however, required to release water continuously to maintain fish habitat in lower Piru Creek. Current habitat water release requirements range between 7 and 20 cfs, depending on cumulative annual rainfall at the Piru-Temescal Guard Station rain gage at Lake Piru (Ventura County gage #160; see Figure 2-2) (UWCD, 2012). Most of the habitat water releases recharge to the Piru basin. Piru Mutual Water Company and Rancho Temescal operate diversions on lower Piru Creek that divert a portion of the creek flow for agricultural uses, as discussed in more detail in Section 2.3.8.

2.3.2.2 PIRU SPREADING GROUNDS

United's Piru Spreading Grounds are located just west of Piru Creek adjacent the town of Piru (Figure 2-5) and sometimes receive diversions from Piru Creek for recharge into the underlying groundwater flow system. Details regarding this United operation during the calibration period is detailed further is Section 2.3.8.1, below.

2.3.3 HOPPER CREEK

Hopper Creek is a tributary to the SCR within the Piru basin (Figure 2-5). USGS streamflow gage 11110500, with a drainage area of 23.6 square miles, drains a steep watershed directly into the SCR at a location about halfway between the confluence of Piru Creek with the SCR and the Piru basin's western boundary with Fillmore basin. Daily data from the USGS gage was obtained from this location and used as an input for streamflow entering into the Regional Model domain for daily simulations. Discharge statistics for calendar years 1985 – 2015 are shown in Table 2-3. Preliminary measurements indicate that percolation from Hopper Creek is minimal.

2.3.4 POLE CREEK

Pole Creek is a tributary to the SCR within the Fillmore basin (Figure 2-5). Ventura County Watershed Protection District (VCWPD; https://vcwatershed.net/hydrodata/) streamflow gage 713 is located northeast of the City of Fillmore and drains a small and steep watershed with an area of 8.09 square miles. Much of the eastern areas of the City of Fillmore are located on the Pole Creek alluvial fan. An engineered creek channel now turns southward once the creek emerges from the foothills and passes under Highway 126 and into a large sediment capture basin before flowing into the SCR main channel. Daily data from the VCWPD gage was obtained from this

location and used as input for streamflow entering into the Regional Model domain for daily simulations. Discharge statistics for calendar years 1985 – 2015 are shown in Table 2-3.

2.3.5 SESPE CREEK

Sespe Creek drains a large (252 square mile) undeveloped watershed within the Los Padres National Forest, located north of the study area, and flows into the Fillmore groundwater basin from the north (Figures 2-1 and 2-5). Agricultural developments are located along the banks of Sespe Creek as it enters into Fillmore basin, and the City of Fillmore is located further downstream on its eastern banks. Infiltration of surface flows in Sespe Creek is a major source of recharge to the Fillmore basin on the Sespe Fan alluvium as well as within the SCR channel. Measured percolation rates along Sespe Creek range from approximately 2 cfs to 15 cfs, for observed discharges at the mouth of the canyon entering the Fillmore basin ranging from about 10 cfs to over 100 cfs (DWR, 1933). The USGS streamflow gage (USGS 11113000, "SESPE C NR FILLMORE") is located near where Sespe Creek enters the Fillmore basin, with measurements dating back to 1911. Historically a diversion for the Fillmore Irrigation Company was located upstream of USGS streamflow gage and upstream of the Fillmore basin boundary. Water was diverted and delivered downstream to the agriculture fields within the Fillmore basin along the western banks along Sespe Creek. An old USGS stream gage was located in the diversion canal (USGS 11112500, "FILLMORE IRR CO CN NR FILLMORE CA"), and an additional gage recorded the combined streamflow and diversions (USGS 11113001, "SESPE C + FILLMORE IRR CO CN NR FILLMORE CA"). However, data gaps are present within all of these available records within the 1985-2015 simulation period, and these were filled as estimates by United on a daily basis as part of the Regional Model development using: 1) a correlation developed between Sespe Creek and Santa Paula Creek gages, or 2) USGS gages 11113001 and 11112500 records (Table 2-6). Diversions by the Fillmore Irrigation Company ceased in 2007. Diversion values and data gaps are further detailed in Section 2.3.8.2. Final discharge statistics for calendar years 1985 – 2015 are shown in Table 2-3.

2.3.6 SANTA PAULA CREEK

The watershed of Santa Paula Creek (Figure 2-5) drains approximately 45 square miles, and much of the area consists of steep, mountainous terrain. The steep terrain tends to produce significant runoff, and the erodible sedimentary rocks of the region produce high sediment loads during flood events (Stillwater Sciences, 2007a and 2007b). The alluvial fan at the mouth of Santa Paula Creek is completely developed, with agricultural land uses dominant (until recently) on the east bank and residential development in and adjacent the City of Santa Paula the dominant land use on the west bank. Industrial land use dominates in the areas south of the railroad bridge. The high flows and high sediment loads of Santa Paula Creek resulted in persistent flooding problems in the lower reach of the creek since the time the area was first developed (HDR CDM, 2012). Historically, percolation rates in lower Santa Paula Creek were similar to the Sespe Fan in

the Fillmore basin; however, as a result of flood control projects constructed by the U.S. Army Corps of Engineers in the late 1990s, which included channelization and lining, little to no percolation now occurs in lower Santa Paula Creek (UWCD, 2013). Daily data from the USGS gage was obtained from upstream of this location and used as input for streamflow entering into the Regional Model domain for daily simulations. Discharge statistics for calendar years 1985 – 2015 are shown in Table 2-3. The USGS gauging station is located upstream from Canyon Irrigation's Harvey Diversion, so estimates of Santa Paula Creek flow reaching the SCR based on gage data are generally thought to be higher than the flows in the lower reach. Diversions from Santa Paula Creek are accounted for and described in Section 2.3.8, below.

2.3.7 MOUNTAIN FRONT RECHARGE AND UNGAGED WATERSHEDS

In addition to the SCR main channel and associated tributaries detailed above, there are additional watershed areas in the model expansion area representing 118.10 square miles of ungaged runoff and mountain front recharge from the mountain slopes bounding the study area to both the north and the south (Figure 2-5; not shown are 8.55 square miles of additional ungaged watershed that are related to Mound basin following the expansion to 2019 DWR groundwater basin boundaries). Ungaged runoff may percolate into the ground along the runoff channel or reach the SCR channel. The range for previous estimates for mountain front recharge is small compared to other major water budget components in the Piru, Fillmore, and Santa Paula basins, and values from previous studies for these basins are presented later in Section 2.6.1.

2.3.8 STREAMFLOW DIVERSIONS

The model expansion domain includes 14 surface water diversions based on water use records submitted to the State, in addition to United's Freeman Diversion (Figure 2-10). The reported active and historical diversions include:

- Camulos Ranch (SCR, Piru basin)
- Isola (SCR, Piru basin)
- Rancho Temescal 1 and 2 (Piru Creek, Piru basin),
- Piru Mutual (Piru Creek, Piru basin),
- UWCD Piru Spreading Grounds (Piru Creek, Piru basin)
- Fillmore Irrigation Company (Sespe Creek, Fillmore basin)
- Limoneira (minor; Boulder Creek, Filmore basin)
- Beans Ranch (Boulder Creek, Fillmore basin)
- Canyon and Farmer's Irrigation Companies (Santa Paula Creek, Santa Paula basin)
- Zaragosa (minor; SCR, Santa Paula basin)
- Diversions related to Hyde Ditch (SCR, Santa Paula basin)

- Southfork Ranch (SCR, Santa Paula basin)
- UWCD Freeman Diversion (SCR, Santa Paula basin).

This section will provide a brief description for each diversion relating to their source and water destination locations for each. Diversion data was obtained from:

- previous investigation reports in the area (CH2M HILL/HGL, 2008),
- reported monthly data to California's State Water Resources Control Board's California Integrated Water Quality System available to the public (https://ciwqs.waterboards.ca.gov/ciwqs/ewrims/EWMenuPublic.jsp),
- communication with diversion owners/operators, and from United's records for the diversions operated by United.

California's State Water Resources Control Board began requesting diversions to be reported in the 1980s and 1990s, but available records suggest early compliance was fairly sparse. However, the State required that mandatory monthly diversion totals to be provided on an annual basis beginning in 2009, which resulted in much more recent diversion information being reported on a regular basis. Monthly records were acquired or estimated for diversions within the model domain, and reported monthly totals were distributed equally across the month for the daily simulations in the model. Available records for diversions are fairly consistent since 2009, but data gaps were identified and diversions estimated in some instances. Those estimation methods are briefly described below.

2.3.8.1 PIRU BASIN

The Piru basin contains diversions from the SCR as well as Piru Creek below Santa Felicia Dam (Figure 2-10). Both Camulos Ranch and Isola currently have, or previously had, operating diversions located in the eastern portion of Piru basin, upstream from the confluence with Piru Creek. Camulos Ranch was active through 2015, but Isola has not diverted any water since 2005. The Camulos Ranch diversion has records available over the majority of the 1985 – 2015 simulation period (1985 – 2005, 2010 – 2013). In order to fill data gaps for the Camulos records (2006-2009, 2014-2015), a ratio of reported monthly diversions to observed streamflow in the SCR upstream of the diversion (USGS gages 11108500 and 11109000) was calculated for all months with data. The data gaps were filled with either individual average monthly diversions (i.e. January average, February average, …, December average) or the individual average monthly ratio was used to set as a limit for estimated diversions when compared to individual average monthly diversions. This method ensured that representative diversions were estimated and that diversions in excess of historical diversion to streamflow ratio were not applied. Camulos irrigates approximately 770 acres and supplements groundwater well use with the diverted water, with annual diversion rates, from 1985 – 2015 provided in Table 2-7. The Isola diversion ceased operating after 2005 and had monthly records available from 1985 – 2005 through the CH2M Hill/HGL (2008) documentation (Table 2-7). Isola irrigated approximately 210 acres and supplemented groundwater use with the diverted surface water.

Rancho Temescal has two diversions on Piru Creek which were not used prior to 2002 (no data reported to the State). The first diversion is located immediately downstream of Santa Felicia Dam and supplements groundwater use to irrigate approximately 242 acres to the west of Piru Creek. The second diversion is located further downstream, nearby Piru Mutual's diversion, and supplements groundwater well use to irrigate approximately 314 acres to the east of Piru Creek. The annual diversion rates from 2002 – 2015 for these two diversions are provided in Table 2-7. Piru Mutual Water Company's diversion is located on Piru Creek in the same location as Rancho Temescal's second (lower) diversion. Piru Mutual has records available over the majority of the 1985 – 2015 simulation period (1985 – 2005, 2011 – 2013). In order to fill data gaps for these Piru Mutual records (2006-2010, 2014-2015), the same method described above for Camulos Ranch was used for Piru Mutual data, but with the USGS gage 11109800 located on Piru Creek, and with Santa Felicia Dam Spills included as well (Tables 2-3 and 2-4). Piru Mutual irrigated approximately 546 acres with the diverted water.

United used to divert water from Piru Creek to spreading grounds in order to recharge groundwater supplies. United's Piru Spreading Grounds are located just west of Piru Creek (Figure 2-5) and received diversions from Piru Creek for recharge into the underlying groundwater system. United maintains records for daily diversions, and these records were used for implementation into the Regional Model. The Piru Spreading Grounds diversion was active from 1985 – 2008, with annual diversion rates provided in Table 2-7. On average, nearly half of the annual diversion flows by volume were diverted in April, May, and June, often during periods when Lake Piru was spilling. The Piru Spreading Grounds have not been used since 2008 due to permitting restrictions at the facility (the diversion structure lacks a fish screen).

2.3.8.2 FILLMORE BASIN

Fillmore basin has three diversions, with the largest being historically operated by the Fillmore Irrigation Company. The Fillmore Irrigation Company diversion is located outside of the groundwater basin boundary on Sespe Creek, and applies water for agricultural application along the northern portion of the basin west of Sespe Creek (Figure 2-10), with a service area around 1,105 acres. Since 2007 no water has been diverted by the Fillmore Irrigation Company, and the dataset of the annual records prior to 2007 are incomplete. Diversion values and data gaps for Fillmore Irrigation Company diversion are provided in Tables 2-7 and 2-8. As described in Section 2.3.5, above, there were several USGS gages available related to Sespe Creek and the Fillmore Irrigation Company's diversion. Similar to filling data gaps for Sespe Creek streamflow, data gaps for the Fillmore Irrigation Company's Diversion were filled on a daily basis using 1) a correlation developed between rainfall at VCWPD gage 171 (Figure 2-2) Sespe Creek and or 2) USGS gages 11113001 and 11112500 records. The remaining two diversions are located in the same area, where Boulder Creek drains a small watershed (5.57 square miles) into Fillmore basin from the north (Figures 2-5 and 2-10). Bean's Ranch is the larger of the two diversions over the simulation period (Table 2-7) and applies water for agriculture and livestock along the northern edges of the

Fillmore basin. Monthly records are fairly complete after 2002, and data gaps before that (1985-1993 and 1996-2001) were filled with average annual totals reported for 1994 and 1995. In the vicinity as the Bean's Ranch diversion, Limoneira is reported to also have historically had a diversion for application to about 126 acres for agricultural land application in the northern portion of Fillmore basin. Limoneira records show periodic diversions from 2000 – 2015 (Table 2-7). Records are limited prior to 2000 and it was assumed to no diversions occurred except for the years when Limoneira provided data to the State.

2.3.8.3 SANTA PAULA BASIN

Santa Paula basin includes diversions from the SCR as well as Santa Paula Creek (Figure 2-10). The Canyon Irrigation Company operates the Harvey Diversion, located on Santa Paula Creek downstream of the USGS streamflow gage and just upstream from the confluence of Santa Paula Creek and Mud Creek. Mud Creek drains a minor watershed east of the diversion location. Through United correspondence with Canyon Irrigation Company, a complete monthly record set was provided from the operators for the 1985 – 2015 time-period (Frank Brommenschenkel personal communication, January 2020). Canyon Irrigation Company diverted water to their service area (approximately 784 acres). Beginning in 2001, Canyon Irrigation Company began selling and distributing diverted water from the Harvey Diversion on Santa Paula Creek to the Farmer's Irrigation Company for conjunctive use across their service area (approximately 3,178 acres) located across much of the western portion of the Santa Paula basin. Annual diversion rates, from 1985 – 2015 are provided in Table 2-7 for both the Canyon Irrigation Company and the Farmer's Irrigation Company.

In addition to the Harvey Diversion on Santa Paula Creek, there are four known diversions located along the SCR in Santa Paula Basin, three of which are on the south side of the river where groundwater production is more limited (Figure 2-10). There is a minor diversion that reportedly applied water for agricultural land application on the north side of the SCR, beginning in 2011 (Zaragosa Diversion, Table 2-7). Downstream from that location, water is diverted from the SCR through what was historically known as the Hyde-Turner Ditch, for application to the agricultural land. The Hyde-Turner Ditch diversion more recently consisted of the parties of Carmichael, Furnas, Green Thought LLC, the Wishtoyo Foundation, and several predecessor land owners and diversion right holders related to the Hyde-Turner Ditch. Collectively, the Hyde-Turner Ditch diversions have historically applied diverted water for agriculture purposes to approximately 346 acres located along the south bank of the SCR within the Santa Paula basin. Annual diversion rates, from 1985 – 2015 are provided in Table 2-7.

Further downstream is the Southfork Ranch diversion, which diverts water out of the SCR and applies it mainly to agricultural land with some livestock use, but all application is located outside of the Santa Paula basin (Figure 2-10). Reported data was available from 2012-2015, but reporting was infrequent for years prior. Data gaps were filled with annual averages and linear

interpolation using the years where reported data was present (1991-1992, 1994, 2008). Annual diversion rates, from 1985 – 2015 are provided in Table 2-7.

Lastly, United's Freeman Diversion is located within Santa Paula basin, where diversions are directed downstream by canals to major artificial recharge facilities for replenishment of groundwater within the Oxnard groundwater basin (Figure 2-10). United has complete records for this diversion and annual diversion rates, from 1985 – 2015, are provided in Table 2-7.

2.3.9 IMPORTED SURFACE WATER

Wastewater discharges to the SCR in Los Angeles County, most notably from the Valencia Water Reclamation Plant located adjacent to the SCR near Interstate 5, have contributed to surface water flows in the SCR in the study area. A large percentage of these flows is comprised of State Water that is imported into the SCR Valley East basin within Los Angeles County (4-004.07; Figure 1-2). Urban development has continued since State Water was first imported into the basin beginning in 1980, and the community relies on local groundwater in addition to imported State Water supplies (CH2M HILL/HGL, 2006). Figure 2-11 shows historical annual surface water flows for the SCR near the Los Angeles/Ventura County Line plotted with historical precipitation from a Piru basin gage. Related to the increase in surface flows from upstream development, subsurface underflow into Piru basin has been estimated to have increased from around 240 AFY, representative of 1930s – 1970s (Mann, 1959; DWR, 1974 and 1975) to approximately 1,100 AFY after the 1980s (HydroMetric's 2008 analysis performed from United of CH2M HILL/HGL [2008]). The basin boundaries related to this underflow comparison are similar; however, it is noted that significant basin boundary changes shifted the current 2019 DWR boundaries closer to the Los Angeles/Ventura County Line and result in substantial increase in underflow for the current effort because the aquifer thickness at the new boundary is thicker and capable of transmitting larger volumes of water downstream within the subsurface (UWCD, 2020). Continuous surface water flow sometimes extends across this "dry gap" (which commonly extends from near the historic Rancho Camulos to around Cavin Road) during the wet season when runoff from storms generates enough flow to overcome the significant infiltration capacity of this reach.

Additionally, United is party to a water conservation agreement between the California Department of Water Resources and the Downstream Water Users (DWUs), which dates back to 1978. The DWUs consist of United, Los Angeles County Waterworks District, Newhall Land and Farming (currently FivePoint), and Valencia Water Company (currently Santa Clarita Valley Water Agency). The program is designed to hold back flood flows in Castaic Lake (Figure 1-1) and release them at a later date (typically in the spring) in a manner that allows the flows to percolate in the basins downstream of the dam, benefiting the DWUs with water rights that predate construction of Castaic Lake (United, 2014). United represents the DWUs in coordinating the storage and release of water with DWR, which operates Castaic Lake, and by monitoring the associated releases to ensure that the flows are optimally benefiting the basins. In most years

the majority of released water that makes it to the Ventura County line percolates in the SCR channel within the Piru basin, while in some years surface flow may make it to the Fillmore basin where the remainder percolates. Castaic Lake releases generally do not occur during dry years, for example during the recent drought from 2012-2016.

Near the western boundary of the model domain the City of Ventura's Water Department (Ventura Water) obtains approximately 5,000 AFY of surface water from the Ventura River watershed (sources include water from Casitas Municipal Water District and Ventura Water's facilities at Foster Park) for blending and distribution throughout its service area, which lies mostly within Mound basin, but also includes portions of northern Oxnard basin and western Santa Paula basin. The quantity of water reported above was averaged for the period from 1985 to 2015 (Ventura Water, 2020). This imported surface water was not included in United's Coastal Plain Model (UWCD, 2018); however, it is included in the current model. Only a small fraction of this imported water reaches the underlying aquifers in the Regional Model domain as municipal and industrial return flows (see Section 2.7 below).

2.3.10 WASTEWATER TREATMENT PLANT DISCHARGES

There are four water treatment plants located within the expanded study area; their locations are shown on Figure 2-12.

The Piru Wastewater Treatment Plant (WWTP) is located west of the town of Piru and on the east bank of Hopper Creek. Plant discharge flows through a pipeline that runs parallel with Hopper Creek toward the confluence with SCR. Plant effluent discharges into 2 percolation basins located adjacent the SCR main channel where the effluent percolates into the subsurface. Monthly reported data is provided to the State Water Resources Control Board (https://geotracker.waterboards.ca.gov/) on an annual reporting basis, but that reporting was not as complete prior to the 2000s. There were several data gaps in the Piru WWTP records (1985-1989, April 1993, October-December 2000, and 2005-2006). These data gaps were filled with representative monthly averages. Monthly records were acquired or estimated and monthly totals were equally distributed across the month for implementation into daily simulations. The average annual discharge for the Piru WWTP is provided in Table 2-9.

The Fillmore Water Reclamation Plant (WRP) was located along the SCR main channel near the southwestern edge of the city until 2008, when it was relocated about a half-mile northwest, near the Sespe Creek confluence with the SCR (Figure 2-12). Prior to 2008, the Fillmore plant discharged its effluent onsite into percolation basins adjacent to the SCR, and directly into the SCR at times. Following new plant construction and relocation in 2008, about one-third of the discharge is used to irrigate public space within the City of Fillmore through shallow drip lines. The remaining effluent is discharged into onsite percolation basins located near Sespe Creek at the west end of River Street. Similar to Piru WWTP records, there were some data gaps in the

available Fillmore WRP reported records (1985 – 1997, 2000, 2005-2006, July 2007 – December 2008), and these also were filled with representative monthly averages. Because of the limited historical data regarding discharges to the SCR from the Fillmore WRP, it was assumed that discharge prior to 1998 went to the WRP percolation ponds only. The average annual discharge for the Fillmore WRP is provided in Table 2-9.

The Santa Paula Water Reclamation Facility (WRF) is located on the southwestern edge of Santa Paula about one-third of a mile north of the SCR main channel (Figure 2-12). Up until 2010, this WRF discharged treated wastewater directly into the SCR via the Peck Road drain. Due to discharge permit issues related to water quality, the City of Santa Paula worked to construct an improved facility that now percolates to discharge basins setback at least 0.15 miles away from the SCR. Average annual discharge records for the Santa Paula WRF are shown in Table 2-9.

The Todd Road Jail Wastewater Treatment Plant (Todd Rd. Jail WWTP) that is located north of the SCR near the southern end of Todd Road, downstream from the Santa Paula WRF in Santa Paula basin (Figure 2-12) and began operations in 1995. Reported records were not available prior to 2011 and representative monthly averages were used to fill the data gap. The average annual discharge for the Fillmore WRP is provided in Table 2-9.

2.3.11 RIPARIAN VEGETATION

The SCR and its tributaries contain riparian vegetation habitat for various classes of vegetation, including forest, woodland, shrubland, herbaceous, and *Arundo donax*, which together extend across the river corridor, as shown by Stillwater Science's 2016 (Stillwater Sciences, 2019) mapping of the SCR vegetation (Figure 2-9). Within the SCR, there with several expansive and distinct reaches that are wide sandy channel with minimal in-channel or bank vegetation. These "dry gaps" occur in areas where rising groundwater is absent. Specifically related to the hydrogeologic conceptual model, riparian vegetation consumes water through evapotranspiration (ET). Previous estimates for the range of ET rates within the SCR valley in Ventura County have ranged from 1.1 ft/yr (DWR, 1974 and 1975) to 5.2 ft/yr (Mann and Associates, 1959). Studies relating to mixed riparian communities of arid and Mediterranean-type climates have estimated ET rates ranging from 0.36 ft/yr to 5.2 ft/year (UCLA, 2011). Additionally, *Arundo donax* is a reed-like invasive species that is of special interest to natural resource and water managers because of the amount of habitat and potential amount of water that it utilizes. This invasive species has some presence within the entire expansion domain, with the largest infestations occurring in reaches with perennial surface water and shallow groundwater (Stillwater Sciences, 2019). Studies related to *Arundo donax* ET rates have reported estimates ranging from 0.8 ft/yr to as much as 58 ft/yr (The Nature Conservancy, 2019; UCLA, 2011), with the majority of the studies presenting average annual consumption of 10 ft/yr or less (The Nature Conservancy, 2019; Table 1).

2.4 GEOLOGY

Southern Ventura County is located in the Transverse Ranges geomorphic province of California. Within this province, the axes of mountain ranges and valleys are oriented east-west rather than northwest-southeast as is typical in the adjacent Peninsular and Coastal Ranges geomorphic provinces. Most of the study area overlies an elongate, structurally complex syncline that trends west-southwest to east-northeast, referred to as the Ventura structural basin (Yeats and others, 1981). Active thrust faults border the Ventura structural basin, causing uplift of the adjacent mountains while the basin continues to deepen.

The groundwater basins within the study area include the broad extent of the active floodplain of the SCR, located along the southern portion of the valley, with a generally west-southwest to east-northeast oriented axis from Ventura County line to the Saticoy area, where the SCR enters the Oxnard coastal plain and then at Highway 101 trends west to its mouth near Ventura Harbor. The Piru and Fillmore groundwater basins are considered unconfined basins with large extents of alluvium deposited above thick Pleistocene freshwater-bearing deposits of the Saugus and San Pedro Formations (United, 2017). The Saugus Formation is identified by Dibblee and other investigators, and constitutes the fluvial silt, sand, and gravel deposits of the upper San Pedro Formation (Dibblee, 1990 and 1991; USGS, 2003). Past investigations (Mann, 1959, USGS, 2003, 2011, CH2M HILL/HGL, 2006) have referred to both the Saugus Formation and the San Pedro Formation; this report will use the Saugus/San Pedro Formation naming convention. The Piru and Fillmore basins are largely the extent to which the Saugus/Upper San Pedro Formation is mostly composed of continental fluvial deposits, and lack marine environment deposition more common to the Santa Paula, Mound and Oxnard basins to the west.

Located to the west and downstream of the Piru and Fillmore basins, Santa Paula basin's stratigraphy is also mapped as alluvial deposits overlying the Saugus/San Pedro Formation (Mann, 1959, DBS&A and RCS, 2017). The alluvial deposits in all three basins facilitate interaction between the groundwater and surface water flow systems. However, the Santa Paula basin is believed to be semi-confined due to the presence of thick clay deposits below the alluvium in much of the eastern portion of the basin. Confining clay deposits are observed near the confluence of the SCR and Santa Paula Creek, and channel modifications for flood control purposes likely has reduced the amount of surface water that directly percolates as groundwater recharge along lower Santa Paula Creek (UWCD, 2011).

2.4.1 GEOLOGIC UNITS PRESENT IN STUDY AREA

Hydrostratigraphic units (strata) exposed at land surface within the study area are commonly classified as follows, from youngest (top) to oldest (bottom):

- Recent (active) stream-channel deposits along the present course of the SCR and its tributaries;
- Recent surficial and colluvium deposits along the flanks of the basins;
- Undifferentiated younger alluvium of Holocene age, covering much of the Piru and Fillmore basins and a portion of the Santa Paula basin;
- Undifferentiated older alluvium of Holocene to late Pleistocene age, underlying the undifferentiated younger alluvium of Holocene age across much of the Piru, Fillmore, and Santa Paula basins;
- Semi-consolidated alluvial gravel, sand, and clay deposits of the Saugus/San Pedro Formation

These exposed strata in the study area were classified based largely on their hydrogeologic characteristics, as these are the units that typically bear freshwater in usable quantities and are of primary interest for groundwater supply. Other researchers have divided these deposits in other, equally valid ways, based on their geomorphological or other characteristics (e.g., Mukae and Turner, 1975; USGS, 2003).

Older (lower) strata, which are regarded as hydrologic bedrock in the region, or non-water bearing, are also described. These strata include (following the descriptions of the USGS [2011]):

- Marine shales, mudstones, siltstones, and sandstones of the Santa Barbara Formation, of Late Pleistocene age;
- Marine siltstones, sandstones, and conglomerates of the Pico Formation, of Pliocene or early Pleistocene age;
- Shales and sandstones of the Monterey Formation, of late Miocene age
- Terrestrial sandstones and claystones of the Sespe Formation, of Oligocene age

It is important to distinguish the geologic strata from the hydrostratigraphic units which are described in subsequent sections. The strata described above, which are present in the study area, are classified by geologic characteristics including age and depositional setting. The hydrostratigraphic units were identified and classified by distinct hydrogeologic properties as discussed in Section 2.5 below, and do not always necessarily conform to the geologic strata classifications.

2.4.2 FAULTS

Geologic faults can be pathways or barriers for groundwater movement. In crystalline or cemented rocks, faults can create fractures that act as conduits to groundwater flow. However, the aquifers within the study area consist of semi-consolidated sedimentary formations, which tend to create fine-grained, low-permeability “smear zones” when faulted, effectively producing weak to strong barriers to groundwater flow, particularly in the deeper aquifers. Within the study area, the trend of many, but not all, of the faults is west-southwest to east-northeast, consistent with regional structural trends (Figure 2-13). The Oak Ridge, San Cayetano, and Country Club Faults have previously been identified as significantly limiting or diverting groundwater flow (Mann, 1959; Mukae and Turner, 1975). The study area is flanked to the south by the Oak Ridge fault, a steeply south-dipping reverse fault, and to the north by the San Cayetano fault, a north-dipping thrust/reverse fault (Mukae and Turner, 1975). The southern and western portion of the Santa Paula basin boundary is bounded by the Country Club fault, a steeply south-dipping reverse fault which acts as a barrier to groundwater flow (Mukae and Turner, 1975, USGS, 2003).

2.4.3 FOLDS

Similar to the faults in the study area, the axes of major anticlines and synclines in the sedimentary strata tend to be oriented approximately west-southwest to east-northeast. Related to the discussion of faulting, above, the works of Mann (1959), USGS (2003), and other previous investigators provide more details on the potential effects of folds on groundwater flow within the study area.

The Ventura-Santa Clara basin syncline is recognized as the major fold feature within the study area. This feature, a result of north-south compressional forces, extends from Los Angeles County east of Piru basin to offshore near Ventura, CA. The synclinal axis trends west-southwest to east-northeast, and is generally oriented parallel with the SCR channel (Figure 2-13). To the north, the San Pedro Formation crops out at land surface and may receive recharge through precipitation or streamflow percolation. To the south, the syncline is in contact with non-water bearing rocks at the Oak Ridge Fault (Mukae and Turner, 1975).

The limbs of the folds are gently dipping within most of the freshwater bearing strata in the study area; therefore, it is unlikely that the folds themselves have a notable direct impact on groundwater flow. However, it is recognized that changes in thickness (which affects transmissivity), outcrop area (which affects where recharge occurs), and other hydrogeologic properties of strata can be indirectly influenced by fold geometry.

2.4.4 PIRU BASIN

Piru basin is a westward sloping alluvial strip that consists of recent and older alluvium underlain by the Pleistocene Saugus/San Pedro formations. The basin is bounded on the north and south by mountains composed of non-water-bearing formations. Piru basin is approximately 9.75 miles long and 1.75 miles wide (excluding the Piru Creek limb of the basin). The recent and older alluvium exists nearly basin-wide and is made up primarily of coarse sand and gravel. The recent alluvium ranges in thickness from approximately 20 feet near Blue Cut at the east end of the basin (underlain by non-water bearing Pico formation at the most eastern extent) to over 120 feet near the SCR channel; the thickness varies in the remainder of the basin. The older alluvium crops out in some areas as terrace deposits, but mostly occurs as a layer of variable thickness (up to 150 feet) under the recent alluvium.

The Saugus/San Pedro Formations are folded into a syncline with a west-southwest to east-northeast-oriented axis. These formations underlie the older alluvium, except at the east end of the basin where the older alluvium is underlain by impermeable Pico Formation. The San Pedro Formation consists primarily of permeable sand and gravel and can extend to a depth of approximately 8,800 feet, as interpreted from oil well electrical logs (Mann, 1959). Few water wells deeper than 700 feet currently exist in the Piru basin.

Three principal faults bound the Piru basin: The Oak Ridge fault to the south, and the San Cayetano and Camulos Faults to the north (Figure 2-13). These faults largely define the north and south basin boundaries, separating the aquifers from the adjacent non-water-bearing rocks. Thin “shoestring” alluvial deposits of Holocene to recent age, deposited in minor drainages and tributaries from upland areas, commonly overlie older formations that are displaced by these faults (Figure 2-13).

The channel of the SCR is constrained at the southern margin of the Piru basin by the alluvial fans of the tributaries entering the basin from the north. Downstream of the Las Brisas Bridge, east of Camulos Ranch in the eastern portion of the basin, the river channel broadens significantly. The percolation of surface water in the channel of the SCR is the largest source of recharge to the Piru basin. There are no known structural or stratigraphic barriers impeding recharge from the SCR in the Piru basin downstream of this area.

2.4.5 FILLMORE BASIN

The Fillmore basin is a wider (than the Piru basin), westward-sloping alluvial basin that consists of recent and older alluvium underlain by the Saugus/San Pedro Formation. It is approximately 9.5 miles long and 4.25 miles wide. The northern portion of the Fillmore basin in the area west of Sespe Creek is called the Sespe Upland (Figure 2-14). The Sespe Upland is characterized by steep south-sloping alluvial fan material, including complex terrace deposits, older alluvial fan

deposits and recent alluvial fan deposits, which unconformably overlie the Saugus/San Pedro formation (Mann, 1959).

The Pole Creek Fan is located between Sespe Creek and the SCR and forms the northeastern portion of the basin underlying much of the City of Fillmore. This area is primarily composed of fine-grained alluvial fan material.

The area of the Fillmore basin located south of the SCR is covered by recent sand and gravel deposits from the SCR. The recent sand and gravel of the SCR near the Fillmore Fish Hatchery at the eastern boundary of the basin extend to a depth of about 60 feet, and the older alluvial material extends from depths of approximately 60 to 100 feet. In the Bardsdale area, the combined thickness of this alluvial fill is as much as 250 feet. At the downstream basin boundary near Willard Road, the recent alluvium is approximately 80 feet thick. West of the City of Fillmore, the recent alluvium of Sespe Creek is approximately 80 feet thick. The recent sand and gravel deposits associated with Sespe Creek and the SCR are highly permeable.

The Saugus/San Pedro Formation underlies most of the Fillmore basin and is folded into a syncline with a west-southwest to east-northeast oriented axis. Along the main axis of the syncline near the center of the basin, the Saugus/San Pedro Formation reaches a depth of 8,430 feet (Mann, 1959). The depth from which groundwater production is suitable for agricultural and urban use and can be reasonably extracted is considerably shallower than 8,430 feet. Few wells in the basin are deeper than 800 feet in the Fillmore basin with one notable exception discussed in subsequent section 2.5.6. At the western basin boundary, the Saugus/San Pedro formation extends to a depth of 5,000 to 6,000 feet.

The two principal faults that bound the Fillmore basin are the Oak Ridge Fault to the south and the San Cayetano Fault to the northeast (Figure 2-13).

The SCR and Sespe Creek are major surface water features in Fillmore basin. Infiltration of surface water in their channels and underflow from Piru basin are recognized as the major sources of recharge to the Fillmore basin. Significant structural or stratigraphic barriers that might impede recharge from either the SCR or Sespe Creek have not been identified.

2.4.6 SANTA PAULA BASIN

The Santa Paula basin is located downstream of the Fillmore basin and is bounded by the Sulphur Mountain foothills on the northwest and South Mountain on the southeast. The basin is elongated in a northeast-southwest orientation and slopes generally westward. It is approximately 10 miles long and 3.5 miles wide. The elevations of the surface of the valley fill deposits range from 130 feet above sea level (near Saticoy) to 270 feet above sea level near the City of Santa Paula. The major fresh water-bearing strata utilized for groundwater production are the San Pedro Formation

and younger overlying river deposits of the SCR; alluvial fan deposits; and recent river and stream deposits (DBS&A and RCS, 2017; Mann, 1959).

Similar to Piru and Fillmore basins, sediments in Santa Paula basin have been warped into a syncline that is oriented in a northeast-southwest direction. To the south, the Oak Ridge fault forms a barrier to groundwater movement. To the north, a portion of the aquifer represented by the San Pedro Formation is exposed in an outcrop along the Sulphur Mountain foothills (Figures 2-13). The Santa Paula basin borders the Oxnard basin (Forebay area) to the southwest and the Mound basin to the west. To the east, the Santa Paula basin is in hydraulic connection with the Fillmore basin; underflow from Fillmore basin provides the largest portion of groundwater inflow to Santa Paula basin (DBS&A and RCS, 2017). Rising groundwater in the western Fillmore basin produces perennial surface flows in the SCR. However, during periods of extended drought, dry season flow may not extend downstream to the Freeman Diversion.

Hydrogen and oxygen isotope data, and other recorded data, indicate that the Santa Paula basin receives recharge from the SCR (USGS, 1999). However, thick clay deposits exist in the eastern portions of the Santa Paula basin. Other sources of recharge to the Santa Paula basin include: rainfall percolation through the San Pedro Formation outcrops that are exposed along the foothills to the north, percolation of streams crossing these sediments, and underflow from the Fillmore Basin (UWCD, 2013).

2.5 UPDATE OF HYDROSTRATIGRAPHIC CONCEPTUAL MODEL

Strata with distinct hydrogeologic characteristics are commonly referred to as hydrostratigraphic units (HSUs). United's previously published groundwater flow model for the Oxnard coastal plain included 13 layers, which included seven aquifers and 6 aquitards (UWCD, 2018). In the coastal basins, the basal Fox Canyon Aquifer and Grimes Canyon Aquifer were designated as Layers 11 and 13, respectively. However, these aquifers do not extend into the Piru, Fillmore, and Santa Paula basins, and layering in the expanded model domain reflects these changes in the conceptual model, with United identifying and mapping just ten HSUs (six aquifers and four aquitards) in the expanded model domain. The revised model layering for the upper basins is compared the coastal basins model layering (for reference) in Tables 2-10 and 2-11. Figures 2-15 to 2-17 show the locations and areal coverage of the stratigraphic sections. Representative schematic cross sections are shown in Figures 2-18 to 2-22 that illustrate the relationships between the mapped hydrostratigraphic units within Piru, Fillmore, and Santa Paula basins.

The hydrostratigraphic model forms the basic framework required to define the geometry and layering of the aquifers and aquitards for the numerical groundwater flow model. Available borehole e-logs were reviewed to determine the depth and quality of the logs, and that locations of the wells were plotted appropriately. A subset of available e-logs (~575) was selected based on quality, depth and location/distribution; this subset was then digitized. The digitized logs were

imported to RockWorks® (ver. 15), the software used to record aquifer picks, record relevant comments and construct cross-sections. Lines for cross-sections were identified in GIS, where shapefiles of oil well and water well locations, faults, basin boundaries, surface geology and other pertinent features were available to aid in selection of optimal section lines. Alignments were selected to intersect locations of known structural and stratigraphic change in the subsurface while utilizing as many e-logs as practical. Land surface elevations for the well heads with e-logs were determined based on the USGS National Elevation Data Set digital elevation model. E-logs from selected wells along the various sections were printed on plotter paper for identification of HSUs ("aquifer picks") and correlation of those units. Vertical exaggeration of the various plotted sections was determined by the depths of the well logs and the length of the section. Lithologic descriptions from additional wells along and near the lines of section were commonly noted on the working sections to help identify aquitards and aquifer units. Upon finalization of picks for a given section, depths of the various HSUs were entered into a RockWorks® database, along with notes supporting the unit picks, as necessary.

For the Piru, Fillmore, and Santa Paula basins, over 200 wells and control points were included in updating and refining the conceptual model. These well data were used to identify and determine the geometries of the HSUs within the basins. Elevations of the tops and bottoms of HSUs were then used to create digitally-interpolated elevation surfaces using Kriging methods. These elevation surfaces define the thickness and extent of the model layers within the model domain, as described in Section 3.

Additionally, 12 control points were manually added in specific areas to better define the geometry of known geologic structures. Generally, these control points were added near the basin boundaries or geologic features (such as faults) in order to accurately represent the boundary feature and terminate thinning stratigraphic units. Ten of the control points were added to the north of the basins, where faulting and folding result in units "pinching-out." A basal model layer was designated with one foot of thickness. Two control points in Piru basin located near the southern basin boundary also serve as basal layer points. Figures 2-15 to 2-17 show the locations and areal coverage of the stratigraphic sections.

The following subsections describe areas of importance and refinements in understanding of the hydrogeology in the upper basins as a result of United's effort in developing BCM 14.

2.5.1 EXTENT AND MERGENCE OF ALLUVIAL AQUIFERS

Throughout much of the Piru and Fillmore basins, thick sequences of alluvial sediments have been deposited as a result of differential stream erosion along the Ventura-Santa Clara basin syncline (Mann, 1959). The younger and older alluvial aquifer units are mapped as being continuous over much of the valley floor area of the basins and are understood to provide little impediment to vertical flow. The Piru and Fillmore basins are considered to be unconfined and

these permeable alluvial deposits allow for water to move downward from recharge sources unimpeded. Layers 3 and 5, typically representing the younger and older alluvium respectively, are often merged (Layer 4 aquitard is absent) within the vicinity of the SCR channel and are generally laterally continuous east to west across all the basins of the SCR valley. These unconsolidated alluvial sediments unconformably overlie the Saugus/San Pedro Formation.

Alluvial sediments consist primarily of coarse sands and gravels, with some occasional finer-grained sediments. The older alluvium of late Holocene to Pleistocene age typically shows a greater occurrence of finer-grained lenses and more interbedding in the Piru and Fillmore basins, and somewhat less permeable sediments overall compared to the younger alluvium. Hydraulic conductivities and aquifer properties are described in subsequent sections.

Thickness of the alluvial aquifers vary throughout the basin (see Figures 2-18 through 2-22). Within the vicinity of the SCR channel, Layer 1 and 2 deposits are generally absent, and Layer 3 is mapped to ground surface. In the Santa Paula basin, Layer 3 is mapped to the surface within the active SCR channel, and northward to approximately Highway 126. North of the highway, Layer 1, alluvial fan and surficial colluvium deposits are commonly present to the base of the foothills, and often forms a surficial deposit on top of San Pedro formation outcrop in the foothills. However, in some areas of the upper basins, aquitards of various thickness and extent are mapped to exist between these young alluvial aquifers.

2.5.2 EAST PIRU ALLUVIUM

The eastern portion of Piru basin, near the Ventura and Los Angeles County line, has a scarcity of subsurface data compared with the rest of the basin. The limited well data in this area shows that the alluvium is thin and overlies the non-water bearing Pico Formation. United relied on geophysical log data and exploratory borings drilled by Geomatrix Inc. in 2006 and 2007 (Geomatrix, 2006, 2007). These data show the alluvium is just tens of feet thick at and near the County Line, with saturated thickness estimated to be around 5 feet just upstream of Blue Cut and thickening to around 25 feet east of the County Line. In this area, east of Piru Creek, Layer 1 is mapped as the terrace features and slopes near the basin boundary, and Layer 3 was designated as the active stream channel deposits. This allows for underflow into the basin and percolation of streamflow within the shallow sediments. Downstream of this area, the Pico Formation steeply plunges along the synclinal axis, and the alluvium that overlies the Saugus/San Pedro Formation becomes significantly thicker and wider in the main portion of the basin (USGS, 2003).

2.5.3 PIRU CREEK ALLUVIUM

Downstream of Santa Felicia Dam (Lake Piru), thin alluvial sediments overlie the Monterey and Pico Formations along lower Piru Creek to the mouth of Piru canyon, approximately where the

San Cayetano fault is mapped and overturned beds of the Saugus/Sand Pedro and Pico Formations are mapped in outcrop. The terraces and upslope deposits outside of the active stream channel were mapped as Layer 1, surficial colluvium and slope fill. The active stream channel was mapped as a thin alluvial Layer 3 to a depth of 20 to 30 feet below ground surface, based on lithologic data from wells 04N18W10C02S and 04N18W15M01S. An underlying Lower Saugus/San Pedro (Layer 9) was mapped where aquifer materials became more indurated, as indicated from lithologic records.

2.5.4 POLE CREEK FAN DEPOSITS

Near the mouth of Pole Creek, a thick deposit of interbedded and poorly-sorted clay and cobbles was observed in the lithologic log of well 04N19W30H01S. This assemblage of poorly stratified material is interpreted to be alluvial fan and fanglomerate deposits of significant thickness (up to 480 feet), but relatively limited extent. The deposit thins radially and was not identified in wells to the west or northwest, approximately a mile away. This deposit was mapped as an aquitard (Layer 2).

2.5.5 SESPE UPLAND RECENT STRUCTURAL UPLIFT

In the Fillmore basin there is an area of relatively recent structural uplift, designated as the Sespe Upland (Mann, 1959). This area is located west of the Sespe Creek channel and north of the current SCR channel and the associated recent SCR alluvial deposits (Figure 2-14). Here, at the base of slope of the upland, the alluvial deposits of Sespe Creek and the SCR are interfingered and transition to finer-grained sediments and interbedded minor clays deposited by tributaries and minor drainages, most notably the Timber Canyon and Boulder Canyon drainages (Figure 2-5). Well data show that recent alluvial deposits and colluvium (Layer 1), derived from the steep northern tributaries is over 350 feet thick in some areas (Chevron S 15, API: 1110046). These sediments overlie an aquitard of variable thickness (Layer 6), and the Upper Saugus/San Pedro Formation. Layers 3 and 5 are notably not present, a result of deposition of fan deposits from Timber and Boulder Canyons and the uplift creating a barrier restricting the river channel to the southern portion of the basin.

2.5.6 04N20W24R02S - FILLMORE MUNICIPAL WELL #4

The City of Fillmore drilled well 04N20W24R02S in 1963; United pumping records show usage from 1979 (when United first required reporting of pumping) until 2005, with the majority of pumping occurring prior to 1998. The well was drilled to a total depth of 2,018 ft and was screened at various intervals to a depth of 1,820 ft. This well is the deepest known production well in the Piru and Fillmore basins, and represents the deepest pumping from Layer 10. To accommodate this historical pumping, Layer 10 was mapped from 1,140 ft to 1,827 ft. at this location, resulting in a significant increase in Layer 10 thickness in this vicinity. At these depths the Saugus/San

Pedro Formation is not likely to be a significant source of future water production, but Layer 10 was assigned to this production zone and represents the thickest mapped portion of the Saugus/ San Pedro Formation.

2.5.7 AREAS OF RISING GROUNDWATER/BASIN BOUNDARIES

There are two important areas of rising groundwater within the expanded model domain; the boundary between Piru and Fillmore basins and the boundary between the Fillmore and Santa Paula basins. In these areas, the water table intersects the SCR channel invert elevation, resulting in surface flows. Topographic narrowing of the basins by older and more indurated rock also constricts groundwater flow down the valley in these areas.

At the Piru-Fillmore basin boundary, the basin narrows in the area upstream of the Fillmore Fish Hatchery. A deposit of finer-grained material of relatively limited extent, mapped as Layer 6, separates the alluvial aquifers from the underlying Upper Saugus/San Pedro Formation (Figure 2-21), as identified in log signatures from wells 04N19W33M08S, 04N19W33F01S, and 04N19W33D05S. This change in stratigraphy, as well as the constriction of the basin, contributes to groundwater being discharged in the SCR as surface flow. A thinner, less extensive deposit of finer-grained material (Layer 4) was also identified in the resistivity log of well 04N19W32L02S, separating the alluvial aquifers.

Near the mapped boundary between the Fillmore and Santa Paula basins, the valley again narrows, and finer-grained deposits of varying thickness and extent were identified between both the alluvial aquifers and the Upper Saugus/San Pedro Formation. A shallow clay layer (Layer 2) of limited extent was identified to the east-northeast of the Fillmore/Santa Paula basin boundary. Aquitard material designated as Layer 4, which is observed to be thickest in the central portion of the Santa Paula basin, is mapped as extending upstream across the boundary and into the western portion of the Fillmore basin. The aquitard material separating the older alluvium aquifer from the Saugus/San Pedro Formation (Layer 6) has a similar depositional extent near the active river channel, but extends northeast to Sespe Creek, underlying the Sespe Upland area (Figures 2-19 and 2-20).

These clay deposits, which are particularly prevalent in the eastern portion of the basin near the confluence of Santa Paula Creek and the SCR, reduce infiltration of surface water resulting in semi-confined groundwater conditions. These deposits are penetrated by wells 03N21W12F06S, 03N21W12F07S, and 03N21W12B04S, located near the basin boundary and north of the active river channel. Artesian conditions have been observed in a number of wells near this basin boundary, indicating some degree of confinement. The Oakridge fault mentioned previously in this report, roughly parallels the southern basin boundaries at this location.

2.5.8 EXTENT OF SANTA PAULA BASIN CONFINING UNITS

As previously mentioned, the alluvial aquifers of Santa Paula basin are separated by a relatively extensive and laterally continuous aquitard, mapped as Layer 4. This aquitard is primarily composed of clay, sandy clay, and fine sand. The USGS-drilled well 03N21W15G01S has been instrumented with transducers and monitored by United since the mid-1990s. Wells screened above and below Layer 4 here commonly record head differences of 20 feet or more, indicating that the clay layers at least partially isolate the aquifers and restrict the vertical movement of water. In the Piru and Fillmore basins the mapping of HSU Layer 5 is generally comparable to the mapped extent of the Older Alluvium of Mann (1959) and others. In the Santa Paula basin Layer 5 is mapped deeper and below the extensive confining layer 4, and as such deviates from the traditional geologic description of Older Alluvium in the SCR Valley.

Another extensive aquitard, Layer 6, extends upstream beyond the Fillmore/Santa Paula basin boundary and is generally laterally continuous across the Sespe Upland area. Layer 6 is also mapped across the majority of the Santa Paula basin, and is interpreted to be present up to the base of slope of the Sulphur Mountain foothills to the north. These interpretations are largely consistent with previous investigations (DBSA and RCA, 2017)

2.5.9 HYDRAULIC PROPERTIES

As discussed in Section 2.5 above, the study area contains water-bearing formations which include the recent and older alluvial deposits and those of the underlying Saugus/San Pedro Formations. In relation to the numerical modeling that is detailed further in Section 3, Figure 2-23 relates the HSU layering of the Basin Conceptual Model to Aquifer System units (A, B, and C) that are used in the model calibration and results sections. These Aquifer System designations have combined various stratigraphic units in similar fashion to the historically used aquifer system designations used in the basins of the Oxnard coastal plain. Aquifer System A represents the Surficial Deposits and Colluvium (Layer 1), Aquitard (Layer 2), and Recent (younger) Alluvium (Layer 3). Aquifer System B represents an Aquitard (Layer 4), Older Alluvium (Layer 5), another Aquitard (Layer 6), and the Upper Saugus/San Pedro (Layer 7). Aquifer System C represents an Aquitard (Layer 8), Lower Saugus/San Pedro (Layer 9), and the Undifferentiated Sedimentary Deposits (Layer 10). This section provides estimates of horizontal hydraulic conductivity for each of these Aquifer Systems, or when wells are screened across multiple systems, the combinations of Aquifer Systems within each of the groundwater basins, where data are available. Estimates of horizontal hydraulic conductivity in Santa Paula basin were obtained from the Daniel B. Stephens & Associates (DBS&A) and Richard C. Slade & Associates (RCS) (DBS&A and RCS, 2017 report. The methods regarding calculation of horizontal hydraulic conductivity estimates, which pertain to the Santa Paula Basin and adjacent areas only, are presented here:

The UWCD GIS well database lists specific capacity values for a number of wells in the Basin. As reported by UWCD, the database was originally constructed by the USGS and has been only minimally updated. Specific capacity values were primarily derived from water level and pumping data listed on drillers' logs, and therefore the dataset is subject to the typical uncertainty associated with such logs.

Based on these data, transmissivity values (T) were calculated using the empirical relationship:

$$T = X * [Specific\ Capacity]$$

The value of X is dependent on the type of aquifer: 1,500 for unconfined aquifers, 1,750 for semiconfined aquifers, and 2,000 for confined aquifers (Driscoll, 1986). For this equation, specific capacity must be reported in gallons per minute per foot of water level drawdown (gpm/ft ddn) and the resultant T is in units of gallons per day per foot (gpd/ft). RCS assigned each well a value for X based on the perforation intervals in the data set compared to RCS's subsurface hydrogeologic interpretations. Wells perforated only in undifferentiated alluvium were assumed to be unconfined (X=1,500), whereas wells perforated in both the undifferentiated alluvium and the San Pedro Formation were assumed to be semiconfined (X=1,750), and wells perforated within the San Pedro Formation only were assumed to be confined (X = 2,000). After transmissivity was determined, the transmissivity was divided by the total listed perforated length for each well (assumed to be continuous between the reported top and bottom of perforation information) to provide an estimate of lateral [horizontal] hydraulic conductivity. By dividing the transmissivity equally among the perforated sections in a well, this method of estimation assumes that each of the water-bearing zones perforated by the well have equal hydraulic conductivities.

The DBS&A and RCS (2017) report presented estimated horizontal hydraulic conductivity values (in units of gpd/ft^2) for 48 wells within the Santa Paula Basin and adjacent areas (see Table D-1 in DBS&A and RCS, 2017). The same method was then applied to wells located within the Piru and Fillmore groundwater basin boundaries, assuming unconfined conditions within all formations. Location of well screen within the Aquifer Systems (A, B, C) were based on United's wells database (Section 2.7, above, and Section 3.5.2.5, below). From the data provided in the sections below, it is clear that many wells in the Piru, Fillmore, and Santa Paula basins are screened in Aquifer Systems A and B or a combination of the two. The pump test data presented in the following section can help serve as a starting point for aquifer properties in the calibration exercise. However, from the following sections, the variability for estimated hydraulic conductivity based on available well pump test data and well construction data within a given Aquifer System and a given basin is large (see estimated minimum and maximum values reported in Tables 2-12 to 2-14). This variability in the available pump test data emphasizes the high uncertainty of the

hydraulic conductivity estimated primarily from specific-capacity data and the importance of estimating the basin-scale hydraulic conductivity through the numerical model calibration process based on the extensive observed water level data that are available.

2.5.9.1 PIRU BASIN

The Piru groundwater basin had a total of 13 wells within United's GIS database which had both the necessary specific capacity and well screen perforation data available (Figure 2-24). From these data the horizontal hydraulic conductivity statistics were calculated for wells screened in Aquifer Systems A and B (AB), Aquifer System B (wells only screened in B), and for wells screened in Aquifer Systems B and C (BC) within Piru basin (Table 2-12). The sample size available is relatively small, with no data available along Piru Creek or the area south of the SCR. From the estimated values, Piru basin has an average horizontal hydraulic conductivity estimated at about 197 ft/day for wells screened within both A and B (Layers 1-7), 236 ft/day for wells screened in B only (Layers 4-7), and 87 ft/day for wells screened in both B and C systems (Layers 4-10).

2.5.9.2 FILLMORE BASIN

The Fillmore basin had a total of 30 wells within United's GIS database which had both the necessary specific capacity and well screen perforation data available (Figure 2-24). From these data the horizontal hydraulic conductivity statistics were calculated for wells screened in Aquifer Systems: A only, A and B (AB), A, B, and C (ABC), B only, and C only within Fillmore basin (Table 2-13). Wells with pump test data are distributed across the Fillmore basin. For the Fillmore basin, an average horizontal hydraulic conductivity is estimated at about 149 ft/day for wells screened within A (Layers 1-3), 134 ft/day for A and B (Layers 1-7), 3 ft/day for wells screened across A, B, and C (Layers 1-10), 79 ft/day for B only (Layers 4-7), and 5 ft/day for wells screened in Aquifer System C systems (Layers 8-10).

2.5.9.3 SANTA PAULA BASIN

United's GIS database had a total of 31 wells located within Santa Paula basin which had both the necessary specific capacity and well screen perforation data available (Figure 2-24). From these data the horizontal hydraulic conductivity statistics were calculated for wells screened in Aquifer Systems A only, A and B (AB), and B only within Santa Paula basin (Table 2-14). For Santa Paula basin, an average horizontal hydraulic conductivity is estimated at about 152 ft/day for wells screened within A (Layers 1-3), 72 ft/day for A and B (Layers 1-7), and 100 ft/day for B only (Layers 4-7).

2.6 GROUNDWATER INFLOW AND OUTFLOW COMPONENTS

As described in Section 1.3, there have been several major hydrologic investigations that have taken place within Ventura County and surrounding areas over the past century which have included the current Regional Model expansion area. This section will first summarize the range of various water budget described in previous investigations, as presented in United's Open-File Report 2020-02, titled *Summary of Past Groundwater Models and Water Budgets for the Piru, Fillmore, and Santa Paula Groundwater Basins* (UWCD, 2020) This section will then discuss various inflows and outflows considered in the conceptual model, many of which have already been detailed in the conceptual model sections above.

2.6.1 PREVIOUS ESTIMATES OF MAJOR WATER BUDGET COMPONENTS

United previously summarized the water budgets of the Piru, Fillmore, and Santa Paula basins based on major hydrologic investigations that have been published over the past century (UWCD, 2020), and that effort supported expansion of the numerical groundwater flow model based on review of previous knowledge and hydrologic component accounting. Table 2-15 summarizes the hydrologic investigations which contributed information regarding water budget components in the Piru, Fillmore, and Santa Paula basins. Table 2-16 summarizes the *range* of reported water budget component values for each of the groundwater basins which were presented in the previous hydrologic studies that are listed in Table 2-15. The majority of the values presented in Table 2-16 were extracted from a California Department of Water Resources (DWR, 1956) or Mann (1959), with other primary sources being CH2M HILL (2004, 2005), CH2M HILL and HydroGeoLogic (CH2M HILL/HGL, 2008), LWA and others (2015) and DBS&A and RCS (2017). It is noted here that there were several predecessor agencies to California's current Department of Water Resources (DWR). DWR was formed in 1956 with legislation that simultaneously dissolved the Water Project Authority and Division of Water Resources within the Department of Public Works as well as took over duties of a reconstituted State Water Resources Board (DWR, 2020). Values for the lower and upper ranges were sourced from the cited investigations. Each of the reports used for this review are representative of varying, sometimes overlapping, climatic periods and conditions (Table 2-15). The values reported from DWR (1956) and Mann (1959) provided the most complete summaries of basin water budgets in the previous investigations and both included time-periods with wet and dry periods. Because of this, most of the lower and upper bounds of the reported range for many of the components, presenting the results in this way is considered appropriate, and helpful, for comparison purposes.

Based on United's review (UWCD, 2020), the following conclusions based on the previous studies and reported water budgets for the Piru, Fillmore, and Santa Paula groundwater basins were made:

- The most significant inflows to each basin consist of recharge from streamflow (SCR) percolation, areal recharge from precipitation and applied water from groundwater and surface water sources, and incoming subsurface underflow from upstream groundwater basins.
- The most significant outflows to each basin consist of groundwater extractions for beneficial use and outgoing subsurface underflow to downstream groundwater basins.
- With the SCR being the largest source of recharge for the Piru and Fillmore basins, the annual water budgets for these basins are highly variable due to the dependence on local rainfall within the SCR watershed. This variability and dependence on surface water inflows leads to the large range observed in the previously reported water budget components (Table 2-16). This dependence on surface water flows is expected to continue in the future, resulting in variable water budgets of similar ranges.
- Basin boundary modifications have recently been adopted that have altered the extent of the Piru, Fillmore, and Santa Paula groundwater basins. The majority of the studies reviewed for this document utilized boundaries that captured most of the water-bearing and productive alluvial deposits and underlying aquifers along the valley floor, and the overall effect on the ranges for many of the water budget components is not expected to be significant. Changes to the upstream extent of the Piru basin will however result in an increase in the subsurface underflow into Piru basin from the east. This value is expected to increase using the Department of Water Resources (DWR, 2019) boundary moving forward due to the relative increase in saturated aquifer thickness near the Los Angeles County line compared to the downstream locations used in previous studies, with saturated thickness estimated to be around 5 feet just upstream of Blue Cut and thickening to around 25 feet near the County Line. The increased basin area from the 2019 DWR updated boundaries will also result in increased direct recharge to the underlying aquifers due to precipitation.

2.6.2 GROUNDWATER INFLOWS

Multiple sources of groundwater recharge (water that enters an underlying groundwater system from land surface) occur in the study area. Those that have been previously been described in the surface water sections, include:

- “Artificial” recharge (or “spreading”); See section 2.3.2 above.
- Stream-channel recharge; See section 2.3 above.
- Mountain-front recharge; See section 2.3.7 above.
- Percolation of treated wastewater; See section 2.3.10 above.

The hydrologic conceptual model for each of these inflows is similar to that of the previously documented Coastal Plain Model (UWCD, 2018), and each surface water inflow source has been presented within Section 2.3, above as noted. Additional sources of groundwater recharge that have not been discussed in this report, but conceptually are extended in a similar manner to what was used within the within the Coastal basins (UWCD, 2018) include:

- Deep infiltration of precipitation
- Agricultural return flows
- Municipal and industrial return flows

Locations where the various types of groundwater recharge are understood to occur in the study area are shown on Figure 2-25. In addition to the types of recharge (from land surface) listed above, groundwater underflow to and from adjacent basins also occurs the study area. Groundwater underflow to and from other basins is discussed in Section 2.8.

2.6.3 GROUNDWATER OUTFLOWS

Within the study area, groundwater discharges to water-supply wells, the SCR and to the atmosphere (via ET). Like groundwater inflows, the conceptual model for each of these outflows is similar to that of the previously documented Coastal Plain Model (UWCD, 2018). Each of these components of groundwater outflow from the study area is described in some detail below.

2.6.3.1 PUMPING FROM WATER SUPPLY WELLS

Groundwater extraction from water-supply wells is a large component of estimated groundwater discharges (or outflows) from the groundwater system in the study area, with subsurface underflow and rising groundwater in the SCR, and to a smaller degree, riparian vegetation ET, also having been previously estimated to be significant (Table 2-16).

Since 1980, United has required semi-annual reporting of pumping by well operators within United's service area, vastly improving the accuracy of pumping estimates in the study area. Reported locations and the relative magnitude of groundwater pumping for the period 1985 - 2015 in the study area are shown on Figures 2-26 and 2-27. Many of the water-supply wells that exist in the study area are screened across multiple aquifers, as the objective of drilling a supply well is typically to yield a specified production rate of acceptable-quality groundwater, preferably without drilling any deeper than necessary in order to minimize costs. Few wells are screened only in the Aquifer System A (Table 2-12 to 2-14) ,and those that at are screened in Aquifer System A are located near the SCR or major tributaries where water levels are nearest to the ground surface. Most of the wells are screened within Aquifer System B, and few are screened in Aquifer System C.

A small portion of the groundwater extracted by water-supply wells in the Piru, Fillmore, and Santa Paula basins is conveyed and used outside of the Piru, Fillmore, and Santa Paula basins to other basins within the Regional Model Domain. Additionally, some groundwater extracted by water-supply wells in the Piru, Fillmore, and Santa Paula basins is conveyed and used within the Piru, Fillmore, and Santa Paula basins but used outside of the groundwater basin of origin.

No exports from the Piru basin were documented over the calibration period, however, there is an ongoing import of water through the Newhall south bank pipeline that totals approximately 3,500 AFY of water, sourcing from wells located in Los Angeles County. This water irrigates agricultural land located south of the SCR in the eastern portion of the Piru basin (Dirk Marks of SCV Water, personal communication, December 2020).

In the Fillmore basin there have been two wells historically exporting water from the Fillmore basin into the Santa Paula basin during the 1985-2015 study period. Farmers Irrigation Company installed a well approximately 150 feet east of the basin boundary in Fillmore basin in 2012. This well has pumped about 4,050 AFY in years 2013-2015 and it is assumed that this water is distributed across their service area (Figure 2-10) within Santa Paula basin (90%) and Mound basin (10%). In addition to this well, Limoneira Company has historically pumped from a well located just east of the Santa Paula boundary within Fillmore basin as well and distributed across their land that covered Fillmore basin (40%) and Santa Paula basin (60%). This well was destroyed in 2019 with the development of Santa Paula's East Area 1, but pumped an average of about 360 AFY from 1988 – 2015.

Related to exports from the Piru, Fillmore, and Santa Paula basins to Mound basin, a long-term average of approximately 1,300 AFY of groundwater has been pumped from two water-supply wells operated by the Alta Mutual Water Company in the Oxnard basin (north of SCR) since the mid-1980s, and approximately 1,100 AFY has been exported to agricultural lands in and north of the Santa Paula basin and another 200 AFY has been exported to agricultural lands in eastern Mound basin. Further related to Mound basin, Farmers Irrigation Company has exported approximately 815 AFY from Santa Paula basin to eastern Mound basin since 1992. Lastly, related to exports to Mound basin from the Piru, Fillmore, and Santa Paula basins, Ventura Water pumped approximately 1,070 AFY of groundwater from its Saticoy wells in the Santa Paula Basin and supplies that water to portions of the city overlying the Mound and Santa Paula, and Oxnard basins (the quantity of water reported above was averaged for the period from 1985 to 2015 [Ventura Water, 2020]). Ventura Water has stated that the specific quantity of imported water from this source distributed to each basin is variable and cannot be precisely determined and so Ventura Water's imports have been assumed for modeling purposes to be evenly blended and distributed across their service area.

2.6.3.2 RISING GROUNDWATER

As described in Section 2.3.1.1 and related to rising groundwater at the basin boundaries of the Piru-Fillmore basins and Fillmore-Santa Paula basins, significant amounts of water are discharged from the shallow aquifers as the groundwater elevations intersect the invert of the SCR channel. Previous studies have estimated these discharges to range from 0 – 37,800 AFY for Piru to Fillmore, 6,030 – 48,200 AFY from Fillmore to Santa Paula, and historically it was reported that 2,040 – 17,340 AFY related to rising groundwater outflowing from Santa Paula basin

(Tables 2-15 and 2-16), however, the previously reported rising groundwater estimates exiting Santa Paula basin "do not accurately indicate the volume of rising water as it is apparent that even relatively low flows consist in part of through-flowing surface water [from Santa Paula Creek, rising groundwater existing Fillmore basin, and SCR flows and] the estimates…are considered 'excessively high'" (Mann, 1959).

2.6.3.3 EVAPOTRANSPIRATION

ET removes significant volumes of water from soil moisture before it can infiltrate to the water table. Much of this soil moisture originates as precipitation. The majority of ET occurs at land surface or within the root zone of the soil horizon, in the unsaturated zone. This near-surface ET does not directly affect groundwater elevations or flow in the saturated zone, and thus is not explicitly included in most groundwater flow models. However, near-surface ET is included implicitly as part of net recharge calculations applied as input to the Regional Model (see further details in UWCD [2018] Sections 2.7.1.3 and 2.7.2.4). Additionally, ET may occur in the form of groundwater uptake by phreatophytes in the riparian corridors of stream channels with shallow groundwater, and this form of ET is included in the modeling (see Section 3.5.2.6). Background related to ET rates for riparian vegetation is discussed in Section 2.3.11.

2.7 GROUNDWATER OCCURRENCE AND MOVEMENT

This section provides overviews of the groundwater flow system for each groundwater basin, displaying and discussing long-term hydrographs at key wells for each basin (key well locations shown on Figure 2-28) as well as groundwater elevation maps for various representative wet and dry periods.

United's groundwater elevation database includes historical groundwater-level data for 1,369 wells within the Regional Model domain (as of May 2020), with 502 wells being in the model expansion area. The groundwater elevation database is a compilation of information supplied by several cooperating entities. Each of these entities has their own protocol for measuring water levels, and these protocols may vary over time. Other entities that may contribute water-level data within the model expansion include the Cites of Fillmore and Santa Paula, Farmers Irrigation Company (FICO), Alta Mutual Water Company, the City of Ventura, and VCWPD. United and other entities coordinate these groundwater elevation measurements to be taken within a specific calendar period, in an effort to accurately capture basin conditions during annual climatic cycles (wet and dry periods).

Groundwater elevations are normally measured in wells that are not pumping; these measurements are referred to as "static." When evaluating trends in long-term groundwater elevations, static groundwater level measurements are preferred. However, the water level in a non-pumping well may remain depressed for some time due to residual drawdown in the well

being monitored, or because of pumping interference from a nearby well. Although it is not possible to eliminate all effects of pumping when manually measuring groundwater elevations in a developed groundwater basin, UWCD and other parties take care to measure wells when residual drawdown is not expected, and no nearby wells are known to be pumping. When groundwater elevations are measured during the low-irrigation season (winter and early spring), potential pumping effects on the measurements are typically reduced. Some area wells are equipped with pressure transducers that collect frequent measurements and seasonal high and low groundwater elevations can be assessed with greater confidence. The groundwater level database records were further used in the Regional Model development for model calibration (Section 4) with all water levels available for wells within the active model domain used. The time dependent water level measurements from each well were used in hydrographs comparing with the simulated water levels. All water level measurements were also paired with the simulated water levels in scatter plots.

2.7.1 PIRU BASIN

Groundwater flow in the alluvium (Layers 3 and 5) of the Piru basin tends to be westerly, parallel to the river channel. Near the eastern basin boundary, groundwater elevations decrease over a relatively short distance as a result of the deepening and thickening of water bearing units where the Saugus/San Pedro Formation steeply plunges (Figure 2-29). Groundwater flow is westerly in this area, however recharge associated with the major tributaries along the northern margins of the basin can however create areas of southerly flow. Groundwater flow in the Saugus/San Pedro Formation is generally westerly with a relatively minor northerly and southerly components during wetter (2010) and drier (2015) years (Figures 2-29 to 2-31). The basin is considered to be an unconfined basin (UWCD, 2016). Figures 2-32 and 2-33 show hydrographs for key wells 04N18W29M02S (29M) and 04N19W25M01S (25M1) located within Piru basin, which highlight the decadal variability in groundwater elevations in Piru basin.

2.7.2 FILLMORE BASIN

Groundwater flow in the Fillmore basin generally moves east-to-west through the alluvium (Layers 3 and 5). Near the Piru/Fillmore basin boundary, groundwater flow is westerly, and in this area the water table elevation intersects the invert of the SCR channel resulting in surface flow. Groundwater flows generally westerly in the basin from the Piru/Fillmore basin boundary to the area of Sespe Creek. Gradients are steeper in this area, near the eastern boundary, than elsewhere in Fillmore basin. Groundwater recharge from Sespe Creek generally flows towards the southwest during wetter (2010) and drier (2015) years (Figures 2-29 to 2-31). Groundwater flow beneath the Sespe Upland area is generally southwest in the Saugus/San Pedro Formation. The basin is considered to be an unconfined basin (UWCD, 2016). Figures 2-34 and 2-35 show hydrographs for key wells 04N20W23Q02S, 04N20W23N01S (23N1), and 03N20W02A01S (2A1), located within Fillmore basin. Similar to Piru Basin, these wells highlight the decadal

variability in groundwater elevations in Fillmore basin due to wetter and drier climate patterns that have occurred over the past century.

2.7.3 SANTA PAULA BASIN

Groundwater flow in the Santa Paula basin is generally northeast-to-southwest (Figure 2-36), following the SCR Valley gradient seen in the upstream basins, with localized groundwater depressions appearing in fall near groups of water-supply wells (Figure 2-37). Groundwater recharge from Santa Paula Creek has a relatively minor influence on groundwater gradients, and groundwater flow in this area is generally westerly. There are thick clay deposits in much of the eastern Santa Paula basin, near the confluence of the SCR and Santa Paula Creek that likely reduces the amount of water that infiltrates to the deeper aquifers (UWCD, 2013). Portions of Santa Paula basin are confined by this deposit, but the river corridor is largely sand and gravel. Similar to the Fillmore basin, groundwater flow beneath the northern flanks of the basin is generally southerly in the deeper Aquifer Zones B and C, where the Saugus/San Pedro Formation outcrops. Flow however becomes westerly in the central and southern portions of the basin. Near the western basin boundary, there is an abrupt shift in groundwater elevations, indicating the presence of the concealed barrier of the Country Club Fault, which is observed in both wet (spring) and dry (fall) periods. Recharge is observed in groundwater level hydrographs, as groundwater elevations in the majority of wells throughout the basin show significant seasonal variability (UWCD, 2011). Figure 2-38 shows a hydrograph for well 03N21W16K01S (16K1) located within Santa Paula basin. This well shows seasonal variability and an overall declining trend. Well 02N22W02C01S (2C1), located further west within the basin follows a similar trend.

3 NUMERICAL MODEL CONSTRUCTION

This section is focused on detailing the expansion of United's (2018) Coastal Plain Model into the Piru, Fillmore, and Santa Paula basins, but will also review model construction across the remainder of the model domain for completeness regarding the expansion and connection with the downstream basins (Mound, Oxnard, Pleasant Valley, and west Las Posas Valley basins) where the numerical model grid was unchanged during the model expansion. Readers are referred to the Coastal Plain Model Report (UWCD, 2018) for details on the Oxnard, Pleasant Valley, west Las Posas Valley and Mound basins.

The groundwater flow system within the Regional Model domain (Coastal Plain Model and the expansion area into the Piru, Fillmore, and Santa Paula basins) is influenced by cycles of extended drought and wet years. Observed groundwater elevations fluctuate over hundreds of feet during these cycles. This highly fluctuating groundwater level condition requires a numerical model capable of simulating the wetting and drying of aquifers. Since the 1980s, the USGS has been developing a finite difference-based groundwater model, MODFLOW. The MODFLOW numerical model has been applied in the United States and worldwide in the past 30 years. The popularity and transparency of MODFLOW attributed to its open-source policy, has led to a thorough critique of MODFLOW and numerous research papers, further cementing MODFLOW as the leading groundwater model. Among the different versions of MODFLOW available at present, some versions perform better than others under certain conditions. One version of MODFLOW, MODFLOW-NWT (Niswonger, et al., 2011), was developed to improve simulation of the drying and rewetting of aquifers, and is particularly well suited for conditions in the Regional Model. Therefore, MODFLOW-NWT was chosen as the preferred software for the Regional Model, as it was for the Coastal Plain Model (UWCD, 2018).

3.1 MODEL DOMAIN AND BOUNDARY CONDITIONS

The active domain of the Regional Model includes the Oxnard, Pleasant Valley, West Las Posas, Mound, Santa Paula, Fillmore, Piru groundwater basins, and the submarine (offshore) outcrop areas of the principal aquifers that underlie these basins. The active domain for each of the 13 model layers varies depending on the underlying geological units expanding or pinching out (see Figures 3-1 to 3-13). The active model domain spans approximately 245,821 acres (384 square miles), of which 72% (178,144 acres or 278 square miles) is onshore and 28% (67,677 acres or 106 square miles) is offshore. With the expansion of the model domain into the SCR Valley to include the Santa Paula, Fillmore, and Piru basins, the GHB that previously represented underflow in the western portion of the Santa Paula has been removed. All other boundary conditions in the area representing the Coastal Plain Model domain are identical in the Regional Model, with several additional modifications in Mound Basin, including changes related to mountain front recharge following the expansion of the DWR basin boundaries to include more outcrops to the north as well as changes in the implementation of stream channels for Harmon Barranca (i.e. Harmon Barranca was not previously simulated in the Coastal Plain Model).

The subsurface boundary conditions vary around the active model domain, as follows:

- The eastern edge of the active model domain in west Las Posas Valley basin adopts a no-flow boundary coincident with the East Las Posas basin boundary and the Central Las Posas Fault.
- The northeastern corner in Pleasant Valley basin is assigned a groundwater flux along Arroyo Las Posas based on the groundwater model developed by Calleguas Municipal Water District (CMWD, 2018). When the flux is unavailable from CMWD, an estimate based on precipitation is made.
- The eastern edge of the active model domain in Piru basin at the Los Angeles County line is assigned a groundwater flux along the SCR to represent the groundwater flow from Los Angeles County through model calibration. Details regarding the model calibration and implementation are discussed in Section 3.5.1.2.
- The western edge of the model in the ocean is assigned with general head boundary condition based on the seawater density and the depth of the submarine outcrop of each model layer.
- All other boundary conditions are assigned no flow boundary conditions.

The surface water boundary conditions are based on the streamflow measurements along the Santa Clara River and its tributaries (Piru Creek, Hopper Creek, Pole Creek, Sespe Creek, and Santa Paula Creek), as well as Conejo Creek and Arroyo Las Posas/Calleguas Creek in the coastal basins. Several minor tributaries were implemented with no surface inflow because they are ungaged. The implementation of streamflow boundary conditions is shown on Figures 3-14 to 3-26, with observed data presented in Section 2.3. See Section 3.3 below related to the

simulation period and the timescales associated with the boundary conditions in the Regional Model. Figures 3-14 to 3-26 show other boundary conditions implemented in the model expansion, apart from pumping wells, which are shown in Figures 2-26 and 2-27. Further details regarding the various boundary conditions and inputs are described in Section 3.5.

3.2 MODEL LAYERS AND NUMERICAL GRID

As noted in Section 2.5, there are ten principal hydrostratigraphic units in the expanded model domain, including six aquifers and four aquitards. In Mound basin, there are nine principal hydrostratigraphic units, including five aquifers and four aquitards. As mentioned in the Coastal Plain Model report, there are 13 principal hydrostratigraphic units in the other coastal basins, including seven aquifers and six aquitards. Correlation of these hydrostratigraphic units to model layers is shown on Figure 2-23 and Tables 2-10 and 2-11. The layer thickness for each model layer is shown on Figures 3-1 to 3-13.

The model grid is oriented at North 26° West to align the dominant groundwater flow directions (southwest and southeast) with the primary axes of the model grid, as recommended by the USGS (McDonald and Harbaugh, 1988). The coordinate offsets are 6,151,000 and 1,790,000 ft, in the NAD 1983 State Plane Zone 5 system. A uniform grid size of 2,000 was adopted, consisting of 137 columns by 75 rows (Figure 1-2). There are 26,922 active cells out of total 133,575 cells.

3.3 SIMULATION PERIOD

The simulation period of the model calibration is from January 1985 through December 2015, same as the Coastal Plain Model. The time step is daily with 12,783 total stress periods (01/01/1985 – 12/31/2015), while the Coastal Plain Model is temporally discretized into monthly time steps with 372 total stress periods. The adoption of daily time steps is to better simulate the "flashy" streamflow observed along SCR and its tributaries. The SCR streamflow varies significantly on a daily or weekly basis during winter storms. The streamflow may rise from a few or tens of cubic feet per second (CFS) to thousands or tens of thousands CFS in a day. Following each winter storm, the streamflow may decrease to hundreds of CFS in a few days or in a week. The daily time step is more appropriate to simulate the highly flashy SCR streamflow.

All boundary conditions are implemented on a monthly basis except for streamflows. Although the Regional Model is simulated using daily stress-periods, the only input condition that is varied each day in streamflow. The computation time for the 2,000-foot-grid model increased considerably with the Regional Model expansion, requiring several hours per simulation (in comparison to less than 30 minutes for the 2018 model).

3.4 AQUIFER PARAMETERS

The aquifer parameters required for the Regional Model are horizontal hydraulic conductivity, vertical hydraulic conductivity, specific yield, storage coefficient, and streambed conductance. Further discussion about how streambed conductance is defined and adjusted in calibration is available in Section 3.5.1.1, below. Sections 2.5.9.1 to 2.5.9.3 describe the estimated hydraulic conductivity for the various Aquifer System and combinations, estimated with available specific capacity data well construction data. During the initial model calibration, it was noted that the hydraulic conductivity needed to be higher than the estimated values based on the aquifer tests, which aligns with the understanding that specific capacity data tends to underestimate conductivity values due to the well losses occurring inside the pumping well where drawdown measurements are being taken. The pattern of hydraulic conductivity highest in Piru basin, and decreasing toward Fillmore and Santa Paula basins do align with those similar trends in the estimated values, especially in Aquifer Systems A and B, where the available data are concentrated.

The horizontal hydraulic conductivities ultimately applied to the calibrated model are provided for each of the model layers (Figures 3-27 through 3-39). Additionally, the horizontal hydraulic conductivities and vertical anisotropy (ratio of horizontal to vertical hydraulic conductivity) ultimately applied to the calibrated model are also presented by Zone Number for each of the model layers within the model domain (Tables 3-1 and 3-2) which map to figures representing all Zone Numbers used within the Regional Model (Figures 3-40 through 3-52). The Regional Model retains all the faults used in the Coastal Plain Model. The modeled extents of the Country Club Fault and Oak Ridge Fault were extended up the SCR Valley as the Regional Model expanded into the Santa Paula, Fillmore and Piru basins. The locations of faults in each model layer that act as horizontal flow barriers, together with the conductance across those faults, are provided (Figures 3-14 through 3-39; Table 3-3).

The default values for specific yield (dimensionless) in the A, B, and C aquifer systems are 0.15, 0.15 and 0.1, respectively. The default value for specific yield in all aquitards is 0.05. The default values for storage coefficient (dimensionless) values in all aquifers and aquitards is 0.001. For MODFLOW-NWT input, the specific storage (unit: 1/ft) is used through dividing the dimensionless storage coefficient by cell thickness. Similar to hydraulic conductivity values above, the specific yield and storage coefficient values ultimately applied to the calibrated model are also presented by Zone Number for each of the model layers within the model domain (Tables 3-4 and 3-5) which map to figures representing all Zone Numbers used within the Regional Model (Figures 3-40 through 3-52).

3.5 MODEL INPUT CONDITIONS

The Regional Model is an expansion from the Coastal Plain Model; therefore, there are input conditions common to both the Coastal Plain Model and Regional Model. However, in the Piru, Fillmore, and Santa Paula basins, the SCR plays a dominant and unique role in the groundwater systems by recharging the aquifers and gaining groundwater from the aquifers. This is in contrast with the coastal basins where artificial recharge by UWCD within the Forebay area of the Oxnard basin is the dominant input condition in the groundwater system. In the following sections, the model input conditions unique in the Piru, Fillmore, and Santa Paula basins are detailed while the input conditions common in the Coastal Plain Model and Regional Model are summarized. Readers are referred to the Coastal Plain Model report (UWCD, 2018) for further detail on the input conditions common to the Coastal Plain Model.

3.5.1 INPUT CONDITIONS UNIQUE IN SANTA CLARA RIVER BASINS MODEL EXPANSION

Several important input conditions in the Piru, Fillmore, and Santa Paula basins are detailed in the following sections, including: (1) in the Piru, Fillmore, and Santa Paula basins, the SCR plays a unique role providing recharge to and receiving discharge from the groundwater flow system through the complex interaction between surface water and groundwater, including the various streamflow conditions and diversion activities; (2) subsurface underflow entering into the Piru basin along the SCR at the Los Angeles County line; (3) the operations of the Fillmore Fish Hatchery by the California Department of Fish and Wildlife, located near the Fillmore and Piru basin boundary creates a unique local recharge process; (4) through 2008, UWCD provided artificial recharge from Piru Creek streamflow into spreading basins located within Piru basin.

3.5.1.1 SANTA CLARA RIVER STREAMFLOW AND INTERACTION WITH GROUNDWATER

The SCR, with streamflow inputs from its tributaries (Piru Creek, Hopper Creek, Pole Creek, Sespe Creek, and Santa Paula Creek) has significant interaction with groundwater in the basins of the SCR Valley. The interaction of streamflow and groundwater is implemented in the stream (STR) package, with observed daily streamflow (Table 2-3) at the model boundaries for the SCR mainstem and tributaries. Along the SCR and its tributaries, there are several public and private diversions that operated during the 1985-2015 calibration period. The STR package accounts for these diversions, and reported diversion locations and rates are detailed in Section 2.3.8. The SCR mainstem, its tributaries, and diversions are tabulated in Table 3-6 and shown on Figure 3-53.

The SCR streamflow interaction with groundwater is more complex than the Conejo Creek or Calleguas Creek, which were implemented in the Coastal Plain Model, because the SCR streamflow is flashier (Conejo Creek and Calleguas are both predominately sourced by upstream wastewater discharges), has significantly higher flowrates, and has different types of streamflow events. The SCR within the Regional Model, from Piru basin to Oxnard/Mound basins, experiences two types of major streamflow events: (1) the conservation releases from Santa Felicia Dam determined by United and (2) naturally occurring storm flows. As discussed in Section 2.3, the conservation releases typically occur over a month to several months in order to optimize the recharge in the downstream groundwater basins. This is significantly different from the storm events that can bring large quantities of water to pass through the Regional Model domain over a period of several days or less. Because of the different timescales associated with the two streamflow types, the interaction with the groundwater system is implemented in the Regional Model differently in order to capture the physical variability.

The streambed conductance used in the STR package is the product of the streambed material hydraulic conductivity, stream channel width and stream channel length and then divided by the thickness of the streambed material. The STR input conditions for Calleguas Creek were calibrated in the Coastal Plain Model and are retained in the Regional Model. The STR input condition for SCR was simplified to the product of the streambed material hydraulic conductivity and the channel length. The streambed material thickness and the stream channel width were merged into the streambed material hydraulic conductivity. This assumption simplifies the model calibration by adjusting only the streambed hydraulic conductivity. The stream channel length was calculated based on the available SCR shapefile file (based from National Hydrography Dataset, which is available at from The National Map: https://www.usgs.gov/core-science-systems/national-geospatial-program/national-map). The default vertical hydraulic conductivity of the streambed is 50 ft/day. The stream segment within Santa Paula basin is calibrated to be 10 ft/day, including Santa Paula Creek. There is a correction to the hydraulic conductivity based on the streamflow rates and the nature of streamflow detailed in the following.

(1) For the UWCD conservation releases, the interaction between the release flow and groundwater changes over the release time. The release flow is steady for several weeks to several months. During the initial days of releases, the release flow is widely distributed across the stream channel leading to higher percolation. As the release continues, a narrow channel is typically formed through the cutting by the release flow into the streambed sediments. The percolation is then reduced when the narrow stream channel is formed, and the streamflow rate is increased. In summary, the percolation of the UWCD releases is generally high in the initial 10 to 20 days and the percolation decreases after 20 days when a narrow channel is formed. Accordingly, the SCR conductance in the Piru and Fillmore basins is calibrated to be 200% of default conductance in the first 10 days of release and 150% of default conductance from the 11^{th} to 20^{th} days of releases. The conductance in Santa Paula basin was not affected by the UWCD releases. Overall, the conductance gradually decreases as the releases travel downstream from Piru to Fillmore and Santa Paula.

(2) For the naturally occurring streamflows that are mostly related to storms and base flows from LA County, the stream percolation is affected by the magnitude of streamflow. Generally higher streamflow leads to lower percolation because higher streamflows are more turbulent and muddy impeding the percolation. When the streamflow rate is low, the stream velocity is slow and the percolation is expected to be higher. The SCR conductance is corrected by multiplying the default SCR conductance value by the streamflow correction factor The streamflow correction factor developed through model calibration is tabulated int Table 3-7.

Table 3-7. Santa Clara River Streamflow Correction Factor

Monthly SCR streamflow (acre-ft)	Streamflow Correction Factor
< 500	3.0
500 - 3000	3.0 - 2.0
3000 - 5000	2.0 - 0.5
5000 - 10000	0.5 - 0.2
> 10000	0.2

3.5.1.2 SUBSURFACE UNDERFLOW

In addition to the surface water streamflows entering into the Piru, Fillmore, and Santa Paula basins related to the SCR and its tributaries, there is also a significant amount of subsurface underflow entering into the model domain along the SCR at the county line with Los Angeles County into the Piru groundwater basin. The literature review summary presented in Section 2.7.1 showed that previous studies have estimated the subsurface underflow into Piru Basin to range from 240 to 18,800 acre-ft annually. However, that total range represents estimates for various Piru basin boundary locations and time-periods. The current Piru basin boundary is located near the Los Angeles County line compared to the downstream locations used in serval of the previous studies, and the current boundary location results in substantial increase in saturated aquifer thickness. The initial subsurface underflow estimate is based on a recently calibrated numerical groundwater flow model developed for the SCVGSA. SCVGSA's groundwater model was developed without explicitly including the surface streamflow, however the calibrated model did estimate the subsurface underflow at the Piru basin boundaries to average 7,500 acre-ft on an annual basis, with a range of 7,000 to 8,100 AF annually during that model's 40-year calibration period (calendar years 1980 through 2019). To account for both the observed surface flows and estimated subsurface underflows near the Piru basin boundary appropriately, the Regional Model estimates the subsurface underflow at 5,000 acre-ft in addition to the observed surface streamflow that is implemented at the boundary within the stream package. The subsurface underflows are implemented in MODFLOW's well (WEL) package.

3.5.1.3 FILLMORE FISH HATCHERY

The Fillmore Fish Hatchery is located near the basin boundary between Piru and Fillmore, and the California Department of Fish and Wildlife has been using groundwater for as part of its mission since 1942 (Figure 2-9; https://wildlife.ca.gov/Fishing/Hatcheries/Fillmore/History). The discharge from the Fish Hatchery was used by neighboring watercress farms or released back to the SCR. To account for this unique operation, the pumped water for the Fillmore Fish Hatchery operation was assigned a higher groundwater return rate at 0.50, resulting in 50% of the hatchery's groundwater extraction use returning to the underlying groundwater system. To better simulate the watercress farm operations and the Fillmore Fish Hatchery operations, MODFLOW's drain return (DRT) package is used in Layer 1 (Figure 3-14) with a conductance of $1x10^7$ square feet and elevation at ground surface to simulate the water movement from the watercress farms and Fish Hatchery to the aquifer below the SCR stream channel.

3.5.1.4 UWCD PIRU SPREADING GROUNDS

Within the Regional Model expansion study area, monthly artificial recharge rates (measured and recorded by United) at the Piru spreading basins during the model calibration period (January 1985 through December 2015) were implemented. As noted in Section 2, the Piru Spreading

Grounds have not been operated since 2008. Annual totals implemented into the Regional Model were previously provided relating to diversions and applications within the expansion study area (Table 2-7).

3.5.2 COMMONLY USED INPUT CONDITIONS

The streamflow and subsurface underflow outside of the Piru, Fillmore, and Santa Paula basins are described here. Additionally, the input conditions commonly used in the Coastal Plain Model and Regional Models are described and include: areal recharge, mountain front recharge, pumping, evapotranspiration, tile drains, and the interaction with sea water.

3.5.2.1 STREAMFLOW

The major streamflow inputs outside of the SCR watershed include Calleguas Creek and its tributaries, Arroyo Las Posas and Conejo Creek. These surface water features were unchanged from the Coastal Plain Model, and like the SCR, the interaction of streamflow and groundwater is implemented in the stream (STR) package within MODFLOW. Calleguas Creek, its tributaries, and single diversion are numbered and tabulated in Table 3-6 and Figure 3-53.

3.5.2.2 SUBSURFACE UNDERFLOW

The significant subsurface underflow entering into the model domain outside of the Piru, Fillmore, and Santa Paula basins is the subsurface underflow along Arroyo Las Posas to Pleasant Valley from Las Posas basin that was implemented in the Coastal Plain Model. The Arroyo Las Posas underflow from 1985 to 2015 was simulated by a groundwater model by CMWD (CMWD, 2018) and was used in both the Coastal Plain Model and Regional Model.

3.5.2.3 AREAL RECHARGE

The 2020 Model adopts the same assumptions used in the Coastal Plain Model, implementing areal recharge using MODFLOW's recharge (RCH) package. Readers are referred to Sections 3.5.1.3 to 3.5.1.5 in the Coastal Plain Model Report (UWCD, 2018) for further detail.

The recharge rate from precipitation depends upon the precipitation intensity. The precipitation recharge rate is as follows (Table 3-8):

Table 3-8. Areal Precipitation Recharge Rates

Monthly Precipitation (inches)	Precipitation Recharge Rate (%)
0 to 0.75	0
0.75 to 1.0	0 to 10
1 to 3	10 to 30
> 3	30

The recharge rate from agricultural use is based on the salt-leaching requirement (LR). The ITRC (2010) lists LRs for various crops in Ventura; using these LRs, United calculated the average LR for the Coastal Plain Model (based on crop acreage and the distribution uniformity factor of 0.8) to be 0.14. The Coastal Plain Model calibration concluded that a LR value of 0.20 is more appropriate for all basins except that the LR value in Oxnard Basin (Oxnard Plain and Oxnard Forebay) is 0.25. During the expansion of the Regional Model, the LR value of 0.20 is applied to Piru, Fillmore, and Santa Paula basins. During wet months, the soil condition is moister than the typical months leading to higher recharge rate. Therefore, in the wet months when the precipitation recharge rates are higher than the LR values, the higher recharge rates for precipitation are used for agricultural use instead of the LR value. If the precipitation recharge rates are lower than the LR value, the LR value is used. The recharge rate from domestic (municipal and industrial) use is assumed to be constant at 5%.

Other recharges included in the groundwater model are the United artificial recharge, and the percolation ponds at wastewater treatment plants (WWTP). The percolation rate of artificial recharge is assumed to be 1.0, or 100% of artificial recharge enters the groundwater system. Similarly, percolation rates within WWTP percolation ponds are also assumed to be 1.0.

3.5.2.4 MOUNTAIN FRONT RECHARGE

During rainfall events, a portion of precipitation falling in the neighboring mountains outside of the active model domain, and resulting surface flows, may recharge the shallow alluvial aquifer and/or the deep aquifer through the San Pedro outcrop or volcanic outcrop as mountain front recharge. The recharge rate is calculated based on the area of watershed outside of the active model domain receiving the precipitation (Figure 2-5) and uses the precipitation recharge rate to determine the mountain front recharge. The mountain front recharge is implemented in the

MODFLOW's well (WEL) package (see Figures 3-14 to 3-26 for well cells within the applicable model layers). For more detail of implementation outside of the Regional Model expansion, readers are referred to Section 3.5.1.6 in the Coastal Plain Model documentation (UWCD, 2018).

3.5.2.5 PUMPING

There are 1,610 extraction wells within the model domain that were active at some point during the calibration period, with 668 within the model expansion basins: 180, 363, and 125 extraction wells in Santa Paula, Fillmore and Piru basins, respectively (Table 3-9; Figures 2-26 and 2-27). The extraction wells tend to have long screen intervals to maximize the extraction capacity. To better handle the internal flow dynamics within the multi-layer extraction, groundwater withdrawals from wells in the study area were implemented using multi-node well (MNW2) package as the MNW2 package can handle the multi-layer extraction internally without user intervention. The extraction records in these basins are mostly reported every six months directly to United. To allocate the six-month reported pumpage into monthly usage, a precipitation-weighed formula was used. If the monthly precipitation was higher than 0.6 inch, the pumping allocation for that month was reduced. If there was no precipitation, the pumping allocation was increased. Therefore, the monthly allocation is inversely proportional to the monthly precipitation, and sums to the reported 6-month total pumpage. The Regional Model uses the monthly allocated rates for the daily extraction rates during the month. The default well conductance is assumed to be 2000 square feet. Some extraction wells are also the water level monitoring wells providing the water level measurements. For these extraction wells with water level measurements, the conductance may be adjusted to better fit the water level measurements during the model calibration.

The extraction wells in Oxnard, Pleasant Valley, West Las Posas, and Mound basin implemented in the Coastal Plain Model were kept unchanged in the Regional Model.

3.5.2.6 EVAPOTRANSPIRATION

The plants and vegetation on the ground surface can withdraw groundwater in the semi-perched or the shallowest aquifer. The Regional Model assumes the same ET parameters as the Coastal Plain Model for evapotranspiration (ET) in the coastal basins. Within the coastal basins, the maximum ET flux is 0.01 feet per day over the area of stream channel and wetland. The ET surface elevation is assumed at 3 feet below ground surface, and the ET extinction depth is set at 5 feet. In the Piru, Fillmore, and Santa Paula basins, the maximum ET flux was increased to 0.014 feet per day (5.2 feet per year) in order to account for higher estimated water use with the presence of *Arundo donax* within the SCR corridor along with other vegetation species (Section 2.3.10). To account for seasonal variation in ET, the maximum ET rates were adjusted according to percentages for each month shown in Table 3-10 below. These percentages were calculated based on monthly average reference ET data obtained from the California's Department of Water

Resource's California Irrigation Management Information System (CIMIS) Santa Paula station (ID 198), with data representing April 2005 to December 2019 conditions.

Table 3-10 Monthly Variation in ET Rates

Month	Variation Percentage
January	61%
February	67%
March	95%
April	114%
May	132%
June	135%
July	139%
August	135%
September	109%
October	92%
November	67%
December	54%

3.5.2.7 TILE DRAINS

The tile drains used in the Oxnard and Mound basin in the Coastal Plain Model were retained without changes. Readers are referred to Section 3.5.2.2 in the Coastal Plain Model documentation (UWCD, 2018).

3.5.2.8 GROUNDWATER/SEAWATER INTERFACE PARAMETERS

The Regional Model adopts the same assumptions regarding the groundwater and seawater interface used in the Coastal Plain Model. Readers are referred to Section 3.5.3 in the Coastal Plain Model documentation (UWCD, 2018).

3.6 ASSIGNMENT OF INITIAL HEADS

The initial head for a groundwater model simulation starting on January 1st, 1985 should be the water level at the end of 1984. To re-create the water level on December 31st, 1984, the available water level data from fall 1984 was collected for kriging. The kriged water level was evaluated manually and edited for any unreasonable water level values. The initial head may contain certain degree of uncertainty, but it is expected to have minimal effect on the overall model simulation from 1985 to 2015 as the effect of initial head uncertainty is diminished after a short period of time, e.g. the first few months of model simulation. The initial heads for all model layers used in the Regional Model are shown on Figures 3-54 through 3-66. For context of the initial heads, the

hydrologic conditions at the end of 1984 were fairly wet, with water years 1982-1984 being a brief wet period between critically dry periods (see Figures 2-4, 2-6, 2-11, 2-32, 2-33, 2-34, 2-35, and 2-38 for long-term surface and subsurface records; water year classification based on DWR's Water Year Type Dataset [DWR, 2021]).

4 MODEL CALIBRATION AND RESULTS

For groundwater models with little or no streamflow interaction, the groundwater level is typically the only physical quantity for evaluating the model calibration. In the Coastal Plain Model, the SCR flows through northern Oxnard Plain where there is a clay top layer impeding the areal recharge into the Upper Aquifer System and the streamflow along Calleguas Creek is relatively less than the SCR streamflow. The interaction of streamflow and groundwater was relatively limited in the Coastal Plain Model compared to the Regional Model, and the targets of the Coastal Plain Model calibration were the transient water level measurements from 1985 to 2015. Therefore, the Coastal Plain Model calibration was completed mainly through the adjustment of hydraulic conductivity parameters.

In the Regional Model, where the interaction of the SCR flow and groundwater is a dominant process in the Piru, Fillmore, and Santa Paula basins, the calibration was sensitive to the simulation of SCR flow interaction with the groundwater. Therefore, the calibration of the Regional Model is performed simultaneously in both the groundwater and streamflow components and related parameters. The calibration focus for the groundwater component, like the Coastal Plain Model and other groundwater models, was to compare the simulated groundwater level with the available groundwater level measurements at monitoring and extraction wells. The calibration focus for the streamflow component was to evaluate the interaction between streamflow and groundwater by comparing the simulated and observed streamflow, streamflow percolation, rising groundwater flows as well as spatial and temporal trends in the extent of gaining and losing reaches.

4.1 GROUNDWATER CALIBRATION

For the groundwater component, the hydraulic conductivities in the Piru, Fillmore, and Santa Paula basins were adjusted to minimize the differences between the water level measurements (see Section 2.7 for water level database background) and the simulated water levels through the statistical analysis (Section 4.1.1 Residuals), temporal variation (Section 4.1.2 Hydrographs), and spatial variation (Section 4.1.3 Scatter Plots and Residual Plots). The calibrated hydraulic conductivity for each of 13 model layers in the Regional Model are shown on Figures 3-27 through 3-39. The hydraulic conductivity in Oxnard, Pleasant Valley, West Las Posas, and Mound are the same as the Coastal Plain Model. In the expanded area covering the Piru, Fillmore, and Santa Paula basins, the conductivity along the SCR riverbed is relatively high and decreases in the northern hillslopes and uppermost reaches of the northern tributaries to the SCR. The conductivity also gradually decreases from Piru to Fillmore, and to Santa Paula. The vertical anisotropy ratio (horizontal conductivity to vertical conductivity) remains constant at 10.0 (Table 3-2), except in West Las Posas basin. The specific yield and the storage coefficient are mostly uniform in space across a given model layer, but do have some variation between zones (Tables 3-4 and 3-5). To

avoid confusion, it is emphasized that the dimensionless storage coefficient is divided by cell thickness to become specific storage (unit: 1/ft) for input parameters used in MODFLOW-NWT. The hydraulic parameters in Oxnard, Pleasant Valley, West Las Posas were the same as the Coastal Plain Model. The hydraulic conductivity in Mound basin were slightly adjusted in the Regional Model to account for the model expansion.

4.1.1 RESIDUALS

The residual is defined as the difference between the water level measurement and the simulated water level as defined below

$$Residual = Water\ level\ measurement - Simulated\ water\ level$$

The simulated water level at each water level observation well was calculated based on the screen interval and its location in the model grid. If the screen interval spans multiple model layers, the maximum of the simulated water levels over the spanned model layers were used to represent the simulated water level. Further, the water level wells are not always at the center of model grid. The simulated water level was interpolated from the four neighboring grid cells closest to the water level well.

Four residual statistical parameters are computed:

- Residual Mean (RM): The RM is the average (arithmetic mean) of the residuals from the model simulation. The RM is expected to be close to zero. If the RM deviates from zero too much, it may be considered that there may be bias in the model.
- Absolute Residual Mean (ARM): The ARM is the average (arithmetic mean) of the absolute value of the residuals. The ARM is used to evaluate the discrepancy between the water level measurement and the simulated water level without positive and negative residuals canceling each other out like RM.
- Root Mean Square (RMS): The RMS is the square root of the mean of the squared values of the residuals. The RMS is similar to the ARM.
- Standard Deviation (Std Dev): The Std Dev is the standard deviation of residuals. The Std Dev is similar to the RM and the RMS.

Generally, only one of the ARM, RMS, or Std Dev is used in the evaluation of model calibration. This report includes all three statistics for completeness. The model is considered well calibrated if the ARM, RMS or Std Dev value is less than 10% of the range of measurements.

The residual statistics of the entire Regional Model are listed in Tables 4-1 and 4-2. The residual statistics were calculated over the whole model and for each basin. During the model calibration, it was observed that there were wells with water level measurements inconsistent with the conceptual model. For example, the well is screened in the deep model layers but the water level measurements from the well were fluctuating like the nearby wells screened in the shallow model

layers. To better evaluate the model calibration, the residual statistics were prepared for all water level data and for the water level data excluding the outlier wells and wells with less than 10 available data points.

From Tables 4-1 and 4-2, it is noted that the RM is close to zero with all basins included, highlighting that the model has very little bias. For individual basin, most of RM are within ± 5 feet. More importantly the percentage of ARM, RMS, or Std Dev are all much less than 10% leading to the conclusion that the Regional Model is calibrated. Residual plots are also available (Figures 4-1 through 4-8) and are discussed in 4.1.4.

4.1.2 HYDROGRAPHS

During the model calibration, many wells in each basin were checked to ensure the simulated transient water level mimics the historical water level. The hydrographs of a selection of these wells are shown on Figure 4-9 through 4-11, and it is noted that the simulated water levels over time closely resemble the fluctuating water level measurements over wet and dry years in many of these wells.

For Piru basin, the simulated water levels in wells screened in Systems A, B, and C closely mimic the water level measurements (Figure 4-9). For Fillmore basin, the majority of wells screened in Systems A and B are close to the water level measurement. A number of wells show a higher deviation from the water level measurements (Figure 4-10). For Santa Paula basin, the water level is relatively flat compared with the wells in Fillmore and Piru. The simulated water levels in Santa Paula basin from wells in Systems A, B, and C are generally in agreement with the water level measurements (Figure 4-11).

In addition to the selection of wells presented, Figures 4-12 through 4-18 show the locations of additional wells within the Piru, Fillmore, and Santa Paula basins as well as several areas within the Oxnard basin. Hydrographs for these additional wells are provided in Appendix A. For the Oxnard basin, the simulated water level is essentially the same as the simulated water level in the Coastal Plain Model. Therefore, the calibration holds for Oxnard, Pleasant Valley, West Las Posas, and Mound basin following the Regional Model expansion.

4.1.3 SIMULATED WATER LEVEL CONTOURS

Simulated groundwater elevations were also contoured for each of the model layers in the Regional Model for the same three dates that simulated water level contours were presented in the Coastal Plain Model documentation (UWCD, 2018). These dates included two key historical times—October 1991 (near the end of previous major drought in the region) and October 2006 (a year of high groundwater elevations following record-setting rainfall in 2005 and associated recharge in 2005 and 2006), as well as for December 2015, which is the most recent month in

the model-calibration period and falls in another major drought period. These groundwater-elevation contours are shown on Figures 4-19 through 4-57, with layers 11 through 13 not present in the model expansion basins along the SCR as there is no active layer below Layer 10.

From inspection of these figures, simulated water levels in all applicable layers (1 through 10) of the Piru, Fillmore, and Santa Paula basins reasonably simulate the westerly groundwater flow down the SCR Valley, following the elevation change along the valley as well as the gradients down the hillslopes and tributaries discharging into SCR from the north. The model does capture the variation in water levels between the dry and wet periods, most notably along the valley floor and elevations near the basin boundaries, where rising water typically occurs.

4.1.4 SCATTER PLOTS AND RESIDUAL MAPS

Scatter plots pair the simulated water level with the water level measurement on X-Y plots for inspecting any bias that is not easily identified from residual statistics or well hydrographs. Figure 4-58 shows the scatter plot with all water level measurements throughout the Regional Model. Figures 4-59 through 4-66 show the scatter plots for each basin. Residual plots put the residual means (RM) based on well location in a figure for identifying any regional bias. Figures 4-1 through 4-8 show the RMs for river basins and coastal plain basins. For Aquifer System A shown on Figure 4-1, there is a positive bias (about 10 ft) in Fillmore basin and a slight negative bias (about 10 ft) in Santa Paula basin. These biases are relatively small, much less than 10% of water level data range. For Aquifer System B shown in Figure 4-3, there are significant biases along the foothill area north to the SCR valley floor influenced by the local fault lines. Overall, these biases do not present as a significant regional bias given that the water level data ranges around 500 feet.

4.1.5 SUMMARY ON THE CALIBRATION OF GROUNDWATER COMPONENT

Three criteria are generally used to evaluate the calibration of a groundwater model. They are residual statistics (in Section 4.1.1), well hydrographs (in Section 4.1.2), and residual bias globally or spatially (in Section 4.1.3). From the results shown in Sections 4.1.1 to 4.1.3, it is summarized in the following,

- Residual statistics: The RMs are close to zero and the ARMs are less than 10% of the data range. The residual statistics meet the requirement of the model calibration.
- Hydrographs: The simulated transient water levels from most wells were able to mimic the 1985-2015 water level measurements. Given the fact that the Regional Model simulates a large, complex system with the interaction of a highly flashy streamflow (SCR) with groundwater, the hydrographs are considered well calibrated.
- Residual bias: The scatter plots from Figures 4-58 through 4-66 show no systematic bias and the residual plots show only locally isolated high residuals.

The model calibration for the Piru, Fillmore, Santa Paula basins is summarized below:

- Piru basin: The simulated water level is well calibrated to the observed water level measurements. It is noted that the simulated water levels during a number of droughts are slightly higher than the data.
- Fillmore basin: The simulated water level is well calibrated to the observed water level measurements. There are a number of wells in System B with simulated water level consistently lower than the water level data by less than 10 to 20 feet (less than 10% of the water level range in Fillmore basin, 44.9 ft).
- Santa Paula basin: The simulated water level is well calibrated to the observed water level measurements. There are a number of wells in System B with simulated water level consistently higher than the water level data by less than 10 to 20 feet (less than 10% of the water level range in Santa Paula basin, 25.8 ft).

Based on the above summary, the Regional Model is considered to be a well calibrated regional model that simulates a complex groundwater system covering seven basins from Piru, Fillmore, Santa Paula, Mound, Oxnard, Pleasant Valley, and West Las Posas.

4.2 STREAMFLOW CALIBRATION

Streamflow in the SCR exhibits high spatial and temporal variability. Streamflow is significantly influenced by rainfall and rises rapidly throughout the watershed during rain events. On the other hand, large parts of the watershed are dry during most of the year. In the SCR mainstem, perennial flows are only observed in areas of rising groundwater in the Piru and Fillmore basins, and across the Santa Paula basin (Figure 2-9). Significant efforts were spent during the Regional Model development to capture these complex and dynamic surface flow patterns as accurately as possible. The streamflow calibration analysis was focused on streamflow upstream of the Freeman Diversion Facility, i.e. across the Piru, Fillmore and Santa Paula basins (Figure 2-5). The streamflow calibration includes recharge and surface flow calibration for both Piru and Fillmore basins, as these basins are where most of the recharge percolates. For Santa Paula basin, streamflow calibration is focused on streamflow at the Freeman Diversion facility, as much less streamflow percolation occurs in this basin.

The surface water hydrology calibration for the Regional Model includes a detailed assessment of how well historic spatial and temporal patterns of streamflow, stream channel recharge and rising groundwater were simulated for the 1985-2015 calibration period. While model runs were performed using daily time steps, calibration results were generally shown using averaged (monthly or seasonal) data. The analysis was largely based on assessing the correlation between simulated and observed data, but also by visualization of flow patterns using “heat maps” and comparing to known spatiotemporal flow trends.

4.2.1 BASIN RESPONSE DURING RAINY SEASON

Direct observations of stream channel recharge during the rainy season are very limited due to (1) the difficulty of accurately and safely performing manual discharge measurements during high flows for calculating recharge rates, and (2) a lack of appropriate locations for automated gaging stations at the downstream end of Piru and Fillmore basins (because of the high degree and variability of sediment scour and deposition in the sandy river channel associated with large storm events). Therefore, groundwater basin responses to recharge during the rainy season were assessed by comparing simulated and observed groundwater elevations increases between January 1 and May 1 for Piru and Fillmore basin key wells (see Section 2.7). Groundwater elevation increases were calculated by subtracting January 1 elevations from May 1 elevations, resulting in one data point each for observed and simulated groundwater elevation increases annually. For Piru basin, simulated basin responses ranged from - 10 ft to 53 ft, and correlated well with observed basin responses, ranging from – 19 ft to 57 ft (Figure 4-67). For Fillmore basin, simulated basin responses ranged from - 3 ft to 8 ft, and also correlated well with observed basin responses, ranging from- 4 ft to 13 ft (Figure 4-68). However, one outlier year was observed (1991), when water level increases were under predicted by approximately 9 ft (4 ft simulated versus 13 ft observed).

4.2.2 SURFACE FLOWS AND BASIN RESPONSE DURING CONSERVATION RELEASES

United monitors streamflow at multiple locations in the watershed during conservation releases, in order to monitor the progress of the release and allow calculation of recharge benefits to each of the groundwater basins upstream of the Freeman Diversion Facility. Measurements used for the Regional Model streamflow calibration were available for all fourteen releases performed between 1999 and 2012.

4.2.2.1 PIRU BASIN

Monthly simulated and observed streamflow at the downstream end of Piru basin (upstream of the rising groundwater) generally correlated well, except for one month (September 2003) where the streamflow was significantly over predicted (Figure 4-69). Simulated and observed recharge to Piru basin also correlated well, except for the year 2003 for which recharge to Piru basin was significantly under predicted (Figure 4-70). Generally, the recharge to Piru basin during conservation releases was somewhat over predicted. On the other hand, the over prediction of streamflow for September 2003 observed in Figure 4-69 was clearly associated with the under prediction of recharge in the reach just upstream. The 2003 release was exceptional in that it had the highest volume of recharge to Piru basin among all releases, even though the total release volume was slightly below average. It is not well understood what conditions led to this high

recharge, and it is acceptable and expected that the Regional Model was not able to simulate recharge very accurately for this outlier year.

The response of Piru basin to recharge during the conservation releases was assessed by comparing simulated and observed groundwater elevations increases due to releases for the Piru basin key well. Groundwater elevation increases were calculated by subtracting elevations just before release from elevations just after release, resulting in one data point each for observed and simulated groundwater elevation increases annually. The increase in groundwater elevations in the Piru basin key well (04N18W29M02S) due to conservation releases was reasonably well simulated by the Regional Model (Figure 4-71 A). Simulated groundwater level changes generally varied between - 9 and 9 ft, while observed groundwater level changes varied between - 3 and 14 ft. Again, 2003 was an outlier year where the recharge and therefore also the water level increase due to the conservation release was under predicted. When excluding the year 2003, the best-fit linear trend line matches the 1:1 line better. For the remaining years, groundwater level responses to conservation releases were somewhat under predicted for many years, especially for observed water level increases exceeding 7 ft. This observation could not be explained by the simulated recharge during conservation releases, which was generally somewhat over predicted (Figure 4-70). Excluding year 2003, the under prediction of groundwater level increases never exceeds 8 ft, which is acceptable given the range of groundwater elevations observed (Figure 4-71 B). It should be noted that the hydrograph for this key well (04N18W29M02S) generally shows a very good calibration (Figure 4-71 B).

4.2.2.2 FILLMORE BASIN

Monthly simulated and observed streamflow at the downstream end of Fillmore basin (upstream of the rising groundwater) generally correlated well, even though there were a few months where the streamflow was significantly over predicted (Figure 4-72). Simulated and observed recharge to Fillmore basin also correlated reasonably well for most years, but the correlation was not as good as for Piru basin. For Fillmore basin, simulated recharge was significantly different (more than 3,000 AF) from observed recharge for four out of fourteen years (Figure 4-73).

The response of Fillmore basin to recharge during the conservation releases was assessed by comparing simulated and observed groundwater elevation increases due to releases for the Fillmore basin key well. Groundwater elevation increases were calculated by subtracting elevations just before release from elevations just after release, resulting in one data point each for observed and simulated groundwater elevation increases annually. The increase in groundwater elevations in the Fillmore basin key well (03N20W02A01S) due to conservation releases was well simulated by the Regional Model (Figure 4-74 A). Overall, groundwater elevations changed little in response to conservation releases, with observed changes varying between 0 and 5 ft, and simulated changes between 1 and 3 ft. The hydrograph for this key well (03N20W02A01S) shows very good calibration (Figure 4-74 B)

The simulation discrepancies shown for some years in Figure 4-73 do not have a big impact on calibration of groundwater elevations for the Fillmore basin, since groundwater elevations for the Fillmore basin key well are relatively insensitive to stream channel recharge during conservation releases (Figure 4-74 A).

4.2.3 SURFACE FLOW PATTERNS

4.2.3.1 PIRU BASIN

A heat map for flows in Piru basin shows spatial and temporal trends in simulated monthly flows, compared to observed losing and gaining reaches (Figure 4-75). The heat map rows indicate monthly time steps, from the oldest on top to the most recent at the bottom (in this case January 2011 to March 2013). The heat map columns indicate location along the SCR stream channel (each column is one model grid cell along the stream channel, or "stream cell"), in this case from Ventura/Los Angeles County line to Fillmore Fish Hatchery. Flow direction is from left to right, corresponding to the general flow direction from east to west. The value in each cell is the simulated monthly streamflow (cfs). Each row essentially provides a monthly snapshot of the streamflow from upstream (left) to downstream (right). Blue colors indicate high flows, yellow colors intermediate flows and red colors low flows. Watershed features are listed for reference in the top row above the heat map, and colors in the top row indicate known losing reaches (red), gaining reaches (green) or stable reaches (yellow). The Piru losing reach (also known as "dry gap") starts downstream of the gage USGS 11109000. Accordingly, simulated streamflows rapidly decreased to zero in this area for example years 2011-2013, except during the wettest months when surface flows persisted across the basin (Figure 4-75 A). During a conservation release, simulated flow inputs from Piru creek decreased due to channel percolation, but surface flows persisted across the basin, matching field observations (Figure 4-75 B). Simulated flows in the area of rising groundwater consistently increased and accurately showed transition from a dry to a wetted stream channel, even during dry periods (Figure 4-75 C).

4.2.3.2 FILLMORE BASIN

A heat map for flows in Fillmore basin shows spatial and temporal trends in simulated monthly flows, compared to observed losing and gaining reaches (Figure 4-76). The Fillmore losing reach starts downstream of the Fillmore Fish Hatchery. During conservation releases, simulated flows decreased in this reach as expected (Figure 4-76 A). During drier periods, however, simulated surface flows persisted across the basin, which does not quite match field observations (Figure 4-76 B). Field observations have shown that low flows from Piru basin (or rising groundwater from Piru-Fillmore basin boundary) generally all percolate to groundwater in Fillmore basin. Recharge of low flows in Fillmore basin are a small part of the basin water balance, and simulated groundwater elevations are therefore not very sensitive to this component. Simulated flows in the

area of rising groundwater consistently increased and accurately showed transition from a dry to a wetted stream channel, even during dry periods (Figure 4-76 C).

4.2.4 RISING GROUNDWATER IN PIRU AND FILLMORE BASINS

Measurements of rising groundwater at the Piru-Fillmore and Fillmore-Santa Paula basin boundaries are available for the period 2011-2019, which includes periods with high and low groundwater elevations. Observations were available for dry months only, as it is difficult to measure rising groundwater when streamflow is high and dynamic. For both basins, observed rising groundwater correlates well with groundwater elevations at selected wells (see observed data in Figure 4-77 and Figure 4-78).

Simulated rising groundwater in Piru basin was approximately 50% lower compared to observed rising groundwater, at the same groundwater elevation (Figure 4-77). Still, overall the rising groundwater characteristics in Piru basin (location, quantity and correlation to groundwater elevations) were reasonably well predicted by the Regional Model.

Simulated rising groundwater in Fillmore basin varied between 0 and 7 cfs, and was often almost tenfold lower compared to observed rising groundwater flows, which varied between 0 and 27 cfs. While the location of rising groundwater was accurately predicted for Fillmore basin, the rising groundwater flow rate could be improved in the future. A large portion of the rising groundwater from Fillmore basin reaches the Freeman Diversion, and makes up an important part of diversions during the dry season.

4.2.5 STREAMFLOW AND DIVERSION AT FREEMAN DIVERSION FACILITY

In the Santa Paula basin, simulated and observed daily streamflow just upstream of the Freeman Diversion correlated well (Figure 4-79). However, there was significant scatter in the lower flow ranges, which are most relevant to operations of the Freeman Diversion (up to about 3,000 cfs), and the simulated values underpredicted higher flows (Figure 4-80).

To better understand the impact of streamflow simulation discrepancy on simulated diversions, the Hydrological Operations Simulation System (HOSS) was used to calculate simulated diversions based on observed and simulated streamflow at the Freeman Diversion. For the purpose of this comparison, the HOSS calculated diversions based on bypass flow operations proposed in United's Freeman Diversion Multiple Species Habitat Conservation Plan, without any infrastructure improvements. A more detailed description of the HOSS and modeling scenarios is available in the Regional Model documentation report for future simulations (UWCD, 2021).

Simulated diversions based on observed and simulated streamflow correlate well (Figure 4-81). However, simulated diversions based on simulated streamflow are biased low for most years. On

average, simulated diversions are 65,060 AFY based on observed streamflow, and 57,297 AFY based on streamflow simulated by the Regional Model (Table 4-3). Accurate prediction of the annual diversions is important for the purpose of GSP development for basins downstream of the Freeman Diversion Facility. Therefore, United opted to use its Upper Basins Surface Water Hydrology Model to simulate streamflow at the Freeman Diversion, instead of the Regional Model. Predicted streamflow and diversions based on the surface water hydrology model were much closer to observed (Table 4-3). A more detailed description of United's Upper Basins Surface Water Hydrology Model and its integration with the Regional Model is described in the Regional Model documentation report for future simulations (UWCD, 2021).

4.2.6 SUMMARY ON THE CALIBRATION OF STREAMFLOW COMPONENT

Three criteria were used to evaluate the calibration of the streamflow across the Piru, Fillmore and Santa Paula basins. They are stream channel recharge (in Section 4.2.1), rising groundwater (in Section 4.2.4), and streamflow (in Sections 4.2.2, 4.2.3, and 4.2.5). From the results shown in Sections 4.2.1 to 4.2.5, it is summarized in the following,

- Stream channel recharge: The simulated recharge in Piru and Fillmore basins is well correlated to the observed recharge during conservation releases. The location and seasonal occurrence of the dry gap in Piru basin was also accurately simulated. Outside the conservation release periods, recharge of natural baseflows in Fillmore basin was slightly under-estimated, however the calibration of groundwater elevations in the basin was not affected. Stream channel recharge was not assessed for Santa Paula basin as recharge is relatively low there.
- Rising groundwater: The location of the simulated rising groundwater is in general agreement with observed locations, i.e. at Piru-Filmore and Fillmore-Santa Paula basin boundaries. The volume of rising groundwater is under-estimated by the model, especially for the Fillmore basin. The simulated groundwater elevations in the areas of rising groundwater are well calibrated, but heads have a tendency to be under predicted in Fillmore basin, which may cause the under estimation of rising groundwater. Because the simulated rising groundwater is sensitive to water levels changes of less than one foot to a few feet, it may be too sensitive for the numerical model to simulate the rising groundwater adequately. The model may simulate rising groundwater as shallow underflow, in which case groundwater level calibrations are not affected.
- Streamflow: The streamflow patterns and magnitudes across the Piru and Fillmore basins were adequately simulated. The numerical groundwater model has limited surface routing capabilities, and was not expected to capture the highly flashy streamflow conditions in the SCR on a daily basis. However, a consistent under prediction of flow magnitude at the Freeman Diversion Facility led to a significant under prediction of annual average diversions. Therefore, United opted to use an alternative surface water spreadsheet model to simulate streamflow at the Freeman Diversions.

Based on the above summary, the Regional Model is well calibrated for simulating the basin recharges from the streamflow, which is the main goal of the groundwater model. Daily streamflow

patterns and magnitudes were adequately captured, but as expected the numerical groundwater model was inherently limited for the purpose of streamflow simulations.

4.3 FLOW BUDGET

Tables 4-4 through 4-10 detail the annual average flow budget for the seven basins covered by the Regional Model, with the river basins (Piru, Fillmore, and Santa Paula basins) discussed in detail in the following sections. Additionally, monthly flow budgets are provided in Appendix B for the seven basins covered in the Regional Model. Overall, the Regional Model annual average values for major water budget components fall within the previously reported ranges reported by previous studies (Table 2-16). In all basins it is noted that ET rates were not detailed separately in previous investigations, but rather were combined together at a total outflow component of consumptive use, in which applied water and precipitation on a given basin (including phreatophytes). When annual average ET and pumping from wells is combined from the Regional Model, the values for Piru and Santa Paula fall within the range of consumptive use previously estimated, and the value for Fillmore basin larger in the Regional Model domain. Several differences between the values reported in previous investigations and the Regional Model simulated results include varying periods of estimation, varying reporting periods (calendar year in this report, and previous reporting varying between calendar years and water years),

4.3.1 PIRU BASIN

The most significant inflow to Piru basin is the stream percolation (73,000 AFY), related to the UWCD conservation releases and streamflows from Los Angeles County. The second most significant inflow is the areal recharge (10,000 AFY) from the areal recharge from agricultural and domestic uses. The combination of the SCR underflow and mountain front recharge yields 10,000 AFY of inflow. The most significant outflow is the flux to Fillmore basin at 47,000 AFY. The second most significant outflow is through the extraction (pumping) wells at 13,000 AFY. The significant flow from Piru to Fillmore indicates the important connection between the two basins. Comparing the annual average water budget component terms with values estimated in previous investigations, most of the components fall within the previously reported ranges. The Regional Model annual average percolation and mountain front recharge rates were simulated slightly higher than the upper limit of previously reported values.

4.3.2 FILLMORE BASIN

The first three most significant inflows, in descending order, are the subsurface inflow from Piru basin (47,000 AFY), areal recharge (21,000 AFY), and stream percolation (14,000 AFY). The first three most significant outflows, in descending order, are the extraction wells (47,000 AFY), the

outflow to Santa Paula basin (18,000 AFY), and the rising groundwater to streamflow at 10,000 AFY.

Comparing the annual average water budget component terms with values estimated in previous investigations, most all of the components fall within the previously reported ranges. Similar to Piru basin, the Regional Model annual average mountain front recharge rates were simulated slightly higher than the upper limit of previously reported values. Comparing with the inter-basin flow reported in Section, 2.8.2, the simulated flow from Piru to Fillmore, 47,000 AFY, is within the range of the inter-basin flow from Piru to Fillmore from 12,750 – 111,210 AFY.

4.3.3 SANTA PAULA BASIN

There are two significant inflows for Santa Paula basin: the subsurface inflow from Fillmore (18,000 AFY) and the areal recharge (16,000 AFY). The three most significant outflows include the extraction by pumping wells (25,000 AFY), the rising groundwater to streamflow (6,000 AFY), and the subsurface outflow to Mound basin (6,000 AFY). The subsurface outflow to Oxnard basin is approximately 2,000 AFY. The relatively low outflow from Santa Paula to Oxnard and Mound basins suggests that the three river basins are relatively isolated from the coastal plain basins in terms of the hydrogeological system. It should be emphasized that the surface water system is completely different as the SCR brought an average of 210,000 AFY of surface streamflow to the Oxnard Plain from 1985 to 2019. UWCD diverted an average of 63,000 AFY and the remaining average streamflow of 147,000 AFY continues past Freeman Diversion.

Comparing the annual average water budget component terms with values estimated in previous investigations, most all of the components fall within the previously reported ranges. Comparing with the inter-basin flow reported in Section 2.8.3, the simulated flow from Fillmore to Santa Paula, 18,000 AFY, is within the range of the reported inter-basin flow from Fillmore to Santa Paula from 3,900 – 30,910 AFY. The simulated outflows from Santa Paula to Oxnard and Mound, 2,000 and 6,000 AFY, are on the high side of the reported flow from 1,800 to 7,350 AFY.

4.3.4 COASTAL BASINS

The flow budget of the other four coastal plain basins (Oxnard, Pleasant Valley, West Las Posas, and Mound basins) are relatively unchanged from the Coastal Plain Model. The readers are referred to the Coastal Plain Model report (UWCD, 2018) for further detail.

5 MODEL SENSITIVITY

On the Regional Model, a sensitivity analysis was performed to evaluate the uncertainty of input parameters on the model calibration and inter-basin flows. The Coastal Plain Model has documented the sensitivity analysis of the input parameters in the coastal plain basins. In this report, the sensitivity analysis is focused on the input parameters in the three river basins: Santa Paula, Fillmore, and Piru basins.

Each input parameter was decreased and increased by a percentage, typically ranging between 10% (0.1) and 1000% (10.0), systematically and individually. The Regional Model was run with individually adjusted parameter. The calibration residuals, inter-basin flows, and streamflow percolation within the three river basins were calculated for analysis. The sensitivity analysis was applied to the following parameters:

- SCR underflow from LA County
- Evapotranspiration (ET) rate
- ET extinction depth
- Conductance of faults in the river basins
- Surface recharge from precipitation
- Surface recharge from applied water
- Surface recharge from pumped water
- Stream flow conductance in the three river basins
- Horizonal hydraulic conductivity by zones in each of 10 model layers in the three river basins.
- Ratio of horizonal hydraulic conductivity to vertical hydraulic conductivity by zones in each of 10 model layers in the three river basins.
- Storage coefficient (dimensionless) by zones in each of 10 model layers in the three river basins.
- Specific yield by zones in each of 10 model layers in the three river basins

The calibration residual statistics for each river basin including RM, ARM, RMS, and Std. Dev. as well as the inter-basin flow in the three Aquifer Systems (A, B, and C) and the stream percolation in the three river basins were generated for analysis.

The differences in the residual statistics by individually adjusted parameters are listed in Table 5-1 in terms of the statistical difference and the percentage in statistical difference from the residual statistics from the calibrated model. The sum of the absolute difference percentages is calculated for evaluation. In this report, an ad hoc approach was used to categorize the residual sensitivity in 3 levels: Low, Medium, and High. If the sum is less than 25%, it is assigned “Low” sensitivity.

If the sum is between 25% and 50%, it is assigned “Medium”. If the sum is larger than 50%, it is assigned “High”. It is noted from Table 5-1 that:

- SCR underflow is highly sensitive
- ET rates are highly sensitive while the EVT extinct depth is not
- County Club Fault (HFB #9) is highly sensitive while other faults in the river basins are not sensitive
- Areal recharge rates from precipitation and pumped water are as highly sensitive in Fillmore and Piru basins
- The conductance in Piru Creek and Sespe Creek is highly sensitive as the Piru Creek and Sespe Creek constitute a significant streamflow
- The SCR conductance in Piru basin is highly sensitive as the SCR percolation in Piru basin is typically more significant than percolation in Fillmore and Santa Paula basins
- The horizontal hydraulic conductivity in the aquifers (Layers 3, 5, 7, 9, and 10) and in the Layer 8 aquitard are highly sensitive along the valley floor of river basins (Zones 26, 32, 33, 34, and 35)
- The vertical hydraulic conductivity in Layer 2 in Fillmore basin is sensitive. The vertical hydraulic conductivity in Layer 8 from Fillmore to Santa Paula basin is also sensitive
- The storage coefficient is not sensitive throughout the Piru, Fillmore and Santa Paula basins
- The specific yield is sensitive in Layer 3 in Piru basin reflecting the important role of surface water streamflow percolation

The difference in the inter-basin flows and stream percolation for each basin is listed in Table 5-2. The sum of the absolute difference in inter-basin flows is calculated for each adjusted parameter for evaluation. The percentage in sum of absolute differences relative to the sum of the absolute inter-basin flows is also calculated. An ad hoc approach was used to categorize the inter-basin flow sensitivity in 3 levels: Low, Medium, and High. If the percentage in difference is less than 5%, it is assigned “Low” sensitivity. If the sum is between 5% and 10%, it is assigned “Medium”. If the sum is larger than 10%, it is assigned “High”. It is noted in Table 5-2 that:

- ET rate is highly sensitive while the EVT extinct depth is not
- County Club Fault (HFB #9) is sensitive while other faults in the river basins are not sensitive
- The stream conductance in Piru basin for Piru Creek and SCR are sensitive
- The horizontal conductivity in the aquifers (Layers 3, 5, and 7) are highly sensitive along the river basins’ valley floor (Zones 32, 33, 34, and 35)
- The vertical hydraulic conductivity, storage coefficient, and specific yield are not sensitive throughout the river basins

For an overall evaluation, the sensitivity levels from the calibration residual statistics and the inter-basin flows are tabulated in Table 5-3. It is noted that

- ET rate is sensitive to the model calibration and the inter-basin flows
- County Club Fault (HFB #9) is sensitive to the model calibration and the inter-basin flow as the Country Club Fault controls the flux from Santa Paula basin to Mound basin
- The Piru Creek and SCR conductance in Piru basin are sensitive in the stream percolation in Piru basin as the Piru basin plays a dominant role in the stream percolation
- The conductivity in the aquifers (layers 3, 5, and 7) along the river basins' valley floor (Zones 32, 33, 34, and 35) are highly sensitive

Finally, it is noteworthy to point out that there is no parameter in the river basins that is not sensitive to the model calibration and is sensitive to the inter-basin flow. This suggests that the input parameters in the three river basins are relatively well defined and less uncertain in the inter-basin flow while there are input parameters in the coastal plain basins that are not sensitive to model calibration and are more sensitive in the inter-basin flow in the coastal plain (UWCD, 2018).

6 MODEL REVIEW

To ensure the quality of the groundwater model, UWCD formed an Expert Panel comprised of three experienced and well-known experts in groundwater flow model development and application to advise and review United's model development since 2016. The experts on the panel are:

- Dr. Sorab Panday:
  - Co-author of the two most recent versions of MODFLOW: MODFLOW-NWT and MODFLOW-USG
  - Member of the National Academy of Engineering (NAE)
  - Principal of GSI Environmental, Inc
- Jim Rumbaugh:
  - President of Environmental Simulations Inc.
  - Developer of the widely used MODFLOW pre- and post-processor, Groundwater Vistas
- John Porcello:
  - Consultant with extensive experience in groundwater modeling in general, and specific experience with hydrogeologic conditions in Ventura County
  - Principal Groundwater Hydrologist of GSI Water Solutions, Inc.
  - Licensed Geologist and Hydrogeologist in Oregon and Washington

The Expert Panel thoroughly reviewed the Coastal Plain Model and released a model review report in 2018 (GSI Water Solutions and others, 2018) and concluded that the Coastal Plain Model was well built and well calibrated.

In the current model expansion from 2019, The Expert Panel has continued to review the model expansion effort since 2019. Several rounds of in-depth review were performed by the experts. The Expert Panel will provide a Final memo regarding both (1) the Regional Model expansion to include the Piru, Fillmore, and Santa Paula basins as well as (2) the Regional Model update to include 2016-2019 data. The Regional Model update document is yet to be reviewed by the Expert Panel, however, interim feedback from the Expert Panel included the assessment of the Regional Model expansion described in this report that:

- The model calibration to both heads and streamflows is very good, especially considering the size of the model grid cells compared to stream dimension in these three basins that have been added to the model.
- The three experts believe that the model replicates the historically observed conditions quite well during the calibration period.
- Accordingly, the United Water District should feel proud of the current model.

7 CONCLUSIONS AND MODEL LIMITATIONS

The Regional Model is found to be well calibrated based on the residual analysis on the groundwater level measurements and the streamflow analysis on the streamflow measurements. The Regional Model is suitable for regional groundwater management simulations and can provide meaningful interpretation of the inter-basin flow budget covering the seven basins within Ventura County. The Regional Model also simulates well the streamflow interaction with groundwater for the basin scale analysis. It is noted that the simulated daily streamflow may be further improved in the future, particularly for calculating streamflow at the Freeman Diversion. The various components of the SCR corridor may be analyzed with a refined model grid for potential improvement, including potential spatial variability of riparian vegetation evapotranspiration parameters and streambed parameters, such as stream bed elevations

All numerical models have limitations inherent in the assumptions made in developing the conceptual model and the numerical model. The Regional Model is no exception. The assumptions listed in Sections 2 and 3 form the limitations of the Regional Model. The limitations of the Regional Model are as follows:

- The uncertainty in the cross sections interpreted from the e-logs
- The simplification of the groundwater systems and the interaction of the streamflow and groundwater
- The numerical resolution based on the grid size and temporal scale
- The calibration errors and uncertainties from the numerical model including but not limited to water levels in droughts, stream flow interaction with aquifers, the SCR underflow from LA County, areal recharge, and fault lines.
- The measurements error from water level, streamflow, and groundwater extraction records, plus from other hydrologic data
- The data gap in the underflows from Arroyo Las Posas from the Las Posas Valley basin, and the streamflow records along Arroyo Las Posas and Conejo Creek

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TABLES

Tables 3-7, 3-8, and 3-10 are embedded in Section 3 of the report, and noted in the List of Tables.

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Table 2-1. Piru, Fillmore, and Santa Paula Population Center Trends, Based on United States Census Bureau Data.

Population	*Piru*	*Fillmore*	*Santa Paula*
1980[1]	1,284	9,602	20,658
1990[1]	1,157	11,992	25,062
2000 [2]	1,196	13,643	28,598
2010[2]	2,063	15,002	29,321
2019 estimate[3]	1,805*[4]	15,644*[5]	32,900*[6]
areal extent[2] **(mi^2)**	2.8	3.4	4.6

[1]https://docs.vcrma.org/images/pdf/planning/demographics/Census_Pop_Ventura_Co_1850-2000.pdf

[2]https://data.census.gov/cedsci/

[3] 2019 American Community Survey 5-Year Estimates

*[4] https://data.census.gov/cedsci/profile?g=1600000US0657372

*[5] https://data.census.gov/cedsci/table?q=Fillmore%20city,%20California&tid=ACSDT5Y2019.B01003

*[6]https://data.census.gov/cedsci/table?q=Santa%20Paula%20CCD,%20Ventura%20County,%20California&tid=ACSDT5Y2019.B01003

Table 2-2. Long-Term Annual Precipitation Records for Piru, Fillmore, and Santa Paula Basins.

				Annual Precipitation (inches)			
Basin	***Station***	***Elevation (ft)***	***Period (Water Years)***	***Average***	***Median***	***Minimum***	***Maximum***
Piru	25	825	1928 - 2015	17.1	14.4	5.4	44.5
Fillmore	171	465	1957 - 2015	18.3	16.1	5.3	43.2
Santa Paula	245a*	300	1850 - 2015	16.8	15.0	5.0	44.8

*Full record period created considering that site moved overtime from nearby locations

Table 2-3. Annual Average Streamflow (CFS) in Piru, Fillmore, and Santa Paula Basins.

Streamgage	Santa Clara River LA County Line USGS 11108500 Near Piru, CA USGS 11109000	Piru Creek* USGS 11109800	Hopper Creek USGS 11110500	Pole Creek VCWPD 713	Sespe Creek USGS 11113000	Santa Paula Creek USGS 11113500
1985	33.79	29.65	0.97	0.85	14.86	4.71
1986	66.33	28.02	10.26	3.54	138.40	27.88
1987	36.19	44.66	0.79	0.70	12.99	3.93
1988	50.43	33.62	2.04	0.81	65.13	10.19
1989	34.25	14.37	0.36	0.55	15.80	3.54
1990	32.42	6.88	0.62	0.29	6.21	3.34
1991	48.21	52.80	6.03	1.07	110.24	21.56
1992	94.46	107.61	10.76	3.19	290.64	47.69
1993	211.04	186.82	22.79	6.45	630.70	98.86
1994	44.25	62.72	5.63	6.85	35.92	10.68
1995	113.83	134.40	28.81	17.67	461.05	87.81
1996	67.58	30.58	3.93	2.50	91.46	17.41
1997	50.80	53.35	6.02	1.83	74.54	20.66
1998	283.35	170.97	44.38	9.11	523.87	111.30
1999	53.80	35.49	1.55	1.17	24.62	5.91
2000	60.49	72.08	4.22	1.41	61.25	11.93
2001	47.85	88.57	9.53	3.89	203.51	34.45
2002	34.66	35.32	0.87	0.67	11.90	3.21
2003	49.92	45.11	2.82	1.11	71.17	11.56
2004	68.70	22.25	6.57	2.05	104.21	16.45
2005	362.27	256.03	62.03	17.35	686.71	139.73
2006	90.94	66.13	6.89	2.54	208.95	30.97
2007	38.77	61.75	0.83	0.64	12.75	3.93
2008	80.28	65.97	12.95	1.92	192.30	38.67
2009	57.71	41.43	1.92	0.66	46.27	9.03
2010	82.32	50.84	3.89	1.07	137.00	24.54
2011	85.98	50.22	7.46	1.24	172.27	41.34
2012	41.08	55.25	0.85	1.27	18.46	4.86
2013	31.63	7.88	0.13	0.17	5.59	1.24
2014	33.34	8.98	2.96	0.15	30.34	2.78
2015	26.11	9.03	0.07	0.23	6.87	1.03
1985 - 2015 Average	**77.83**	**62.22**	**8.68**	**3.00**	**144.06**	**27.46**

*Data from USGS and VCWPD, as described in Section 2.3; Units: CFS; *United Santa Felicia Dam spills added to USGS gage data*

Table 2-4. Total Annual Spills from Lake Piru from 1985 – 2005.

Year	SFD Spills (AFY)
1985	0
1986	0
1987	0
1988	0
1989	0
1990	0
1991	0
1992	2,224
1993	56,176
1994	0
1995	7,749
1996	0
1997	0
1998	47,795
1999	0
2000	0
2001	790
2002	0
2003	0
2004	0
2005	107,062

Data from UWCD records

Table 2-5. Benefits of the SFD Conservation Releases, 1999-2015.

Calendar Year	Total Conservation Released from SFD	Direct Deliveries in AF of SFD Release to:			
		Piru Basin	Fillmore Basin	Lower Basins*	Surface water
	AF	(groundwater recharge)	(groundwater recharge)	(groundwater recharge)	Ag Deliveries via Pipelines
1999	22,800	5,700	3,500	11,200	2,400
2000	47,200	13,800	6,100	24,150	3,150
2001	47,400	14,000	2,900	28,300	2,200
2002	20,200	8,000	5,100	6,530	570
2003	29,000	21,000	3,500	3,600	900
2004	12,200	8,000	2,150	1,600	550
2005	9,100	3,500**	1,100**	4,500***	0
2005	23,400	4,550**	1,500**	17,200***	150
2006	30,900	9,200**	2,900**	17,200***	1,600
2007	40,700	15,900	6,300	12,200	6,400
2008	44,400	15,400	5,700	17,400	5,800
2009	26,700	13,200	4,700	5,200	3,000
2010	33,000	14,500	4,800	10,700	3,200
2011	31,700	12,400	3,300	14,100	1,600
2012	35,200	13,600	8,600	9,300	3,700
2013	0	0	0	0	0
2014	0	0	0	0	0
2015	0	0	0	0	0
Average	**25,217**	**9,597**	**3,453**	**10,177**	**1,957**
Total (over all 18 releases)	**453,900**	**172,750**	**62,150**	**183,180**	**35,220**

Notes:*Direct Deliveries to Santa Paula basin are not able to be estimated due to inability to adequately measure the percolation losses within the total basin, as discussed above in Section 2.3.1.1.2 It is noted here that most of the remaining flows after Fillmore basin arrive to United's Freeman diversion after some losses to Santa Paula basin due to percolation and evapotranspiration.

2005 had two conservation releases. Portion of the release includes spill water when the lake was full.

*2005 had two conservation releases. 2005 and 2006 were not measurable due to high flow rates in the Santa Clara River. Direct Deliveries for Piru and Fillmore Basins are estimated.

*** measured at the Freeman Diversion

Table modified from United Water's 2013 Groundwater and Surface Water Condition Report (UWCD, 2014) and updated to include calendar years 2014 and 2015. Table from United's 2014 and 2015 Piru and Fillmore Basin's Biennial Groundwater Conditions Report (United, 2016).

Table 2-6. Sespe Streamflow Daily Record Data Source Overview.

Start Date	End Date	Description
1/1/1985	9/30/1985	USGS_11113000_SESPE_C_NR_FILLMORE
10/1/1985	9/29/1988	USGS_11113001_SESPE_C_+_FILLMORE_IRR_CO_CN_NR_FILLMORE_CA note: subtracted estimated diversions based on rainfall from this record
9/30/1988	9/30/1989	Correlation with Santa Paula Creek for wet years
10/1/1989	9/30/1990	USGS_11113001_SESPE_C_+_FILLMORE_IRR_CO_CN_NR_FILLMORE_CA note: subtracted estimated diversions based on rainfall from this record
10/1/1990	1/14/1993	USGS_11113000_SESPE_C_NR_FILLMORE
1/15/1993	9/30/1993	Correlation with Santa Paula Creek for dry years
10/1/1993	12/31/2015	USGS_11113000_SESPE_C_NR_FILLMORE

Table 2-7. Average Annual Streamflow Diversions (AFY) in Piru, Fillmore, and Santa Paula Basins.

Diversion	Isola	Camulos	Rancho Temescal 1	Rancho Temescal 2	Piru Mutual	United (Piru)	Fillmore Irr. Co.	Beans Ranch	Limoneira	Canyon Irr. Co.	Farmers Irr. Co.	Zaragosa	Hyde-Turner Ditch	Southfork	United (Freeman)
Approximate Area (ac)	209.9	770.2	241.6	314.3	546.4	47.0	1104.7	82.2	126.3	783.7	3177.6	1.8	345.8	158.9	416.0
							Total Diversions (AFY)								
Year															
1985	568.0	1092.0	0.0	0.0	1273.0	249.9	2535.9	53.5	0.0	348.0	0.0	0.0	499.1	230.0	42765.6
1986	568.0	1092.0	0.0	0.0	1273.0	2346.4	2649.9	53.5	0.0	975.0	0.0	0.0	499.1	230.0	69834.1
1987	568.0	1092.0	0.0	0.0	1273.0	4542.1	2478.5	53.5	0.0	693.0	0.0	0.0	499.1	230.0	37684.0
1988	568.0	1092.0	0.0	0.0	1277.0	4903.1	2673.7	53.5	0.0	922.0	0.0	0.0	499.1	230.0	49144.3
1989	632.0	1092.0	0.0	0.0	1273.0	0.0	2242.4	53.5	0.0	697.0	0.0	0.0	499.1	230.0	24413.4
1990	601.0	0.0	0.0	0.0	1273.0	1319.0	1567.2	53.5	0.0	454.0	0.0	0.0	499.1	230.0	7805.0
1991	601.0	0.0	0.0	0.0	1273.0	299.5	2722.2	53.5	0.0	1108.0	0.0	0.0	499.1	230.0	45232.3
1992	601.0	514.0	0.0	0.0	1274.0	22375.5	2853.6	53.5	0.0	1071.0	0.0	0.0	499.1	230.0	118713.5
1993	273.0	780.0	0.0	0.0	1273.0	15875.1	2546.8	53.5	156.9	1011.0	0.0	0.0	499.1	230.0	117966.9
1994	216.0	410.0	0.0	0.0	921.0	4994.2	2649.9	52.0	27.2	962.0	0.0	0.0	499.1	270.0	71250.5
1995	67.0	460.0	0.0	0.0	927.0	8519.0	2538.8	55.0	0.0	1020.0	0.0	0.0	499.1	289.2	120914.8
1996	465.0	0.0	0.0	0.0	1392.0	776.1	2586.4	53.5	67.0	489.0	0.0	0.0	499.1	308.4	69129.9
1997	500.0	0.0	0.0	0.0	1258.0	1574.9	2634.0	53.5	0.0	1143.0	0.0	0.0	499.1	327.6	72063.5
1998	317.0	446.0	0.0	0.0	1298.0	9062.5	2443.6	53.5	0.0	866.0	0.0	0.0	499.1	346.8	146729.3
1999	526.0	1809.0	0.0	0.0	1163.0	782.5	2578.5	53.5	0.0	283.8	0.0	0.0	499.1	366.0	57455.2
2000	705.0	2195.0	0.0	0.0	1957.0	55.5	2578.5	53.5	0.0	899.3	0.0	0.0	499.1	385.2	76437.0
2001	588.0	2586.0	0.0	0.0	1722.0	2768.9	3248.3	53.5	36.0	694.5	289.1	0.0	499.1	404.4	107393.1
2002	590.0	3008.0	486.6	11.0	1722.0	708.1	2721.3	60.0	0.0	317.1	129.0	0.0	499.1	423.6	29768.8
2003	436.0	1785.0	601.1	6.5	1722.0	95.0	2642.0	50.0	1.0	490.0	278.1	0.0	499.1	442.8	46581.8
2004	477.0	1785.0	282.6	93.0	1727.0	95.4	2657.8	57.0	0.0	479.6	213.3	0.0	499.1	462.0	33602.0

Table 2-7 continued, below

Table 2-7. Average Annual Streamflow Diversions (AFY) in Piru, Fillmore, and Santa Paula Basins

Diversion	Isola	Camulos	Rancho Temescal 1	Rancho Temescal 2	Piru Mutual	United (Piru)	Fillmore Irr. Co.	Beans Ranch	Limoneira	Canyon Irr. Co.	Farmers Irr. Co.	Zaragosa	Hyde-Turner Ditch	Southfork	United (Freeman)
Approximate Area (ac)	209.9	770.2	241.6	314.3	546.4	47.0	1104.7	82.2	126.3	783.7	3177.6	1.8	345.8	158.9	416.0
							Total Diversions (AFY)								
Year															
2005	0.0	1785.0	320.1	139.8	1722.0	2653.1	50.0	40.0	0.0	299.7	11.3	0.0	499.1	481.2	138050.2
2006	0.0	1475.6	597.6	80.1	1471.4	2266.7	174.0	55.0	1.0	118.1	25.4	0.0	499.1	500.4	101178.2
2007	0.0	1333.2	1004.8	181.9	1325.7	75.0	0.0	60.0	0.5	23.0	13.4	0.0	499.1	519.6	44725.9
2008	0.0	1487.4	979.8	55.6	1231.2	228.5	0.0	51.0	0.0	254.4	113.6	0.0	499.1	520.0	73428.5
2009	0.0	1310.0	984.1	44.9	1217.4	0.0	0.0	99.0	0.0	225.0	75.3	0.0	362.0	520.0	41149.1
2010	0.0	3540.0	863.9	13.0	1124.1	0.0	0.0	104.4	34.4	263.7	328.2	0.0	306.7	520.0	64113.4
2011	0.0	2510.0	976.9	147.6	2400.0	0.0	0.0	116.0	69.3	589.1	214.9	0.4	310.1	520.0	93958.5
2012	0.0	3853.0	1124.0	168.8	2400.0	0.0	0.0	74.8	0.0	161.3	0.0	0.4	290.4	520.0	39165.9
2013	0.0	4402.0	1262.8	247.0	2400.0	0.0	0.0	146.4	0.0	104.8	0.0	0.4	699.0	527.8	8767.6
2014	0.0	784.5	1294.8	226.4	1261.3	0.0	0.0	135.7	0.0	80.7	0.0	0.4	696.6	527.8	4543.6
2015	0.0	862.4	1163.9	220.5	1321.9	0.0	0.0	84.4	0.0	38.0	33.0	0.4	629.5	450.0	2539.9
1985 - 2015 Average	**318.3**	**1438.1**	**385.3**	**52.8**	**1456.3**	**2792.5**	**1670.1**	**65.9**	**12.7**	**551.0**	**55.6**	**0.1**	**492.7**	**377.5**	**63113.1**

Data from State Water Board, CH2M Hill/HGL (2008) and United Records, as described in Section 2.3.8

Units: AFY

Table 2-8. Fillmore Irrigation Company Sespe Creek Diversion Data Source Overview.

Start Date	End Date	Description
1/1/1985	9/29/1988	USGS_11113001_SESPE_C_+_FILLMORE_IRR_CO_CN_NR_FILLMORE_CA note: estimated diversions based on rainfall for data gaps
9/30/1988	9/30/1989	Filled data gaps with estimated diversions based on rainfall
10/1/1989	9/30/1990	USGS_11113001_SESPE_C_+_FILLMORE_IRR_CO_CN_NR_FILLMORE_CA note: estimated diversions based on rainfall for data gaps
10/1/1990	1/12/1993	USGS_11112500_FILLMORE_IRR_CO_CN_NR_FILLMORE_CA
1/13/1993	12/31/2000	Filled data gaps with estimated diversions based on rainfall
1/1/2001	12/31/2001	Reported monthly data distributed evenly across month
1/1/2002	12/31/2004	Filled data gaps with estimated diversions based on rainfall
1/1/2005	12/31/2006	Reported monthly data distributed evenly across month
1/1/2007	12/31/2015	No diversions

Table 2-9. Annual Average Wastewater Discharge (AFY) in Piru, Fillmore, and Santa Paula Basins.

Wastewater Plant	Piru WWTP	Fillmore			Santa Paula WRF	Todd Rd. Co. Jail WWTP
		Percolation Ponds	Santa Clara River	Total		
1985	137.65	1118.87	0.00	1118.87	2291.03	0.00
1986	137.65	1118.87	0.00	1118.87	2291.03	0.00
1987	137.65	1118.87	0.00	1118.87	2291.03	0.00
1988	138.03	1121.93	0.00	1121.93	2352.68	0.00
1989	137.65	1118.87	0.00	1118.87	2234.77	0.00
1990	122.81	1118.87	0.00	1118.87	2141.50	0.00
1991	119.12	1118.87	0.00	1118.87	2057.74	0.00
1992	137.53	1121.93	0.00	1121.93	2275.82	0.00
1993	134.12	1118.87	0.00	1118.87	2279.70	0.00
1994	134.13	1118.87	0.00	1118.87	2188.33	0.00
1995	172.16	1118.87	0.00	1118.87	1978.56	43.11
1996	171.93	1121.93	0.00	1121.93	1911.65	43.22
1997	140.15	1118.87	0.00	1118.87	2011.26	43.11
1998	117.68	1156.42	705.77	1862.19	2439.31	43.11
1999	127.65	974.60	1127.40	2102.00	2299.74	43.11
2000	176.49	1017.72	0.00	1017.72	2355.85	43.22
2001	184.70	1040.28	915.93	1956.20	2424.38	43.11
2002	254.39	986.36	1138.29	2124.65	2381.05	43.11
2003	254.10	1174.34	759.89	1934.23	2395.51	43.11
2004	252.88	1128.81	380.89	1509.70	2473.14	43.22
2005	225.64	1295.52	0.00	1295.52	2629.74	43.11
2006	230.06	1299.74	0.00	1299.74	2572.39	43.11
2007	242.66	1118.87	673.47	1792.34	2488.50	43.11
2008	225.17	1121.93	0.00	1121.93	2665.72	43.22
2009	212.27	1058.29	0.00	1058.29	2666.91	43.11
2010	169.23	1210.38	0.00	1210.38	2173.39	43.11
2011	212.96	1124.43	0.00	1124.43	2263.80	35.48
2012	202.44	993.18	0.00	993.18	2136.68	39.09
2013	164.42	998.22	0.00	998.22	2086.66	44.19
2014	137.73	981.00	0.00	981.00	1976.03	46.88
2015	133.49	984.68	0.00	984.68	1904.09	40.28
1985 - 2015 Average	172.40	1103.85	183.92	1287.77	2278.64	28.91

Data from data submitted to State Water Resources Control Board , as described in Section 2.8; Units: AFY

Table 2-10. Revised Model Layering in Piru, Fillmore, and Santa Paula Basins.

Aquifer or Aquitard	Hydrostratigraphic Unit Description	Model Layer
Surficial Deposits and Colluvium	Interbedded, poorly sorted surficial deposits including colluvium, landslide deposits, and alluvial fan material. Generally absent in vicinity of Santa Clara River channel. Thickness ranges from 0 to over 400 ft.	1
Aquitard		2
Recent (younger) Alluvium	Stream-deposited sands and gravels, with some finer-grained interbeds; primarily permeable sands and gravels. Thickness ranges from 0 to 190 ft.	3
Aquitard		4
Older Alluvium	Stream-deposited sands and gravels with finer grained interbeds; similar to younger alluvium deposits, with greater variation in grain size. Thickness ranges from 0 to 340 ft.	5
Aquitard		6
Upper Saugus/ San Pedro	Semi-consolidated lenticular deposits of sands, gravels, and some clays of the Upper Saugus Formation. Underlies alluvial aquifers throughout the upper basins.	7
Aquitard		8
Lower Saugus/San Pedro	Semi-consolidated lenticular deposits of sands, gravels, and some clays of the Lower Saugus Formation.	9
Undifferentiated Sedimentary Deposits	Undifferentiated, semi-consolidated sediments of the San Pedro Formation.	10

Table 2-11. Layering of Coastal Basins (Oxnard, Pleasant Valley, and West Las Posas Basins).

Aquifer or Aquitard	Hydrostratigraphic Unit Description	Model Layer
Semi-perched Aquifer	Stream and coastal-deposited sands and gravels with minor silt and clay interbeds	1
"Clay Cap" Aquitard	Silt and clay with interbedded sands	2
Oxnard Aquifer	Marine and non-marine sands, gravels, and cobbles with some clay and silt interbeds	3
Oxnard-Mugu Aquitard	Interbedded clay, sand, and gravel	4
Mugu Aquifer	Marine and non-marine sand and gravel with silt and clay interbeds	5
Mugu-Hueneme Aquitard	Interbedded clay, silt, sand, and gravel of the Upper San Pedro Formation. This bed, where present, marks the top of the lower aquifer system (LAS).	6
Hueneme Aquifer	Marine and non-marine interbedded sand, silt, clay, and minor gravel of the Upper San Pedro Formation.	7
Hueneme-Fox Canyon Aquitard	Marine and non-marine silt and clay with interbedded sand and gravel.	8
Fox Canyon Aquifer - upper	Marine interbedded sand with some gravel, silt, clay, and sandy clay of the San Pedro Formation.	9
Fox Canyon Aquitard	Marine and non-marine silt and clay, with interbedded sand and gravel of the basal San Pedro Formation	10
Fox Canyon Aquifer - basal	Marine interbedded sand with some gravel, silt, clay, and sandy clay (similar composition as the Fox Canyon Aquifer – upper)	11
Santa Barbara and/or other Formation	Silt and clay with interbedded sand and gravel of the basal San Pedro Formation and Upper Santa Barbara Formation.	12
Grimes Canyon Aquifer	Sands and gravels of the Upper Santa Barbara Formation. Localized and not continuous or present in some basins	13
Older sedimentary rocks and Conejo Volcanics	Sedimentary and igneous rock of low permeability or containing saline groundwater.	Boundary

Table 2-12. Estimated Hydraulic Conductivity Estimates and Aquifer System Statistics for Piru Basin

Basin	Well	Estimated Hydraulic Conductivity (ft/d)	Aquifer System	Estimated Hydraulic Conductivity System Statistics (ft/d)					
Piru	04N19W33C03S	343.89	AB						
Piru	04N18W26E01S	205.66	AB						
Piru	04N18W27H03S	100.26	AB	Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Piru	04N18W27H02S	138.60	AB	177.06	197.10	172.13	100.26	343.89	4
Piru	04N19W27R03S	220.33	B						
Piru	04N19W33C02S	286.46	B						
Piru	04N18W20R01S	247.15	B						
Piru	04N19W34D01S	139.25	B						
Piru	04N19W33F01S	213.89	B	Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Piru	04N18W30E01S	311.15	B	229.09	236.37	233.74	139.25	311.15	6
Piru	04N18W19P03S	91.40	BC						
Piru	04N18W28C02S	44.00	BC	Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Piru	04N18W29K01S	126.76	BC	79.89	87.39	91.40	44.00	126.76	3

Table 2-13. Estimated Hydraulic Conductivity Estimates and Aquifer System Statistics for Fillmore Basin

Basin	Well	Estimated Hydraulic Conductivity (ft/d)	Aquifer System	Estimated Hydraulic Conductivity System Statistics (ft/d)					
Fillmore	03N20W01P04S	30.08	A						
Fillmore	03N21W01P03S	546.25	A						
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Fillmore	03N21W12H03S	13.37	A						
Fillmore	03N20W02R09S	5.57	A	33.26	148.82	21.72	5.57	546.25	4
Fillmore	04N20W25B01S	62.77	AB						
Fillmore	04N19W30P05S	155.96	AB						
Fillmore	04N19W31D04S	73.13	AB						
Fillmore	04N20W34N05S	285.74	AB						
Fillmore	03N20W02F05S	14.24	AB						
Fillmore	03N20W01P05S	0.86	AB						
Fillmore	03N20W02K05S	114.58	AB						
Fillmore	03N20W04R02S	197.18	AB						
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Fillmore	04N20W36J05S	286.46	AB						
Fillmore	03N20W03H03S	150.39	AB	68.95	134.13	132.49	0.86	286.46	10
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Fillmore	04N20W31J01S	1.54	ABC						
Fillmore	03N20W06D03S	4.72	ABC	2.70	3.13	3.13	1.54	4.72	2
Fillmore	04N20W23N02S	16.51	B						
Fillmore	04N19W29R05S	114.06	B						
Fillmore	04N19W33D06S	121.32	B						
Fillmore	04N19W33D05S	206.54	B						
Fillmore	03N20W03D05S	61.89	B						
Fillmore	03N20W05C04S	4.27	B						
Fillmore	03N20W01H03S	55.96	B						
Fillmore	03N20W06N02S	227.87	B						
Fillmore	04N20W13N01S	1.00	B						
Fillmore	04N19W33D04S	132.72	B						
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Fillmore	04N20W33C03S	8.72	B						
Fillmore	04N20W31H02S	0.84	B	27.06	79.31	58.92	0.84	227.87	12
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Fillmore	04N20W24R02S	7.12	C						
Fillmore	03N20W06A03S	3.82	C	5.22	5.47	5.47	3.82	7.12	2

Table 2-14. Estimated Hydraulic Conductivity Estimates and Aquifer System Statistics for Santa Paula Basin

Basin	Well	Estimated Hydraulic Conductivity (ft/d)	Aquifer System	Estimated Hydraulic Conductivity System Statistics (ft/d)					
Santa Paula	03N21W29C02S	116.97	A						
Santa Paula	03N21W29K01S	253.99	A						
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Santa Paula	03N21W29K02S	233.94	A	76.05	152.43	175.46	4.81	253.99	4
Santa Paula	03N21W16P01S	4.81	A						
Santa Paula	03N21W29G02S	33.15	AB						
Santa Paula	03N21W20A01S	39.84	AB						
Santa Paula	03N21W21B03S	29.14	AB						
Santa Paula	03N21W20J04S	222.31	AB						
Santa Paula	02N22W02K06S	121.38	AB						
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Santa Paula	02N22W10A02S	12.30	AB	48.35	72.36	39.84	12.30	222.31	7
Santa Paula	03N21W11E03S	48.39	AB						
Santa Paula	03N21W02P01S	86.49	B						
Santa Paula	03N21W12E07S	60.16	B						
Santa Paula	03N22W36K04S	151.06	B						
Santa Paula	03N22W36R01S	177.80	B						
Santa Paula	03N21W17P02S	69.65	B						
Santa Paula	03N21W19G02S	43.45	B						
Santa Paula	03N21W19G03S	26.74	B						
Santa Paula	03N21W11F03S	75.00	B						
Santa Paula	03N21W09R04S	92.51	B						
Santa Paula	03N21W15C06S	79.81	B						
Santa Paula	03N21W16A02S	178.20	B						
Santa Paula	03N21W11D02S	1.47	B						
Santa Paula	03N21W30F01S	184.08	B						
Santa Paula	03N21W30H07S	26.20	B						
Santa Paula	03N22W36H01S	168.97	B						
Santa Paula	03N22W35Q02S	21.12	B						
Santa Paula	03N21W16G01S	260.68	B						
Santa Paula	03N21W16K03S	88.10	B						
				Mean (Geometric)	Mean (Arithmetic)	Median	Minimum	Maximum	n
Santa Paula	03N21W19G04S	96.12	B	69.73	100.31	87.29	1.47	260.68	20
Santa Paula	02N22W10C02S	118.58	B						

Table 2-15. Chronology of Previous Investigations Related to Piru, Fillmore, and Santa Paula Basins Water Budget Components.

Entity	Year Published	Reference	Budget Components Provided?	Representative Years
California Department of Public Works, Division of Water Resource	1933	DWR, 1933	All, various	1927 - 1932
California State Water Resources Board	1956	DWR, 1956	All, various	1936 - 1951
John F. Mann and Associates	1959	Mann, 1959	All, various	1936 - 1957
California Department of Water Resources	1974, 1975	DWR, 1974 1975	Piru, subsurface inflow	1956 - 1967
Law/Crandall Inc.	1993	Law/Crandall, 1993	Fillmore, subsurface outflow	1956 - 1990
United States Geological Survey	2003	Reichard and others, 2003	Fillmore, subsurface outflow	1984 – 1993
CH2M HILL	2004	CH2M HILL, 2004	Piru, subsurface inflow	1980 - 1999
CH2M HILL	2005	CH2M HILL, 2005	Piru, subsurface inflow	1980 - 2005
CH2M HILL/ HydroGeoLogic Inc; HydroMetrics (United-sponsored analysis)	2008	CH2M HILL/ HGL, 2008	Piru and Fillmore, subsurface inflow	1975 - 2005
HydroMetrics (United-sponsored updates)	2015	LWA and others, 2015	All, various	1996 - 2012
Steve Bachman	2015	Bachman, 2015	Fillmore, subsurface outflow	1947 - 2014
Daniel B. Stephens and Associates, Inc/ Richard C. Slade and Associates LLC	2017	DBS&A and RCS, 2017	Fillmore and Santa Paula, various	1999 - 2012

Table 2-16. Range of Water Budget components from Previous Investigations Related to Water Budget Components for the Piru, Fillmore, and Santa Paula Basins Listed in Table E-1.

	Piru		***Fillmore***		***Santa Paula***	
Budget Components (AFY)	*Lower*	*Upper*	*Lower*	*Upper*	*Lower*	*Upper*
Inflows						
Subsurface underflow	240	18,800	12,570	111,210	3,900	30,910
Stream Percolation	6,400	61,850	1,790	49,130	4,210	24,440
Precipitation Recharge	190	20,200	470	54,200	40	25,590
Mountain Front Recharge	2,620	2,620	3,530	3,530	3,600	3,600
Managed Recharge	0	11,800	--	--	--	--
Local Wastewater Treatment Percolation Ponds	210	210	1,040	1,040	2,230	2,230
Imported	0	5,840	4,900	11,770	4,220	8,570
Outflows						
Subsurface underflow	12,570	111,210	3,900	30,910	1,800	7,350
Rising groundwater	0	37,800	6,030	48,200	2,040	17,340
Consumptive use*	6,450	15,000	20,590	36,200	15,420	33,730
Exported	2,200	6,450	0	5,160	310	2,100
Change in Groundwater Storage*	***-19,600***	***44,600***	***-20,170***	***49,300***	***-10,900***	***21,680***

*Of applied water and precipitation on basin (including phreatophytes)

**Reported changes in annual storage (not calculated from inflows and outflows presented here)

Notes:

Majority of values extracted from DWR (1956) or Mann (1959), with other references being CH2M HILL (2004, 2005), CH2M HILL/HGL (2008), LWA and others (2015) and DBS&A and RCS (2017).

Values rounded to nearest 10 AF.

Table 3-1. Parameters by Layer and Zone, Horizontal Hydraulic Conductivity

Horizontal Hydraulic Conductivity in Each Zone (ft/day)																		
Layer	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**18**	**19**	**20**
1	200	200	200	200	300	200	200	300	200	200	200	200	50	50	200	300	200	200
2	0.01	0.01	0.01	0.01	0.01	0.01	1.00E-03	0.01	0.01	0.01	100	100	50	50	200	300	200	0.01
3	100	100	100	0.01	300	100	100	200	100	100	100	50	10	10	200	250	200	100
4	1	1	0.1	0.01	1	1	1	200	1	20	100	20	1	1	200	250	200	1
5	100	50	50	100	200	50	50	200	100	20	100	20	1	1	200	200	100	100
6	1.00E-03	1.00E-03	1.00E-03	0.01	3.00E-03	0.01	1.00E-03	1.00E-03	5.00E-04	1.00E-02	50	0.01	0.01	0.01	1.00E-03	1.00E-04	0.1	1.00E-03
7	20	20	20	20	20	20	20	0.5	20	20	10	10	10	1	20	1.00E-04	20	20
8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.1	1.00E-03	0.1	0.1	0.1	0.1	1.00E-04	0.1	0.1
9	10	10	10	10	10	10	10	0.5	10	20	5	1	1	1	10	1.00E-04	10	10
10	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.01	0.1	0.1	0.1	0.1	1.00E-04	0.1	0.1
11	5	5	5	10	5	5	5	0.5	5	5	5	1	1	1	10	1.00E-04	5	5
12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.00E-04	0.1	0.1
13	1	1	1	1	1	1	1	0.1	1	1	5	1	0.5	0.5	1	1.00E-04	1	1

Horizontal Hydraulic Conductivity in Each Zone (ft/day)																		
Layer	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**
1	200	100	100	50	800	1	200	200	200	1200	1200	600	200	200	200	200	200	10
2	1.00E-04	100	100	50	0.1	0.01	200	100	100	0.1	0.1	0.1	0.1	0.1	0.1	100	0.1	10
3	100	50	80	10	600	1	200	100	100	1200	1200	400	100	100	100	100	100	10
4	1	20	50	1	400	0.01	200	100	100	1000	1000	200	100	1	1	100	1	10
5	50	20	50	1	400	1	200	100	100	1000	1000	200	100	100	100	100	100	10
6	1.00E-03	0.1	1	5.00E-03	1	1.00E-03	0.01	0.1	0.1	1	1	1	1	1	0.1	1	0	0.1
7	20	10	20	1	100	0.1	20	20	10	200	200	100	100	50	50	5	20	5
8	0.1	0.1	0.1	0.1	0.01	0.01	15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01
9	10	5	10	1	100	0.1	10	10	5	100	100	100	100	50	50	5	20	5
10	0.1	0.1	0.1	0.1	100	0.01	0.01	0.01	0.01	100	100	100	100	50	50	1	20	1
11	10	1	5	1	1.00E-12	0.1	5	5	2	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	10	1.00E-12
12	10	0.1	0.01	0.01	1.00E-12	0.01	0.1	0.1	0.5	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	0.1	1.00E-12
13	1	1	1	0.01	1.00E-12	0.1	5	5	2	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1.00E-12	1	1.00E-12

Table 3-2. Parameters by Layer and Zone, Vertical Anisotropy Ratio

Vertical Anisotropy Ratio in Each Zone (unitless)																																					
Layer	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**18**	**19**	**20**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**
1	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
4	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
6	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
8	10	10	10	10	10	10	10	10	10	10	100	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
13	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Table 3-3. Fault Name, Layer Location, Parameterization, and Reference Numbering

Fault Name	Layers	Hydraulic Characteristic (1/d)*	Fault Reference Number**
Round Mountain and Long Canyon	3 to 13	0.04	1
Sycamore Canyon	5 to 13	0.06	2
Bailey in UAS	3 to 6	0.0001, 0.005	3a
Bailey in LAS	7 to 13	1.0e04, 1.0e-6	3b
Springville	1 to 13	1.1E-04	4
Santa Rosa	3 to 13	1.0E-06	5
Camarillo	3 to 13	1.0E-06	51
Santa Rosa Valley	3 to 13	1.0E-06	52
Las Posas and Santa Rosa	3 to 13	1.0E-06	53
Hueneme Canyon	6 to 13	0.03	6
Montalvo	7 to 13	1.0	7
Oak Ridge in Mound and OP	7 to 13	1.0	8
Country Club***	3 to 13	0.001	9
Oak Ridge in Forebay***	3 to 13	1.04E-02 to 1.04E-06	10
North Mugu Lagoon	7 to 13	1.0E-04	11
Connecting Country Club and Oak Ridge Faults***	3 to 13	1.0E-06	19
Split WLP and PV basins, Extension of Springville Fault	6 to 13	4.0E-04	22
Spur off Springville Fault	3 to 13	5.0E-04	41
No name in Santa Paula basin***	3 to 13	1.0E-03	71
No name in Fillmore basin***	1 to 13	1.07E-07	73
La Loma and Fox Canyon	7 to 13	1.10E-04	75
No name in North WLP	7 to 13	1.08E-04	76
Foothill-North***	7 to 13	1.10E-04	98
Foothill***	7 to 13	1.10E-05	99
Foothill extension to Ventura Fault in Mound basin***	7 to 13	1.10E-05	100

*Hydraulic Characteristic (1/d) = Hydraulic Conductivity (ft/d)/Thickness (ft).
Thickness is numerically represented as 1 foot.

**Fault Reference Number represented in Boundary Condition Figures, 3-14 to 3-26

***Faults added in 2020 Regional Model Expansion

Table 3-4. Parameters by Layer and Zone, Specific Yield

Specific Yield in Each Zone (unitless)																		
Layer	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**18**	**19**	**20**
1	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.10	0.10	0.15	0.15	0.15	0.15
2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15	0.05	0.05	0.05	0.05	0.05	0.05	0.05
3	0.15	0.15	0.15	0.05	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.10	0.10	0.15	0.15	0.15	0.15
4	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15	0.05	0.05	0.05	0.05	0.05	0.05	0.05
5	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.10	0.10	0.15	0.15	0.15	0.15
6	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
7	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
8	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
9	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
10	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
12	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
13	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Specific Yield in Each Zone (unitless)																		
Layer	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**
1	0.15	0.15	0.10	0.10	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.05	0.15
3	0.15	0.15	0.10	0.10	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
4	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
5	0.15	0.15	0.10	0.10	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
6	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
7	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
8	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
9	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
10	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.05	0.10
11	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
12	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
13	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Table 3-5. Parameters by Layer and Zone, Storage Coefficient

Storage Coefficient in Each Zone (unitless)																		
Layer	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**18**	**19**	**20**
1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
2	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
3	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
4	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
6	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
8	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
9	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
12	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Storage Coefficient in Each Zone (unitless)																		
Layer	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**
1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
2	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
3	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
4	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
6	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
8	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
9	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
12	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Table 3-6. Stream (STR) Segment Numbering

Name	STR Segment Number	Type	Name	STR Segment Number	Type
Piru Creek	1	Stream	SCR Main Stem	27	Stream
Rancho Temescal Pump No 1	2	Diversion	SCR Main Stem	28	Stream
Piru Creek	3	Stream	SCR Main Stem	29	Stream
Rancho Temescal Pump No 2	4	Diversion	SCR Main Stem	30	Stream
Piru Creek	5	Stream	SCR Main Stem	31	Stream
Piru Mutual Diversion	6	Diversion	SCR Main Stem	32	Stream
Piru Creek	7	Stream	SCR Main Stem	33	Stream
UWCD Piru Diversion	8	Diversion	SCR Main Stem	34	Stream
Piru Creek	9	Stream	Hyde Turner Diversion	35	Diversion
Hopper Canyon Creek	10	Stream	SCR Main Stem	36	Stream
Pole Creek	11	Stream	South Fork Diversion	37	Diversion
Sespe Creek	12	Stream	SCR Main Stem	38	Stream
Boulder Creek	13	Stream	SCR Main Stem	39	Stream
Timber Canyon Creek	14	Stream	SCR Main Stem	40	Stream
Santa Paula Creek	15	Stream	Freeman Diversion	41	Diversion
Canyon Irrigation Company Diversion	16	Diversion	SCR Main Stem	42	Stream
Santa Paula Creek	17	Stream	SCR Main Stem	43	Stream
Adams Barranca	18	Stream	SCR Main Stem	44	Stream
Todd Barranca	19	Stream	Arroyo Las Posas	45	Stream
Ellsworth Barranca	20	Stream	Conejo Creek	46	Stream
Harmon Barranca	21	Stream	Camrosa Diversion	47	Diversion
Balcom Canyon Creek	22	Stream	Conejo Creek	48	Stream
SCR Main Stem	23	Stream	Camarillo Sanitation District	49	Discharge
Camulos Diversion	24	Diversion	Conejo Creek	50	Stream
SCR Main Stem	25	Stream	Calleguas Creek	51	Stream
Isola Diversion	26	Diversion	Calleguas Creek	52	Stream

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
04N18W03K01S	40	--	70	--	PIRU	OUTSIDE	80	1	71	1	1979	2	2019	2
04N18W03Q02S	--	--	--	--	PIRU	OUTSIDE	81	40	3,211	250	1979	2	2019	2
04N18W20M02S	160	--	369	--	PIRU	PIRU	78	79.2	6,180	234	1981	1	2019	2
04N18W20M01S	220	--	420	--	PIRU	PIRU	81	87	7,038	323	1979	2	2019	2
04N18W19Q01S	422	--	622	--	PIRU	PIRU	81	74	5,982	243	1979	2	2019	2
04N18W20R01S	190	--	319	--	PIRU	PIRU	82	204	16,732	990	1979	1	2019	2
04N18W20N01S	220	--	441	--	PIRU	PIRU	80	5.0	401	14	1979	2	2019	2
04N18W19R01S	220	--	401	--	PIRU	PIRU	17	12.7	215	58	1979	2	1997	2
04N18W19P02S	415	--	630	--	PIRU	PIRU	80	126.3	10,102.9	720.5	1979	2	2019	2
04N18W19N01S	--	--	--	--	PIRU	PIRU	81	98	7,899	184	1979	2	2019	2
04N18W29C01S	356	--	500	--	PIRU	PIRU	81	147.1	11,917.0	325.5	1979	2	2019	2
04N18W28C02S	390	--	750	--	PIRU	PIRU	82	348.6	28,588	1,176	1979	1	2019	2
04N18W27B01S	156	--	280	--	PIRU	PIRU	82	20.9	1,717	197.7	1979	1	2019	2
04N18W27B02S	140	--	255	--	PIRU	PIRU	67	13.9	931.7	237.1	1979	2	2019	2
04N19W25A02S	267	--	460	--	PIRU	PIRU	63	74.5	4,691	140	1988	2	2019	2
04N19W25C02S	265	--	504	--	PIRU	PIRU	77	25	1,946	46	1979	2	2019	2
04N18W30D01S	120	--	285	--	PIRU	PIRU	80	47	3,779	131	1979	2	2019	2
04N18W29D01S	--	--	--	--	PIRU	PIRU	81	59.9	4,851.8	138.0	1979	2	2019	2
04N18W29E01S	--	--	--	--	PIRU	PIRU	81	67	5,460	174	1979	2	2019	2
04N19W26H01S	568	--	612	--	PIRU	PIRU	81	174.5	14,137	416.5	1979	2	2019	2
04N18W30F02S	200	--	280	--	PIRU	PIRU	81	41.7	3,379.2	130.8	1979	2	2019	2
04N18W30G01S	282	--	392	--	PIRU	PIRU	81	65.2	5,285	134	1979	2	2019	2
04N18W29F01S	110	--	275	--	PIRU	PIRU	75	42.0	3,149	158	1980	1	2019	2
04N18W30L01S	200	--	430	--	PIRU	PIRU	81	137	11,119	247	1979	2	2019	2
04N18W29M01S	120	--	230	--	PIRU	PIRU	69	32.3	2,227	71	1985	1	2019	2
04N18W30J01S	116	--	246	--	PIRU	PIRU	80	107	8,580	301	1979	2	2019	2
04N18W30J02S	116	--	246	--	PIRU	PIRU	58	1	60	2	1991	1	2019	2
04N18W30G03S	--	--	--	--	PIRU	PIRU	81	36	2,948	77	1979	2	2019	2
04N18W30G02S	--	--	--	--	PIRU	PIRU	81	16.6	1,344	83	1979	2	2019	2
04N19W25J04S	300	--	500	--	PIRU	PIRU	81	162	13,140	1,009	1979	2	2019	2
04N19W25K02S	120	--	290	--	PIRU	PIRU	40	82	3,270	161	1979	2	1999	2
04N18W30K01S	--	--	--	--	PIRU	PIRU	81	2.8	226	5.3	1979	2	2019	2
04N18W29K01S	465	--	745	--	PIRU	PIRU	82	142.4	11,678	464	1979	1	2019	2
04N18W30J03S	125	--	225	--	PIRU	PIRU	81	0.7	54.7	1.4	1979	2	2019	2
04N19W26J02S	--	--	--	--	PIRU	PIRU	81	42	3,417	88	1979	2	2019	2
04N18W30M03S	280	--	460	--	PIRU	PIRU	81	69	5,550	135	1979	2	2019	2
04N19W26J03S	400	--	650	--	PIRU	PIRU	82	257.9	21,149	728	1979	1	2019	2
04N19W25M01S	--	--	--	--	PIRU	PIRU	81	0.2	18	2	1979	2	2019	2
04N19W25K01S	--	--	--	--	PIRU	PIRU	81	80.1	6,491	174.7	1979	2	2019	2
04N19W25M02S	526	--	626	--	PIRU	PIRU	81	86.7	7,027	296.4	1979	2	2019	2
04N19W26Q03S	--	--	--	--	PIRU	PIRU	81	42	3,389	60	1979	2	2019	2
04N19W27Q02S	271	--	350	--	PIRU	PIRU	81	22.1	1,789.2	61.7	1979	2	2019	2
04N19W27Q01S	272	--	335	--	PIRU	PIRU	55	0.5	27.5	0.5	1992	2	2019	2
04N19W25L04S	385	--	485	--	PIRU	PIRU	81	90	7,288	194	1979	2	2019	2
04N19W26P01S	222	--	282	--	PIRU	PIRU	82	166	13,639	428	1979	1	2019	2
04N19W28Q01S	--	--	--	--	PIRU	PIRU	81	49.2	3,981.6	180.0	1979	2	2019	2
04N19W27R01S	--	--	--	--	PIRU	PIRU	79	64	5,074	157	1979	2	2019	2
04N19W26P02S	--	--	--	--	PIRU	PIRU	82	32.9	2,697	411	1979	1	2019	2
04N19W27R03S	240	--	402	--	PIRU	PIRU	81	53.2	4,306	69	1979	2	2019	2
04N18W29P01S	--	--	232	--	PIRU	PIRU	81	1	64	2	1979	2	2019	2
04N19W27P02S	210	--	290	--	PIRU	PIRU	81	51.4	4,160	105	1979	2	2019	2
04N19W34B01S	--	--	--	--	PIRU	PIRU	59	60.0	3,537	105.4	1990	2	2019	2
04N19W33B01S	206	--	306	--	PIRU	PIRU	81	8.5	692	41.0	1979	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
04N18W31D01S	224	--	374	--	PIRU	PIRU	81	88.7	7,183	150	1979	2	2019	2
04N19W33C01S	165	--	400	--	PIRU	PIRU	34	175	5,951	348	2003	1	2019	2
04N18W31D02S	220	--	500	--	PIRU	PIRU	81	111.7	9,051	177	1979	2	2019	2
04N19W35C01S	--	--	--	--	PIRU	PIRU	82	82.7	6,779	742	1979	1	2019	2
04N19W34D01S	160	--	304	--	PIRU	PIRU	81	39.0	3,163	127	1979	2	2019	2
04N19W33A02S	283	--	355	--	PIRU	PIRU	81	30.0	2,431	45	1979	2	2019	2
04N19W33C02S	205	--	345	--	PIRU	PIRU	81	188.6	15,280	634.2	1979	2	2019	2
04N19W34C02S	--	--	--	--	PIRU	PIRU	52	107.6	5,594	191.5	1979	2	2006	1
04N19W34C03S	219	--	291	--	PIRU	PIRU	30	114.8	3,444	262.6	2005	1	2019	2
04N19W34D05S	--	--	--	--	PIRU	PIRU	59	26.5	1,565	72	1990	2	2019	2
04N19W34D04S	283	--	355	--	PIRU	PIRU	70	39.6	2,773	92.1	1985	1	2019	2
04N18W31C01S	--	--	--	--	PIRU	PIRU	31	25.9	802	35	2004	2	2019	2
04N19W33G01S	--	--	--	--	PIRU	PIRU	76	6.8	518	123	1982	1	2019	2
04N19W33F01S	300	--	600	--	PIRU	PIRU	76	69.9	5,310	819	1982	1	2019	2
04N19W33H01S	237	--	362	--	PIRU	PIRU	81	93.7	7,590	342	1979	2	2019	2
04N19W34G01S	70	--	220	--	PIRU	PIRU	81	83	6,735	345	1979	2	2019	2
04N19W35L05S	80	--	302	--	PIRU	PIRU	72	91.2	6,567	472.8	1984	1	2019	2
04N19W34J01S	72	--	120	--	PIRU	PIRU	81	48.9	3,960	143.8	1979	2	2019	2
04N19W34K01S	5	--	120	--	PIRU	PIRU	11	1.3	15	2	2014	2	2019	2
04N19W35L01S	40	--	130	--	PIRU	PIRU	81	6.4	522	96.2	1979	2	2019	2
04N19W35K01S	40	--	400	--	PIRU	PIRU	77	1.2	89	4.0	1981	2	2019	2
04N19W35K02S	--	--	--	--	PIRU	PIRU	81	73.1	5,924	215	1979	2	2019	2
04N19W34M02S	--	--	--	--	PIRU	PIRU	81	65	5,272	240	1979	2	2019	2
04N19W33K07S	57	--	93	--	PIRU	PIRU	81	22.2	1,797	136	1979	2	2019	2
04N19W33K04S	--	--	--	--	PIRU	PIRU	14	2.6	37	10	2013	1	2019	2
04N19W33J01S	--	--	--	--	PIRU	PIRU	80	0.5	38.6	1.8	1979	2	2019	2
04N19W23R02S	150	--	200	--	PIRU	OUTSIDE	56	4.5	252.7	13.3	1991	1	2019	2
04N19W26Q04S	115	--	156	--	PIRU	PIRU	63	1.9	117.2	4.0	1988	2	2019	2
04N19W34J03S	50	--	95	--	PIRU	PIRU	67	20.3	1361.3	22.4	1986	2	2019	2
04N18W20P01S	795	--	995	--	PIRU	PIRU	40	28.2	1129.0	170.6	1979	2	1999	2
04N18W30J05S	52	--	207	--	PIRU	PIRU	21	2.2	46.4	12.0	2009	2	2019	2
04N18W30G05S	157	--	237	--	PIRU	PIRU	41	2.0	80.2	3.7	1999	2	2019	2
04N18W30F04S	--	--	--	--	PIRU	PIRU	26	0.7	19.3	1.0	2007	1	2019	2
04N18W20K02S	120	--	200	--	PIRU	PIRU	46	10.6	486.4	15.0	1997	1	2019	2
04N19W25K04S	220	--	370	--	PIRU	PIRU	43	16.0	688.9	24.0	1998	1	2019	2
04N19W26J05S	200	--	250	--	PIRU	PIRU	46	1.5	70.0	3.0	1997	1	2019	2
04N19W25M03S	210	--	250	--	PIRU	PIRU	18	1.0	18.0	1.0	2011	1	2019	2
04N19W28Q03S	407	--	707	--	PIRU	PIRU	35	38.6	1352.2	176.0	2002	2	2019	2
04N19W28P02S	310	--	800	--	PIRU	PIRU	18	30.5	549.4	53.5	2011	1	2019	2
04N18W27K01S	50	--	130	--	PIRU	PIRU	30	37.0	1110.6	150.2	2005	1	2019	2
04N18W30L02S	125	--	245	--	PIRU	PIRU	20	2.2	44.3	8.5	2010	1	2019	2
04N19W34L01S	90	--	430	--	PIRU	PIRU	35	126.5	4427.1	453.8	2002	2	2019	2
04N18W20M03S	160	--	450	--	PIRU	PIRU	32	284.0	9087.3	495.0	2004	1	2019	2
04N19W25J05S	180	--	380	--	PIRU	PIRU	29	12.4	359.4	25.8	2005	2	2019	2
04N18W31H01S	360	--	520	--	PIRU	OUTSIDE	30	1.0	29.5	6.9	2005	1	2019	2
04N18W19J02S	187	--	447	--	PIRU	PIRU	26	32.1	834.3	54.9	2006	2	2019	2
04N19W25J06S	120	--	400	--	PIRU	PIRU	28	174.3	4881.2	482.3	2005	2	2019	2
04N18W27G03S	40	--	120	--	PIRU	PIRU	24	131.0	3144.7	247.3	2008	1	2019	2
04N18W27H01S	40	--	120	--	PIRU	PIRU	24	88.3	2119.3	184.7	2008	1	2019	2
04N18W30A03S	90	--	190	--	PIRU	PIRU	18	3.2	57.1	6.6	2011	1	2019	2
04N18W30J04S	79	--	250	--	PIRU	PIRU	21	0.5	9.6	1.2	2009	2	2019	2
04N19W25G01S	200	--	400	--	PIRU	PIRU	23	46.3	1065.2	318.2	2008	2	2019	2
04N19W34A01S	110	--	200	--	PIRU	PIRU	79	0.9	70.1	2.0	1980	1	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
04N19W34J04S	60	--	160	--	PIRU	PIRU	20	38.3	765.3	82.4	2010	1	2019	2
04N19W25L07S	40	--	140	--	PIRU	PIRU	17	0.0	0.8	0.8	2010	1	2019	2
04N19W23R03S	120	--	207	--	PIRU	OUTSIDE	19	2.1	39.6	12.0	2009	2	2019	2
04N18W30B01S	280	--	430	--	PIRU	PIRU	18	156.9	2823.3	320.0	2011	1	2019	2
04N18W30L03S	120	--	240	--	PIRU	PIRU	23	12.3	281.8	21.6	2008	1	2019	2
04N18W30L04S	120	--	240	--	PIRU	PIRU	24	16.5	396.8	27.8	2008	1	2019	2
04N19W25H01S	120	--	240	--	PIRU	PIRU	24	5.5	131.5	17.6	2008	1	2019	2
04N18W30J06S	--	--	--	--	PIRU	PIRU	21	9.9	207.4	12.3	2009	2	2019	2
04N18W30F03S	143	--	243	--	PIRU	PIRU	63	2.7	171.5	12.1	1988	2	2019	2
04N18W30E01S	300	--	590	--	PIRU	PIRU	14	167.3	2342.6	373.0	2013	1	2019	2
04N18W03Q03S	27	--	70	--	PIRU	OUTSIDE	12	12.1	145.8	70.1	2014	1	2019	2
04N18W26E01S	21	--	60	--	PIRU	PIRU	14	12.5	175.5	98.9	2013	1	2019	2
04N18W27H03S	26	--	66	--	PIRU	PIRU	14	11.2	156.8	94.6	2013	1	2019	2
04N18W27H02S	30	--	98	--	PIRU	PIRU	14	0.9	13.2	12.4	2013	1	2019	2
04N20W12G02S	80	--	100	--	FILLMORE	OUTSIDE	58	1.9	112	14	1991	1	2019	2
04N20W13P02S	--	--	--	--	FILLMORE	FILLMORE	81	47.6	3,859	172	1979	2	2019	2
04N20W13P01S	--	--	--	--	FILLMORE	FILLMORE	20	6	118	118	1979	2	1997	2
04N20W13N01S	203	--	403	--	FILLMORE	FILLMORE	81	26.2	2,122	65.3	1979	2	2019	2
04N20W24C01S	564	--	704	--	FILLMORE	FILLMORE	81	216.2	17,515	472	1979	2	2019	2
04N20W24D01S	190	--	308	--	FILLMORE	FILLMORE	81	38.6	3,127.2	116.1	1979	2	2019	2
04N20W23F01S	--	--	--	--	FILLMORE	FILLMORE	81	26.1	2,114.5	80.0	1979	2	2019	2
04N20W23G01S	--	--	--	--	FILLMORE	FILLMORE	82	6.7	553	58	1979	1	2019	2
04N20W24J03S	135	--	308	--	FILLMORE	FILLMORE	81	0.7	54	6	1979	2	2019	2
04N20W24J01S	245	--	535	--	FILLMORE	FILLMORE	82	308.9	25,330.6	520.8	1979	1	2019	2
04N20W23J02S	216	--	505	--	FILLMORE	FILLMORE	81	75	6,055	151	1979	2	2019	2
04N20W23L01S	270	--	400	--	FILLMORE	FILLMORE	77	20	1,578	186	1981	2	2019	2
04N20W24R02S	730	--	1,820	--	FILLMORE	FILLMORE	81	168	13,568	540	1979	2	2019	2
04N20W23Q02S	327	--	567	--	FILLMORE	FILLMORE	81	66.0	5,345	120.5	1979	2	2019	2
04N20W24N01S	--	--	--	--	FILLMORE	FILLMORE	81	46	3,711	54	1979	2	2019	2
04N20W23Q01S	134	--	224	--	FILLMORE	FILLMORE	67	29	1,936	64	1986	1	2019	2
04N20W23N01S	219	--	388	--	FILLMORE	FILLMORE	29	0.6	16	10	2000	1	2019	2
04N20W23N02S	220	--	390	--	FILLMORE	FILLMORE	81	104.4	8,453.2	295.6	1979	2	2019	2
04N20W25D01S	67	--	187	--	FILLMORE	FILLMORE	81	127.0	10,284	731	1979	2	2019	2
04N20W25B01S	50	--	280	--	FILLMORE	FILLMORE	81	568	46,032	999	1979	2	2019	2
04N20W26C02S	155	--	255	--	FILLMORE	FILLMORE	81	2.6	209	11	1979	2	2019	2
04N20W26A02S	40	--	254	--	FILLMORE	FILLMORE	81	339.0	27,459	669	1979	2	2019	2
04N19W30D01S	60	--	380	--	FILLMORE	FILLMORE	81	84.5	6,848	167	1979	2	2019	2
04N20W25D02S	80	--	100	--	FILLMORE	FILLMORE	82	0	41	1	1979	1	2019	2
04N20W25C01S	103	--	311	--	FILLMORE	FILLMORE	49	10	501	55	1979	2	2003	2
04N20W26D01S	180	--	500	--	FILLMORE	FILLMORE	81	247.5	20,045.5	467.6	1979	2	2019	2
04N20W26C03S	120	--	270	--	FILLMORE	FILLMORE	81	7.3	590	13	1979	2	2019	2
04N20W26H02S	76	--	113	--	FILLMORE	FILLMORE	81	101.7	8,239	404.8	1979	2	2019	2
04N20W26F01S	124	--	442	--	FILLMORE	FILLMORE	81	310.6	25,158	771.3	1979	2	2019	2
04N20W26E01S	--	--	--	--	FILLMORE	FILLMORE	81	444.5	36,006.3	841.8	1979	2	2019	2
04N19W30H01S	140	--	500	--	FILLMORE	FILLMORE	81	48.6	3,937.6	251.7	1979	2	2019	2
04N20W25K03S	--	--	--	--	FILLMORE	FILLMORE	18	8	137	13	1979	2	1997	2
04N20W28M02S	270	--	555	--	FILLMORE	FILLMORE	54	15	827	19	1993	1	2019	2
04N20W25M01S	120	--	200	--	FILLMORE	FILLMORE	59	1	54	1	1990	2	2019	2
04N19W29K01S	--	--	--	--	FILLMORE	FILLMORE	19	0.9	17	1	1979	2	1997	2
04N19W29L02S	40	--	90	--	FILLMORE	FILLMORE	65	3.9	255	27	1985	2	2019	2
04N19W30K01S	160	--	479	--	FILLMORE	FILLMORE	54	0	1	1	1979	2	2006	1
04N19W29R02S	--	--	--	--	FILLMORE	FILLMORE	82	0.6	48.8	2.0	1979	1	2019	2
04N19W29R06S	174	--	204	--	FILLMORE	FILLMORE	69	1	47	1	1985	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
04N19W30R01S	173	--	300	--	FILLMORE	FILLMORE	57	18	1,006	36	1979	2	2008	1
04N19W30Q02S	310	--	510	--	FILLMORE	FILLMORE	34	43	1,473	48	1989	2	2006	1
04N19W30P02S	102	--	232	--	FILLMORE	FILLMORE	81	17	1,397	78	1979	2	2019	2
04N19W29R04S	80	--	180	--	FILLMORE	FILLMORE	81	142	11,506	589	1979	2	2019	2
04N20W27Q01S	236	--	483	--	FILLMORE	FILLMORE	81	108.6	8,794.1	516.2	1979	2	2019	2
04N19W29Q03S	--	--	--	--	FILLMORE	FILLMORE	39	122.4	4,772	497	1984	2	2003	2
04N19W30P03S	--	--	--	--	FILLMORE	FILLMORE	13	10.9	141	94	1979	2	1997	2
04N20W26Q01S	--	--	--	--	FILLMORE	FILLMORE	73	108.6	7,931	332	1979	2	2015	2
04N20W29Q01S	100	--	480	--	FILLMORE	FILLMORE	11	1	13	3	2014	2	2019	2
04N19W29R05S	100	--	209	--	FILLMORE	FILLMORE	80	364	29,110	1,350	1979	2	2019	2
04N20W25N02S	--	--	--	--	FILLMORE	FILLMORE	81	70.2	5,685.8	220.0	1979	2	2019	2
04N20W33C01S	416	--	897	--	FILLMORE	FILLMORE	81	45.6	3,690	101	1979	2	2019	2
04N19W33D06S	200	--	600	--	FILLMORE	PIRU	81	1,319	106,804	4,712	1979	2	2019	2
04N20W36D01S	46	--	266	--	FILLMORE	FILLMORE	81	2.8	230	13	1979	2	2019	2
04N19W33D05S	200	--	600	--	FILLMORE	PIRU	81	2,270.7	183,924	5,085	1979	2	2019	2
04N20W36B01S	--	--	--	--	FILLMORE	FILLMORE	33	5.1	169	12.5	1990	2	2006	2
04N20W33B01S	195	--	297	--	FILLMORE	FILLMORE	81	33	2,692	108	1979	2	2019	2
04N19W31D04S	80	--	250	--	FILLMORE	FILLMORE	81	175.8	14,238.3	747.7	1979	2	2019	2
04N19W33D03S	140	--	506	--	FILLMORE	PIRU	80	743.6	59,492	1,905.9	1980	1	2019	2
04N20W36C02S	--	--	--	--	FILLMORE	FILLMORE	57	12	692	14	1979	2	2007	2
04N20W36D02S	--	--	--	--	FILLMORE	FILLMORE	69	0.7	50	1.0	1979	2	2015	2
04N19W33D04S	140	--	486	--	FILLMORE	PIRU	82	454.4	37,261	1,559.0	1979	1	2019	2
04N19W32A02S	--	--	--	--	FILLMORE	FILLMORE	81	204.7	16,578	3,077.5	1979	2	2019	2
04N20W36C03S	--	--	--	--	FILLMORE	FILLMORE	77	0.5	40.1	0.8	1980	2	2019	2
04N20W36D06S	--	--	--	--	FILLMORE	FILLMORE	81	1.0	78.6	2.1	1979	2	2019	2
04N20W36D04S	34	--	68	--	FILLMORE	FILLMORE	79	52.1	4,115	162	1979	2	2019	2
04N20W33C03S	470	--	700	--	FILLMORE	FILLMORE	81	60.8	4,921	165	1979	2	2019	2
04N20W35H01S	--	--	--	--	FILLMORE	FILLMORE	58	15	851	123	1991	1	2019	2
04N19W31F01S	60	--	100	--	FILLMORE	FILLMORE	60	0.9	56	4	1989	2	2019	2
04N20W32H01S	325	--	380	--	FILLMORE	FILLMORE	81	42.5	3,441	92	1979	2	2019	2
04N19W31H01S	55	--	395	--	FILLMORE	FILLMORE	80	18.2	1,456	83.2	1979	2	2019	2
04N19W31E01S	--	--	--	--	FILLMORE	FILLMORE	81	53.8	4,354.3	157.7	1979	2	2019	2
04N19W32F03S	165	--	345	--	FILLMORE	FILLMORE	55	104.7	5,758	232	1979	1	2006	1
04N19W32G01S	136	--	409	--	FILLMORE	FILLMORE	81	188.6	15,275	738	1979	2	2019	2
04N19W32F02S	81	--	245	--	FILLMORE	FILLMORE	81	6.7	539	41.2	1979	2	2019	2
04N20W31H01S	345	--	390	--	FILLMORE	FILLMORE	81	13.1	1,061	55.2	1979	2	2019	2
04N20W31H02S	370	--	610	--	FILLMORE	FILLMORE	81	29	2,374	63	1979	2	2019	2
04N19W33M04S	55	--	278	--	FILLMORE	PIRU	81	42	3,384	137	1979	2	2019	2
04N20W34J01S	260	--	480	--	FILLMORE	FILLMORE	80	3.0	239	50	1979	1	2019	2
04N19W32J05S	40	--	130	--	FILLMORE	FILLMORE	81	0.5	40	1	1979	2	2019	2
04N19W33M02S	--	--	--	--	FILLMORE	FILLMORE	76	208.9	15,876	411	1982	1	2019	2
04N20W34K04S	54	--	101	--	FILLMORE	FILLMORE	27	2.1	56	3	2006	2	2019	2
04N19W32J06S	50	--	150	--	FILLMORE	FILLMORE	81	138	11,175	686	1979	2	2019	2
04N19W31L01S	--	--	--	--	FILLMORE	FILLMORE	81	113.8	9,215.6	304.6	1979	2	2019	2
04N19W33M03S	--	--	--	--	FILLMORE	FILLMORE	81	429.8	34,810.1	2,880.0	1979	2	2019	2
04N19W33M05S	37	--	107	--	FILLMORE	FILLMORE	82	58.2	4,773	151	1979	1	2019	2
04N20W34K01S	--	--	--	--	FILLMORE	FILLMORE	81	40.8	3,303	78.8	1979	2	2019	2
04N20W31L01S	633	--	1,100	--	FILLMORE	FILLMORE	81	6.4	518	18	1979	2	2019	2
04N19W32L01S	50	--	160	--	FILLMORE	FILLMORE	81	55.5	4,499	210	1979	2	2019	2
04N20W36J02S	--	--	--	--	FILLMORE	FILLMORE	81	25.4	2,058	105	1979	2	2019	2
04N20W36R02S	80	--	160	--	FILLMORE	FILLMORE	81	17	1,356	38	1979	2	2019	2
04N20W36R06S	--	--	--	--	FILLMORE	FILLMORE	81	13.1	1,057.6	23.8	1979	2	2019	2
04N20W36K02S	--	--	--	--	FILLMORE	FILLMORE	81	102.4	8,295.2	216.0	1979	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
04N19W32J01S	--	--	--	--	FILLMORE	FILLMORE	81	89.7	7,264.0	280.5	1979	2	2019	2
04N20W36R05S	--	--	--	--	FILLMORE	FILLMORE	60	0.6	36	1	1990	1	2019	2
04N20W34R01S	--	--	--	--	FILLMORE	FILLMORE	82	64.8	5,310	112	1979	1	2019	2
04N19W31R01S	60	--	137	--	FILLMORE	FILLMORE	81	156	12,628	345	1979	2	2019	2
04N20W34P01S	--	--	--	--	FILLMORE	FILLMORE	81	69	5,586	479	1979	2	2019	2
04N20W31Q01S	300	--	485	--	FILLMORE	FILLMORE	81	233	18,870	849	1979	2	2019	2
04N19W31P01S	--	--	--	--	FILLMORE	FILLMORE	81	1	42	1	1979	2	2019	2
04N20W32P01S	260	--	384	--	FILLMORE	FILLMORE	81	32	2,568	77	1979	2	2019	2
04N20W36Q03S	75	--	185	--	FILLMORE	FILLMORE	81	208.8	16,910	526	1979	2	2019	2
04N20W31P01S	230	--	450	--	FILLMORE	FILLMORE	81	173	14,001	748	1979	2	2019	2
04N19W31N03S	105	--	169	--	FILLMORE	FILLMORE	70	73.2	5,122.1	191.6	1985	1	2019	2
04N20W36R07S	80	--	260	--	FILLMORE	FILLMORE	59	0.6	36.5	1.8	1990	2	2019	2
04N20W32Q01S	--	--	--	--	FILLMORE	FILLMORE	59	0.6	37.3	1.0	1990	2	2019	2
04N20W35R01S	56	--	156	--	FILLMORE	FILLMORE	56	12	694	25	1992	1	2019	2
04N20W36Q04S	--	--	--	--	FILLMORE	FILLMORE	81	0.6	52.2	1.0	1979	2	2019	2
04N20W36N03S	60	--	100	--	FILLMORE	FILLMORE	81	0.6	51.0	1.5	1979	2	2019	2
04N20W34N05S	80	--	200	--	FILLMORE	FILLMORE	20	56	1,128	88	2010	1	2019	2
04N20W32R01S	105	--	240	--	FILLMORE	FILLMORE	75	41.9	3,143	145	1982	2	2019	2
04N19W32N02S	--	--	--	--	FILLMORE	FILLMORE	60	0.5	31	1	1990	1	2019	2
04N20W36P02S	60	--	150	--	FILLMORE	FILLMORE	81	34.8	2,823	88	1979	2	2019	2
04N20W32P02S	241	--	324	--	FILLMORE	FILLMORE	81	52	4,210	209	1979	2	2019	2
03N19W06D02S	216	--	405	--	FILLMORE	FILLMORE	81	120.9	9,793	345	1979	2	2019	2
03N20W01C04S	49	--	218	--	FILLMORE	FILLMORE	81	119	9,661	409	1979	2	2019	2
03N19W06D03S	184	--	400	--	FILLMORE	FILLMORE	81	183	14,787	455	1979	2	2019	2
03N20W01A03S	385	--	545	--	FILLMORE	FILLMORE	81	140.6	11,390.9	468.5	1979	2	2019	2
03N20W01D03S	--	--	--	--	FILLMORE	FILLMORE	81	0.6	47	1.0	1979	2	2019	2
03N20W02B03S	362	--	522	--	FILLMORE	FILLMORE	81	65.8	5,328	137	1979	2	2019	2
03N20W06A01S	--	--	--	--	FILLMORE	FILLMORE	81	169	13,682	1,238	1979	2	2019	2
03N20W06A03S	520	--	940	--	FILLMORE	FILLMORE	68	186	12,639	301	1986	1	2019	2
03N20W05D03S	200	--	385	--	FILLMORE	FILLMORE	81	57.4	4,648	214	1979	2	2019	2
03N20W03D07S	224	--	484	--	FILLMORE	FILLMORE	80	5	411	143	1979	2	2019	2
03N20W03D05S	274	--	436	--	FILLMORE	FILLMORE	81	183.4	14,858	1,269	1979	2	2019	2
03N20W03D03S	102	--	397	--	FILLMORE	FILLMORE	80	598	47,856	1,272	1979	2	2019	2
03N20W06D03S	160	--	500	--	FILLMORE	FILLMORE	74	46.5	3,438	152	1983	1	2019	2
03N20W05C01S	125	--	405	--	FILLMORE	FILLMORE	38	50	1,887	286	2001	1	2019	2
03N20W05C02S	135	--	402	--	FILLMORE	FILLMORE	49	244.8	11,995	554	1979	2	2003	2
03N20W01A02S	--	--	--	--	FILLMORE	FILLMORE	17	0.1	2	0.5	2011	1	2019	2
03N20W02B02S	--	--	--	--	FILLMORE	FILLMORE	81	69.6	5,637	143	1979	2	2019	2
03N20W06B01S	320	--	640	--	FILLMORE	FILLMORE	81	37	2,993	116	1979	2	2019	2
03N20W05C03S	221	--	362	--	FILLMORE	FILLMORE	81	3.2	256	6	1979	2	2019	2
03N20W02A04S	80	--	100	--	FILLMORE	FILLMORE	68	0.9	61.7	1.9	1979	2	2019	2
03N20W02A01S	--	--	--	--	FILLMORE	FILLMORE	81	3.0	242.0	12.2	1979	2	2019	2
03N20W01H03S	200	--	243	--	FILLMORE	FILLMORE	71	0.5	39	1	1984	2	2019	2
03N20W01B01S	--	--	--	--	FILLMORE	FILLMORE	81	0.6	46	1	1979	2	2019	2
03N21W01C01S	112	--	138	--	FILLMORE	FILLMORE	77	0.6	47	1.9	1981	1	2019	2
03N20W04C01S	160	--	332	--	FILLMORE	FILLMORE	81	412.9	33,445	1,024	1979	2	2019	2
03N20W01G02S	150	--	220	--	FILLMORE	FILLMORE	59	1	30	1	1990	2	2019	2
03N20W02F05S	96	--	265	--	FILLMORE	FILLMORE	81	8	662	11	1979	2	2019	2
03N21W01B01S	--	--	--	--	FILLMORE	FILLMORE	81	1	70	2	1979	2	2019	2
03N20W05D02S	--	--	--	--	FILLMORE	FILLMORE	12	57	687	224	1979	2	1997	2
03N20W06G01S	158	--	230	--	FILLMORE	FILLMORE	81	21	1,733	27	1979	2	2019	2
03N20W02E01S	--	--	--	--	FILLMORE	FILLMORE	81	36	2,912	60	1979	2	2019	2
03N20W05H01S	139	--	370	--	FILLMORE	FILLMORE	65	21	1,382	289	1979	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
03N20W01F02S	--	--	--	--	FILLMORE	FILLMORE	81	1	67	1	1979	2	2019	2
03N21W01F01S	110	--	160	--	FILLMORE	FILLMORE	81	1	47	1	1979	2	2019	2
03N20W02H05S	238	--	310	--	FILLMORE	FILLMORE	60	33.1	1,984.9	290.1	1990	1	2019	2
03N20W03H01S	--	--	--	--	FILLMORE	FILLMORE	81	36.5	2,955	90.5	1979	2	2019	2
03N20W03H02S	100	--	397	--	FILLMORE	FILLMORE	82	32.2	2,637.2	98.3	1979	1	2019	2
03N20W06G02S	--	--	--	--	FILLMORE	FILLMORE	63	116.4	7,334.7	688.1	1979	2	2010	2
03N21W01F03S	80	--	180	--	FILLMORE	FILLMORE	81	0.6	46	1.2	1979	2	2019	2
03N20W02E02S	133	--	205	--	FILLMORE	FILLMORE	81	23.2	1,879.7	40.0	1979	2	2019	2
03N20W05F01S	80	--	492	--	FILLMORE	FILLMORE	81	248.0	20,087.5	605.1	1979	2	2019	2
03N20W02F01S	--	--	--	--	FILLMORE	FILLMORE	81	2.8	230.5	12.9	1979	2	2019	2
03N20W01E01S	--	--	--	--	FILLMORE	FILLMORE	43	0.7	31	1.0	1990	2	2011	2
03N20W02G02S	--	--	--	--	FILLMORE	FILLMORE	61	4.0	246.2	16.1	1989	2	2019	2
03N20W02G03S	120	--	200	--	FILLMORE	FILLMORE	59	0.7	44	1.0	1990	2	2019	2
03N20W02F04S	60	--	108	--	FILLMORE	FILLMORE	81	0.8	65	9	1979	2	2019	2
03N20W02F02S	--	--	--	--	FILLMORE	FILLMORE	81	15	1,214	48	1979	2	2019	2
03N20W02L06S	48	--	80	--	FILLMORE	FILLMORE	80	0.6	46	1.2	1980	1	2019	2
03N20W02M01S	161	--	--	--	FILLMORE	FILLMORE	81	28	2,273	60	1979	2	2019	2
03N20W01J01S	--	--	--	--	FILLMORE	FILLMORE	81	28	2,232	637	1979	2	2019	2
03N20W03J01S	--	--	--	--	FILLMORE	FILLMORE	81	106.3	8,612	299.4	1979	2	2019	2
03N20W06J03S	--	--	--	--	FILLMORE	FILLMORE	59	56.7	3,346.4	83.3	1990	2	2019	2
03N20W06J02S	95	--	288	--	FILLMORE	FILLMORE	81	127.8	10,351	513	1979	2	2019	2
03N20W06L01S	--	--	--	--	FILLMORE	FILLMORE	81	42.4	3,435	75	1979	2	2019	2
03N20W06J01S	--	--	--	--	FILLMORE	FILLMORE	81	68.8	5,570	157	1979	2	2019	2
03N20W03J02S	70	--	210	--	FILLMORE	FILLMORE	81	406.7	32,940	784	1979	2	2019	2
03N20W06K01S	--	--	--	--	FILLMORE	FILLMORE	59	0.6	38	1	1990	2	2019	2
03N20W02L05S	--	--	--	--	FILLMORE	FILLMORE	80	1.1	91	13.0	1979	2	2019	2
03N20W02J01S	108	--	123	--	FILLMORE	FILLMORE	80	0.7	53	1	1980	1	2019	2
03N20W03N01S	120	--	172	--	FILLMORE	FILLMORE	59	94.5	5,576	136.9	1990	2	2019	2
03N20W01P03S	--	--	--	--	FILLMORE	FILLMORE	81	1	83	13	1979	2	2019	2
03N20W03P02S	192	--	300	--	FILLMORE	FILLMORE	81	227	18,404	774	1979	2	2019	2
03N21W01P05S	180	--	380	--	FILLMORE	FILLMORE	82	279	22,904	617	1979	1	2019	2
03N20W02N03S	--	--	--	--	FILLMORE	FILLMORE	49	18.7	918	37	1979	2	2003	2
03N20W02R04S	90	--	125	--	FILLMORE	FILLMORE	73	0.5	37	5.0	1979	2	2015	2
03N20W02R05S	93	--	133	--	FILLMORE	FILLMORE	81	0.5	43	1	1979	2	2019	2
03N21W01P06S	200	--	240	--	FILLMORE	FILLMORE	81	4.0	328	5.8	1979	2	2019	2
03N20W04N03S	186	--	266	--	FILLMORE	FILLMORE	81	85.3	6,910.2	250.0	1979	2	2019	2
03N20W02P02S	--	--	--	--	FILLMORE	FILLMORE	58	28.7	1,664	41	1979	2	2008	1
03N20W04N04S	60	--	155	--	FILLMORE	FILLMORE	81	54.2	4,392	105	1979	2	2019	2
03N21W01P01S	--	--	--	--	FILLMORE	FILLMORE	58	10.4	605.1	17.8	1991	1	2019	2
03N20W01P05S	71	--	305	--	FILLMORE	FILLMORE	58	0.1	4.3	1.0	1991	1	2019	2
03N20W02Q02S	--	--	--	--	FILLMORE	FILLMORE	80	1.2	95	2	1979	2	2019	2
03N21W01P03S	75	--	104	--	FILLMORE	FILLMORE	81	17.8	1,443	58	1979	2	2019	2
03N20W04R02S	95	--	215	--	FILLMORE	FILLMORE	81	249.2	20,182	605	1979	2	2019	2
03N20W04Q02S	--	--	--	--	FILLMORE	FILLMORE	81	97.5	7,894.8	213.9	1979	2	2019	2
03N20W04Q03S	--	--	--	--	FILLMORE	FILLMORE	81	52.9	4,286	125	1979	2	2019	2
03N20W02N01S	--	--	--	--	FILLMORE	FILLMORE	32	34	1,093	55	2004	1	2019	2
03N21W01P07S	220	--	260	--	FILLMORE	FILLMORE	81	1	89	2	1979	2	2019	2
03N20W04R01S	--	--	--	--	FILLMORE	FILLMORE	81	74.5	6,032.7	116.2	1979	2	2019	2
03N20W04Q01S	--	--	--	--	FILLMORE	FILLMORE	81	60	4,881	75	1979	2	2019	2
03N20W06P01S	50	--	100	--	FILLMORE	FILLMORE	52	17.2	897	44	1994	1	2019	2
03N20W04P02S	--	--	--	--	FILLMORE	FILLMORE	81	117.0	9,474	313	1979	1	2019	2
03N20W06P02S	110	--	245	--	FILLMORE	FILLMORE	55	429.2	23,606	806	1979	2	2006	2
03N20W04P01S	--	--	--	--	FILLMORE	FILLMORE	81	54.0	4,373	158	1979	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
03N20W04N01S	136	--	--	--	FILLMORE	FILLMORE	36	35.9	1,293	81	2002	1	2019	2
03N20W02P01S	--	--	--	--	FILLMORE	FILLMORE	81	1	61	1	1979	2	2019	2
03N21W01R01S	--	--	--	--	FILLMORE	FILLMORE	81	0.5	44	1	1979	2	2019	2
03N20W06N01S	125	--	328	--	FILLMORE	FILLMORE	82	172.6	14,152	420	1979	1	2019	2
03N20W06N02S	240	--	350	--	FILLMORE	FILLMORE	81	42.9	3,477	251	1979	2	2019	2
03N21W01P02S	75	--	104	--	FILLMORE	FILLMORE	81	0.6	50	1.3	1979	2	2019	2
03N20W11C01S	--	--	--	--	FILLMORE	FILLMORE	81	12	991	44	1979	2	2019	2
03N20W12D01S	--	--	--	--	FILLMORE	FILLMORE	81	1	69	1	1979	2	2019	2
03N20W09D01S	210	--	310	--	FILLMORE	FILLMORE	81	240.7	19,497	469	1979	2	2019	2
03N20W10D02S	50	--	135	--	FILLMORE	FILLMORE	77	67.1	5,170	124	1979	2	2019	2
03N21W12C01S	--	--	--	--	FILLMORE	FILLMORE	59	0.8	49	1	1990	2	2019	2
03N21W12D01S	--	--	--	--	FILLMORE	FILLMORE	59	0.8	45	1.2	1990	2	2019	2
03N20W08B02S	202	--	307	--	FILLMORE	FILLMORE	81	182.7	14,800	413	1979	2	2019	2
03N21W12A01S	--	--	--	--	FILLMORE	FILLMORE	81	55.9	4,529	66	1979	2	2019	2
03N20W11C02S	--	--	--	--	FILLMORE	FILLMORE	81	0.5	39	1.0	1979	2	2019	2
03N20W11D05S	--	--	--	--	FILLMORE	FILLMORE	23	1.1	25	1	2008	2	2019	2
03N21W12D02S	91	--	122	--	FILLMORE	FILLMORE	59	10.6	626	14.1	1990	2	2019	2
03N20W11A01S	127	--	150	--	FILLMORE	FILLMORE	81	26.7	2,161	54.0	1979	2	2019	2
03N20W12D05S	39	--	150	--	FILLMORE	FILLMORE	81	0.6	45	1.0	1979	2	2019	2
03N20W08C01S	70	--	352	--	FILLMORE	FILLMORE	35	78.9	2,761	154.8	2002	2	2019	2
03N21W12B03S	105	--	150	--	FILLMORE	FILLMORE	81	44.7	3,623	90.6	1979	2	2019	2
03N21W12B01S	--	--	--	--	FILLMORE	FILLMORE	81	1.1	92	2.1	1979	2	2019	2
03N21W12A02S	50	--	90	--	FILLMORE	FILLMORE	76	0.5	38	4.2	1979	2	2019	2
03N20W11C03S	--	--	--	--	FILLMORE	FILLMORE	81	21.3	1,728.7	51.3	1979	2	2019	2
03N21W12A05S	60	--	100	--	FILLMORE	FILLMORE	81	1.7	134.3	2.3	1979	2	2019	2
03N21W12H02S	38	--	80	--	FILLMORE	FILLMORE	78	0	39	1	1979	1	2019	2
03N21W12A04S	60	--	120	--	FILLMORE	FILLMORE	81	0.8	62	1	1979	2	2019	2
03N20W08A01S	--	--	--	--	FILLMORE	FILLMORE	81	27.7	2,247	379	1979	2	2019	2
03N21W12H01S	74	--	150	--	FILLMORE	FILLMORE	81	65.2	5,284.7	194.8	1979	2	2019	2
03N20W07H01S	56	--	155	--	FILLMORE	FILLMORE	81	5.7	458	27.4	1979	2	2019	2
03N20W10H01S	130	--	190	--	FILLMORE	FILLMORE	59	10.7	633.8	27.3	1990	2	2019	2
03N20W09F01S	--	--	--	--	FILLMORE	FILLMORE	78	0.6	46	2	1979	2	2019	2
03N20W08E01S	150	--	200	--	FILLMORE	FILLMORE	59	22.1	1,305	61.0	1990	2	2019	2
03N20W08F04S	28	--	116	--	FILLMORE	FILLMORE	81	66.5	5,386	149.0	1979	2	2019	2
03N20W08F02S	--	--	--	--	FILLMORE	FILLMORE	81	0.8	61	1	1979	2	2019	2
03N20W08F01S	100	--	152	--	FILLMORE	FILLMORE	82	23.9	1,961.7	77.6	1979	1	2019	2
03N21W01N02S	200	--	400	--	FILLMORE	FILLMORE	65	160.7	10444.1	464.2	1987	2	2019	2
03N20W02G05S	122	--	262	--	FILLMORE	FILLMORE	59	9.4	552.9	12.3	1990	2	2019	2
03N20W02G06S	131	--	251	--	FILLMORE	FILLMORE	56	2.5	138.8	7.5	1992	1	2019	2
03N20W02J02S	142	--	258	--	FILLMORE	FILLMORE	57	11.5	655.7	20.2	1991	2	2019	2
03N20W02M02S	122	--	162	--	FILLMORE	FILLMORE	59	0.6	34.6	16.1	1990	2	2019	2
03N20W03J03S	50	--	250	--	FILLMORE	FILLMORE	58	27.4	1591.7	33.9	1991	1	2019	2
03N20W04N05S	100	--	250	--	FILLMORE	FILLMORE	56	25.4	1421.0	65.9	1992	1	2019	2
03N20W06N03S	50	--	100	--	FILLMORE	FILLMORE	52	11.0	573.3	40.0	1994	1	2019	2
03N20W09H01S	60	--	140	--	FILLMORE	FILLMORE	54	0.5	29.2	1.0	1991	2	2019	2
04N19W29R01S	--	--	--	--	FILLMORE	FILLMORE	81	31.0	2508.4	40.0	1979	2	2019	2
04N19W31Q01S	100	--	250	--	FILLMORE	FILLMORE	55	247.7	13621.6	550.5	1992	2	2019	2
04N20W24D02S	360	--	660	--	FILLMORE	FILLMORE	60	167.6	10058.6	197.0	1990	1	2019	2
04N20W34M01S	220	--	480	--	FILLMORE	FILLMORE	58	15.5	901.4	53.0	1991	1	2019	2
04N20W36N04S	225	--	285	--	FILLMORE	FILLMORE	48	12.0	574.1	48.8	1996	1	2019	2
04N19W32N03S	54	--	114	--	FILLMORE	FILLMORE	39	21.5	839.8	81.4	1992	2	2011	2
04N19W32L02S	140	--	400	--	FILLMORE	FILLMORE	56	240.0	13441.7	479.9	1992	1	2019	2
04N19W33M08S	200	--	460	--	FILLMORE	FILLMORE	49	101.0	4950.2	827.4	1995	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
04N20W24Q04S	90	--	300	--	FILLMORE	FILLMORE	43	516.5	22210.2	1116.2	1998	2	2019	2
04N20W27Q03S	--	--	--	--	FILLMORE	FILLMORE	81	629.7	51004.0	1003.7	1979	2	2019	2
04N20W36D07S	120	--	280	--	FILLMORE	FILLMORE	81	110.2	8927.3	260.2	1979	2	2019	2
03N19W06D04S	--	--	--	--	FILLMORE	FILLMORE	55	20.9	1151.4	38.8	1992	2	2019	2
03N20W01K01S	--	--	--	--	FILLMORE	FILLMORE	16	0.1	1.3	0.5	2012	1	2019	2
03N20W01L04S	--	--	--	--	FILLMORE	FILLMORE	24	0.5	13.0	0.8	2008	1	2019	2
03N20W02B05S	131	--	251	--	FILLMORE	FILLMORE	41	7.1	290.5	18.9	1999	2	2019	2
04N20W25B02S	130	--	450	--	FILLMORE	FILLMORE	17	53.5	910.3	332.9	1993	2	2001	2
04N20W32L01S	500	--	920	--	FILLMORE	FILLMORE	45	39.3	1766.4	96.6	1997	2	2019	2
04N20W35H03S	120	--	280	--	FILLMORE	FILLMORE	57	10.0	569.3	60.0	1991	2	2019	2
04N20W26B03S	120	--	240	--	FILLMORE	FILLMORE	18	8.6	154.7	22.7	2011	1	2019	2
04N20W34E01S	100	--	212	--	FILLMORE	FILLMORE	18	2.2	40.0	6.0	2011	1	2019	2
04N20W34G01S	26	--	86	--	FILLMORE	FILLMORE	18	0.8	14.4	0.8	2011	1	2019	2
04N20W34L01S	28	--	88	--	FILLMORE	FILLMORE	18	2.0	36.0	2.4	2011	1	2019	2
03N20W06P04S	190	--	330	--	FILLMORE	FILLMORE	26	453.9	11800.5	618.0	2007	1	2019	2
03N20W02N04S	70	--	120	--	FILLMORE	FILLMORE	34	1.0	33.9	1.6	2003	1	2019	2
03N21W01P09S	120	--	365	--	FILLMORE	FILLMORE	24	104.6	2511.3	228.3	2008	1	2019	2
03N20W01N01S	118	--	198	--	FILLMORE	FILLMORE	16	0.4	6.6	1.1	2011	1	2019	2
04N20W24G01S	100	--	260	--	FILLMORE	FILLMORE	37	251.7	9311.6	500.8	2001	2	2019	2
04N20W24E01S	80	--	500	--	FILLMORE	FILLMORE	36	523.2	18836.4	924.3	2002	1	2019	2
04N20W34K05S	29	--	89	--	FILLMORE	FILLMORE	18	1.5	27.2	1.6	2011	1	2019	2
04N20W34M02S	380	--	480	--	FILLMORE	FILLMORE	18	4.0	72.1	8.3	2011	1	2019	2
03N20W01D05S	150	--	250	--	FILLMORE	FILLMORE	18	3.6	64.1	5.0	2011	1	2019	2
03N20W02P03S	160	--	260	--	FILLMORE	FILLMORE	18	9.1	162.9	18.3	2011	1	2019	2
03N20W02R06S	105	--	255	--	FILLMORE	FILLMORE	20	6.3	125.7	9.6	2010	1	2019	2
04N20W32R02S	220	--	300	--	FILLMORE	FILLMORE	35	27.4	959.2	59.7	2002	2	2019	2
03N20W05B03S	520	--	680	--	FILLMORE	FILLMORE	35	248.4	8694.6	404.5	2002	2	2019	2
03N20W06J04S	140	--	300	--	FILLMORE	FILLMORE	18	0.5	9.5	1.0	2011	1	2019	2
03N20W08B03S	55	--	135	--	FILLMORE	FILLMORE	30	0.2	6.3	0.6	2005	1	2019	2
03N20W08L01S	30	--	90	--	FILLMORE	FILLMORE	18	0.4	7.5	0.5	2010	1	2019	2
04N20W34P07S	120	--	280	--	FILLMORE	FILLMORE	18	0.9	17.0	3.2	2011	1	2019	2
03N20W06C01S	350	--	760	--	FILLMORE	FILLMORE	30	100.9	3026.7	166.0	2005	1	2019	2
03N20W04R03S	--	--	--	--	FILLMORE	FILLMORE	17	59.5	1012.0	116.2	2011	2	2019	2
04N20W26G04S	--	--	--	--	FILLMORE	FILLMORE	36	17.9	643.8	25.9	2002	1	2019	2
04N20W22Q03S	--	--	--	--	FILLMORE	FILLMORE	17	12.1	204.9	32.2	2011	2	2019	2
03N20W01E03S	100	--	160	--	FILLMORE	FILLMORE	24	0.6	14.1	1.0	2008	1	2019	2
03N20W01L05S	60	--	160	--	FILLMORE	FILLMORE	24	1.0	24.9	1.4	2008	1	2019	2
03N20W06H02S	108	--	268	--	FILLMORE	FILLMORE	20	14.7	294.1	75.7	2010	1	2019	2
03N20W09F02S	60	--	157	--	FILLMORE	FILLMORE	24	2.3	54.4	6.2	2008	1	2019	2
03N20W09B03S	80	--	140	--	FILLMORE	FILLMORE	24	1.1	26.4	2.0	2008	1	2019	2
03N20W01F07S	140	--	240	--	FILLMORE	FILLMORE	24	25.9	621.3	33.7	2008	1	2019	2
03N20W01M04S	60	--	180	--	FILLMORE	FILLMORE	22	6.2	135.9	25.6	2008	1	2019	2
03N20W11B02S	150	--	250	--	FILLMORE	FILLMORE	24	1.7	40.9	5.0	2008	1	2019	2
03N20W02A08S	80	--	140	--	FILLMORE	FILLMORE	27	0.4	12.0	0.6	2006	2	2019	2
03N20W02H06S	120	--	240	--	FILLMORE	FILLMORE	27	0.6	15.9	1.5	2006	2	2019	2
03N21W01N03S	350	--	650	--	FILLMORE	FILLMORE	30	148.2	4445.7	281.4	2005	1	2019	2
04N20W36R08S	125	--	265	--	FILLMORE	FILLMORE	29	132.4	3840.3	348.6	2005	2	2019	2
04N20W27N02S	430	--	600	--	FILLMORE	FILLMORE	27	21.6	583.8	142.9	2006	2	2019	2
03N20W01C05S	100	--	240	--	FILLMORE	FILLMORE	20	9.0	180.5	12.5	2010	1	2019	2
03N20W02A06S	60	--	100	--	FILLMORE	FILLMORE	28	0.5	13.5	0.5	2006	1	2019	2
03N20W12D08S	90	--	240	--	FILLMORE	FILLMORE	18	1.1	20.2	11.4	2010	1	2019	2
03N20W12D09S	65	--	275	--	FILLMORE	FILLMORE	18	5.9	106.3	11.4	2010	1	2019	2
04N20W33L01S	100	--	202	--	FILLMORE	FILLMORE	17	0.5	8.0	0.5	2011	1	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
04N20W34B01S	137	--	317	--	FILLMORE	FILLMORE	18	14.0	252.9	232.0	2011	1	2019	2
04N20W36N05S	37	--	277	--	FILLMORE	FILLMORE	21	35.2	739.2	35.2	2009	2	2019	2
03N20W02A07S	80	--	120	--	FILLMORE	FILLMORE	20	0.6	11.0	1.0	2010	1	2019	2
03N20W02R07S	100	--	200	--	FILLMORE	FILLMORE	20	3.9	77.1	8.6	2010	1	2019	2
03N20W02H07S	40	--	200	--	FILLMORE	FILLMORE	20	8.1	161.7	21.8	2010	1	2019	2
03N20W01F06S	40	--	240	--	FILLMORE	FILLMORE	17	7.1	121.2	22.4	2010	1	2019	2
04N20W22N01S	200	--	400	--	FILLMORE	FILLMORE	20	16.7	334.0	50.0	2009	2	2019	2
04N20W22N02S	200	--	400	--	FILLMORE	FILLMORE	20	7.9	158.5	50.0	2009	2	2019	2
03N20W01K02S	100	--	180	--	FILLMORE	FILLMORE	21	2.9	60.3	6.0	2009	2	2019	2
03N20W01L06S	96	--	256	--	FILLMORE	FILLMORE	21	2.9	61.2	8.8	2009	2	2019	2
04N20W34D02S	120	--	320	--	FILLMORE	FILLMORE	19	0.4	8.0	0.5	2010	1	2019	2
04N20W36M01S	290	--	390	--	FILLMORE	FILLMORE	21	128.2	2693.0	265.1	2009	2	2019	2
04N20W25Q03S	80	--	160	--	FILLMORE	FILLMORE	19	0.6	10.5	0.9	2010	2	2019	2
03N20W06B02S	100	--	600	--	FILLMORE	FILLMORE	18	77.3	1391.0	270.9	2011	1	2019	2
03N20W02R08S	60	--	200	--	FILLMORE	FILLMORE	18	1.1	19.4	7.0	2011	1	2019	2
03N21W01C02S	100	--	630	--	FILLMORE	FILLMORE	18	38.9	699.6	112.4	2011	1	2019	2
04N20W31H04S	280	--	640	--	FILLMORE	FILLMORE	19	16.7	317.8	26.5	2010	2	2019	2
03N19W06C03S	100	--	180	--	FILLMORE	FILLMORE	18	5.2	94.0	14.6	2011	1	2019	2
03N20W01A04S	120	--	260	--	FILLMORE	FILLMORE	18	34.2	615.1	93.7	2011	1	2019	2
03N20W07D02S	200	--	420	--	FILLMORE	FILLMORE	18	19.0	342.1	41.6	2011	1	2019	2
04N20W36R09S	100	100	200	--	FILLMORE	FILLMORE	17	6.7	113.2	18.3	2011	1	2019	2
04N20W36N06S	60	--	200	--	FILLMORE	FILLMORE	18	2.1	38.0	5.6	2011	1	2019	2
04N19W32L03S	50	--	100	--	FILLMORE	FILLMORE	22	98.9	2175.7	173.4	2009	1	2019	2
03N20W02L07S	155	--	295	--	FILLMORE	FILLMORE	18	4.5	81.7	10.2	2011	1	2019	2
03N20W10L01S	180	--	260	--	FILLMORE	OUTSIDE	18	4.0	72.6	22.9	2011	1	2019	2
04N19W31N06S	140	--	220	--	FILLMORE	FILLMORE	24	0.6	15.0	0.8	2008	1	2019	2
03N21W12F07S	120	--	400	--	FILLMORE	FILLMORE	15	1838.2	27573.7	2818.4	2012	2	2019	2
03N20W03D08S	450	--	600	--	FILLMORE	FILLMORE	15	296.0	4439.6	828.5	2012	1	2019	2
03N20W01B03S	100	--	300	--	FILLMORE	FILLMORE	16	20.7	331.2	34.1	2012	1	2019	2
04N20W32R03S	260	--	640	--	FILLMORE	FILLMORE	16	73.3	1172.5	116.8	2012	1	2019	2
03N20W01F08S	130	--	250	--	FILLMORE	FILLMORE	15	54.5	817.0	183.1	2012	2	2019	2
03N20W01C06S	120	--	300	--	FILLMORE	FILLMORE	16	12.3	196.5	19.7	2012	1	2019	2
03N20W02H03S	--	--	--	--	FILLMORE	FILLMORE	16	0.6	9.5	0.8	2012	1	2019	2
03N20W01M05S	120	--	254	--	FILLMORE	FILLMORE	15	27.3	409.4	70.3	2012	2	2019	2
04N20W34N02S	--	--	--	--	FILLMORE	FILLMORE	20	23.8	475.8	60.1	2010	1	2019	2
04N20W23J04S	300	--	680	--	FILLMORE	FILLMORE	14	100.5	1406.6	155.9	2013	1	2019	2
03N20W01D04S	--	--	--	--	FILLMORE	FILLMORE	15	5.3	79.0	16.1	2012	2	2019	2
03N20W02H02S	--	--	--	--	FILLMORE	FILLMORE	14	0.5	7.5	0.8	2013	1	2019	2
04N20W36R10S	60	--	200	--	FILLMORE	FILLMORE	12	3.0	36.6	11.4	2014	1	2019	2
03N20W01M06S	110	--	250	--	FILLMORE	FILLMORE	12	3.9	47.1	9.4	2014	1	2019	2
04N19W29E02S	70	--	650	--	FILLMORE	FILLMORE	59	9.5	562.3	98.0	1990	2	2019	2
03N20W01B04S	60	--	200	--	FILLMORE	FILLMORE	12	10.4	124.2	15.1	2014	1	2019	2
03N20W11D06S	60	--	160	--	FILLMORE	FILLMORE	11	19.0	208.5	28.9	2014	2	2019	2
03N20W02K05S	60	--	200	--	FILLMORE	FILLMORE	10	17.7	177.2	25.7	2015	1	2019	2
04N20W26C04S	300	--	420	--	FILLMORE	FILLMORE	9	5.8	52.2	9.2	2015	2	2019	2
04N20W22N03S	450	--	1580	--	FILLMORE	FILLMORE	9	22.0	198.4	38.0	2015	2	2019	2
03N20W02R09S	85	--	157	--	FILLMORE	FILLMORE	9	0.3	2.5	0.6	2015	2	2019	2
03N20W03H03S	50	--	150	--	FILLMORE	FILLMORE	9	41.7	375.7	114.2	2015	2	2019	2
04N21W16F01S	28	--	80	--	SANTA PAULA	OUTSIDE	75	29.7	2,230	59	1979	2	2016	2
03N21W02R02S	202	--	360	--	SANTA PAULA	SANTA PAULA	81	218.7	17,714	421	1979	2	2019	2
03N21W02P01S	220	--	466	--	SANTA PAULA	SANTA PAULA	20	30.0	600.8	56.1	1979	2	1997	2
03N21W03R02S	238	--	524	--	SANTA PAULA	SANTA PAULA	54	35.1	1,895	298.2	1979	2	2006	1
03N21W02Q01S	--	--	--	--	SANTA PAULA	SANTA PAULA	18	301.6	5,430	534	1979	2	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
03N21W11A01S	210	--	454	--	SANTA PAULA	SANTA PAULA	79	59	4,698	157	1979	2	2018	2
03N21W10A02S	150	--	580	--	SANTA PAULA	SANTA PAULA	24	32.6	782	221	1984	2	1997	2
03N21W10A01S	--	--	--	--	SANTA PAULA	SANTA PAULA	13	126.2	1,640.6	246.9	1979	2	1997	2
03N21W11D02S	232	--	543	--	SANTA PAULA	SANTA PAULA	32	101.9	3,259	320	1979	2	1997	2
03N21W11E03S	100	--	453	--	SANTA PAULA	SANTA PAULA	81	222.5	18,023	744.9	1979	2	2019	2
03N21W11H03S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	15	1,184	83	1979	2	2019	2
03N21W11H01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	15.8	1,277	64	1979	2	2019	2
03N21W10E01S	207	--	388	--	SANTA PAULA	OUTSIDE	81	5.5	447.1	33.0	1979	2	2019	2
03N21W11F03S	153	--	518	--	SANTA PAULA	SANTA PAULA	81	101.0	8,181.7	733.3	1979	2	2019	2
03N21W09J01S	--	--	--	--	SANTA PAULA	SANTA PAULA	80	22.7	1,816.3	36.6	1980	1	2019	2
03N21W09K03S	296	--	324	--	SANTA PAULA	SANTA PAULA	52	0.1	4	1	1994	1	2019	2
03N21W09K02S	233	--	338	--	SANTA PAULA	SANTA PAULA	81	54.6	4,426	77.0	1979	2	2019	2
03N21W09R04S	360	--	756	--	SANTA PAULA	SANTA PAULA	81	296	23,987	712	1979	2	2019	2
03N21W15C02S	176	--	322	--	SANTA PAULA	SANTA PAULA	81	153.1	12,399	683	1979	2	2019	2
03N21W15C06S	452	--	653	--	SANTA PAULA	SANTA PAULA	81	488.6	39,573	1,029	1979	2	2019	2
03N21W15C04S	112	--	253	--	SANTA PAULA	SANTA PAULA	81	308.6	24,995	584	1979	2	2019	2
03N21W16A02S	430	--	580	--	SANTA PAULA	SANTA PAULA	81	344	27,860	952	1979	2	2019	2
03N21W17D03S	120	--	380	--	SANTA PAULA	OUTSIDE	78	0	37	2	1981	1	2019	2
03N21W16E01S	222	--	258	--	SANTA PAULA	SANTA PAULA	81	17	1,379	56	1979	2	2019	2
03N21W16E02S	180	--	320	--	SANTA PAULA	SANTA PAULA	81	67	5,424	170	1979	2	2019	2
03N21W16G01S	175	--	350	--	SANTA PAULA	SANTA PAULA	54	231.0	12,473.2	757.8	1979	2	2006	1
03N21W16K01S	119	--	214	--	SANTA PAULA	SANTA PAULA	81	243	19,672	637	1979	2	2019	2
03N21W16K03S	672	--	760	--	SANTA PAULA	SANTA PAULA	81	273	22,101	774	1979	2	2019	2
03N21W16K02S	92	--	243	--	SANTA PAULA	SANTA PAULA	81	234.1	18,965	806	1979	2	2019	2
03N21W17Q01S	183	--	243	--	SANTA PAULA	SANTA PAULA	81	70	5,709	140	1979	2	2019	2
03N21W16Q02S	--	--	--	--	SANTA PAULA	SANTA PAULA	19	26	485	40	1979	2	1988	2
03N21W16P01S	119	--	168	--	SANTA PAULA	SANTA PAULA	79	38	2,997	196	1980	1	2019	2
03N21W16P02S	110	--	184	--	SANTA PAULA	SANTA PAULA	56	50	2,821	987	1992	1	2019	2
03N21W17R01S	180	--	285	--	SANTA PAULA	SANTA PAULA	81	175	14,183	429	1979	2	2019	2
03N21W17P02S	511	--	771	--	SANTA PAULA	SANTA PAULA	81	30	2,404	62	1979	2	2019	2
03N21W20A01S	115	--	215	--	SANTA PAULA	SANTA PAULA	41	14.9	611.3	19.4	1986	2	2006	2
03N21W21B01S	--	--	--	--	SANTA PAULA	SANTA PAULA	50	0.3	17	1.0	1980	1	2004	2
03N21W21B03S	80	--	280	--	SANTA PAULA	SANTA PAULA	59	36	2,131	95	1979	2	2008	2
03N21W21D01S	26	--	84	--	SANTA PAULA	SANTA PAULA	28	1	33	4	1979	2	1997	2
03N21W19A02S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	9	765	21	1979	1	2019	2
03N21W21D02S	115	--	212	--	SANTA PAULA	SANTA PAULA	62	5	331	13	1989	1	2019	2
03N21W21E03S	60	--	100	--	SANTA PAULA	SANTA PAULA	80	1.0	83	2	1979	2	2019	2
03N21W21E02S	80	--	100	--	SANTA PAULA	SANTA PAULA	59	4	237	5	1990	2	2019	2
03N21W21G01S	66	--	86	--	SANTA PAULA	SANTA PAULA	81	1.5	123	4	1979	2	2019	2
03N21W19G04S	450	--	720	--	SANTA PAULA	SANTA PAULA	76	802	60,963	1,384	1982	1	2019	2
03N21W21E04S	69	--	86	--	SANTA PAULA	SANTA PAULA	81	1.1	91	1.5	1979	2	2019	2
03N21W19G02S	550	--	630	--	SANTA PAULA	SANTA PAULA	81	171	13,831	365	1979	2	2019	2
03N21W19H06S	459	--	694	--	SANTA PAULA	SANTA PAULA	12	223.3	2,680	853	1979	2	1997	2
03N21W20F01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	28	2,268	63	1979	2	2019	2
03N21W21F01S	200	--	212	--	SANTA PAULA	SANTA PAULA	82	1	44	3	1979	1	2019	2
03N21W19G03S	350	--	510	--	SANTA PAULA	SANTA PAULA	76	11	853	83	1982	1	2019	2
03N21W21G03S	80	--	120	--	SANTA PAULA	SANTA PAULA	67	14	946	20	1986	2	2019	2
03N21W21F03S	72	--	176	--	SANTA PAULA	SANTA PAULA	45	14	614	40	1979	2	2001	2
03N21W21E06S	40	--	105	--	SANTA PAULA	SANTA PAULA	80	2	144	18	1980	1	2019	2
03N22W23F02S	1,015	--	1,410	--	SANTA PAULA	OUTSIDE	81	49.5	4,010	141	1979	2	2019	2
03N21W21E01S	117	--	157	--	SANTA PAULA	SANTA PAULA	81	32	2,556	76	1979	2	2019	2
03N21W21E05S	60	--	200	--	SANTA PAULA	SANTA PAULA	63	32	2,003	55	1988	2	2019	2
03N22W23G01S	1,015	--	1,410	--	SANTA PAULA	SANTA PAULA	80	9	699	27	1980	1	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
03N21W19L01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	64	5,168	145	1979	2	2019	2
03N21W20M01S	130	--	220	--	SANTA PAULA	SANTA PAULA	81	141.5	11,462	291	1979	2	2019	2
03N21W20J04S	60	--	180	--	SANTA PAULA	SANTA PAULA	81	62	5,045	138	1979	2	2019	2
03N21W20K01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	1	59	3	1979	2	2019	2
03N21W21M01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	1	61	1	1979	2	2019	2
03N21W20J03S	489	--	717	--	SANTA PAULA	SANTA PAULA	81	78	6,331	186	1979	2	2019	2
03N21W20J02S	70	--	155	--	SANTA PAULA	SANTA PAULA	60	1	69	2	1990	1	2019	2
03N21W19M01S	--	--	--	--	SANTA PAULA	SANTA PAULA	74	82	6,036	250	1979	2	2016	1
03N22W23Q01S	345	--	445	--	SANTA PAULA	SANTA PAULA	75	1	39	3	1982	2	2019	2
03N21W19R01S	160	--	205	--	SANTA PAULA	SANTA PAULA	81	106	8,573	320	1979	2	2019	2
03N21W19Q01S	190	--	480	--	SANTA PAULA	SANTA PAULA	73	30	2,212	138	1983	2	2019	2
03N21W20P01S	100	--	158	--	SANTA PAULA	SANTA PAULA	81	53	4,278	108	1979	2	2019	2
03N21W20R02S	60	--	100	--	SANTA PAULA	SANTA PAULA	56	1.2	67	3	1983	2	2011	1
03N22W24R01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	92	7,418	143	1979	2	2019	2
03N21W29B01S	25	--	99	--	SANTA PAULA	SANTA PAULA	27	0	1	1	1990	2	2003	2
03N21W29C02S	51	--	123	--	SANTA PAULA	SANTA PAULA	33	9	290	21	1990	2	2006	2
03N21W29B02S	60	--	100	--	SANTA PAULA	SANTA PAULA	81	3	241	9	1979	2	2019	2
03N22W26B01S	260	--	448	--	SANTA PAULA	SANTA PAULA	59	11.0	652	24	1990	2	2019	2
03N21W30E01S	160	--	240	--	SANTA PAULA	SANTA PAULA	78	10.5	820	29	1981	1	2019	2
03N21W30H06S	148	--	228	--	SANTA PAULA	SANTA PAULA	81	1.0	84	63	1979	2	2019	2
03N21W30H05S	285	--	485	--	SANTA PAULA	SANTA PAULA	78	45	3,547	181	1979	2	2019	2
03N21W29F03S	--	--	--	--	SANTA PAULA	SANTA PAULA	38	0	12	1	1982	1	2000	2
03N21W29G02S	100	--	300	--	SANTA PAULA	SANTA PAULA	63	144.8	9,124	721	1988	2	2019	2
03N21W29F01S	60	--	125	--	SANTA PAULA	SANTA PAULA	55	61	3,373	230	1979	2	2006	2
03N21W30F01S	260	--	424	--	SANTA PAULA	SANTA PAULA	81	264.4	21,419	744	1979	2	2019	2
03N21W30H02S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	23	1,824	208	1979	2	2019	2
03N21W30H07S	195	--	695	--	SANTA PAULA	SANTA PAULA	39	72	2,809	190	1982	2	2001	2
03N21W30H04S	100	--	400	--	SANTA PAULA	SANTA PAULA	81	208.1	16,852.7	1,439.8	1979	2	2019	2
03N21W29K03S	50	--	120	--	SANTA PAULA	SANTA PAULA	42	3	126	8	1980	1	2001	1
03N21W29K01S	28	--	58	--	SANTA PAULA	SANTA PAULA	40	41.0	1,640	159	1979	2	2003	2
03N21W29K02S	30	--	60	--	SANTA PAULA	SANTA PAULA	48	4.1	199	42	1979	2	2019	2
03N22W26P01S	225	--	385	--	SANTA PAULA	SANTA PAULA	59	0.7	40	4	1990	2	2019	2
03N22W33A02S	520	--	720	--	SANTA PAULA	OUTSIDE	48	3.4	162	16	1979	2	2003	1
03N21W31B01S	--	--	--	--	SANTA PAULA	SANTA PAULA	31	0.3	10.8	4.7	1989	2	2004	2
03N21W31E03S	162	--	232	--	SANTA PAULA	SANTA PAULA	81	15.6	1,260	98	1979	2	2019	2
03N22W36H01S	226	--	442	--	SANTA PAULA	SANTA PAULA	82	7.8	638	29	1979	1	2019	2
03N22W36K04S	699	--	867	--	SANTA PAULA	SANTA PAULA	81	18	1,470	77	1979	2	2019	2
03N22W36J01S	180	--	207	--	SANTA PAULA	SANTA PAULA	81	38.6	3,129	142	1979	2	2019	2
03N22W36K05S	175	--	265	--	SANTA PAULA	SANTA PAULA	50	9.0	449	55.6	1995	1	2019	2
03N22W36K02S	170	--	270	--	SANTA PAULA	SANTA PAULA	81	124.4	10,076	667	1979	2	2019	2
03N22W36R01S	100	--	250	--	SANTA PAULA	SANTA PAULA	51	117	5,984	409	1979	2	2004	2
03N22W35Q02S	222	--	366	--	SANTA PAULA	SANTA PAULA	82	38	3,118	144	1979	1	2019	2
03N22W34Q02S	--	--	--	--	SANTA PAULA	SANTA PAULA	80	79	6,351	290	1979	2	2019	2
03N22W34R01S	300	--	343	--	SANTA PAULA	SANTA PAULA	74	27.1	2,006	92.8	1979	2	2016	1
03N22W35N01S	278	--	308	--	SANTA PAULA	SANTA PAULA	80	21	1,679	63	1979	2	2019	2
02N22W03B01S	208	--	268	--	SANTA PAULA	SANTA PAULA	65	34.1	2,219	48	1979	2	2011	2
02N22W03F02S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	50.2	4,067.6	80.9	1979	2	2019	2
02N22W03E01S	266	--	723	--	SANTA PAULA	SANTA PAULA	81	165.2	13,383.5	262.1	1979	2	2019	2
02N22W02E03S	185	--	210	--	SANTA PAULA	SANTA PAULA	7	4.0	28	14	1979	2	1997	2
02N22W01M04S	--	--	--	--	SANTA PAULA	SANTA PAULA	51	44.9	2,289.6	48.0	1979	2	2004	2
02N22W02G01S	72	--	121	--	SANTA PAULA	SANTA PAULA	81	57.3	4,642	195	1979	2	2019	2
02N22W02K09S	300	--	400	--	SANTA PAULA	SANTA PAULA	63	487.3	30,697.5	1,488.7	1988	2	2019	2
02N22W02K06S	110	--	290	--	SANTA PAULA	SANTA PAULA	19	110.3	2,095	751	1979	2	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N22W02J03S	280	--	302	--	SANTA PAULA	SANTA PAULA	10	14.5	145.4	39.8	2011	1	2015	2
02N22W01M02S	83	--	109	--	SANTA PAULA	SANTA PAULA	34	5.8	197	41	2003	1	2019	2
02N22W01M01S	70	--	107	--	SANTA PAULA	SANTA PAULA	21	36	748	41	1993	1	2003	1
02N22W03M03S	354	--	568	--	SANTA PAULA	SANTA PAULA	20	18.5	370	29	1979	2	1989	1
02N22W02K07S	168	--	698	--	SANTA PAULA	SANTA PAULA	69	420.3	29,002	2,494	1979	2	2013	2
02N22W02K08S	24	--	108	--	SANTA PAULA	SANTA PAULA	49	68.6	3,363	141	1979	2	2003	2
02N22W02K02S	92	--	113	--	SANTA PAULA	SANTA PAULA	49	39	1,900	161	1979	2	2003	2
02N22W02J04S	94	--	154	--	SANTA PAULA	SANTA PAULA	71	6	451	42	1979	2	2019	2
02N22W03K02S	--	115	164	--	SANTA PAULA	SANTA PAULA	81	34.2	2,771	117.9	1979	2	2019	2
02N22W02Q01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	1	41	1	1979	2	2019	2
02N22W03R02S	--	145	--	205	SANTA PAULA	SANTA PAULA	17	77.2	1,312	172.6	1979	2	1987	2
02N22W03Q01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	12.1	983	15	1979	2	2019	2
02N22W02N04S	--	--	--	--	SANTA PAULA	SANTA PAULA	80	0.4	36	1	1979	2	2019	2
02N22W03Q02S	230	--	248	--	SANTA PAULA	SANTA PAULA	40	14.0	559	51	1979	2	1999	2
02N22W02N01S	--	--	--	--	SANTA PAULA	SANTA PAULA	39	3	127	10	1979	2	1998	2
02N22W11D02S	--	--	208	--	SANTA PAULA	SANTA PAULA	12	11.7	140	20.0	1979	2	1997	2
03N21W12E08S	120	--	285	--	SANTA PAULA	SANTA PAULA	81	614.2	49752.9	1858.0	1979	2	2019	2
03N21W12E04S	120	--	284	--	SANTA PAULA	SANTA PAULA	81	545.0	44141.5	1306.3	1979	2	2019	2
03N21W12F03S	120	--	284	--	SANTA PAULA	SANTA PAULA	81	547.2	44325.0	1511.3	1979	2	2019	2
03N21W11J02S	260	--	700	--	SANTA PAULA	SANTA PAULA	56	895.5	50150.6	1185.2	1992	1	2019	2
03N21W29B03S	120	--	400	--	SANTA PAULA	SANTA PAULA	31	51.7	1601.5	85.8	1991	2	2006	2
02N22W03L01S	175	--	400	--	SANTA PAULA	SANTA PAULA	62	18.3	1133.2	67.0	1989	1	2019	2
02N22W03K03S	160	--	420	--	SANTA PAULA	SANTA PAULA	51	1.5	78.6	2.8	1994	1	2019	1
03N21W21L01S	55	--	95	--	SANTA PAULA	SANTA PAULA	58	1.3	74.1	1.8	1991	1	2019	2
03N21W21K01S	--	--	--	--	SANTA PAULA	SANTA PAULA	54	0.4	23.1	1.0	1991	1	2019	2
03N21W16P03S	194	--	264	--	SANTA PAULA	SANTA PAULA	81	161.9	13112.9	536.2	1979	2	2019	2
03N21W09K04S	260	--	402	--	SANTA PAULA	OUTSIDE	81	56.5	4574.7	105.9	1979	2	2019	2
03N21W10M01S	--	--	--	--	SANTA PAULA	SANTA PAULA	81	151.1	12236.8	193.8	1979	2	2019	2
03N21W21E07S	110	--	210	--	SANTA PAULA	SANTA PAULA	57	2.0	116.6	3.7	1991	2	2019	2
03N22W36H02S	702	--	812	--	SANTA PAULA	SANTA PAULA	49	16.1	787.6	38.0	1995	2	2019	2
03N21W30E02S	120	--	260	--	SANTA PAULA	SANTA PAULA	54	28.8	1554.2	81.2	1993	1	2019	2
03N21W10E02S	160	--	400	--	SANTA PAULA	OUTSIDE	46	5.5	254.4	6.3	1997	1	2019	2
03N21W30H08S	265	--	525	--	SANTA PAULA	SANTA PAULA	46	93.4	4295.0	170.3	1997	1	2019	2
03N21W09R05S	320	--	670	--	SANTA PAULA	SANTA PAULA	46	246.6	11342.0	816.6	1997	1	2019	2
03N21W16A03S	370	--	800	--	SANTA PAULA	SANTA PAULA	43	756.7	32536.4	1493.2	1998	2	2019	2
03N21W20E01S	121	--	252	--	SANTA PAULA	SANTA PAULA	56	18.0	1009.5	31.0	1992	1	2019	2
03N21W21E08S	135	--	215	--	SANTA PAULA	SANTA PAULA	54	5.1	273.6	7.5	1993	1	2019	2
03N22W36K06S	703	--	863	--	SANTA PAULA	SANTA PAULA	50	32.1	1602.9	56.2	1995	1	2019	2
04N21W16F03S	30	--	50	--	SANTA PAULA	OUTSIDE	37	10.1	373.5	55.5	2001	2	2019	2
03N21W12F06S	120	--	395	--	SANTA PAULA	SANTA PAULA	37	700.8	25928.3	1789.3	2001	2	2019	2
03N22W26B02S	239	--	410	--	SANTA PAULA	SANTA PAULA	34	1.7	56.1	18.7	2002	2	2019	2
03N21W30H09S	253	--	493	--	SANTA PAULA	SANTA PAULA	18	8.4	151.3	76.8	2011	1	2019	2
03N21W21E10S	110	--	210	--	SANTA PAULA	SANTA PAULA	30	0.9	27.7	1.2	2005	1	2019	2
03N21W31L02S	100	--	250	--	SANTA PAULA	SANTA PAULA	39	1.3	52.4	9.3	2000	2	2019	2
03N21W29E01S	270	--	420	--	SANTA PAULA	SANTA PAULA	30	119.8	3593.8	204.6	2005	1	2019	2
03N21W20H01S	80	--	300	--	SANTA PAULA	SANTA PAULA	30	24.7	741.2	40.1	2005	1	2019	2
03N22W36Q01S	587	--	827	--	SANTA PAULA	SANTA PAULA	30	320.7	9620.4	634.7	2005	1	2019	2
03N22W36K07S	840	--	1040	--	SANTA PAULA	SANTA PAULA	32	224.2	7173.4	318.6	2004	1	2019	2
03N21W19K01S	170	260	--	--	SANTA PAULA	SANTA PAULA	14	31.9	447.2	79.3	2013	1	2019	2
03N22W34E01S	528	--	618	--	SANTA PAULA	SANTA PAULA	24	0.5	13.0	3.5	2008	1	2019	2
03N21W29C03S	90	--	170	--	SANTA PAULA	SANTA PAULA	24	3.4	80.5	20.0	2008	1	2019	2
03N21W20F04S	134	--	219	--	SANTA PAULA	SANTA PAULA	25	7.6	191.0	14.5	2007	2	2019	2
03N22W26B03S	60	--	280	--	SANTA PAULA	SANTA PAULA	24	12.1	290.9	67.1	2007	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
03N21W21E11S	370	--	490	--	SANTA PAULA	SANTA PAULA	24	199.5	4787.6	398.7	2008	1	2019	2
03N21W20A02S	105	--	260	--	SANTA PAULA	SANTA PAULA	25	9.7	243.4	19.4	2007	2	2019	2
03N21W14D01S	60	--	160	--	SANTA PAULA	SANTA PAULA	25	3.2	80.0	7.5	2007	2	2019	2
02N22W01P01S	310	--	480	--	SANTA PAULA	OXNARD FOREBAY	20	9.8	196.9	101.8	2010	1	2019	2
03N21W11F04S	570	--	850	--	SANTA PAULA	SANTA PAULA	30	276.8	8303.8	772.1	2005	1	2019	2
03N21W29B04S	400	--	500	--	SANTA PAULA	SANTA PAULA	25	97.1	2427.1	194.4	2007	2	2019	2
02N22W03B02S	320	--	360	--	SANTA PAULA	SANTA PAULA	21	35.3	740.8	66.5	2009	2	2019	2
03N22W12J02S	300	--	1500	--	SANTA PAULA	OUTSIDE	15	0.8	12.0	4.3	2011	1	2019	2
02N22W03K04S	120	--	297	--	SANTA PAULA	SANTA PAULA	18	0.6	11.2	11.2	2011	1	2019	2
03N21W20R03S	160	--	200	--	SANTA PAULA	SANTA PAULA	18	1.2	21.6	3.1	2011	1	2019	2
03N22W36J03S	162	162	174	174	SANTA PAULA	SANTA PAULA	24	0.8	20.1	3.0	2008	1	2019	2
03N22W26L01S	220	--	420	--	SANTA PAULA	SANTA PAULA	15	0.7	10.8	2.0	2012	1	2019	2
03N22W12K01S	300	--	1070	--	SANTA PAULA	OUTSIDE	14	2.6	36.5	10.0	2013	1	2019	2
02N22W02H02S	312	--	652	--	SANTA PAULA	SANTA PAULA	11	1175.1	12925.7	1689.3	2014	2	2019	2
02N22W02K10S	125	--	700	--	SANTA PAULA	SANTA PAULA	12	443.9	5326.9	798.8	2014	1	2019	2
03N22W34Q03S	280	--	470	--	SANTA PAULA	SANTA PAULA	14	78.0	1091.6	123.3	2013	1	2019	2
03N21W21L02S	40	--	200	--	SANTA PAULA	SANTA PAULA	11	15.2	167.0	23.9	2014	2	2019	2
03N21W09K05S	250	--	490	--	SANTA PAULA	SANTA PAULA	9	45.8	412.3	94.8	2015	2	2019	2
04N21W16B01S	--	--	--	--	SANTA PAULA	OUTSIDE	9	0.3	2.6	0.7	2015	2	2019	2
03N19W19J01S	858	--	1,050	--	LAS POSAS	EAST LAS POSAS	25	1.6	39	4	1984	1	2013	2
03N19W19P02S	865	--	1,095	--	LAS POSAS	EAST LAS POSAS	60	31	1,882	159	1987	1	2019	2
03N19W19N03S	680	--	950	--	LAS POSAS	EAST LAS POSAS	41	11	444	65	1987	1	2013	2
03N20W27G05S	580	--	980	--	LAS POSAS	EAST LAS POSAS	34	35	1,194	140	1987	1	2017	1
03N20W27H02S	523	--	722	--	LAS POSAS	EAST LAS POSAS	28	12	334	20	2006	1	2019	2
03N20W27H01S	730	--	1,060	--	LAS POSAS	EAST LAS POSAS	63	68	4,257	277	1987	1	2019	2
03N20W27G04S	225	--	820	--	LAS POSAS	EAST LAS POSAS	57	8.3	472	33	1983	2	2013	2
03N19W30E03S	700	--	915	--	LAS POSAS	EAST LAS POSAS	27	79.7	2,151	375.2	1983	2	2013	2
03N20W27G01S	312	--	332	--	LAS POSAS	EAST LAS POSAS	59	1	72	3	1983	2	2019	2
03N20W27G03S	155	--	355	--	LAS POSAS	EAST LAS POSAS	21	1	26	4	2009	1	2019	2
03N20W27E01S	250	--	350	--	LAS POSAS	EAST LAS POSAS	25	0	1	1	2003	2	2019	2
03N19W29E03S	284	--	608	--	LAS POSAS	EAST LAS POSAS	73	48.7	3,554	90	1983	2	2019	2
03N19W29F07S	--	--	--	--	LAS POSAS	EAST LAS POSAS	68	13.6	923	31	1985	1	2019	2
03N20W25H01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	69	7	462	28	1983	2	2019	2
03N19W29K04S	744	--	1,212	--	LAS POSAS	EAST LAS POSAS	73	207	15,094	590	1983	2	2019	2
03N19W29M02S	--	--	--	--	LAS POSAS	EAST LAS POSAS	15	12	180	88	2012	2	2019	2
03N19W29K06S	296	--	620	--	LAS POSAS	EAST LAS POSAS	73	184	13,424	494	1983	2	2019	2
03N19W29L02S	177	--	281	--	LAS POSAS	EAST LAS POSAS	13	4	53	53	2006	1	2012	1
03N19W29L01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	23	41.6	956	165	2006	1	2019	2
03N19W29K07S	800	--	1,280	--	LAS POSAS	EAST LAS POSAS	67	310	20,801	592	1986	2	2019	2
03N20W27L01S	125	--	210	--	LAS POSAS	EAST LAS POSAS	35	0.5	18	0.5	1983	2	2000	2
03N20W27M01S	120	--	180	--	LAS POSAS	EAST LAS POSAS	64	0.6	42	2.2	1983	2	2019	2
03N19W29L03S	258	--	450	--	LAS POSAS	EAST LAS POSAS	13	110	1,432	383	2006	1	2012	1
03N20W25J04S	830	--	1,150	--	LAS POSAS	EAST LAS POSAS	63	105.2	6,625	205	1988	1	2019	2
03N20W28J02S	134	--	200	--	LAS POSAS	EAST LAS POSAS	22	0.4	9	1	2008	1	2019	2
03N19W29M03S	300	--	600	--	LAS POSAS	EAST LAS POSAS	71	201	14,302	490	1983	2	2019	2
03N19W30M02S	318	--	610	--	LAS POSAS	EAST LAS POSAS	73	47	3,417	85	1983	2	2019	2
03N19W29N02S	--	--	--	--	LAS POSAS	EAST LAS POSAS	61	1.1	69	1	1983	2	2013	2
03N19W29N03S	184	--	294	--	LAS POSAS	EAST LAS POSAS	73	23	1,712	48	1983	2	2019	2
03N20W26J01S	86	--	148	--	LAS POSAS	EAST LAS POSAS	67	23	1,550	179	1983	2	2019	2
03N19W30Q01S	280	--	460	--	LAS POSAS	EAST LAS POSAS	71	136.8	9,711.9	350.3	1983	2	2019	2
03N20W27N01S	148	--	375	--	LAS POSAS	EAST LAS POSAS	73	8.2	595	13	1983	2	2019	2
03N20W28Q01S	550	--	1,110	--	LAS POSAS	EAST LAS POSAS	72	5.1	364	10	1983	2	2019	2
03N20W27N02S	--	--	--	--	LAS POSAS	EAST LAS POSAS	35	10	351	58	1983	2	2013	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
03N20W28P01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	30	1.0	31	4.6	2005	1	2019	2
03N20W26R03S	803	--	1,180	--	LAS POSAS	EAST LAS POSAS	39	56.0	2,184	179	1983	2	2019	2
03N20W33B01S	844	--	1,141	--	LAS POSAS	EAST LAS POSAS	68	28.5	1,941	61.9	1983	2	2019	2
03N20W33C01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	70	1	58	2	1985	1	2019	2
03N19W32D01S	690	--	940	--	LAS POSAS	EAST LAS POSAS	47	129	6,080	541	1983	2	2013	2
03N20W32G02S	1,295	--	1,540	--	LAS POSAS	WEST LAS POSAS	40	27.9	1,116	114.2	1988	2	2010	1
03N20W32F02S	1,010	--	1,510	--	LAS POSAS	WEST LAS POSAS	49	74	3,643	466	1984	1	2010	1
03N20W36G01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	73	172	12,574	494	1983	2	2019	2
03N20W35H01S	460	--	1,130	--	LAS POSAS	EAST LAS POSAS	36	17.1	617	67.3	1996	1	2013	2
03N20W34G01S	580	--	1,011	--	LAS POSAS	EAST LAS POSAS	70	60	4,195	159	1983	2	2019	2
03N20W32H02S	762	--	1,090	--	LAS POSAS	WEST LAS POSAS	12	28	331	109	2000	1	2013	2
03N20W35G01S	1,160	--	1,440	--	LAS POSAS	EAST LAS POSAS	73	345.1	25,190	700	1983	2	2019	2
03N20W34F01S	479	--	941	--	LAS POSAS	EAST LAS POSAS	53	80.4	4,259	596	1983	2	2013	2
03N20W34L01S	485	--	895	--	LAS POSAS	EAST LAS POSAS	69	158.6	10,945	341.9	1983	2	2019	2
03N20W34J01S	750	--	1,120	--	LAS POSAS	EAST LAS POSAS	62	246.3	15,272	713	1983	2	2014	1
03N20W35J01S	700	--	1,120	--	LAS POSAS	EAST LAS POSAS	59	160	9,438	660	1983	2	2013	2
03N20W34K01S	756	--	1,274	--	LAS POSAS	EAST LAS POSAS	73	113.4	8,276	342	1983	2	2019	2
03N19W31N01S	564	--	924	--	LAS POSAS	EAST LAS POSAS	48	16.5	790	140.2	1989	1	2013	2
03N19W33P03S	290	--	365	--	LAS POSAS	SOUTH LAS POSAS	48	56.8	2,726	217	1983	2	2013	2
03N20W35R01S	670	--	980	--	LAS POSAS	EAST LAS POSAS	65	207.8	13,508.8	543.8	1983	2	2015	2
03N21W35P01S	807	--	1,879	--	LAS POSAS	OUTSIDE	19	104.6	1,988	150	1979	2	1997	2
03N21W35P02S	790	--	1,760	--	LAS POSAS	WEST LAS POSAS	64	97	6,215	276	1988	1	2019	2
03N21W35R01S	800	--	1,720	--	LAS POSAS	WEST LAS POSAS	72	67.6	4,867	617	1983	2	2019	1
02N20W06D01S	560	--	1,000	--	LAS POSAS	WEST LAS POSAS	58	20.0	1,162	87	1983	2	2013	2
02N20W02D02S	878	--	1,238	--	LAS POSAS	EAST LAS POSAS	64	69	4,402	230	1983	2	2019	2
03N21W36Q01S	860	--	1,700	--	LAS POSAS	WEST LAS POSAS	71	105	7,453	224	1983	2	2019	2
03N21W36Q02S	804	--	1,684	--	LAS POSAS	WEST LAS POSAS	71	117.5	8,345	285	1983	2	2019	2
02N20W03B01S	1,016	--	1,448	--	LAS POSAS	EAST LAS POSAS	73	187	13,640	511	1983	2	2019	2
02N20W04F01S	672	--	1,008	--	LAS POSAS	EAST LAS POSAS	70	210.6	14,744	763	1983	2	2019	2
02N19W06F01S	320	--	520	--	LAS POSAS	SOUTH LAS POSAS	72	102	7,336	389	1983	2	2019	2
02N21W03L01S	726	--	1,185	--	LAS POSAS	WEST LAS POSAS	10	137	1,370	172	1979	2	1997	2
02N20W01M01S	533	--	629	--	LAS POSAS	EAST LAS POSAS	65	78.1	5,075	160	1983	2	2018	2
02N20W05J01S	700	--	1,040	--	LAS POSAS	EAST LAS POSAS	72	185	13,288	341	1983	2	2019	2
02N21W01L01S	590	--	1,030	--	LAS POSAS	WEST LAS POSAS	67	232.7	15,594	590	1986	2	2019	2
02N20W02N03S	848	--	1,208	--	LAS POSAS	EAST LAS POSAS	73	206.6	15,079	341	1983	2	2019	2
02N20W03K02S	--	--	--	--	LAS POSAS	EAST LAS POSAS	49	66	3,218	453	1983	2	2013	2
02N20W06J01S	973	--	1,373	--	LAS POSAS	WEST LAS POSAS	73	240	17,545	648	1983	2	2019	2
02N20W06N01S	1,269	--	1,579	--	LAS POSAS	WEST LAS POSAS	45	86	3,870	222	1983	2	2007	2
02N20W01Q01S	129	--	157	--	LAS POSAS	EAST LAS POSAS	64	52	3,352	171	1983	2	2019	2
02N19W06N03S	101	--	121	--	LAS POSAS	SOUTH LAS POSAS	49	15.5	757	128	1983	2	2013	2
02N20W01Q02S	560	--	700	--	LAS POSAS	EAST LAS POSAS	64	102.0	6,531	264.0	1984	2	2019	2
02N21W04Q01S	300	--	1,089	--	LAS POSAS	WEST LAS POSAS	59	42.7	2,521	214.6	1990	1	2019	2
02N20W06R01S	1,090	--	1,512	--	LAS POSAS	WEST LAS POSAS	72	378.6	27,260	895	1983	2	2019	2
02N19W06Q01S	--	--	--	--	LAS POSAS	SOUTH LAS POSAS	44	37	1,624	71	1983	2	2005	2
02N19W07B01S	--	--	--	--	LAS POSAS	SOUTH LAS POSAS	57	37.7	2,148.4	104.0	1983	2	2013	2
02N19W07D02S	98	--	170	--	LAS POSAS	SOUTH LAS POSAS	68	67.5	4,593	475	1984	1	2019	2
02N19W07C01S	104	--	176	--	LAS POSAS	SOUTH LAS POSAS	66	72.5	4,785	152	1985	1	2019	2
02N20W10D02S	873	--	1,097	--	LAS POSAS	EAST LAS POSAS	72	19.8	1,429	45.7	1983	2	2019	2
02N21W11A02S	407	--	740	--	LAS POSAS	WEST LAS POSAS	73	238.4	17,401.5	720.0	1983	2	2019	2
02N20W11D01S	360	--	943	--	LAS POSAS	EAST LAS POSAS	62	120.6	7,477	542.0	1983	2	2016	2
02N20W08B01S	1,050	--	1,300	--	LAS POSAS	WEST LAS POSAS	70	313	21,933	1,110	1983	2	2019	2
02N21W09D01S	430	--	1,016	--	LAS POSAS	WEST LAS POSAS	17	84.5	1,437	245	1981	2	1997	2
02N20W10C01S	615	--	810	--	LAS POSAS	EAST LAS POSAS	25	3.5	88	8	1983	2	2013	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N20W10G01S	635	--	890	--	LAS POSAS	EAST LAS POSAS	70	80.3	5,621	231.3	1983	2	2019	2
02N20W12H01S	--	--	--	--	LAS POSAS	SOUTH LAS POSAS	65	76.2	4,950	674.5	1984	1	2019	2
02N20W12H02S	--	--	--	--	LAS POSAS	SOUTH LAS POSAS	66	49.5	3,269	653	1983	2	2019	2
02N20W09H01S	436	--	730	--	LAS POSAS	EAST LAS POSAS	43	14	609	129	1995	1	2019	2
02N20W08H01S	870	--	1,300	--	LAS POSAS	EAST LAS POSAS	33	68.1	2,248	449	1983	2	2013	2
02N20W08E01S	1,041	--	1,481	--	LAS POSAS	WEST LAS POSAS	67	355	23,772	928	1986	2	2019	2
02N21W10F01S	--	--	--	--	LAS POSAS	WEST LAS POSAS	27	15	393	75	1988	2	2001	2
02N21W12H01S	928	--	1,765	--	LAS POSAS	WEST LAS POSAS	69	103.5	7,142	172.7	1985	1	2019	1
02N20W07F01S	1,240	--	1,600	--	LAS POSAS	WEST LAS POSAS	39	230.6	8,994.2	526.2	1983	2	2003	1
02N21W08G02S	540	--	1,027	--	LAS POSAS	WEST LAS POSAS	49	214.0	10,484.4	447.8	1979	2	2003	2
02N21W10G03S	1,080	--	1,560	--	LAS POSAS	WEST LAS POSAS	36	26	948	60	2002	1	2019	2
02N20W08F01S	752	--	1,406	--	LAS POSAS	WEST LAS POSAS	73	303	22,144	655	1983	2	2019	2
02N19W08G01S	121	--	211	--	LAS POSAS	SOUTH LAS POSAS	71	57.6	4,087	170.0	1983	2	2019	2
02N21W12G01S	--	--	--	--	LAS POSAS	WEST LAS POSAS	60	66	3,951	119	1990	1	2019	2
02N21W11H02S	352	--	460	--	LAS POSAS	WEST LAS POSAS	72	49.2	3,544	130.8	1983	2	2019	2
02N20W09F01S	906	--	1,290	--	LAS POSAS	EAST LAS POSAS	60	222.6	13,357.8	550.0	1983	2	2019	2
02N21W11J02S	375	--	1,150	--	LAS POSAS	WEST LAS POSAS	18	78.5	1,414	138.1	1983	2	1992	1
02N19W07K01S	--	--	--	--	LAS POSAS	SOUTH LAS POSAS	68	96	6,516	383	1983	2	2019	2
02N21W08L01S	650	--	1,015	--	LAS POSAS	WEST LAS POSAS	81	47	3,776	204	1979	2	2019	2
02N20W08Q01S	657	--	1,053	--	LAS POSAS	EAST LAS POSAS	60	99.1	5,943.2	382.2	1983	2	2019	2
02N20W11R02S	200	--	500	--	LAS POSAS	OUTSIDE	56	2	99	9	1985	1	2013	2
02N20W09Q01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	60	131	7,852	550	1983	2	2013	2
02N20W09R01S	456	--	724	--	LAS POSAS	EAST LAS POSAS	73	218.3	15,932.9	714.4	1983	2	2019	2
02N20W09Q05S	469	--	885	--	LAS POSAS	EAST LAS POSAS	73	208.1	15,192	459.6	1983	2	2019	2
02N20W09Q06S	480	--	880	--	LAS POSAS	EAST LAS POSAS	37	327.8	12,129.4	961.2	1983	2	2013	2
02N21W10Q03S	960	--	1,660	--	LAS POSAS	WEST LAS POSAS	81	74.6	6,046	309	1979	2	2019	2
02N20W09Q04S	--	--	--	--	LAS POSAS	EAST LAS POSAS	53	88.8	4,709	391	1983	2	2013	2
02N21W16A01S	--	--	--	--	LAS POSAS	WEST LAS POSAS	57	0.9	50	1	1991	2	2019	2
02N20W16C01S	325	--	698	--	LAS POSAS	EAST LAS POSAS	31	19.5	604	176	1983	2	2013	2
02N20W18A01S	782	--	1,192	--	LAS POSAS	WEST LAS POSAS	67	188.9	12,657	462.6	1983	2	2019	1
02N21W17D03S	100	--	215	--	LAS POSAS	OXNARD PLAIN	43	0	2	1	1979	2	2019	2
02N21W18A01S	98	--	138	--	LAS POSAS	OXNARD PLAIN	81	35	2,850	167	1979	2	2019	2
02N20W16B03S	320	--	600	--	LAS POSAS	EAST LAS POSAS	66	183	12,088	460	1986	2	2019	2
02N21W18H11S	762	--	1,302	--	LAS POSAS	OXNARD PLAIN	81	98.9	8,009	300.8	1979	2	2019	2
02N21W18H07S	120	--	300	--	LAS POSAS	OXNARD PLAIN	81	5.2	420	37	1979	2	2019	2
02N21W18H10S	606	--	1,310	--	LAS POSAS	OXNARD PLAIN	78	70.4	5,492	745.0	1981	1	2019	2
02N21W18H03S	90	--	170	--	LAS POSAS	OXNARD PLAIN	81	369.7	29,948	1,361	1979	2	2019	2
02N21W18H06S	90	--	150	--	LAS POSAS	OXNARD PLAIN	74	41.3	3,057.3	201.3	1979	1	2015	2
02N21W17F05S	525	--	1,105	--	LAS POSAS	OXNARD PLAIN	65	88	5,715	212	1987	2	2019	2
02N20W17F01S	318	--	1,113	--	LAS POSAS	EAST LAS POSAS	54	209.5	11,310	576	1983	2	2016	1
02N21W18H05S	80	--	122	--	LAS POSAS	OXNARD PLAIN	69	256	17,650	748	1981	2	2015	2
02N21W17F04S	156	--	174	--	LAS POSAS	OXNARD PLAIN	81	1.0	81	1.6	1979	2	2019	2
02N20W17J01S	260	--	540	--	LAS POSAS	EAST LAS POSAS	53	125.3	6,639	508.6	1983	2	2013	2
02N21W16J01S	182	--	295	--	LAS POSAS	WEST LAS POSAS	4	0	1	0	1979	2	1997	2
02N21W15M04S	524	--	1,044	--	LAS POSAS	WEST LAS POSAS	69	223.7	15,437.0	628.8	1983	2	2019	2
02N21W15M03S	406	--	1,030	--	LAS POSAS	WEST LAS POSAS	31	86.2	2,672	583.0	1983	2	2013	2
02N21W15M05S	550	--	900	--	LAS POSAS	WEST LAS POSAS	72	104	7,485	165	1984	1	2019	2
02N21W16K01S	370	--	900	--	LAS POSAS	WEST LAS POSAS	29	25.2	731	220.3	1979	2	1997	2
02N21W17M02S	95	--	330	--	LAS POSAS	OXNARD PLAIN	49	74	3,643	159	1979	2	2003	2
02N21W17N01S	85	--	182	--	LAS POSAS	OXNARD PLAIN	51	35	1,761	156	1979	2	2004	2
02N21W16N01S	--	--	--	--	LAS POSAS	WEST LAS POSAS	50	59	2,960	206	1979	1	2003	2
02N21W17R01S	520	--	960	--	LAS POSAS	WEST LAS POSAS	81	19.9	1,609	86	1979	2	2019	2
02N21W22G01S	603	--	903	--	LAS POSAS	OUTSIDE	67	195	13,085	397	1986	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N21W22E01S	1,000	--	1,370	--	LAS POSAS	OUTSIDE	40	138.9	5,556.9	450.5	1983	2	2013	2
02N21W20J02S	640	--	920	--	LAS POSAS	WEST LAS POSAS	81	100.4	8,133	380.0	1979	2	2019	2
02N21W29Q01S	689	--	776	--	LAS POSAS	OUTSIDE	45	0.7	32.0	1.0	1979	2	2001	2
02N21W18H12S	600	--	1300	--	LAS POSAS	OXNARD PLAIN	60	271.4	16286.5	1142.5	1990	1	2019	2
02N21W08L02S	641	--	1041	--	LAS POSAS	WEST LAS POSAS	59	131.6	7763.4	221.0	1990	2	2019	2
02N20W07L01S	1246	--	1567	--	LAS POSAS	WEST LAS POSAS	21	99.7	2093.7	194.2	2009	1	2019	2
02N21W16J03S	560	--	1120	--	LAS POSAS	WEST LAS POSAS	58	145.4	8436.0	315.1	1991	1	2019	2
02N20W01E01S	567	--	907	--	LAS POSAS	EAST LAS POSAS	42	131.1	5505.5	249.7	1992	1	2013	1
02N20W03H01S	900	--	1260	--	LAS POSAS	EAST LAS POSAS	53	283.7	15033.6	562.0	1993	2	2019	2
02N20W04F02S	680	--	1000	--	LAS POSAS	EAST LAS POSAS	52	291.4	15151.3	889.1	1988	1	2014	2
02N20W16D02S	520	--	800	--	LAS POSAS	EAST LAS POSAS	49	22.3	1092.9	117.0	1992	1	2019	2
03N19W30J01S	1017	--	1540	--	LAS POSAS	EAST LAS POSAS	43	206.6	8884.2	516.0	1997	2	2019	2
03N19W31B01S	880	--	1420	--	LAS POSAS	EAST LAS POSAS	42	245.0	10289.6	708.1	1997	2	2019	2
03N20W36L01S	720	--	1180	--	LAS POSAS	EAST LAS POSAS	51	83.5	4257.5	144.5	1992	1	2019	1
03N20W36A03S	720	--	880	--	LAS POSAS	EAST LAS POSAS	57	28.9	1645.2	48.7	1991	2	2019	2
03N20W36A02S	860	--	1400	--	LAS POSAS	EAST LAS POSAS	57	141.6	8072.9	706.8	1990	1	2019	2
03N20W33B03S	800	--	1120	--	LAS POSAS	EAST LAS POSAS	61	31.8	1937.2	77.4	1989	2	2019	2
03N20W33B04S	1058	--	1300	--	LAS POSAS	EAST LAS POSAS	53	12.9	682.3	32.0	1992	1	2019	2
03N20W27L04S	870	--	1190	--	LAS POSAS	EAST LAS POSAS	16	6.2	98.6	24.0	1990	2	2000	2
03N20W25R03S	895	--	1355	--	LAS POSAS	EAST LAS POSAS	35	55.0	1926.5	153.2	1992	1	2013	1
03N20W24P01S	760	--	1180	--	LAS POSAS	EAST LAS POSAS	52	47.6	2475.9	99.0	1993	1	2018	2
02N20W01F01S	622	--	910	--	LAS POSAS	EAST LAS POSAS	48	12.3	591.4	295.7	1993	1	2019	1
02N20W01B01S	550	--	829	--	LAS POSAS	EAST LAS POSAS	47	13.4	629.0	394.6	1993	1	2019	1
02N20W01B02S	532	--	765	--	LAS POSAS	EAST LAS POSAS	45	17.8	801.1	342.9	1993	1	2019	2
02N20W01B03S	510	--	708	--	LAS POSAS	EAST LAS POSAS	43	8.8	376.7	188.4	1993	1	2014	1
03N19W31N02S	537	--	815	--	LAS POSAS	EAST LAS POSAS	54	44.3	2393.7	781.6	1993	1	2019	2
03N19W31E02S	596	--	940	--	LAS POSAS	EAST LAS POSAS	53	34.6	1831.5	520.1	1993	1	2019	1
03N19W31M04S	621	--	890	--	LAS POSAS	EAST LAS POSAS	53	18.2	963.7	399.5	1993	1	2019	1
03N19W31M03S	530	--	864	--	LAS POSAS	EAST LAS POSAS	54	21.8	1177.6	306.3	1993	1	2019	2
03N19W31D03S	790	--	1220	--	LAS POSAS	EAST LAS POSAS	51	65.0	3313.4	1110.0	1993	1	2019	1
03N19W31E03S	640	--	890	--	LAS POSAS	EAST LAS POSAS	54	42.9	2315.4	604.2	1993	1	2019	2
03N19W31D06S	938	--	1509	--	LAS POSAS	EAST LAS POSAS	54	76.8	4148.4	883.0	1993	1	2019	2
03N19W31D05S	750	--	1285	--	LAS POSAS	EAST LAS POSAS	53	51.1	2706.6	872.1	1993	1	2019	2
03N19W31D02S	800	--	1219	--	LAS POSAS	EAST LAS POSAS	54	11.1	596.9	250.7	1993	1	2019	2
03N19W31C02S	748	--	1052	--	LAS POSAS	EAST LAS POSAS	53	34.4	1824.9	685.8	1993	1	2019	2
03N19W31D04S	863	--	1420	--	LAS POSAS	EAST LAS POSAS	54	30.6	1654.1	472.2	1993	1	2019	2
03N19W31C01S	882	--	1431	--	LAS POSAS	EAST LAS POSAS	52	33.3	1731.3	664.8	1993	1	2019	2
02N21W22A01S	780	--	1400	--	LAS POSAS	OUTSIDE	39	91.5	3567.7	261.7	1995	1	2014	2
03N19W28N03S	598	--	900	--	LAS POSAS	SOUTH LAS POSAS	42	16.7	699.9	260.8	1993	1	2013	2
03N19W30E06S	924	--	1204	--	LAS POSAS	EAST LAS POSAS	56	184.6	10335.9	363.3	1991	2	2019	2
03N20W28J03S	--	--	--	--	LAS POSAS	EAST LAS POSAS	48	0.6	31.0	1.2	1983	2	2018	2
03N20W28P03S	--	--	--	--	LAS POSAS	EAST LAS POSAS	19	0.7	13.1	3.6	2010	1	2019	2
03N20W27J01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	19	0.1	2.7	1.2	2005	1	2014	1
02N19W08H02S	60	--	240	--	LAS POSAS	SOUTH LAS POSAS	33	8.2	271.7	23.8	2003	1	2019	2
02N20W06R03S	1041	--	1381	--	LAS POSAS	WEST LAS POSAS	57	100.2	5708.7	419.4	1991	2	2019	2
02N20W08M01S	1040	--	1400	--	LAS POSAS	WEST LAS POSAS	55	255.3	14041.8	676.8	1992	1	2019	2
02N20W11P01S	403	--	483	--	LAS POSAS	OUTSIDE	23	1.2	27.0	27.0	1991	2	2013	2
02N20W17J05S	300	--	480	--	LAS POSAS	EAST LAS POSAS	26	0.2	6.1	1.1	1992	1	2019	2
02N21W28D01S	513	--	867	--	LAS POSAS	OUTSIDE	58	67.2	3897.0	340.0	1983	2	2013	2
02N21W17M03S	120	--	360	--	LAS POSAS	OXNARD PLAIN	42	134.1	5632.5	337.7	1999	1	2019	2
02N21W08G04S	666	--	1066	--	LAS POSAS	WEST LAS POSAS	40	166.7	6666.5	416.9	2000	1	2019	2
02N21W04Q02S	689	--	1054	--	LAS POSAS	WEST LAS POSAS	39	113.4	4423.8	240.6	2000	2	2019	2
02N20W01E02S	686	--	1006	--	LAS POSAS	EAST LAS POSAS	48	56.6	2714.9	575.1	1993	1	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N20W01C02S	630	--	909	--	LAS POSAS	EAST LAS POSAS	46	38.6	1774.0	453.9	1993	1	2019	1
02N21W21E01S	540	--	800	--	LAS POSAS	WEST LAS POSAS	40	188.2	7528.1	328.6	1999	2	2019	2
02N21W10Q04S	1290	--	1610	--	LAS POSAS	WEST LAS POSAS	36	162.9	5865.0	253.9	2002	1	2019	2
02N21W17R02S	520	--	860	--	LAS POSAS	WEST LAS POSAS	32	59.5	1902.6	162.0	2004	1	2019	2
02N21W17N03S	190	--	410	--	LAS POSAS	OXNARD PLAIN	38	60.5	2299.8	228.5	2001	1	2019	2
02N21W21D04S	590	--	830	--	LAS POSAS	WEST LAS POSAS	36	61.8	2223.9	167.5	2002	1	2019	2
02N20W01D01S	620	--	780	--	LAS POSAS	EAST LAS POSAS	52	15.5	805.5	29.5	1994	1	2019	2
02N20W02J01S	600	--	900	--	LAS POSAS	EAST LAS POSAS	51	56.8	2898.9	110.5	1994	2	2019	2
02N20W07R02S	960	--	1360	--	LAS POSAS	WEST LAS POSAS	45	278.5	12531.4	751.2	1993	2	2015	2
03N19W30F01S	1020	--	1260	--	LAS POSAS	EAST LAS POSAS	55	58.2	3200.8	98.5	1992	2	2019	2
03N20W27N03S	160	--	604	--	LAS POSAS	EAST LAS POSAS	54	41.6	2247.1	65.7	1991	2	2019	2
02N20W14C01S	340	--	500	--	LAS POSAS	OUTSIDE	48	22.3	1070.6	31.9	1995	1	2019	2
02N20W14C02S	340	--	360	--	LAS POSAS	OUTSIDE	42	23.6	990.4	37.0	1998	2	2019	2
03N19W20P01S	870	--	1230	--	LAS POSAS	EAST LAS POSAS	38	29.2	1111.2	58.7	1996	2	2015	1
02N20W02J02S	--	--	--	--	LAS POSAS	EAST LAS POSAS	43	36.3	1561.8	137.8	1998	2	2019	2
03N20W36G02S	--	--	--	--	LAS POSAS	EAST LAS POSAS	51	78.8	4018.8	180.4	1992	1	2019	2
02N20W09Q07S	480	--	880	--	LAS POSAS	EAST LAS POSAS	44	748.8	32948.9	1396.7	1998	1	2019	2
03N20W34L02S	600	--	1060	--	LAS POSAS	EAST LAS POSAS	39	258.3	10073.5	517.9	1999	2	2019	2
03N20W36M01S	660	--	900	--	LAS POSAS	EAST LAS POSAS	41	17.5	717.2	29.4	1999	1	2019	2
03N20W28P02S	140	--	400	--	LAS POSAS	EAST LAS POSAS	42	0.6	26.7	3.5	1999	1	2019	2
02N21W28C01S	700	--	1160	--	LAS POSAS	OUTSIDE	33	100.4	3313.7	216.1	2003	1	2019	1
03N20W36K01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	39	15.0	585.1	36.1	2000	2	2019	2
02N20W09C01S	850	--	1250	--	LAS POSAS	EAST LAS POSAS	34	208.2	7079.6	402.5	2001	1	2019	2
03N20W35H02S	770	--	970	--	LAS POSAS	EAST LAS POSAS	36	9.6	345.4	41.9	2001	2	2019	1
02N21W20A01S	520	--	800	--	LAS POSAS	WEST LAS POSAS	28	15.9	444.8	59.2	2005	1	2018	2
02N21W16N03S	610	--	830	--	LAS POSAS	WEST LAS POSAS	30	103.9	3115.6	186.8	2005	1	2019	2
02N21W09D02S	650	--	800	--	LAS POSAS	WEST LAS POSAS	61	132.9	8107.0	376.4	1989	2	2019	2
03N20W32H03S	900	--	1100	--	LAS POSAS	WEST LAS POSAS	18	40.7	731.8	139.2	2010	2	2019	2
02N20W10N01S	310	--	363	--	LAS POSAS	EAST LAS POSAS	27	197.7	5337.1	320.0	2004	2	2019	2
03N20W35H03S	687	--	1200	--	LAS POSAS	EAST LAS POSAS	31	363.9	11279.5	708.0	2004	2	2019	2
03N20W34J02S	610	--	940	--	LAS POSAS	EAST LAS POSAS	33	28.0	923.6	63.6	2003	2	2019	2
03N19W31H01S	613	--	803	--	LAS POSAS	EAST LAS POSAS	31	214.3	6644.0	715.3	2004	2	2019	2
03N20W32K01S	870	--	1160	--	LAS POSAS	WEST LAS POSAS	31	58.0	1798.8	234.3	2003	1	2018	1
02N20W17L01S	280	--	580	--	LAS POSAS	EAST LAS POSAS	22	521.9	11482.6	1364.3	2009	1	2019	2
02N20W14F01S	--	--	--	--	LAS POSAS	OUTSIDE	11	1.4	15.4	10.0	2009	1	2018	1
02N20W12K01S	50	--	295	--	LAS POSAS	SOUTH LAS POSAS	53	18.0	952.4	37.3	1993	2	2019	2
02N20W04R02S	910	--	1270	--	LAS POSAS	EAST LAS POSAS	28	129.1	3615.5	240.6	2006	1	2019	2
02N20W12N01S	100	--	140	--	LAS POSAS	OUTSIDE	52	1.0	51.1	5.1	1993	1	2019	2
03N21W35L02S	1300	--	1770	--	LAS POSAS	OUTSIDE	27	7.0	189.7	171.6	2006	2	2019	2
02N21W28A02S	550	--	800	--	LAS POSAS	OUTSIDE	27	203.0	5481.8	348.5	2006	2	2019	2
03N21W36R02S	1215	--	1990	--	LAS POSAS	WEST LAS POSAS	18	17.3	311.2	72.6	2005	1	2013	2
02N21W18H14S	1105	--	1275	--	LAS POSAS	OXNARD PLAIN	21	336.9	7074.4	563.7	2009	2	2019	2
03N20W27H03S	900	--	1100	--	LAS POSAS	EAST LAS POSAS	27	36.3	979.6	158.1	2003	2	2019	1
03N21W35L03S	1100	--	1530	--	LAS POSAS	OUTSIDE	19	45.4	863.2	96.3	2010	2	2019	2
02N19W07B02S	457	--	577	--	LAS POSAS	SOUTH LAS POSAS	25	146.7	3667.9	227.5	2005	2	2019	2
02N20W03J01S	900	--	1060	--	LAS POSAS	EAST LAS POSAS	22	263.9	5805.9	695.1	2009	1	2019	2
02N20W16B06S	230	--	430	--	LAS POSAS	EAST LAS POSAS	26	139.1	3616.6	275.1	2006	2	2019	2
03N19W29K08S	900	--	1310	--	LAS POSAS	EAST LAS POSAS	23	267.4	6150.3	645.5	2008	2	2019	2
03N19W30D02S	970	--	1250	--	LAS POSAS	EAST LAS POSAS	26	131.7	3425.5	251.3	2006	2	2019	2
03N20W27G06S	420	--	900	--	LAS POSAS	EAST LAS POSAS	16	15.4	246.9	25.1	2008	1	2019	2
03N20W28Q02S	110	--	510	--	LAS POSAS	EAST LAS POSAS	27	14.1	381.8	29.9	2006	2	2019	2
03N20W33F01S	720	--	980	--	LAS POSAS	EAST LAS POSAS	24	57.6	1381.8	130.6	2008	1	2019	2
02N20W17E01S	448	--	748	--	LAS POSAS	OUTSIDE	32	50.8	1624.9	177.8	2002	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N21W11A03S	880	--	1630	--	LAS POSAS	WEST LAS POSAS	21	165.9	3483.1	328.8	2009	2	2019	2
03N19W30N03S	720	1200	--	--	LAS POSAS	EAST LAS POSAS	8	8.8	70.0	18.7	2013	1	2016	2
03N20W26C02S	--	--	--	--	LAS POSAS	EAST LAS POSAS	13	15.5	201.5	22.7	2013	2	2019	2
03N20W27K02S	280	--	560	--	LAS POSAS	EAST LAS POSAS	39	0.3	10.5	0.7	2000	1	2019	1
03N20W28J04S	240	--	620	--	LAS POSAS	EAST LAS POSAS	31	26.5	820.1	56.0	2004	2	2019	2
03N20W36A04S	910	--	1270	--	LAS POSAS	EAST LAS POSAS	13	75.6	983.3	125.2	2013	1	2019	2
02N21W13A01S	1290	--	1590	--	LAS POSAS	WEST LAS POSAS	22	115.8	2547.9	223.5	2009	1	2019	2
02N19W07D01S	--	--	--	--	LAS POSAS	SOUTH LAS POSAS	15	63.5	952.7	195.0	2004	2	2013	2
02N20W03K03S	882	--	1042	--	LAS POSAS	EAST LAS POSAS	20	209.7	4193.8	338.9	2009	2	2019	1
02N20W14C03S	--	--	--	--	LAS POSAS	OUTSIDE	35	19.2	670.2	42.2	2002	1	2019	2
03N20W26C01S	240	--	360	--	LAS POSAS	EAST LAS POSAS	70	0.6	44.3	1.5	1985	1	2019	2
03N20W26D01S	--	--	--	--	LAS POSAS	EAST LAS POSAS	66	1.0	65.1	1.5	1985	1	2018	1
03N20W26H01S	680	--	1100	--	LAS POSAS	EAST LAS POSAS	31	52.7	1634.6	81.0	2004	2	2019	2
03N20W27G07S	--	--	--	--	LAS POSAS	EAST LAS POSAS	20	3.8	76.5	7.6	2010	1	2019	2
03N20W27H04S	--	--	--	--	LAS POSAS	EAST LAS POSAS	20	126.2	2523.7	244.6	2010	1	2019	2
03N20W34J03S	--	--	--	--	LAS POSAS	EAST LAS POSAS	19	189.4	3598.4	314.4	2010	2	2019	2
03N20W35D01S	1435	--	1665	--	LAS POSAS	EAST LAS POSAS	29	39.2	1136.2	143.1	2005	1	2019	2
03N21W36R03S	966	--	1476	--	LAS POSAS	WEST LAS POSAS	20	97.1	1941.6	183.3	2010	1	2019	2
02N21W08L03S	625	--	1030	--	LAS POSAS	WEST LAS POSAS	12	166.4	1996.5	206.6	2014	1	2019	2
02N21W08H03S	635	--	1340	--	LAS POSAS	WEST LAS POSAS	10	313.4	3134.0	451.9	2015	1	2019	2
02N20W01A01S	500	--	720	--	LAS POSAS	EAST LAS POSAS	10	47.8	477.9	65.1	2015	1	2019	2
03N20W25R04S	950	--	1500	--	LAS POSAS	EAST LAS POSAS	10	98.6	985.9	174.3	2015	1	2019	2
02N20W04B01S	710	--	990	--	LAS POSAS	EAST LAS POSAS	9	228.0	2052.2	303.7	2015	2	2019	2
02N20W09B01S	420	--	700	--	LAS POSAS	EAST LAS POSAS	10	20.0	200.0	36.6	2015	1	2019	2
03N19W32L01S	605	--	860	--	LAS POSAS	WEST LAS POSAS	9	37.6	338.0	48.7	2015	2	2019	2
02N20W01E03S	700	--	1000	--	LAS POSAS	EAST LAS POSAS	12	48.4	580.7	91.2	2013	2	2019	2
02N20W11Q01S	280	--	875	--	LAS POSAS	OUTSIDE	13	32.1	417.7	54.7	2013	2	2019	2
02N20W16R01S	300	--	605	--	LAS POSAS	OUTSIDE	8	0.2	1.7	1.7	2015	2	2019	1
03N20W27N05S	--	--	--	--	LAS POSAS	EAST LAS POSAS	18	0.2	3.1	1.7	2010	1	2019	2
03N20W28J05S	240	--	360	--	LAS POSAS	EAST LAS POSAS	14	0.5	7.5	0.8	2013	1	2019	2
03N20W36P01S	630	--	890	--	LAS POSAS	EAST LAS POSAS	13	20.0	259.6	25.6	2013	2	2019	2
02N22W11C03S	180	--	470	--	MOUND	OXNARD FOREBAY	22	4.3	95	12.0	1979	2	1997	2
02N22W11M01S	100	--	410	--	MOUND	OXNARD FOREBAY	45	37	1,676	56	1979	2	2001	2
02N22W09K03S	424	--	545	--	MOUND	MOUND	52	85.1	4,423	200	1979	2	2005	1
02N22W08L01S	460	--	1,405	--	MOUND	MOUND	81	509.6	41,276.9	2,390.9	1979	2	2019	2
02N22W09K05S	625	--	1,455	--	MOUND	MOUND	82	72.7	5,961	399	1979	1	2019	2
02N22W09K01S	236	--	336	--	MOUND	MOUND	81	50.6	4,098	133	1979	2	2019	2
02N22W10N01S	200	--	300	--	MOUND	MOUND	49	73.0	3,579	151.0	1979	2	2003	2
02N22W08P01S	160	--	321	--	MOUND	MOUND	15	4.9	73	23.8	1979	2	1997	2
02N22W08N01S	554	--	720	--	MOUND	MOUND	49	78.9	3,865	130	1979	2	2003	2
02N22W10N02S	200	--	354	--	MOUND	MOUND	81	89.4	7,242	267.2	1979	2	2019	2
02N22W15D02S	227	--	379	--	MOUND	MOUND	81	45.0	3,646	72	1979	2	2019	2
02N23W14B01S	223	--	733	--	MOUND	MOUND	11	59.4	653.6	123.0	1979	2	1997	2
02N23W13E01S	523	--	1,123	--	MOUND	MOUND	73	212	15,500	733	1983	2	2019	2
02N22W16H01S	--	--	--	--	MOUND	MOUND	81	60.0	4,863	220	1979	2	2019	2
02N22W16K01S	292	--	345	--	MOUND	MOUND	81	11.9	960	64.2	1979	2	2019	2
02N23W13K03S	800	--	1,200	--	MOUND	MOUND	81	294.0	23,811	757	1979	2	2019	2
02N23W13K04S	800	--	1,200	--	MOUND	MOUND	73	128.4	9,372.6	293.7	1983	2	2019	2
02N23W14K01S	501	--	920	--	MOUND	MOUND	9	134.4	1,209	252.7	1979	2	1997	2
02N23W13K01S	623	--	1,230	--	MOUND	MOUND	11	33.5	368	102.3	1979	2	1997	2
02N22W18N01S	660	--	1,200	--	MOUND	MOUND	81	113.5	9,194	332	1979	2	2019	2
02N22W17Q05S	360	--	478	--	MOUND	MOUND	72	35	2,551	213	1982	1	2019	2
02N22W20B02S	180	--	320	--	MOUND	MOUND	8	106.0	848	224	1979	2	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N23W24F01S	--	--	--	--	MOUND	MOUND	81	115	9,280	521	1979	2	2019	2
02N23W24G01S	742	--	927	--	MOUND	MOUND	81	2	200	70	1979	2	2019	2
02N22W19K02S	200	--	230	--	MOUND	MOUND	76	0	22	1	1979	2	2019	2
02N22W19M03S	350	--	625	--	MOUND	MOUND	30	42	1,255	106	1990	1	2004	2
02N22W17M01S	440	--	600	--	MOUND	MOUND	20	39.4	787.1	65.4	1992	1	2001	2
02N22W20E01S	462	--	818	--	MOUND	MOUND	57	34.6	1974.5	162.8	1991	2	2019	2
02N23W13F02S	521	--	982	--	MOUND	MOUND	82	205.7	16870.8	810.7	1979	1	2019	2
02N22W08F01S	580	--	1180	--	MOUND	MOUND	43	1105.0	47513.8	2331.2	1998	2	2019	2
02N22W19L02S	--	--	--	--	MOUND	MOUND	60	50.3	3020.7	160.0	1988	1	2019	2
02N22W17M02S	550	--	850	--	MOUND	MOUND	36	53.6	1928.0	83.7	2002	1	2019	2
02N22W09K06S	420	--	560	--	MOUND	MOUND	1	12.7	12.7	12.7	2003	2	2003	2
02N22W07P01S	460	--	580	--	MOUND	MOUND	38	35.9	1365.0	501.1	2001	1	2019	2
02N22W08G01S	580	--	650	--	MOUND	MOUND	34	636.4	21637.7	1530.3	2003	1	2019	2
02N22W10N03S	200	--	280	--	MOUND	MOUND	31	50.4	1562.2	92.5	2004	2	2019	2
02N22W09K07S	640	--	1440	--	MOUND	MOUND	31	127.5	3953.4	216.9	2004	2	2019	2
02N22W19M04S	343	--	493	--	MOUND	MOUND	30	109.4	3280.6	247.4	2005	1	2019	2
02N22W19K03S	450	--	600	--	MOUND	MOUND	22	115.5	2540.3	265.6	2009	1	2019	2
02N22W09K08S	224	--	465	--	MOUND	MOUND	19	59.2	1124.0	102.7	2010	2	2019	2
02N23W13G01S	360	--	860	--	MOUND	MOUND	19	295.9	5622.5	472.6	2010	2	2019	2
02N22W15E02S	120	--	320	--	MOUND	MOUND	10	3.9	38.7	12.0	2015	1	2019	2
05N18W33R01S	159	--	279	--	OUTSIDE	OUTSIDE	38	2.9	112	41	2001	1	2019	2
04N20W11L01S	150	--	400	--	OUTSIDE	OUTSIDE	59	0.9	54	2	1990	2	2019	2
04N21W15N01S	45	--	90	--	OUTSIDE	OUTSIDE	9	6.3	57	24	2015	2	2019	2
04N19W21L01S	--	--	--	--	OUTSIDE	OUTSIDE	5	4	22	11	1979	2	1997	2
03N19W07D01S	160	--	200	--	OUTSIDE	OUTSIDE	58	0.2	12	2.0	1989	1	2019	2
03N20W12L02S	--	--	--	--	OUTSIDE	OUTSIDE	58	0.0	1	0	1991	1	2019	2
03N20W12L01S	70	--	1,093	--	OUTSIDE	OUTSIDE	58	0.1	3.4	1.0	1991	1	2019	2
03N20W12L03S	50	--	270	--	OUTSIDE	OUTSIDE	58	0	3	1	1991	1	2019	2
03N19W15E01S	268	--	452	--	OUTSIDE	OUTSIDE	50	4.6	232.0	19.6	1988	1	2019	1
03N19W17P01S	685	--	750	--	OUTSIDE	OUTSIDE	18	2	34	7	2011	1	2019	2
03N19W17Q01S	1,100	--	1,340	--	OUTSIDE	EAST LAS POSAS	51	14	707	50	1987	2	2019	2
03N19W19K02S	1,167	--	1,487	--	OUTSIDE	EAST LAS POSAS	67	37.5	2,515	120	1983	2	2019	2
03N20W23L01S	1,167	--	1,475	--	OUTSIDE	OUTSIDE	39	3	134	15	1987	1	2013	1
03N20W24J01S	810	--	1,010	--	OUTSIDE	EAST LAS POSAS	59	121	7,118	277	1983	2	2013	2
04N21W15L01S	100	--	200	--	OUTSIDE	OUTSIDE	57	20.3	1154.6	25.0	1991	2	2019	2
04N21W16R01S	300	--	380	--	OUTSIDE	OUTSIDE	55	21.3	1170.5	40.1	1992	2	2019	2
04N19W19K01S	--	--	--	--	OUTSIDE	OUTSIDE	46	2.9	133.6	133.6	1997	1	2019	2
04N19W29R02SB	--	--	--	--	OUTSIDE	FILLMORE	44	0.5	21.7	1.0	1979	2	2001	2
03N19W10Q01S	--	--	--	--	OUTSIDE	OUTSIDE	36	0.3	11.6	0.5	1994	2	2019	1
03N19W20G01S	995	--	1195	--	OUTSIDE	EAST LAS POSAS	29	24.8	718.5	57.8	2002	1	2019	2
04N18W05G01S	460	--	560	--	OUTSIDE	OUTSIDE	28	0.5	13.2	1.2	2005	2	2019	2
04N20W16N01S	--	--	--	--	OUTSIDE	OUTSIDE	20	3.1	62.7	50.0	2009	2	2019	2
03N21W14N01S	180	--	300	--	OUTSIDE	OUTSIDE	18	0.3	5.2	0.7	2011	1	2019	2
04N19W28B01S	240	--	320	--	OUTSIDE	OUTSIDE	24	0.3	7.9	0.5	2008	1	2019	2
02N22W02R04S	106	--	501	--	OXNARD BASIN	OXNARD FOREBAY	15	715.3	10,730.1	2,494.2	1979	2	1997	2
02N22W12A02S	40	--	121	--	OXNARD BASIN	OXNARD FOREBAY	80	4.1	327.7	12.7	1979	2	2019	2
02N22W11A01S	75	--	155	--	OXNARD BASIN	OXNARD FOREBAY	28	24.4	684.0	94.2	2006	1	2019	2
02N22W12G03S	80	--	141	--	OXNARD BASIN	OXNARD FOREBAY	81	5	400	20	1979	2	2019	2
02N22W12E02S	205	--	355	--	OXNARD BASIN	OXNARD FOREBAY	23	512.2	11,781	665	1979	2	1997	2
02N22W12E04S	140	--	464	--	OXNARD BASIN	OXNARD FOREBAY	46	206	9,491	659	1990	1	2012	2
02N21W07K01S	78	--	150	--	OXNARD BASIN	OXNARD FOREBAY	43	136.7	5,878	486.5	1979	2	2000	2
02N21W07K02S	250	--	750	--	OXNARD BASIN	OXNARD PLAIN	14	26.6	373	64.0	1982	2	1997	2
02N22W12L04S	60	--	317	--	OXNARD BASIN	OXNARD FOREBAY	34	42.5	1,446	77	1979	2	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N22W12K02S	90	--	172	--	OXNARD BASIN	OXNARD FOREBAY	34	39	1,331	122	1979	2	1997	2
02N22W12M02S	204	--	348	--	OXNARD BASIN	OXNARD FOREBAY	81	5.7	460	36	1979	2	2019	2
02N22W12K05S	68	--	233	--	OXNARD BASIN	OXNARD FOREBAY	81	57.7	4,674.9	422.6	1979	2	2019	2
02N22W12L02S	140	--	260	--	OXNARD BASIN	OXNARD FOREBAY	13	23.3	303	69	1990	1	1997	2
02N21W07M03S	360	--	720	--	OXNARD BASIN	OXNARD FOREBAY	45	148.3	6,675	868	1979	2	2001	2
02N21W07P04S	420	--	820	--	OXNARD BASIN	OXNARD FOREBAY	62	100.4	6,225	429	1989	1	2019	2
02N21W07P02S	192	--	856	--	OXNARD BASIN	OXNARD FOREBAY	10	180.3	1,803	337.0	1979	2	1997	2
02N21W07R01S	520	--	1,244	--	OXNARD BASIN	OXNARD PLAIN	75	41.8	3,133	379.4	1979	2	2016	2
02N21W07P03S	550	--	1,000	--	OXNARD BASIN	OXNARD FOREBAY	72	121	8,683	402	1984	1	2019	2
02N22W12N04S	192	--	336	--	OXNARD BASIN	OXNARD FOREBAY	81	38	3,044.8	182.9	1979	2	2019	2
02N22W12Q05S	243	--	703	--	OXNARD BASIN	OXNARD FOREBAY	81	56.3	4,560	244.2	1979	2	2019	2
02N22W12Q04S	120	--	148	--	OXNARD BASIN	OXNARD FOREBAY	81	5.8	466	73.8	1979	2	2019	2
02N22W12N03S	276	--	456	--	OXNARD BASIN	OXNARD FOREBAY	81	33.5	2,712.7	119.7	1979	2	2019	2
02N22W11R02S	284	--	404	--	OXNARD BASIN	OXNARD FOREBAY	11	0	1	1	1979	2	1997	2
02N22W12N07S	50	--	110	--	OXNARD BASIN	OXNARD FOREBAY	33	1	26	5	1984	2	2000	2
02N22W11R03S	290	--	410	--	OXNARD BASIN	OXNARD FOREBAY	79	37.9	2,994	166.3	1979	2	2019	2
02N21W07Q01S	740	--	1,260	--	OXNARD BASIN	OXNARD PLAIN	81	57.1	4,626	167.4	1979	2	2019	2
02N22W14A02S	120	--	152	--	OXNARD BASIN	OXNARD FOREBAY	81	0.7	56.2	5.0	1979	2	2019	2
02N22W13D01S	340	--	540	--	OXNARD BASIN	OXNARD FOREBAY	81	48.5	3,932	206.6	1979	2	2019	2
02N21W18B01S	70	--	160	--	OXNARD BASIN	OXNARD PLAIN	81	95.4	7,724	254.0	1979	2	2019	2
02N21W18B02S	552	--	1,101	--	OXNARD BASIN	OXNARD PLAIN	67	66.5	4,455	196	1986	2	2019	2
02N22W14A05S	119	--	179	--	OXNARD BASIN	OXNARD FOREBAY	81	20.2	1,635	231	1979	2	2019	2
02N22W14A03S	--	--	--	--	OXNARD BASIN	OXNARD FOREBAY	72	0.8	61	2	1984	1	2019	2
02N21W18A02S	824	--	1,424	--	OXNARD BASIN	OXNARD PLAIN	7	58	408	74	1983	2	1997	2
02N22W14A08S	120	--	180	--	OXNARD BASIN	OXNARD FOREBAY	81	1.2	99	3	1979	2	2019	2
02N22W14A04S	100	--	185	--	OXNARD BASIN	OXNARD FOREBAY	80	8	608	31	1979	2	2019	2
02N22W14B01S	414	--	762	--	OXNARD BASIN	OXNARD FOREBAY	81	34.0	2,750	243.7	1979	2	2019	2
02N22W13A04S	274	--	694	--	OXNARD BASIN	OXNARD FOREBAY	48	84.7	4,067	250	1979	2	2003	1
02N22W14H03S	128	--	178	--	OXNARD BASIN	OXNARD FOREBAY	81	72	5,840	135	1979	2	2019	2
02N22W14H02S	98	--	170	--	OXNARD BASIN	OXNARD FOREBAY	18	1.8	31.6	31.6	2009	2	2018	2
02N22W13G02S	80	--	190	--	OXNARD BASIN	OXNARD FOREBAY	45	66.6	2,996.1	631.0	1979	2	2001	2
02N22W13K02S	95	--	308	--	OXNARD BASIN	OXNARD FOREBAY	81	76.4	6,192	418.2	1979	2	2019	2
02N22W13L03S	100	--	175	--	OXNARD BASIN	OXNARD FOREBAY	81	11.1	901.2	38.5	1979	2	2019	2
02N22W14L02S	100	--	200	--	OXNARD BASIN	OXNARD FOREBAY	81	8.8	714	21.1	1979	2	2019	2
02N22W14L04S	250	--	268	--	OXNARD BASIN	OXNARD FOREBAY	17	19	318	52	1979	2	1997	2
02N22W14L06S	--	--	--	--	OXNARD BASIN	OXNARD FOREBAY	37	2	83	5	2001	2	2019	2
02N22W14J02S	145	--	410	--	OXNARD BASIN	OXNARD FOREBAY	81	129.2	10,464	294	1979	2	2019	2
02N22W14J01S	84	--	190	--	OXNARD BASIN	OXNARD FOREBAY	26	2	64	4	1979	2	1997	2
02N22W13M01S	--	--	178	--	OXNARD BASIN	OXNARD FOREBAY	42	40.3	1,691	152.4	1979	2	2000	1
02N22W13L04S	120	--	244	--	OXNARD BASIN	OXNARD FOREBAY	20	54.8	1,097	120	1983	1	1997	2
02N22W14L05S	164	--	404	--	OXNARD BASIN	OXNARD FOREBAY	81	31.6	2,557	85	1979	2	2019	2
02N22W13L01S	95	--	215	--	OXNARD BASIN	OXNARD FOREBAY	81	95.3	7,718	263	1979	2	2019	2
02N22W13L05S	120	--	210	--	OXNARD BASIN	OXNARD FOREBAY	81	119.2	9,656	299	1979	2	2019	2
02N22W14P03S	162	--	306	--	OXNARD BASIN	OXNARD FOREBAY	75	18	1,328	48	1982	2	2019	2
02N22W16Q01S	136	--	578	--	OXNARD BASIN	OXNARD PLAIN	81	62.2	5,039.6	139.1	1979	2	2019	2
02N22W15Q03S	206	--	314	--	OXNARD BASIN	OXNARD FOREBAY	42	155	6,528	295	1979	2	2000	1
02N22W14Q01S	60	--	260	--	OXNARD BASIN	OXNARD FOREBAY	71	0.3	24	2	1979	2	2014	2
02N22W14Q02S	60	--	260	--	OXNARD BASIN	OXNARD FOREBAY	82	53	4,374	166	1979	1	2019	2
02N22W15R01S	130	--	242	--	OXNARD BASIN	OXNARD FOREBAY	44	12.7	559	70	1979	2	2001	1
02N21W18P01S	100	--	200	--	OXNARD BASIN	OXNARD PLAIN	21	44	917	64	2009	2	2019	2
02N21W18R01S	98	--	310	--	OXNARD BASIN	OXNARD PLAIN	15	85.8	1,288	161	1979	2	1997	2
02N22W14P02S	149	--	277	--	OXNARD BASIN	OXNARD FOREBAY	81	613	49,689	2,011	1979	2	2019	2
02N21W18Q02S	445	--	1,003	--	OXNARD BASIN	OXNARD PLAIN	24	183	4,394	410	1980	1	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N22W16Q03S	180	--	350	--	OXNARD BASIN	OXNARD PLAIN	81	81	6,590	207	1979	2	2019	2
02N22W13N02S	752	--	1,092	--	OXNARD BASIN	OXNARD FOREBAY	70	60.4	4,231	865	1985	1	2019	2
02N22W15Q01S	78	--	150	--	OXNARD BASIN	OXNARD FOREBAY	55	278.5	15,316	691	1979	2	2006	2
02N22W23C01S	100	--	300	--	OXNARD BASIN	OXNARD FOREBAY	72	767.9	55,288	2,153.3	1979	2	2015	1
02N22W23B02S	163	--	277	--	OXNARD BASIN	OXNARD FOREBAY	81	520	42,152	2,003	1979	2	2019	2
02N21W19A01S	95	--	147	--	OXNARD BASIN	OXNARD PLAIN	81	80.2	6,493	344	1979	2	2019	2
02N22W21D03S	193	--	313	--	OXNARD BASIN	OXNARD PLAIN	54	17.6	951	24	1979	2	2006	1
02N22W24D01S	130	--	258	--	OXNARD BASIN	OXNARD FOREBAY	81	92	7,492	159	1979	2	2019	2
02N21W19A03S	528	--	1,007	--	OXNARD BASIN	OXNARD PLAIN	81	56.2	4,554	255.6	1979	2	2019	2
02N22W23D04S	76	--	180	--	OXNARD BASIN	OXNARD FOREBAY	43	63.5	2,729	154	1979	2	2000	2
02N22W23D05S	80	--	227	--	OXNARD BASIN	OXNARD FOREBAY	81	5.4	434.5	31.3	1979	1	2019	2
02N22W23B01S	100	--	277	--	OXNARD BASIN	OXNARD FOREBAY	81	485.7	39,345	2,128.9	1979	2	2019	2
02N21W19A02S	100	--	212	--	OXNARD BASIN	OXNARD PLAIN	48	89.6	4,303	244.7	1979	2	2003	1
02N22W24A01S	120	--	320	--	OXNARD BASIN	OXNARD PLAIN	81	170.4	13,806	444.9	1979	2	2019	2
02N22W23C03S	556	--	1,092	--	OXNARD BASIN	OXNARD FOREBAY	42	1	50	10	1979	2	2000	1
02N22W23C02S	139	--	290	--	OXNARD BASIN	OXNARD FOREBAY	81	888	71,954	2,250	1979	2	2019	2
02N22W23G02S	100	--	277	--	OXNARD BASIN	OXNARD FOREBAY	59	689	40,674	1,713	1979	2	2008	2
02N21W19B02S	99	--	137	--	OXNARD BASIN	OXNARD PLAIN	80	19.2	1,532.1	64.5	1979	2	2019	2
02N22W23H04S	850	--	1,390	--	OXNARD BASIN	OXNARD FOREBAY	70	32	2,236	415	1985	1	2019	2
02N21W19G01S	64	--	220	--	OXNARD BASIN	OXNARD PLAIN	81	65	5,226	542	1979	2	2019	2
02N22W23F06S	80	--	250	--	OXNARD BASIN	OXNARD FOREBAY	62	52.9	3,277	161	1980	2	2019	2
02N22W23F01S	100	--	300	--	OXNARD BASIN	OXNARD FOREBAY	32	6.5	207	8.0	2004	1	2019	2
02N22W23H03S	120	--	182	--	OXNARD BASIN	OXNARD FOREBAY	81	115.2	9,333	242	1979	2	2019	2
02N22W23F04S	124	--	250	--	OXNARD BASIN	OXNARD FOREBAY	49	5.7	280	8.0	1979	2	2003	2
02N21W19G02S	120	--	147	--	OXNARD BASIN	OXNARD PLAIN	80	90.8	7,268	294.5	1979	2	2019	2
02N22W22H01S	96	--	208	--	OXNARD BASIN	OXNARD FOREBAY	56	9	512	38	1979	1	2006	2
02N22W23G03S	100	--	300	--	OXNARD BASIN	OXNARD FOREBAY	81	879.2	71,218	2,130	1979	2	2019	2
02N22W21H01S	--	--	--	210	OXNARD BASIN	OXNARD FOREBAY	55	144	7,893	421	1979	2	2006	2
02N21W20E02S	550	--	900	--	OXNARD BASIN	OXNARD PLAIN	81	51	4,150	163	1979	2	2019	2
02N22W19J02S	160	--	500	--	OXNARD BASIN	OXNARD PLAIN	81	198.4	16,073	632	1979	2	2019	2
02N22W20M06S	319	--	600	--	OXNARD BASIN	OXNARD PLAIN	78	28	2,157	131	1979	2	2019	2
02N22W22G01S	120	--	200	--	OXNARD BASIN	OXNARD FOREBAY	51	99.6	5,079	335	1979	2	2004	2
02N22W20M02S	365	--	927	--	OXNARD BASIN	OXNARD PLAIN	78	2.8	217.4	130.7	1979	2	2019	2
02N22W20M07S	352	--	552	--	OXNARD BASIN	OXNARD PLAIN	79	35.1	2,774	151.3	1979	2	2019	2
02N22W20L03S	403	--	853	--	OXNARD BASIN	OXNARD PLAIN	62	652.9	40,479.8	1,656.3	1989	1	2019	2
02N22W20L02S	354	--	830	--	OXNARD BASIN	OXNARD PLAIN	73	426.9	31,165	1,627.3	1979	2	2015	2
02N22W23F05S	300	--	412	--	OXNARD BASIN	OXNARD FOREBAY	81	130	10,525	168	1979	2	2019	2
02N22W23K01S	124	--	250	--	OXNARD BASIN	OXNARD FOREBAY	48	177.7	8,528	1,213	1979	2	2003	1
02N22W23K04S	710	--	1,777	--	OXNARD BASIN	OXNARD FOREBAY	48	3.4	164	77.0	1979	2	2003	1
02N22W23J01S	116	--	206	--	OXNARD BASIN	OXNARD FOREBAY	81	90	7,291	169	1979	2	2019	2
02N22W23K02S	133	--	232	--	OXNARD BASIN	OXNARD FOREBAY	80	97.6	7,811	221.9	1979	1	2019	2
02N22W20K01S	403	--	853	--	OXNARD BASIN	OXNARD PLAIN	62	1,008	62,490	1,749	1989	1	2019	2
02N21W19L01S	--	--	--	212	OXNARD BASIN	OXNARD PLAIN	70	37	2,609	248	1979	2	2015	2
02N22W20J01S	310	--	910	--	OXNARD BASIN	OXNARD PLAIN	20	1,262.3	25,246	1,726	1979	2	1989	1
02N22W21J03S	200	--	308	--	OXNARD BASIN	OXNARD FOREBAY	19	61	1,153	204	1979	2	1997	2
02N21W20M02S	100	--	160	--	OXNARD BASIN	OXNARD PLAIN	61	1.1	64	2	1989	2	2019	2
02N22W22J02S	124	--	200	--	OXNARD BASIN	OXNARD FOREBAY	55	79.8	4,389	172.3	1979	2	2006	2
02N22W24K01S	80	--	150	--	OXNARD BASIN	OXNARD PLAIN	81	55.8	4,518	245	1979	2	2019	2
02N22W23K05S	144	--	336	--	OXNARD BASIN	OXNARD FOREBAY	80	839	67,140	3,090	1980	1	2019	2
02N22W22M04S	86	--	246	--	OXNARD BASIN	OXNARD FOREBAY	4	0.8	3	1	1979	2	1997	2
02N21W20M03S	116	--	196	--	OXNARD BASIN	OXNARD PLAIN	81	13.1	1,063	77.4	1979	2	2019	2
02N22W21M01S	160	--	300	--	OXNARD BASIN	OXNARD PLAIN	70	58.5	4,097.0	183.0	1985	1	2019	2
02N22W21Q01S	143	--	178	--	OXNARD BASIN	OXNARD PLAIN	27	78	2,096	203	1979	2	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N22W22R04S	120	--	290	--	OXNARD BASIN	OXNARD FOREBAY	81	149	12,043	257	1979	2	2019	2
02N22W24P02S	300	--	1,210	--	OXNARD BASIN	OXNARD PLAIN	76	156.9	11,921	327.0	1982	1	2019	2
02N21W19L02S	103	--	175	--	OXNARD BASIN	OXNARD PLAIN	80	92	7,322	264	1979	2	2019	2
02N22W22Q01S	100	--	142	--	OXNARD BASIN	OXNARD FOREBAY	48	4.9	233	16	1979	2	2003	1
02N22W23Q01S	98	--	162	--	OXNARD BASIN	OXNARD FOREBAY	81	84.3	6,825	281	1979	2	2019	2
02N22W24P01S	290	--	480	--	OXNARD BASIN	OXNARD PLAIN	81	131.9	10,681	320.8	1979	2	2019	2
02N22W20Q01S	187	--	664	--	OXNARD BASIN	OXNARD PLAIN	81	9.8	795	140.0	1979	2	2019	2
02N22W24Q02S	183	--	195	--	OXNARD BASIN	OXNARD PLAIN	81	1	60	1	1979	2	2019	2
02N22W24R02S	100	--	160	--	OXNARD BASIN	OXNARD PLAIN	74	0.4	26	1.0	1983	1	2019	2
02N22W22Q02S	140	--	182	--	OXNARD BASIN	OXNARD FOREBAY	24	6.0	145	19	1979	2	1997	2
02N22W22Q03S	110	--	268	--	OXNARD BASIN	OXNARD FOREBAY	24	12.7	304	26.8	1979	2	1997	2
02N21W20Q04S	600	--	1,055	--	OXNARD BASIN	WEST LAS POSAS	58	54.5	3,159	221	1979	2	2008	1
02N22W26C01S	90	--	180	--	OXNARD BASIN	OXNARD FOREBAY	81	23.5	1,906	142.8	1979	2	2019	2
02N22W24R01S	100	--	200	--	OXNARD BASIN	OXNARD PLAIN	81	8.2	666	26	1979	2	2019	2
02N22W27B01S	145	--	230	--	OXNARD BASIN	OXNARD FOREBAY	65	8	534	29	1979	2	2011	2
02N22W26C05S	200	--	324	--	OXNARD BASIN	OXNARD FOREBAY	81	43.6	3,532	254	1979	2	2019	2
02N22W26B03S	575	--	1,475	--	OXNARD BASIN	OXNARD FOREBAY	70	231.7	16,219	2,174	1985	1	2019	2
02N22W27A03S	140	--	230	--	OXNARD BASIN	OXNARD FOREBAY	81	97.8	7,918.7	147.0	1979	2	2019	2
02N22W25A02S	--	124	--	174	OXNARD BASIN	OXNARD PLAIN	80	14	1,133	54	1979	2	2019	2
02N22W28C06S	170	--	430	--	OXNARD BASIN	OXNARD PLAIN	81	191.2	15,490	421.8	1979	2	2019	2
02N22W30C06S	22	--	52	--	OXNARD BASIN	OXNARD PLAIN	61	1	40	9	1989	2	2019	2
02N22W30C05S	22	--	52	--	OXNARD BASIN	OXNARD PLAIN	61	2.3	141	26.5	1989	2	2019	2
02N22W25A03S	112	--	205	--	OXNARD BASIN	OXNARD PLAIN	81	147.0	11,904	333.6	1979	2	2019	2
02N22W26C03S	98	--	220	--	OXNARD BASIN	OXNARD FOREBAY	81	26	2,125	53	1979	2	2019	2
02N21W29C01S	150	--	266	--	OXNARD BASIN	OXNARD PLAIN	48	77	3,717	184	1979	2	2003	1
02N22W29D04S	22	--	52	--	OXNARD BASIN	OXNARD PLAIN	61	1.9	117	30.0	1989	2	2019	2
02N22W28H02S	125	--	280	--	OXNARD BASIN	OXNARD PLAIN	81	13.9	1,129	31.2	1979	2	2019	2
02N22W26H02S	440	--	680	--	OXNARD BASIN	OXNARD PLAIN	81	82.6	6,691	211.4	1979	2	2019	2
02N22W29G01S	190	--	254	--	OXNARD BASIN	OXNARD PLAIN	11	82	905	161	1979	2	1997	2
02N22W26F02S	150	--	324	--	OXNARD BASIN	OXNARD FOREBAY	81	41	3,289	121	1979	2	2019	2
02N22W30F03S	452	--	653	--	OXNARD BASIN	OXNARD PLAIN	67	160	10,731	393	1986	2	2019	2
02N22W26E01S	150	--	292	--	OXNARD BASIN	OXNARD FOREBAY	81	11	919	30	1979	2	2019	2
02N22W26H01S	120	--	266	--	OXNARD BASIN	OXNARD PLAIN	16	108	1,732	340	1979	2	1997	2
02N23W25H01S	130	--	238	--	OXNARD BASIN	OXNARD PLAIN	81	220.1	17,830	478	1979	2	2019	2
02N21W30G01S	103	--	155	--	OXNARD BASIN	OXNARD PLAIN	81	213	17,250	643	1979	2	2019	2
02N22W25E01S	108	--	184	--	OXNARD BASIN	OXNARD PLAIN	32	79.8	2,553	190.1	2004	1	2019	2
02N22W25F01S	130	--	190	--	OXNARD BASIN	OXNARD PLAIN	81	0.4	32	2.0	1979	2	2019	2
02N22W27K01S	130	--	246	--	OXNARD BASIN	OXNARD FOREBAY	81	74.3	6,016	198	1979	2	2019	2
02N22W28L01S	186	--	286	--	OXNARD BASIN	OXNARD PLAIN	27	58	1,579	206	1979	2	1997	2
02N22W27L01S	107	--	242	--	OXNARD BASIN	OXNARD FOREBAY	81	33	2,705	155	1979	2	2019	2
02N22W26M01S	150	--	180	--	OXNARD BASIN	OXNARD FOREBAY	31	22	668	39	1979	2	1997	2
02N21W29L04S	641	--	1,161	--	OXNARD BASIN	OXNARD PLAIN	76	91.6	6,959	276	1982	1	2019	2
02N21W29L01S	85	--	150	--	OXNARD BASIN	OXNARD PLAIN	81	0.6	53	2	1979	2	2019	2
02N21W29G01S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	58	0.1	5	5	1991	1	2019	2
02N22W27M01S	102	--	288	--	OXNARD BASIN	OXNARD PLAIN	4	29.3	117	86	1979	2	1997	2
02N21W29K02S	597	--	679	--	OXNARD BASIN	OXNARD PLAIN	45	35.9	1,616	191	1979	2	2001	2
02N21W29K01S	100	--	150	--	OXNARD BASIN	OXNARD PLAIN	36	1	23	1	2002	1	2019	2
02N22W30J01S	230	--	280	--	OXNARD BASIN	OXNARD PLAIN	81	2.8	226.4	12.4	1979	2	2019	2
02N23W25M01S	130	--	230	--	OXNARD BASIN	OXNARD PLAIN	81	258.3	20,924	695.3	1979	2	2019	2
02N22W30L02S	35	--	75	--	OXNARD BASIN	OXNARD PLAIN	77	5.3	410	60	1981	2	2019	2
02N22W30K01S	190	--	250	--	OXNARD BASIN	OXNARD PLAIN	77	7.7	589	88	1981	2	2019	2
02N22W29M01S	200	--	280	--	OXNARD BASIN	OXNARD PLAIN	52	154.7	8,047	395	1979	1	2004	2
02N22W27M02S	180	--	212	--	OXNARD BASIN	OXNARD PLAIN	73	2.7	198	6	1979	2	2015	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N22W30P02S	202	--	401	--	OXNARD BASIN	OXNARD PLAIN	82	308	25,230	585	1979	1	2019	2
02N22W25M01S	122	--	225	--	OXNARD BASIN	OXNARD PLAIN	24	8.7	209	13	1979	2	1997	2
02N22W25L03S	110	--	172	--	OXNARD BASIN	OXNARD PLAIN	81	2.8	225	30.0	1979	2	2019	2
02N22W25L02S	106	--	172	--	OXNARD BASIN	OXNARD PLAIN	49	52.9	2,591	130	1979	2	2003	2
02N22W25N03S	120	--	202	--	OXNARD BASIN	OXNARD PLAIN	20	5.6	112	17	1979	2	1997	2
02N23W25R02S	162	--	182	--	OXNARD BASIN	OXNARD PLAIN	14	142.1	1,989	286	1979	2	1997	2
02N22W26Q01S	127	--	193	--	OXNARD BASIN	OXNARD PLAIN	45	33.1	1,490	142	1979	2	2001	2
02N22W25Q01S	100	--	180	--	OXNARD BASIN	OXNARD PLAIN	42	30	1,268	76	1979	2	2000	2
02N22W30P03S	370	--	490	--	OXNARD BASIN	OXNARD PLAIN	81	30.6	2,478	97.9	1979	2	2019	2
02N22W30Q01S	390	--	510	--	OXNARD BASIN	OXNARD PLAIN	70	19	1,314	52	1985	1	2019	2
02N22W29R01S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	9	68	609	140	1980	2	1997	2
02N22W25Q04S	100	--	180	--	OXNARD BASIN	OXNARD PLAIN	16	6	97	17	1979	2	1997	2
02N22W30P01S	100	--	200	--	OXNARD BASIN	OXNARD PLAIN	9	113	1,016	223	1986	2	1997	2
02N22W26R01S	140	--	190	--	OXNARD BASIN	OXNARD PLAIN	15	53.9	808	88	1979	2	1997	2
02N22W25P04S	115	--	210	--	OXNARD BASIN	OXNARD PLAIN	74	144	10,636	400	1983	1	2019	2
02N22W26R02S	145	--	175	--	OXNARD BASIN	OXNARD PLAIN	24	1	20	1	1979	2	1997	2
02N22W25P01S	120	--	434	--	OXNARD BASIN	OXNARD PLAIN	61	114	6,939	418	1979	2	2009	2
02N23W25Q01S	190	--	220	--	OXNARD BASIN	OXNARD PLAIN	80	2	171	12	1979	2	2019	2
02N22W26R05S	140	--	185	--	OXNARD BASIN	OXNARD PLAIN	44	57.3	2,521	197	1979	1	2000	2
02N22W25R02S	104	--	162	--	OXNARD BASIN	OXNARD PLAIN	81	74	6,002	318	1979	2	2019	2
02N22W30Q02S	390	--	510	--	OXNARD BASIN	OXNARD PLAIN	81	36.4	2,946	64.7	1979	2	2019	2
02N22W29Q03S	97	--	238	--	OXNARD BASIN	OXNARD PLAIN	35	55	1,908	376	1984	2	2001	2
02N22W29R02S	202	--	310	--	OXNARD BASIN	OXNARD PLAIN	11	100	1,096	266	1979	2	1997	2
02N21W30P02S	102	--	162	--	OXNARD BASIN	OXNARD PLAIN	41	46	1,903	188	1979	2	1999	2
02N21W30R03S	110	--	146	--	OXNARD BASIN	OXNARD PLAIN	79	30.3	2,394	239	1979	2	2019	2
02N21W30R01S	115	--	146	--	OXNARD BASIN	OXNARD PLAIN	81	18	1,474	178	1979	2	2019	2
02N21W29P03S	102	--	166	--	OXNARD BASIN	OXNARD PLAIN	20	62	1,244	152	1979	2	1997	2
02N21W29N03S	100	--	150	--	OXNARD BASIN	OXNARD PLAIN	81	40.5	3,281	479	1979	2	2019	2
02N22W31B01S	100	--	300	--	OXNARD BASIN	OXNARD PLAIN	82	102	8,388	494	1979	1	2019	2
02N23W36C04S	210	--	260	--	OXNARD BASIN	OXNARD PLAIN	81	2	153	13	1979	2	2019	2
02N22W34B01S	75	--	213	--	OXNARD BASIN	OXNARD FOREBAY	45	29.4	1,324	138.4	1979	2	2001	2
02N22W31A02S	114	--	254	--	OXNARD BASIN	OXNARD PLAIN	49	49	2,423	90	1979	2	2003	2
02N22W31D01S	130	--	430	--	OXNARD BASIN	OXNARD PLAIN	28	154.9	4,337	322.7	1979	2	1997	2
02N23W36A04S	200	--	400	--	OXNARD BASIN	OXNARD PLAIN	42	172	7,210	505	1999	1	2019	2
02N23W36A01S	232	--	366	--	OXNARD BASIN	OXNARD PLAIN	81	107	8,690	390	1979	2	2019	2
02N22W31A03S	200	--	500	--	OXNARD BASIN	OXNARD PLAIN	81	139	11,289	306	1979	1	2019	2
02N22W32C01S	100	--	250	--	OXNARD BASIN	OXNARD PLAIN	82	111	9,087	468	1979	1	2019	2
02N22W34B03S	80	--	200	--	OXNARD BASIN	OXNARD PLAIN	40	10.3	411	23.0	1979	2	1999	2
02N22W35C02S	415	--	540	--	OXNARD BASIN	OXNARD PLAIN	30	192	5,757	486	1979	2	1997	2
02N22W31C02S	186	--	292	--	OXNARD BASIN	OXNARD PLAIN	82	106.3	8,720.4	212.8	1979	1	2019	2
02N22W32A02S	120	--	308	--	OXNARD BASIN	OXNARD PLAIN	20	223.2	4,463.3	526.7	1979	2	1997	2
02N22W34A03S	200	--	218	--	OXNARD BASIN	OXNARD PLAIN	43	101.0	4,345.1	243.1	1979	2	2000	2
02N22W34A02S	62	--	198	--	OXNARD BASIN	OXNARD PLAIN	38	92.6	3,520	155.3	1981	1	1999	2
02N22W35C01S	96	--	192	--	OXNARD BASIN	OXNARD PLAIN	45	1.2	56	1	1979	2	2001	2
02N23W36A02S	240	--	368	--	OXNARD BASIN	OXNARD PLAIN	45	190	8,530	862	1979	2	2001	2
02N22W35B02S	128	--	198	--	OXNARD BASIN	OXNARD PLAIN	58	21.8	1,267	125	1979	2	2008	2
02N22W35A01S	135	--	185	--	OXNARD BASIN	OXNARD PLAIN	23	70.9	1,630	141	1979	2	1997	2
02N21W32E01S	716	--	1,266	--	OXNARD BASIN	OXNARD PLAIN	70	266.3	18,641	925	1985	1	2019	2
02N22W36F02S	170	--	366	--	OXNARD BASIN	OXNARD PLAIN	81	132.4	10,727	351.0	1979	2	2019	2
02N23W36H02S	181	--	381	--	OXNARD BASIN	OXNARD PLAIN	64	307.1	19,657	578	1988	1	2019	2
02N22W34H01S	150	--	242	--	OXNARD BASIN	OXNARD PLAIN	51	51.8	2,642	145.4	1979	2	2004	2
02N22W33L03S	138	--	198	--	OXNARD BASIN	OXNARD PLAIN	58	1	32	2	1979	2	2008	1
02N23W36L01S	110	--	250	--	OXNARD BASIN	OXNARD PLAIN	81	4	293	21	1979	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N22W35M01S	384	--	534	--	OXNARD BASIN	OXNARD PLAIN	70	71	4,978	208	1980	2	2015	1
02N22W35K02S	460	--	700	--	OXNARD BASIN	OXNARD PLAIN	44	179.5	7,897	391.3	1984	2	2006	2
02N22W35K01S	134	--	293	--	OXNARD BASIN	OXNARD PLAIN	61	149.1	9,094	561	1979	2	2009	2
02N22W33M02S	164	--	218	--	OXNARD BASIN	OXNARD PLAIN	24	6.9	165	27	1979	2	1997	2
02N22W36M03S	112	--	292	--	OXNARD BASIN	OXNARD PLAIN	22	44.3	975	94.1	1979	2	1997	2
02N22W32M01S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	54	54.4	2934.9	122.1	1979	2	2019	2
02N22W32M03S	218	--	318	--	OXNARD BASIN	OXNARD PLAIN	34	72.1	2451.2	173.4	2003	1	2019	2
02N22W34K02S	171	--	251	--	OXNARD BASIN	OXNARD PLAIN	59	87.9	5186.8	228.7	1979	2	2008	2
02N22W36L01S	128	--	426	--	OXNARD BASIN	OXNARD PLAIN	81	70.3	5692.0	249.9	1979	2	2019	2
02N22W31K01S	125	--	235	--	OXNARD BASIN	OXNARD PLAIN	81	60.0	4856.4	232.1	1979	2	2019	2
02N22W34J01S	80	--	200	--	OXNARD BASIN	OXNARD PLAIN	73	0.2	17.7	1.0	1979	1	2015	1
02N22W31Q01S	120	--	240	--	OXNARD BASIN	OXNARD PLAIN	78	35.3	2756.4	77.0	1981	1	2019	2
02N22W33M03S	168	--	302	--	OXNARD BASIN	OXNARD PLAIN	19	49.9	947.2	198.3	1979	2	1997	2
02N21W32J01S	640	--	1270	--	OXNARD BASIN	PLEASANT VALLEY	70	196.4	13751.4	458.2	1985	1	2019	2
02N21W31L01S	700	--	1200	--	OXNARD BASIN	OXNARD PLAIN	70	36.8	2579.3	381.5	1985	1	2019	2
02N22W32Q03S	180	--	280	--	OXNARD BASIN	OXNARD PLAIN	65	46.2	3004.4	156.0	1987	2	2019	2
02N22W32Q01S	160	--	296	--	OXNARD BASIN	OXNARD PLAIN	17	80.1	1361.4	177.4	1979	2	1997	2
02N21W31R01S	118	--	174	--	OXNARD BASIN	OXNARD PLAIN	81	17.2	1395.4	246.9	1979	2	2019	2
02N22W31R04S	168	--	240	--	OXNARD BASIN	OXNARD PLAIN	59	5.9	346.3	36.8	1990	2	2019	2
02N22W31N01S	168	--	342	--	OXNARD BASIN	OXNARD PLAIN	81	323.7	26216.9	906.2	1979	2	2019	2
02N21W31P03S	713	--	967	--	OXNARD BASIN	OXNARD PLAIN	13	125.7	1633.7	262.0	1979	2	1985	2
02N22W33N04S	181	--	293	--	OXNARD BASIN	OXNARD PLAIN	51	86.2	4394.7	189.4	1979	2	2004	2
02N22W33N05S	175	--	295	--	OXNARD BASIN	OXNARD PLAIN	73	48.9	3567.7	193.3	1982	2	2019	2
02N21W31P06S	743	--	943	--	OXNARD BASIN	OXNARD PLAIN	81	181.8	14727.8	370.0	1979	1	2019	2
01N22W02A02S	--	218	386	--	OXNARD BASIN	OXNARD PLAIN	12	52.5	629.8	95.8	1979	2	1997	2
01N22W01D01S	110	--	220	--	OXNARD BASIN	OXNARD PLAIN	20	288.3	5766.0	505.3	1979	2	1997	2
01N22W05B01S	146	--	207	--	OXNARD BASIN	OXNARD PLAIN	81	140.5	11379.2	299.8	1979	2	2019	2
01N22W04D01S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	81	3.6	293.9	12.5	1979	2	2019	2
01N22W06A06S	280	--	420	--	OXNARD BASIN	OXNARD PLAIN	74	48.9	3614.9	110.4	1983	1	2019	2
01N22W06A05S	280	--	420	--	OXNARD BASIN	OXNARD PLAIN	74	22.7	1680.4	53.5	1983	1	2019	2
01N21W05A02S	120	--	208	--	OXNARD BASIN	OXNARD PLAIN	68	0.2	15.9	1.0	1979	2	2015	1
01N22W05C02S	164	--	208	--	OXNARD BASIN	OXNARD PLAIN	81	107.5	8705.5	204.1	1979	2	2019	2
01N22W06A04S	160	--	300	--	OXNARD BASIN	OXNARD PLAIN	82	52.6	4312.3	109.5	1979	1	2019	2
01N22W05B04S	200	--	292	--	OXNARD BASIN	OXNARD PLAIN	81	21.7	1754.0	76.6	1979	2	2019	2
01N22W06B01S	154	--	234	--	OXNARD BASIN	OXNARD PLAIN	81	58.1	4706.2	93.5	1979	2	2019	2
01N22W06A02S	170	--	270	--	OXNARD BASIN	OXNARD PLAIN	72	48.4	3484.2	219.6	1979	1	2014	2
01N22W05D01S	166	--	198	--	OXNARD BASIN	OXNARD PLAIN	81	24.3	1972.2	65.6	1979	2	2019	2
01N22W04D08S	105	--	145	--	OXNARD BASIN	OXNARD PLAIN	80	1.4	115.6	5.0	1979	2	2019	2
01N22W04D07S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	80	1.3	107.6	5.2	1979	2	2019	2
01N22W04D03S	187	--	214	--	OXNARD BASIN	OXNARD PLAIN	15	0.7	11.0	1.0	1979	2	1997	2
01N22W04D09S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	81	1.2	100.5	2.0	1979	2	2019	2
01N22W04D11S	173	--	203	--	OXNARD BASIN	OXNARD PLAIN	81	0.8	63.9	3.1	1979	2	2019	2
01N22W04D10S	122	--	148	--	OXNARD BASIN	OXNARD PLAIN	80	1.1	84.4	1.5	1979	2	2019	2
01N22W04C01S	128	--	200	--	OXNARD BASIN	OXNARD PLAIN	17	3.8	64.0	6.1	1979	2	1997	2
01N21W04D03S	100	--	175	--	OXNARD BASIN	OXNARD PLAIN	80	0.6	50.0	1.0	1979	1	2019	2
01N22W01A01S	112	--	174	--	OXNARD BASIN	OXNARD PLAIN	60	44.8	2686.7	281.4	1979	1	2008	2
01N21W04D04S	571	--	1321	--	OXNARD BASIN	OXNARD PLAIN	77	289.0	22256.6	965.6	1981	2	2019	2
01N21W06H01S	110	--	200	--	OXNARD BASIN	OXNARD PLAIN	81	14.8	1197.7	129.1	1979	2	2019	2
01N22W03F01S	125	--	235	--	OXNARD BASIN	OXNARD PLAIN	66	23.0	1515.8	252.7	1979	1	2011	2
01N22W03F06S	528	--	1108	--	OXNARD BASIN	OXNARD PLAIN	63	227.6	14340.7	1838.3	1987	2	2019	2
01N21W05F01S	120	--	200	--	OXNARD BASIN	OXNARD PLAIN	79	8.7	683.8	139.9	1979	2	2019	2
01N22W03F05S	526	--	1106	--	OXNARD BASIN	OXNARD PLAIN	67	439.0	29412.9	2265.9	1984	2	2019	2
01N22W03F02S	120	--	220	--	OXNARD BASIN	OXNARD PLAIN	66	25.9	1709.8	285.1	1979	1	2011	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
01N22W03F04S	141	--	232	--	OXNARD BASIN	OXNARD PLAIN	71	18.6	1317.2	272.7	1979	1	2014	1
01N22W03F03S	130	--	230	--	OXNARD BASIN	OXNARD PLAIN	25	5.7	142.8	31.4	1979	2	1991	2
01N22W04F02S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	69	4.9	335.4	16.9	1979	2	2013	2
01N22W04F04S	507	--	1179	--	OXNARD BASIN	OXNARD PLAIN	23	3.0	70.0	30.9	1979	2	1990	2
01N22W01F01S	110	--	192	--	OXNARD BASIN	OXNARD PLAIN	49	58.1	2846.8	230.4	1979	2	2003	2
01N21W06G01S	980	--	1030	--	OXNARD BASIN	OXNARD PLAIN	68	1.3	87.3	10.2	1984	1	2019	2
01N22W02G01S	130	--	190	--	OXNARD BASIN	OXNARD PLAIN	16	62.1	994.4	154.1	1979	2	1997	2
01N22W05H01S	117	--	223	--	OXNARD BASIN	OXNARD PLAIN	13	0.8	11.0	1.0	1979	2	1997	2
01N21W05G01S	106	--	170	--	OXNARD BASIN	OXNARD PLAIN	81	40.9	3316.8	135.8	1979	2	2019	2
01N21W04M02S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	35	0.6	20.8	0.8	2002	2	2019	2
01N22W05H02S	110	--	230	--	OXNARD BASIN	OXNARD PLAIN	72	25.1	1807.1	128.2	1979	2	2015	2
01N22W05M01S	189	--	227	--	OXNARD BASIN	OXNARD PLAIN	49	70.8	3470.9	173.8	1979	2	2003	2
01N22W04K01S	105	--	220	--	OXNARD BASIN	OXNARD PLAIN	20	32.7	653.9	65.2	1979	2	1997	2
01N21W05K01S	102	--	178	--	OXNARD BASIN	OXNARD PLAIN	57	4.2	237.0	68.8	1991	2	2019	2
01N22W06J04S	240	--	380	--	OXNARD BASIN	OXNARD PLAIN	81	138.3	11199.6	484.0	1979	2	2019	2
01N22W02K01S	150	--	180	--	OXNARD BASIN	OXNARD PLAIN	80	111.1	8886.6	271.1	1980	1	2019	2
01N22W02K03S	140	--	400	--	OXNARD BASIN	OXNARD PLAIN	49	47.5	2325.8	230.9	1979	2	2003	2
01N22W01M02S	272	--	397	--	OXNARD BASIN	OXNARD PLAIN	81	31.3	2531.9	168.0	1979	2	2019	2
01N22W01M01S	105	--	180	--	OXNARD BASIN	OXNARD PLAIN	81	137.8	11160.6	386.5	1979	2	2019	2
01N22W04M01S	184	--	219	--	OXNARD BASIN	OXNARD PLAIN	32	43.3	1384.6	119.6	1979	2	1997	2
01N21W06L05S	624	--	964	--	OXNARD BASIN	OXNARD PLAIN	81	101.4	8210.4	312.0	1979	2	2019	2
01N21W04M01S	522	--	1290	--	OXNARD BASIN	OXNARD PLAIN	81	25.6	2071.2	343.6	1979	1	2019	2
01N22W05K01S	77	--	212	--	OXNARD BASIN	OXNARD PLAIN	20	57.4	1148.4	112.3	1979	2	1997	2
01N21W06L02S	150	--	173	--	OXNARD BASIN	OXNARD PLAIN	10	0.1	1.0	1.0	1979	2	1984	2
01N21W06L04S	110	--	182	--	OXNARD BASIN	OXNARD PLAIN	81	26.0	2109.1	330.0	1979	2	2019	2
01N21W06J02S	106	--	192	--	OXNARD BASIN	OXNARD PLAIN	81	90.2	7305.4	545.3	1979	2	2019	2
01N21W06J05S	750	--	1290	--	OXNARD BASIN	OXNARD PLAIN	70	167.7	11737.5	625.0	1985	1	2019	2
01N22W03J02S	--	126	--	237	OXNARD BASIN	OXNARD PLAIN	19	121.8	2313.4	585.5	1979	2	1997	2
01N22W02K04S	158	--	178	--	OXNARD BASIN	OXNARD PLAIN	71	0.7	53.2	2.0	1984	2	2019	2
01N22W01M03S	730	--	1480	--	OXNARD BASIN	OXNARD PLAIN	70	410.2	28715.0	1449.4	1985	1	2019	2
01N22W06R02S	240	--	380	--	OXNARD BASIN	OXNARD PLAIN	81	159.2	12892.5	484.0	1979	2	2019	2
01N22W03R01S	489	--	944	--	OXNARD BASIN	OXNARD PLAIN	75	265.3	19893.8	929.1	1982	2	2019	2
01N22W02N03S	145	--	218	--	OXNARD BASIN	OXNARD PLAIN	43	1.8	78.6	4.4	1998	1	2019	2
01N21W06R04S	130	--	423	--	OXNARD BASIN	OXNARD PLAIN	80	103.1	8249.4	316.3	1979	2	2019	2
01N21W06R03S	138	--	158	--	OXNARD BASIN	OXNARD PLAIN	81	0.5	37.9	1.0	1979	2	2019	2
01N22W10A03S	134	--	242	--	OXNARD BASIN	OXNARD PLAIN	64	2.2	140.4	11.7	1987	1	2019	2
01N22W11B01S	160	--	205	--	OXNARD BASIN	OXNARD PLAIN	72	0.8	55.3	2.4	1984	1	2019	2
01N22W10B02S	635	--	1430	--	OXNARD BASIN	OXNARD PLAIN	66	1.2	76.4	71.1	1979	1	2011	2
01N22W08B07S	146	--	206	--	OXNARD BASIN	OXNARD PLAIN	12	8.3	99.6	14.9	1979	2	1997	2
01N22W10B03S	182	--	562	--	OXNARD BASIN	OXNARD PLAIN	66	8.2	538.9	332.5	1979	1	2011	2
01N21W09C03S	700	--	1120	--	OXNARD BASIN	PLEASANT VALLEY	24	130.8	3139.7	446.0	1979	2	1997	2
01N22W07A03S	240	--	370	--	OXNARD BASIN	OXNARD PLAIN	57	118.8	6773.3	391.4	1979	2	2008	1
01N22W11D01S	148	--	230	--	OXNARD BASIN	OXNARD PLAIN	17	84.5	1436.8	221.4	1979	2	1997	2
01N22W11B03S	129	--	204	--	OXNARD BASIN	OXNARD PLAIN	81	15.3	1236.0	87.3	1979	2	2019	2
01N22W11A01S	140	--	197	--	OXNARD BASIN	OXNARD PLAIN	81	55.8	4521.9	372.5	1979	2	2019	2
01N21W08D02S	268	--	716	--	OXNARD BASIN	OXNARD PLAIN	70	1.1	75.1	6.0	1984	2	2019	2
01N21W07A01S	125	--	150	--	OXNARD BASIN	OXNARD PLAIN	82	0.5	38.8	1.4	1979	1	2019	2
01N21W08A02S	670	--	1190	--	OXNARD BASIN	OXNARD PLAIN	55	88.5	4865.6	303.2	1979	2	2006	2
01N21W08A01S	700	--	1300	--	OXNARD BASIN	OXNARD PLAIN	81	0.8	66.5	3.5	1979	2	2019	2
01N22W11C02S	164	--	204	--	OXNARD BASIN	OXNARD PLAIN	77	39.6	3051.9	507.5	1979	2	2019	2
01N21W09D02S	131	--	251	--	OXNARD BASIN	OXNARD PLAIN	42	6.2	261.7	10.4	1979	2	2000	1
01N22W12C02S	318	--	450	--	OXNARD BASIN	OXNARD PLAIN	52	50.9	2644.2	124.7	1979	2	2019	2
01N22W12F01S	310	--	460	--	OXNARD BASIN	OXNARD PLAIN	82	39.0	3201.6	282.4	1979	1	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
01N22W12C03S	318	--	450	--	OXNARD BASIN	OXNARD PLAIN	66	141.8	9359.4	323.9	1979	2	2012	1
01N22W12H02S	596	--	988	--	OXNARD BASIN	OXNARD PLAIN	60	84.4	5065.4	291.7	1979	2	2009	1
01N21W07H01S	125	--	176	--	OXNARD BASIN	OXNARD PLAIN	81	37.2	3009.7	323.0	1979	2	2019	2
01N22W10H01S	131	--	253	--	OXNARD BASIN	OXNARD PLAIN	15	86.1	1291.0	191.8	1979	2	1997	2
01N22W11E01S	188	--	228	--	OXNARD BASIN	OXNARD PLAIN	15	59.0	885.2	120.0	1979	2	1997	2
01N21W07H04S	122	--	170	--	OXNARD BASIN	OXNARD PLAIN	81	26.0	2109.9	65.0	1979	2	2019	2
01N22W07H02S	260	--	380	--	OXNARD BASIN	OXNARD PLAIN	57	65.9	3754.6	268.3	1979	2	2008	1
01N21W08F02S	663	--	1163	--	OXNARD BASIN	OXNARD PLAIN	48	174.1	8355.8	587.6	1979	2	2003	1
01N21W09M03S	160	--	300	--	OXNARD BASIN	OXNARD PLAIN	82	1.4	118.7	3.0	1979	1	2019	2
01N21W09M04S	766	--	1270	--	OXNARD BASIN	OXNARD PLAIN	54	74.8	4038.5	283.4	1979	2	2006	1
01N22W12M01S	120	--	249	--	OXNARD BASIN	OXNARD PLAIN	82	69.5	5697.3	352.5	1979	1	2019	2
01N22W12J01S	152	--	183	--	OXNARD BASIN	OXNARD PLAIN	50	84.2	4208.3	568.1	1979	2	2004	2
01N21W07J01S	136	--	198	--	OXNARD BASIN	OXNARD PLAIN	15	32.6	489.0	84.0	1979	2	1997	2
01N22W12J03S	120	--	406	--	OXNARD BASIN	OXNARD PLAIN	54	69.6	3760.9	395.1	1979	2	2006	1
01N21W07J02S	590	--	1280	--	OXNARD BASIN	OXNARD PLAIN	70	190.5	13333.9	820.5	1985	1	2019	2
01N22W12P01S	169	--	210	--	OXNARD BASIN	OXNARD PLAIN	81	25.4	2056.7	238.5	1979	2	2019	2
01N22W10N03S	500	--	600	--	OXNARD BASIN	OXNARD PLAIN	81	4.7	383.5	8.9	1979	2	2019	2
01N22W12Q01S	145	--	385	--	OXNARD BASIN	OXNARD PLAIN	55	87.8	4827.9	236.8	1979	2	2006	2
01N22W12N03S	602	--	1122	--	OXNARD BASIN	OXNARD PLAIN	65	117.3	7625.7	304.8	1987	2	2019	2
01N21W07R02S	120	--	202	--	OXNARD BASIN	OXNARD PLAIN	81	1.2	99.8	9.0	1979	2	2019	2
01N22W08N01S	124	--	220	--	OXNARD BASIN	OXNARD PLAIN	45	19.6	880.6	102.5	1979	2	2001	2
01N22W12P02S	146	--	193	--	OXNARD BASIN	OXNARD PLAIN	81	31.8	2576.0	137.8	1979	2	2019	2
01N21W07P01S	80	--	154	--	OXNARD BASIN	OXNARD PLAIN	81	4.2	342.9	7.2	1979	2	2019	2
01N21W08R01S	603	--	1363	--	OXNARD BASIN	OXNARD PLAIN	77	315.1	24261.3	1038.4	1981	2	2019	2
01N21W18A04S	130	--	400	--	OXNARD BASIN	OXNARD PLAIN	81	58.0	4701.9	219.8	1979	2	2019	2
01N22W16D04S	520	--	940	--	OXNARD BASIN	OXNARD PLAIN	81	0.3	23.3	5.3	1979	2	2019	2
01N21W18A03S	114	--	186	--	OXNARD BASIN	OXNARD PLAIN	81	17.3	1402.6	134.0	1979	2	2019	2
01N22W13D02S	175	--	210	--	OXNARD BASIN	OXNARD PLAIN	16	85.3	1364.9	198.8	1979	2	1987	1
01N21W16B03S	640	--	900	--	OXNARD BASIN	PLEASANT VALLEY	81	60.6	4906.5	341.4	1979	2	2019	2
01N21W16B02S	257	--	377	--	OXNARD BASIN	PLEASANT VALLEY	54	1.6	86.2	2.2	1979	1	2006	1
01N21W16A04S	434	--	916	--	OXNARD BASIN	PLEASANT VALLEY	82	91.5	7503.8	433.2	1979	1	2019	2
01N22W13D03S	600	--	1200	--	OXNARD BASIN	OXNARD PLAIN	70	285.4	19975.8	1127.5	1985	1	2019	2
01N21W17C01S	128	--	470	--	OXNARD BASIN	OXNARD PLAIN	41	1.3	53.3	3.0	1999	2	2019	2
01N21W17B01S	175	--	450	--	OXNARD BASIN	OXNARD PLAIN	81	17.3	1404.8	124.0	1979	2	2019	2
01N21W17D02S	114	--	186	--	OXNARD BASIN	OXNARD PLAIN	81	15.4	1249.2	72.5	1979	2	2019	2
01N22W14D03S	150	--	220	--	OXNARD BASIN	OXNARD PLAIN	43	15.1	649.5	55.0	1979	2	2000	2
01N22W17C03S	520	--	1100	--	OXNARD BASIN	OXNARD PLAIN	73	199.4	14559.4	545.5	1983	2	2019	2
01N21W18D01S	380	--	660	--	OXNARD BASIN	OXNARD PLAIN	64	46.5	2978.7	99.8	1988	1	2019	2
01N22W15C01S	131	--	250	--	OXNARD BASIN	OXNARD PLAIN	68	0.2	12.3	8.0	1986	1	2019	2
01N22W14C02S	164	--	208	--	OXNARD BASIN	OXNARD PLAIN	18	19.7	354.0	78.0	1981	1	1997	2
01N21W17C02S	128	--	200	--	OXNARD BASIN	OXNARD PLAIN	81	8.7	704.8	42.8	1979	2	2019	2
01N22W13E04S	297	--	377	--	OXNARD BASIN	OXNARD PLAIN	81	1.1	90.6	8.2	1979	2	2019	2
01N21W18G02S	50	--	274	--	OXNARD BASIN	OXNARD PLAIN	81	85.9	6958.2	186.5	1979	2	2019	2
01N22W13H01S	124	--	199	--	OXNARD BASIN	OXNARD PLAIN	81	19.1	1544.0	86.9	1979	2	2019	2
01N22W13E03S	156	--	404	--	OXNARD BASIN	OXNARD PLAIN	81	43.3	3508.5	540.1	1979	2	2019	2
01N22W13H03S	155	--	335	--	OXNARD BASIN	OXNARD PLAIN	28	53.8	1505.4	153.8	1979	2	2019	2
01N22W13F01S	148	--	209	--	OXNARD BASIN	OXNARD PLAIN	81	64.9	5258.1	108.7	1979	2	2019	2
01N21W16E03S	314	--	602	--	OXNARD BASIN	OXNARD PLAIN	74	65.0	4807.6	225.5	1979	1	2015	2
01N21W17G02S	176	--	488	--	OXNARD BASIN	OXNARD PLAIN	81	34.2	2770.7	196.0	1979	2	2019	2
01N21W18J01S	132	--	180	--	OXNARD BASIN	OXNARD PLAIN	47	62.0	2912.8	404.2	1979	2	2019	2
01N21W17G03S	554	--	1104	--	OXNARD BASIN	OXNARD PLAIN	72	212.9	15329.7	583.7	1984	1	2019	2
01N21W15L02S	354	--	904	--	OXNARD BASIN	PLEASANT VALLEY	82	110.4	9048.8	573.9	1979	1	2019	2
01N21W18L04S	136	--	200	--	OXNARD BASIN	OXNARD PLAIN	53	47.7	2530.2	173.4	1979	2	2005	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
01N21W17E01S	119	--	335	--	OXNARD BASIN	OXNARD PLAIN	71	8.4	592.9	109.0	1979	2	2014	2
01N21W16M01S	240	--	1194	--	OXNARD BASIN	OXNARD PLAIN	81	80.3	6507.1	674.7	1979	2	2019	2
01N21W18L05S	383	--	923	--	OXNARD BASIN	OXNARD PLAIN	78	58.3	4545.4	170.0	1981	1	2019	2
01N22W13K01S	187	--	347	--	OXNARD BASIN	OXNARD PLAIN	81	2.5	204.6	5.0	1979	2	2019	2
01N22W13L01S	162	--	205	--	OXNARD BASIN	OXNARD PLAIN	17	34.6	588.6	60.0	1979	2	1997	2
01N22W13K02S	313	--	433	--	OXNARD BASIN	OXNARD PLAIN	81	23.0	1865.6	106.0	1979	2	2019	2
01N22W18L02S	496	--	781	--	OXNARD BASIN	OXNARD PLAIN	81	78.3	6346.2	307.7	1979	2	2019	2
01N21W18L03S	130	--	170	--	OXNARD BASIN	OXNARD PLAIN	81	3.8	310.9	7.8	1979	2	2019	2
01N22W13J04S	120	--	196	--	OXNARD BASIN	OXNARD PLAIN	81	44.6	3615.2	253.7	1979	2	2019	2
01N22W13J01S	91	--	200	--	OXNARD BASIN	OXNARD PLAIN	15	24.5	367.3	119.4	1979	2	1997	2
01N22W13K04S	310	--	430	--	OXNARD BASIN	OXNARD PLAIN	82	19.5	1600.2	91.2	1979	1	2019	2
01N22W13N02S	160	--	202	--	OXNARD BASIN	OXNARD PLAIN	70	15.3	1068.4	25.6	1985	1	2019	2
01N21W15P02S	520	--	1015	--	OXNARD BASIN	PLEASANT VALLEY	82	137.0	11230.4	398.4	1979	1	2019	2
01N21W18Q02S	150	--	190	--	OXNARD BASIN	OXNARD PLAIN	81	1.8	148.7	21.4	1979	2	2019	2
01N22W14R03S	155	--	220	--	OXNARD BASIN	OXNARD PLAIN	71	4.2	299.3	11.6	1979	2	2014	2
01N22W14R04S	185	--	235	--	OXNARD BASIN	OXNARD PLAIN	71	3.8	271.1	15.8	1979	2	2014	2
01N22W13Q02S	280	--	402	--	OXNARD BASIN	OXNARD PLAIN	80	8.1	650.8	18.6	1979	2	2019	2
01N22W13Q01S	100	--	215	--	OXNARD BASIN	OXNARD PLAIN	18	9.8	175.6	40.1	1979	2	1997	2
01N21W16P04S	600	--	1000	--	OXNARD BASIN	PLEASANT VALLEY	65	147.9	9615.2	538.2	1987	2	2019	2
01N21W16P03S	750	--	1050	--	OXNARD BASIN	PLEASANT VALLEY	82	53.3	4372.2	525.3	1979	1	2019	2
01N22W24C01S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	55	1.1	60.7	3.6	1979	2	2006	2
01N22W24C03S	330	--	450	--	OXNARD BASIN	OXNARD PLAIN	81	129.8	10509.8	375.8	1979	2	2019	2
01N22W24B03S	154	--	204	--	OXNARD BASIN	OXNARD PLAIN	14	2.3	32.2	3.8	1998	2	2019	2
01N22W24A01S	170	--	197	--	OXNARD BASIN	OXNARD PLAIN	81	6.9	562.7	57.2	1979	2	2019	2
01N21W19B01S	128	--	466	--	OXNARD BASIN	OXNARD PLAIN	81	96.4	7810.0	304.5	1979	2	2019	2
01N21W21D02S	150	--	400	--	OXNARD BASIN	OXNARD PLAIN	61	13.4	816.4	711.0	1979	1	2009	2
01N21W21D03S	312	--	400	--	OXNARD BASIN	OXNARD PLAIN	81	6.1	494.2	14.0	1979	2	2019	2
01N22W23A02S	156	--	201	--	OXNARD BASIN	OXNARD PLAIN	72	0.3	20.6	10.3	1979	2	2015	1
01N22W24D03S	315	--	450	--	OXNARD BASIN	OXNARD PLAIN	76	51.2	3894.0	144.0	1979	2	2017	1
01N22W24C02S	160	--	320	--	OXNARD BASIN	OXNARD PLAIN	25	0.3	6.9	3.3	2007	2	2019	2
01N21W22B02S	332	--	860	--	OXNARD BASIN	PLEASANT VALLEY	81	22.5	1825.7	235.9	1979	2	2019	2
01N22W21B03S	535	--	950	--	OXNARD BASIN	OXNARD PLAIN	63	0.8	50.2	46.6	1980	1	2019	2
01N21W19B03S	160	--	240	--	OXNARD BASIN	OXNARD PLAIN	76	2.2	168.7	5.3	1982	1	2019	2
01N21W20C05S	235	--	255	--	OXNARD BASIN	OXNARD PLAIN	81	81.0	6560.6	782.3	1979	2	2019	2
01N21W19C02S	440	--	800	--	OXNARD BASIN	OXNARD PLAIN	78	27.4	2139.4	153.8	1981	1	2019	2
01N21W19C01S	200	--	218	--	OXNARD BASIN	OXNARD PLAIN	38	7.8	298.0	83.4	1979	2	2015	2
01N22W24B02S	126	--	358	--	OXNARD BASIN	OXNARD PLAIN	5	97.5	487.4	125.8	1979	2	1997	2
01N22W24A03S	410	--	550	--	OXNARD BASIN	OXNARD PLAIN	64	24.9	1594.6	83.0	1987	1	2019	2
01N21W20D02S	112	--	435	--	OXNARD BASIN	OXNARD PLAIN	71	51.4	3646.2	234.0	1979	2	2014	2
01N22W19A01S	610	--	738	--	OXNARD BASIN	OXNARD PLAIN	81	79.0	6397.7	381.6	1979	2	2019	2
01N22W24B04S	444	--	1022	--	OXNARD BASIN	OXNARD PLAIN	77	91.1	7011.6	273.1	1981	2	2019	2
01N21W22C01S	443	--	1003	--	OXNARD BASIN	PLEASANT VALLEY	77	383.5	29532.8	1198.4	1981	2	2019	2
01N21W22A01S	115	--	391	--	OXNARD BASIN	PLEASANT VALLEY	81	115.7	9373.3	435.5	1979	2	2019	2
01N22W21B06S	720	--	1180	--	OXNARD BASIN	OXNARD PLAIN	81	1.7	136.8	14.8	1979	2	2019	2
01N22W23A05S	333	--	483	--	OXNARD BASIN	OXNARD PLAIN	81	74.5	6035.3	132.5	1979	2	2019	2
01N22W20E02S	940	--	974	--	OXNARD BASIN	OXNARD PLAIN	49	79.3	3886.4	184.2	1979	2	2003	2
01N21W23E02S	86	--	348	--	OXNARD BASIN	PLEASANT VALLEY	45	0.6	25.1	1.0	1979	2	2001	2
01N21W23G02S	220	--	625	--	OXNARD BASIN	PLEASANT VALLEY	75	0.8	62.1	37.8	1979	2	2019	2
01N21W23G01S	230	--	650	--	OXNARD BASIN	PLEASANT VALLEY	12	15.8	189.8	109.4	1979	2	1997	2
01N21W21H01S	138	--	622	--	OXNARD BASIN	PLEASANT VALLEY	82	2.6	217.0	53.8	1979	1	2019	2
01N22W24H01S	136	--	188	--	OXNARD BASIN	OXNARD PLAIN	81	1.7	140.7	8.2	1979	2	2019	2
01N21W21H02S	503	--	863	--	OXNARD BASIN	PLEASANT VALLEY	77	361.5	27834.8	1106.4	1981	2	2019	2
01N22W23J01S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	8	1.2	9.5	8.4	1979	2	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
01N21W19L08S	400	--	540	--	OXNARD BASIN	OXNARD PLAIN	81	1.5	117.6	3.2	1979	2	2019	2
01N21W20K02S	600	--	840	--	OXNARD BASIN	OXNARD PLAIN	75	63.3	4744.5	147.1	1982	2	2019	2
01N21W19L07S	212	--	502	--	OXNARD BASIN	OXNARD PLAIN	68	33.7	2290.4	253.6	1979	2	2015	1
01N21W19K10S	140	--	228	--	OXNARD BASIN	OXNARD PLAIN	81	0.7	56.9	1.5	1979	2	2019	2
01N21W22L01S	505	--	996	--	OXNARD BASIN	PLEASANT VALLEY	19	20.4	388.0	103.4	1979	2	1997	2
01N22W24M03S	330	--	470	--	OXNARD BASIN	OXNARD PLAIN	82	164.6	13493.7	455.7	1979	1	2019	2
01N21W19K09S	120	--	172	--	OXNARD BASIN	OXNARD PLAIN	81	2.2	175.3	7.3	1979	2	2019	2
01N21W19K03S	141	--	180	--	OXNARD BASIN	OXNARD PLAIN	77	1.5	116.7	8.8	1979	2	2019	2
01N21W19K08S	174	--	200	--	OXNARD BASIN	OXNARD PLAIN	77	4.9	374.2	16.8	1979	2	2019	2
01N21W20L02S	123	--	214	--	OXNARD BASIN	OXNARD PLAIN	81	11.1	896.9	82.6	1979	2	2019	2
01N21W19J04S	115	--	275	--	OXNARD BASIN	OXNARD PLAIN	18	0.9	15.5	1.5	1979	2	1997	2
01N21W21K03S	265	--	624	--	OXNARD BASIN	OXNARD PLAIN	81	102.4	8295.2	324.9	1979	2	2019	2
01N21W21K01S	146	--	620	--	OXNARD BASIN	OXNARD PLAIN	81	1.3	106.8	2.0	1979	2	2019	2
01N21W21P01S	355	--	610	--	OXNARD BASIN	OXNARD PLAIN	45	83.0	3737.1	165.0	1979	2	2001	2
01N21W22P01S	400	--	872	--	OXNARD BASIN	PLEASANT VALLEY	60	116.2	6971.7	440.8	1979	2	2009	1
01N21W20P03S	--	--	--	416	OXNARD BASIN	OXNARD PLAIN	81	48.1	3895.5	358.5	1979	2	2019	2
01N21W20R01S	195	--	415	--	OXNARD BASIN	OXNARD PLAIN	42	43.6	1830.5	276.0	1979	2	2002	2
01N21W20N07S	120	--	190	--	OXNARD BASIN	OXNARD PLAIN	76	0.5	36.8	1.7	1981	2	2019	2
01N22W23N02S	120	--	240	--	OXNARD BASIN	OXNARD PLAIN	7	6.9	48.0	18.0	1979	2	1997	2
01N22W24P03S	458	--	618	--	OXNARD BASIN	OXNARD PLAIN	81	93.8	7596.1	340.7	1979	2	2019	2
01N21W20P02S	150	--	400	--	OXNARD BASIN	OXNARD PLAIN	12	41.3	496.1	98.9	2014	1	2019	2
01N21W29C02S	229	--	301	--	OXNARD BASIN	OXNARD PLAIN	27	5.0	135.0	22.4	1979	2	2019	1
01N21W28D02S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	75	0.2	15.2	1.0	1979	2	2019	2
01N22W25A03S	413	--	753	--	OXNARD BASIN	OXNARD PLAIN	76	114.7	8717.9	294.9	1982	1	2019	2
01N22W25A02S	196	--	493	--	OXNARD BASIN	OXNARD PLAIN	6	91.3	547.5	114.4	1979	2	1997	2
01N21W29B03S	190	--	415	--	OXNARD BASIN	OXNARD PLAIN	81	70.6	5717.2	207.5	1979	2	2019	2
01N21W30A02S	370	--	574	--	OXNARD BASIN	OXNARD PLAIN	81	124.8	10105.8	304.2	1979	2	2019	2
01N21W29B06S	480	--	740	--	OXNARD BASIN	OXNARD PLAIN	82	147.6	12099.3	439.5	1979	1	2019	2
01N21W30C03S	260	--	600	--	OXNARD BASIN	OXNARD PLAIN	81	53.3	4314.2	351.3	1979	2	2019	2
01N21W28D01S	463	--	923	--	OXNARD BASIN	OXNARD PLAIN	77	464.5	35769.3	1239.2	1981	2	2019	2
01N21W29D03S	210	--	552	--	OXNARD BASIN	OXNARD PLAIN	27	96.6	2607.6	210.0	1979	2	2019	2
01N21W28C01S	125	--	750	--	OXNARD BASIN	OXNARD PLAIN	55	53.3	2934.1	473.1	1979	2	2006	2
01N21W29C01S	128	--	343	--	OXNARD BASIN	OXNARD PLAIN	21	4.3	91.0	6.9	1979	2	1997	2
01N21W29C03S	131	--	242	--	OXNARD BASIN	OXNARD PLAIN	21	0.2	5.0	1.9	1979	2	1997	2
01N22W26H02S	471	--	591	--	OXNARD BASIN	OXNARD PLAIN	81	72.2	5848.7	139.0	1979	2	2019	2
01N21W28G03S	464	--	680	--	OXNARD BASIN	OXNARD PLAIN	81	54.4	4407.1	315.5	1979	2	2019	2
01N21W27E01S	250	--	752	--	OXNARD BASIN	PLEASANT VALLEY	81	90.5	7328.2	459.2	1979	2	2019	2
01N21W28G04S	450	--	810	--	OXNARD BASIN	OXNARD PLAIN	65	121.5	7894.6	531.2	1987	2	2019	2
01N21W28G01S	115	--	371	--	OXNARD BASIN	OXNARD PLAIN	81	48.6	3934.3	224.2	1979	1	2019	2
01N21W27F02S	270	--	736	--	OXNARD BASIN	PLEASANT VALLEY	54	54.4	2935.6	487.6	1979	2	2006	1
01N21W30F02S	170	--	478	--	OXNARD BASIN	OXNARD PLAIN	81	62.1	5026.6	115.3	1979	2	2019	2
01N21W28F02S	162	--	334	--	OXNARD BASIN	OXNARD PLAIN	21	0.2	4.8	1.6	1979	2	1997	2
01N21W29G01S	93	--	280	--	OXNARD BASIN	OXNARD PLAIN	78	0.8	60.4	2.0	1979	2	2019	2
01N21W26G01S	--	--	--	--	OXNARD BASIN	PLEASANT VALLEY	81	44.5	3601.3	217.2	1979	2	2019	2
01N21W28H02S	420	--	820	--	OXNARD BASIN	OXNARD PLAIN	66	138.5	9140.9	681.8	1987	1	2019	2
01N22W26K04S	560	--	650	--	OXNARD BASIN	OXNARD PLAIN	81	104.9	8495.0	344.7	1979	2	2019	2
01N21W28E01S	309	--	600	--	OXNARD BASIN	OXNARD PLAIN	20	0.1	1.4	1.4	1979	2	1997	2
01N21W25M01S	--	--	--	--	OXNARD BASIN	OUTSIDE	45	3.9	177.2	42.4	1979	2	2001	2
01N22W27H02S	470	--	630	--	OXNARD BASIN	OXNARD PLAIN	71	101.8	7229.6	235.8	1984	2	2019	2
01N22W26M03S	432	--	480	--	OXNARD BASIN	OXNARD PLAIN	81	188.7	15287.4	390.9	1979	2	2019	2
01N22W26K03S	524	--	620	--	OXNARD BASIN	OXNARD PLAIN	81	227.7	18446.6	452.9	1979	2	2019	2
01N22W25K01S	186	--	270	--	OXNARD BASIN	OXNARD PLAIN	32	0.7	23.0	1.0	2004	1	2019	2
01N22W25K02S	446	--	606	--	OXNARD BASIN	OXNARD PLAIN	81	201.9	16351.9	393.4	1979	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
01N22W25J02S	380	--	540	--	OXNARD BASIN	OXNARD PLAIN	70	189.5	13261.7	296.1	1985	1	2019	2
01N21W30K01S	160	--	459	--	OXNARD BASIN	OXNARD PLAIN	81	142.3	11525.9	330.2	1979	2	2019	2
01N22W25L02S	--	--	--	--	OXNARD BASIN	OXNARD PLAIN	49	0.9	43.6	1.0	1979	2	2003	2
01N21W29K02S	160	--	230	--	OXNARD BASIN	OXNARD PLAIN	81	1.1	91.9	2.2	1979	2	2019	2
01N21W28M01S	400	--	810	--	OXNARD BASIN	OXNARD PLAIN	81	198.5	16079.2	476.5	1979	2	2019	2
01N22W26Q01S	310	--	476	--	OXNARD BASIN	OXNARD PLAIN	81	98.7	7994.3	409.8	1979	2	2019	2
01N22W26P02S	523	--	652	--	OXNARD BASIN	OXNARD PLAIN	81	218.2	17676.8	434.3	1979	2	2019	2
01N22W35C01S	180	--	230	--	OXNARD BASIN	OXNARD PLAIN	66	0.2	11.0	1.0	1984	1	2019	2
01N22W36B02S	593	--	680	--	OXNARD BASIN	OXNARD PLAIN	81	189.1	15320.5	454.3	1979	2	2019	2
01N22W36B01S	600	--	700	--	OXNARD BASIN	OXNARD PLAIN	81	105.2	8517.2	462.0	1979	2	2019	2
01N21W32C01S	469	--	721	--	OXNARD BASIN	OXNARD PLAIN	69	37.7	2603.9	171.7	1983	2	2019	2
01N21W32A01S	650	--	750	--	OXNARD BASIN	OXNARD PLAIN	52	2.0	104.8	30.7	1994	1	2019	2
01N21W31A01S	190	--	230	--	OXNARD BASIN	OXNARD PLAIN	81	117.8	9542.6	1100.0	1979	2	2019	2
01N22W36H01S	437	--	572	--	OXNARD BASIN	OXNARD PLAIN	59	197.9	11678.4	638.6	1990	2	2019	2
01N22W35G01S	192	--	220	--	OXNARD BASIN	OXNARD PLAIN	11	10.6	117.0	20.2	1979	2	1997	2
01N22W36J03S	421	--	521	--	OXNARD BASIN	OXNARD PLAIN	81	158.3	12824.7	612.3	1979	2	2019	2
01N22W36L01S	126	--	208	--	OXNARD BASIN	OXNARD PLAIN	40	31.2	1248.6	196.8	1979	2	1999	2
01N21W31L01S	350	--	972	--	OXNARD BASIN	OXNARD PLAIN	52	0.1	3.0	3.0	1994	1	2019	2
01N22W36K04S	407	--	719	--	OXNARD BASIN	OXNARD PLAIN	72	226.2	16288.8	952.2	1980	1	2015	2
01N22W36K03S	155	--	210	--	OXNARD BASIN	OXNARD PLAIN	39	55.5	2163.5	354.2	1991	2	2010	2
02N21W30A01S	600	--	1240	--	OXNARD BASIN	OXNARD PLAIN	81	40.3	3263.8	196.8	1979	2	2019	2
02N22W14Q03S	200	--	400	--	OXNARD BASIN	OXNARD FOREBAY	82	180.0	14762.5	391.7	1979	1	2019	2
02N22W15B01S	352	--	442	--	OXNARD BASIN	OXNARD FOREBAY	26	99.7	2591.2	179.3	2006	1	2019	2
01N22W12R01S	430	--	1220	--	OXNARD BASIN	OXNARD PLAIN	59	165.2	9745.6	425.7	1990	2	2019	2
01N22W03F07S	120	--	220	--	OXNARD BASIN	OXNARD PLAIN	58	521.8	30264.1	2408.2	1991	1	2019	2
01N22W03F08S	120	--	220	--	OXNARD BASIN	OXNARD PLAIN	57	379.2	21615.8	2182.2	1991	2	2019	2
02N22W25J01S	400	--	820	--	OXNARD BASIN	OXNARD PLAIN	52	67.6	3516.2	108.9	1993	2	2019	2
02N22W14J03S	600	--	760	--	OXNARD BASIN	OXNARD FOREBAY	26	3.9	100.3	22.4	1991	1	2003	2
02N22W13L06S	120	--	520	--	OXNARD BASIN	OXNARD FOREBAY	57	13.1	746.5	23.8	1991	2	2019	2
02N22W12N08S	160	--	560	--	OXNARD BASIN	OXNARD FOREBAY	58	10.9	632.6	27.2	1991	1	2019	2
02N22W12R03S	320	--	680	--	OXNARD BASIN	OXNARD FOREBAY	79	18.1	1433.3	66.1	1979	2	2019	2
02N22W12B07S	130	--	350	--	OXNARD BASIN	OXNARD FOREBAY	35	14.1	495.0	16.8	1986	2	2003	2
01N22W05K03S	100	--	215	--	OXNARD BASIN	OXNARD PLAIN	26	55.8	1451.5	237.6	1991	1	2003	2
01N22W11A03S	150	--	197	--	OXNARD BASIN	OXNARD PLAIN	57	0.6	34.7	1.0	1991	2	2019	2
02N21W07F01S	80	--	400	--	OXNARD BASIN	OXNARD FOREBAY	58	90.3	5234.9	220.0	1991	1	2019	2
02N21W07N02S	565	--	965	--	OXNARD BASIN	OXNARD FOREBAY	60	101.3	6078.7	608.8	1990	1	2019	2
02N21W18Q03S	400	--	1000	--	OXNARD BASIN	OXNARD PLAIN	57	227.9	12990.9	424.7	1991	1	2019	2
02N22W13L07S	160	--	640	--	OXNARD BASIN	OXNARD FOREBAY	56	101.1	5661.0	197.6	1992	1	2019	2
02N22W15M01S	160	--	400	--	OXNARD BASIN	OXNARD FOREBAY	54	98.5	5318.3	175.8	1993	1	2019	2
02N22W19P01S	160	--	300	--	OXNARD BASIN	OXNARD PLAIN	47	77.8	3657.2	185.4	1996	2	2019	2
02N22W23D06S	130	--	370	--	OXNARD BASIN	OXNARD FOREBAY	57	34.1	1941.0	242.2	1991	2	2019	2
02N22W29D05S	185	--	255	--	OXNARD BASIN	OXNARD PLAIN	57	21.5	1223.6	198.3	1991	2	2019	2
02N22W31D02S	220	--	400	--	OXNARD BASIN	OXNARD PLAIN	55	157.6	8665.3	298.4	1992	2	2019	2
02N22W31R05S	320	--	440	--	OXNARD BASIN	OXNARD PLAIN	81	78.4	6352.1	175.2	1979	1	2019	2
02N22W32C04S	220	--	310	--	OXNARD BASIN	OXNARD PLAIN	59	107.0	6315.7	220.0	1990	2	2019	2
02N22W35C04S	441	--	741	--	OXNARD BASIN	OXNARD PLAIN	37	21.8	807.2	87.3	1993	2	2011	2
01N21W08D05S	700	--	1200	--	OXNARD BASIN	OXNARD PLAIN	55	97.7	5371.0	373.7	1979	2	2006	2
01N21W09C04S	720	--	1120	--	OXNARD BASIN	PLEASANT VALLEY	57	59.2	3374.8	209.2	1991	2	2019	2
01N21W15M01S	492	--	892	--	OXNARD BASIN	PLEASANT VALLEY	64	154.0	9855.7	332.5	1988	1	2019	2
01N21W19F01S	380	--	490	--	OXNARD BASIN	OXNARD PLAIN	58	4.9	282.0	16.0	1991	1	2019	2
01N21W19J05S	600	--	800	--	OXNARD BASIN	OXNARD PLAIN	81	14.1	1139.8	70.9	1979	2	2019	2
01N21W19J06S	520	--	820	--	OXNARD BASIN	OXNARD PLAIN	60	104.2	6250.4	225.2	1990	1	2019	2
01N21W30L01S	400	--	520	--	OXNARD BASIN	OXNARD PLAIN	51	62.0	3163.5	241.7	1994	2	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
01N22W23R02S	460	--	660	--	OXNARD BASIN	OXNARD PLAIN	57	60.5	3448.5	117.5	1991	2	2019	2
01N22W24Q01S	420	--	600	--	OXNARD BASIN	OXNARD PLAIN	59	46.1	2718.3	125.6	1990	2	2019	2
01N22W25B04S	441	--	661	--	OXNARD BASIN	OXNARD PLAIN	55	120.5	6625.3	220.6	1992	2	2019	2
01N22W26Q03S	420	--	560	--	OXNARD BASIN	OXNARD PLAIN	57	165.8	9449.3	400.2	1991	2	2019	2
02N21W20M04S	760	--	1100	--	OXNARD BASIN	OXNARD PLAIN	57	89.6	5105.6	398.3	1991	2	2019	2
01N21W19P03S	750	--	900	--	OXNARD BASIN	OXNARD PLAIN	53	47.6	2525.0	102.4	1993	2	2019	2
01N21W19N02S	400	--	1020	--	OXNARD BASIN	OXNARD PLAIN	19	85.0	1615.2	156.8	1993	2	2002	2
02N22W02R05S	106	--	520	--	OXNARD BASIN	OXNARD FOREBAY	71	629.6	44704.5	1449.8	1984	2	2019	2
02N22W22Q05S	460	--	640	--	OXNARD BASIN	OXNARD FOREBAY	18	3.8	67.9	14.7	2011	1	2019	2
02N22W12B08S	115	--	355	--	OXNARD BASIN	OXNARD FOREBAY	40	0.8	31.0	4.6	1999	2	2019	2
01N21W16M03S	620	--	1100	--	OXNARD BASIN	OXNARD PLAIN	32	138.5	4433.3	324.6	2004	1	2019	2
01N21W16N01S	418	--	893	--	OXNARD BASIN	OXNARD PLAIN	43	261.5	11243.9	499.1	1998	2	2019	2
02N22W13H02S	100	--	500	--	OXNARD BASIN	OXNARD FOREBAY	46	327.2	15049.7	602.4	1997	1	2019	2
02N22W19J03S	410	--	690	--	OXNARD BASIN	OXNARD PLAIN	46	167.4	7698.2	504.8	1997	1	2019	2
02N22W25L05S	400	--	820	--	OXNARD BASIN	OXNARD PLAIN	46	96.4	4435.9	138.5	1997	1	2019	2
02N21W32C01S	84	--	200	--	OXNARD BASIN	OXNARD PLAIN	46	32.0	1474.0	181.0	1997	1	2019	2
02N22W23C05S	140	--	310	--	OXNARD BASIN	OXNARD FOREBAY	38	1481.7	56305.5	3123.0	2001	1	2019	2
02N22W13N04S	350	--	620	--	OXNARD BASIN	OXNARD FOREBAY	39	25.2	982.8	272.6	2000	2	2019	2
02N22W13K04S	100	--	500	--	OXNARD BASIN	OXNARD FOREBAY	39	118.3	4613.8	255.1	2000	2	2019	2
01N21W17B02S	600	--	1100	--	OXNARD BASIN	OXNARD PLAIN	18	192.7	3468.9	394.4	2011	1	2019	2
01N21W21N02S	120	--	400	--	OXNARD BASIN	OXNARD PLAIN	34	65.6	2230.3	121.3	2003	1	2019	2
01N22W12C04S	134	--	214	--	OXNARD BASIN	OXNARD PLAIN	18	2.8	50.1	4.2	2011	1	2019	2
02N22W23Q04S	301	--	501	--	OXNARD BASIN	OXNARD FOREBAY	32	172.6	5523.7	320.9	2004	1	2019	2
01N21W20B01S	540	--	930	--	OXNARD BASIN	OXNARD PLAIN	21	273.2	5736.3	397.5	2009	2	2019	2
02N21W20Q05S	600	--	950	--	OXNARD BASIN	WEST LAS POSAS	37	118.3	4378.9	230.4	2000	1	2019	2
01N21W09D03S	120	--	260	--	OXNARD BASIN	OXNARD PLAIN	39	9.0	349.6	134.6	2000	2	2019	2
01N21W23E03S	140	--	370	--	OXNARD BASIN	PLEASANT VALLEY	36	1.1	40.6	1.2	2002	1	2019	2
02N22W29D08S	200	--	290	--	OXNARD BASIN	OXNARD PLAIN	20	32.6	651.1	49.8	2010	1	2019	2
02N22W32D01S	210	--	480	--	OXNARD BASIN	OXNARD PLAIN	33	74.6	2463.2	139.5	2003	2	2019	2
02N22W35K03S	361	--	711	--	OXNARD BASIN	OXNARD PLAIN	20	112.8	2256.6	155.4	2010	1	2019	2
02N21W19P01S	641	--	1201	--	OXNARD BASIN	OXNARD PLAIN	32	110.6	3540.4	320.6	2004	1	2019	2
02N21W29E03S	640	--	1200	--	OXNARD BASIN	OXNARD PLAIN	33	113.0	3728.0	260.6	2003	2	2019	2
02N21W29E02S	640	--	1080	--	OXNARD BASIN	OXNARD PLAIN	25	64.9	1623.7	161.9	2007	2	2019	2
02N21W32J03S	570	--	990	--	OXNARD BASIN	PLEASANT VALLEY	32	7.9	253.1	60.0	2004	1	2019	2
01N21W22K02S	403	--	883	--	OXNARD BASIN	PLEASANT VALLEY	36	84.4	3039.9	247.0	2002	1	2019	2
01N21W19K11S	280	--	400	--	OXNARD BASIN	OXNARD PLAIN	16	0.5	8.8	2.3	2011	1	2019	2
01N21W08F03S	700	--	1170	--	OXNARD BASIN	OXNARD PLAIN	32	44.8	1433.6	189.5	2003	2	2019	2
01N21W20P04S	160	--	300	--	OXNARD BASIN	OXNARD PLAIN	30	40.1	1201.6	59.8	2005	1	2019	2
01N21W30C04S	130	--	390	--	OXNARD BASIN	OXNARD PLAIN	30	88.4	2651.6	145.8	2005	1	2019	2
02N22W28A03S	100	--	180	--	OXNARD BASIN	OXNARD PLAIN	34	2.9	99.6	19.4	2003	1	2019	2
01N22W26D05S	480	--	680	--	OXNARD BASIN	OXNARD PLAIN	32	363.5	11630.9	693.3	2004	1	2019	2
01N21W33A01S	227	--	567	--	OXNARD BASIN	OXNARD PLAIN	23	213.7	4915.4	564.4	2008	2	2019	2
01N21W19Q01S	170	--	390	--	OXNARD BASIN	OXNARD PLAIN	31	69.8	2163.5	108.6	2004	2	2019	2
01N21W28H03S	305	--	805	--	OXNARD BASIN	OXNARD PLAIN	32	176.1	5634.0	341.2	2004	1	2019	2
02N23W36C05S	200	--	445	--	OXNARD BASIN	OXNARD PLAIN	30	6.0	180.5	13.5	2005	1	2019	2
01N22W13E05S	600	--	1060	--	OXNARD BASIN	OXNARD PLAIN	80	60.1	4807.2	172.3	1980	1	2019	2
02N22W30J07S	295	--	485	--	OXNARD BASIN	OXNARD PLAIN	31	131.7	4082.3	430.3	2004	2	2019	2
02N22W36E02S	475	--	580	--	OXNARD BASIN	OXNARD PLAIN	27	489.4	13213.3	1470.7	2006	2	2019	2
02N22W36E03S	360	--	420	--	OXNARD BASIN	OXNARD PLAIN	27	479.0	12934.3	1879.4	2006	2	2019	2
02N22W36E04S	195	--	285	--	OXNARD BASIN	OXNARD PLAIN	27	106.7	2880.9	800.2	2006	2	2019	2
02N22W36E05S	130	--	170	--	OXNARD BASIN	OXNARD PLAIN	27	63.5	1713.7	650.9	2006	2	2019	2
02N22W01J01S	40	--	100	--	OXNARD BASIN	OXNARD FOREBAY	30	3.7	110.3	4.8	2005	1	2019	2
02N22W01J02S	60	--	160	--	OXNARD BASIN	OXNARD FOREBAY	30	2.2	64.6	4.8	2005	1	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N21W20M05S	820	--	1160	--	OXNARD BASIN	OXNARD PLAIN	30	194.7	5841.6	558.1	2005	1	2019	2
02N21W07L07S	70	--	250	--	OXNARD BASIN	OXNARD FOREBAY	26	100.1	2602.0	660.0	2007	1	2019	2
02N21W07M04S	100	--	350	--	OXNARD BASIN	OXNARD FOREBAY	26	127.0	3302.3	682.2	2007	1	2019	2
02N22W12J04S	100	--	320	--	OXNARD BASIN	OXNARD FOREBAY	26	133.7	3476.2	708.2	2007	1	2019	2
02N22W12H01S	100	--	365	--	OXNARD BASIN	OXNARD FOREBAY	26	106.6	2771.8	531.1	2007	1	2019	2
01N21W17K01S	540	--	940	--	OXNARD BASIN	OXNARD PLAIN	12	166.5	1997.5	202.5	2014	1	2019	2
01N21W19P05S	303	--	693	--	OXNARD BASIN	OXNARD PLAIN	34	76.3	2593.5	504.3	2003	1	2019	2
02N21W20M06S	625	--	825	--	OXNARD BASIN	OXNARD PLAIN	24	89.0	2135.7	267.3	2008	1	2019	2
01N22W12Q02S	155	--	395	--	OXNARD BASIN	OXNARD PLAIN	13	58.6	761.9	98.4	2007	2	2013	2
01N21W21H03S	540	--	620	--	OXNARD BASIN	PLEASANT VALLEY	24	11.5	275.6	21.5	2008	1	2019	2
01N21W16A05S	620	--	770	--	OXNARD BASIN	PLEASANT VALLEY	27	208.8	5636.8	361.5	2006	2	2019	2
02N21W30F02S	630	--	1200	--	OXNARD BASIN	OXNARD PLAIN	30	109.3	3279.3	206.7	2005	1	2019	2
02N21W18H13S	510	--	590	--	OXNARD BASIN	OXNARD PLAIN	20	0.9	17.4	2.4	2010	1	2019	2
02N21W29N05S	115	--	146	--	OXNARD BASIN	OXNARD PLAIN	79	0.6	44.2	2.7	1979	2	2019	2
02N21W30R04S	120	--	140	--	OXNARD BASIN	OXNARD PLAIN	79	0.5	41.4	2.1	1979	2	2019	2
01N22W12A02S	712	--	962	--	OXNARD BASIN	OXNARD PLAIN	22	150.4	3309.4	369.8	2009	1	2019	2
02N22W23G04S	115	--	340	--	OXNARD BASIN	OXNARD FOREBAY	21	571.1	11993.9	1671.8	2009	2	2019	2
02N22W13B01S	420	--	790	--	OXNARD BASIN	OXNARD FOREBAY	21	149.5	3139.5	281.9	2009	2	2019	2
01N22W03F14S	135	--	235	--	OXNARD BASIN	OXNARD PLAIN	23	301.6	6935.7	1428.7	2008	2	2019	2
01N22W03F13S	120	--	230	--	OXNARD BASIN	OXNARD PLAIN	21	495.5	10406.4	1604.5	2009	2	2019	2
01N22W03F12S	120	--	230	--	OXNARD BASIN	OXNARD PLAIN	23	751.3	17280.7	1765.7	2008	2	2019	2
02N22W12E05S	160	--	480	--	OXNARD BASIN	OXNARD FOREBAY	14	10.4	146.1	22.6	2013	1	2019	2
02N22W25Q05S	220	--	390	--	OXNARD BASIN	OXNARD PLAIN	20	197.2	3944.8	310.4	2010	1	2019	2
01N21W20K03S	600	--	880	--	OXNARD BASIN	OXNARD PLAIN	57	125.7	7162.1	334.4	1991	2	2019	2
02N22W24A02S	100	--	240	--	OXNARD BASIN	OXNARD PLAIN	20	158.1	3162.7	259.0	2010	1	2019	2
02N22W12M03S	40	--	300	--	OXNARD BASIN	OXNARD FOREBAY	18	37.2	670.4	66.1	2011	1	2019	2
01N21W28H04S	250	--	740	--	OXNARD BASIN	PLEASANT VALLEY	17	237.6	4038.6	482.2	2011	2	2019	2
01N22W12C05S	770	--	1015	--	OXNARD BASIN	OXNARD PLAIN	15	181.0	2715.5	276.2	2012	2	2019	2
01N22W12Q03S	150	--	360	--	OXNARD BASIN	OXNARD PLAIN	14	283.1	3962.9	450.0	2013	1	2019	2
02N21W07G01S	182	--	452	--	OXNARD BASIN	OXNARD FOREBAY	12	93.0	1116.0	174.9	2014	1	2019	2
01N22W11D03S	130	--	270	--	OXNARD BASIN	OXNARD PLAIN	9	11.0	99.0	28.9	2015	2	2019	2
02N22W12R05S	340	--	715	--	OXNARD BASIN	OXNARD FOREBAY	10	17.7	177.0	33.2	2015	1	2019	2
02N22W23C06S	150	--	290	--	OXNARD BASIN	OXNARD FOREBAY	10	662.8	6627.7	855.8	2015	1	2019	2
01N21W26M01S	140	--	380	--	OXNARD BASIN	PLEASANT VALLEY	9	5.1	46.0	12.7	2015	2	2019	2
01N22W01M04S	125	--	300	--	OXNARD BASIN	OXNARD PLAIN	9	38.9	349.9	149.2	2015	2	2019	2
01N22W11A05S	130	--	350	--	OXNARD BASIN	OXNARD PLAIN	9	23.9	215.4	50.0	2015	2	2019	2
01N21W18Q03S	100	--	200	--	OXNARD BASIN	OXNARD PLAIN	11	40.4	444.8	58.8	2014	2	2019	2
02N21W29M02S	630	--	1130	--	OXNARD BASIN	OXNARD PLAIN	9	207.4	1866.6	304.1	2015	2	2019	2
02N21W07K03S	377	--	842	--	OXNARD BASIN	OXNARD FOREBAY	12	163.6	1963.4	446.2	2014	1	2019	2
02N21W29N06S	105	--	300	--	OXNARD BASIN	OXNARD PLAIN	9	4.7	42.1	22.2	2015	2	2019	2
01N21W09M05S	860	--	1160	--	OXNARD BASIN	OXNARD PLAIN	9	138.8	1249.5	239.4	2015	2	2019	2
02N21W19G03S	575	--	785	--	OXNARD BASIN	OXNARD PLAIN	11	190.9	2100.4	362.2	2014	2	2019	2
01N22W11C03S	125	--	250	--	OXNARD BASIN	OXNARD PLAIN	10	66.2	661.7	120.7	2015	1	2019	2
01N21W06C02S	105	--	130	--	OXNARD BASIN	OXNARD PLAIN	74	62.7	4639.1	193.0	1979	2	2019	2
02N20W19F04S	459	--	759	--	PLEASANT VALLEY	PLEASANT VALLEY	73	706	51,542	1,383	1983	2	2019	2
02N20W20E02S	479	--	875	--	PLEASANT VALLEY	PLEASANT VALLEY	48	43.2	2,075	335	1983	2	2013	2
02N20W19E01S	564	--	864	--	PLEASANT VALLEY	PLEASANT VALLEY	72	196.7	14,164	410	1983	2	2019	2
02N20W19L05S	467	--	830	--	PLEASANT VALLEY	PLEASANT VALLEY	73	263	19,197	1,068	1983	2	2019	2
02N20W22K01S	162	--	450	--	PLEASANT VALLEY	SANTA ROSA	37	19.6	724	71.6	1994	1	2013	2
02N20W19M05S	654	--	990	--	PLEASANT VALLEY	PLEASANT VALLEY	55	120.8	6,643	487	1983	2	2018	2
02N20W19J02S	604	--	876	--	PLEASANT VALLEY	PLEASANT VALLEY	27	250.0	6,751	506.4	1983	2	1997	2
02N21W28P02S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	9	40	360	96	1983	2	2013	2
02N21W34C01S	700	--	890	--	PLEASANT VALLEY	PLEASANT VALLEY	68	832	56,551	1,246	1986	1	2019	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
02N21W34D02S	712	--	900	--	PLEASANT VALLEY	PLEASANT VALLEY	43	6.3	272	35.0	1979	2	2000	2
02N21W35D02S	644	--	810	--	PLEASANT VALLEY	PLEASANT VALLEY	14	56.2	787	134.1	1979	2	1997	2
02N20W31F03S	451	--	970	--	PLEASANT VALLEY	PLEASANT VALLEY	16	92.9	1,487.0	254.4	1993	1	2004	2
02N21W36G03S	610	--	1,060	--	PLEASANT VALLEY	PLEASANT VALLEY	30	151	4,539	367	1987	2	2003	2
02N21W34H02S	160	--	861	--	PLEASANT VALLEY	PLEASANT VALLEY	49	6	316	80	1979	2	2004	1
02N21W36G02S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	37	41.6	1,538	217	1983	2	2002	2
02N21W34G01S	403	--	1,463	--	PLEASANT VALLEY	PLEASANT VALLEY	77	455.6	35,079.4	1,589.5	1981	2	2019	2
02N21W35J01S	169	--	980	--	PLEASANT VALLEY	PLEASANT VALLEY	72	0.4	32.0	1.0	1979	2	2015	1
02N21W35M01S	717	--	1113	--	PLEASANT VALLEY	PLEASANT VALLEY	43	33.0	1420.4	288.6	1979	2	2000	2
02N21W36L02S	618	--	1242	--	PLEASANT VALLEY	PLEASANT VALLEY	81	3.8	309.8	70.9	1979	2	2019	2
02N21W34L02S	252	--	1000	--	PLEASANT VALLEY	PLEASANT VALLEY	37	36.5	1350.9	80.9	1990	1	2008	1
02N21W34J02S	532	--	892	--	PLEASANT VALLEY	PLEASANT VALLEY	76	19.4	1476.4	158.8	1982	1	2019	2
02N21W33P02S	801	--	1149	--	PLEASANT VALLEY	PLEASANT VALLEY	13	134.6	1749.2	458.4	1982	2	1997	2
02N21W33R02S	801	--	1051	--	PLEASANT VALLEY	PLEASANT VALLEY	60	71.3	4277.1	770.4	1990	1	2019	2
02N21W36N01S	280	--	437	--	PLEASANT VALLEY	PLEASANT VALLEY	34	11.5	390.6	96.6	2003	1	2019	2
01N21W03D01S	336	--	1300	--	PLEASANT VALLEY	PLEASANT VALLEY	81	69.4	5622.8	449.4	1979	2	2019	2
01N21W03C01S	956	--	1216	--	PLEASANT VALLEY	PLEASANT VALLEY	19	43.2	820.8	113.5	1979	2	1989	2
01N21W01D05S	313	--	440	--	PLEASANT VALLEY	PLEASANT VALLEY	49	42.0	2059.5	205.3	1979	2	2003	2
01N21W01C02S	224	--	504	--	PLEASANT VALLEY	PLEASANT VALLEY	81	136.8	11080.5	639.5	1979	2	2019	2
01N21W01B04S	820	--	1150	--	PLEASANT VALLEY	PLEASANT VALLEY	48	59.7	2865.2	377.0	1983	2	2013	2
01N21W01B01S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	59	207.4	12236.2	1499.1	1984	1	2014	2
01N21W01D02S	107	--	437	--	PLEASANT VALLEY	PLEASANT VALLEY	5	93.9	469.3	122.6	1979	2	1997	2
01N21W01D01S	350	--	371	--	PLEASANT VALLEY	PLEASANT VALLEY	81	1.1	92.2	5.0	1979	2	2019	2
01N21W01B03S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	14	71.9	1006.8	201.7	1979	2	1997	2
01N21W04C01S	613	--	1003	--	PLEASANT VALLEY	PLEASANT VALLEY	19	26.9	511.9	135.5	1979	2	2019	2
01N20W06E01S	240	--	550	--	PLEASANT VALLEY	PLEASANT VALLEY	27	96.5	2604.2	708.7	2000	1	2013	2
01N21W02J01S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	81	0.6	48.6	1.0	1979	2	2019	2
01N21W02J02S	178	--	373	--	PLEASANT VALLEY	PLEASANT VALLEY	81	51.6	4178.4	348.9	1979	2	2019	2
01N21W01F02S	325	--	374	--	PLEASANT VALLEY	PLEASANT VALLEY	60	60.4	3622.0	458.6	1986	1	2015	2
01N21W01J01S	240	--	550	--	PLEASANT VALLEY	PLEASANT VALLEY	18	55.5	999.5	152.5	2004	1	2019	2
01N21W03K01S	403	--	1433	--	PLEASANT VALLEY	PLEASANT VALLEY	77	568.5	43774.0	1428.3	1981	2	2019	2
01N21W04K01S	400	--	1220	--	PLEASANT VALLEY	PLEASANT VALLEY	77	192.1	14790.6	870.8	1981	2	2019	2
01N21W03J01S	658	--	1090	--	PLEASANT VALLEY	PLEASANT VALLEY	67	124.9	8370.7	584.1	1979	2	2019	2
01N21W02J03S	304	--	707	--	PLEASANT VALLEY	PLEASANT VALLEY	81	54.4	4403.7	133.7	1979	2	2019	2
01N21W03N02S	688	--	883	--	PLEASANT VALLEY	PLEASANT VALLEY	19	10.5	199.3	47.4	1980	1	1997	2
01N21W01N02S	267	--	435	--	PLEASANT VALLEY	PLEASANT VALLEY	7	19.0	132.7	62.5	1979	2	1997	2
01N21W03N01S	712	--	1036	--	PLEASANT VALLEY	PLEASANT VALLEY	74	110.0	8142.0	310.3	1979	2	2016	1
01N21W03P02S	430	--	980	--	PLEASANT VALLEY	PLEASANT VALLEY	81	133.1	10784.8	499.3	1979	2	2019	2
01N21W03R01S	443	--	1013	--	PLEASANT VALLEY	PLEASANT VALLEY	77	456.3	35134.6	1001.5	1981	2	2019	2
01N21W12C04S	250	--	400	--	PLEASANT VALLEY	PLEASANT VALLEY	16	6.9	110.3	32.3	1979	2	1997	2
01N21W10A02S	240	--	320	--	PLEASANT VALLEY	PLEASANT VALLEY	80	0.5	42.5	1.4	1980	1	2019	2
01N21W11D02S	284	--	1000	--	PLEASANT VALLEY	PLEASANT VALLEY	81	34.6	2799.3	241.4	1979	2	2019	2
01N21W12D01S	253	--	414	--	PLEASANT VALLEY	PLEASANT VALLEY	81	124.6	10089.8	404.5	1979	2	2019	2
01N21W11G04S	270	--	730	--	PLEASANT VALLEY	PLEASANT VALLEY	41	118.6	4861.4	383.7	1979	2	1999	2
01N21W12F01S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	14	0.5	7.4	4.2	1980	1	1997	2
01N21W09J01S	474	--	954	--	PLEASANT VALLEY	PLEASANT VALLEY	45	148.6	6684.9	432.0	1979	2	2001	2
01N21W10G01S	420	--	1000	--	PLEASANT VALLEY	PLEASANT VALLEY	77	501.9	38648.0	1191.3	1981	2	2019	2
01N21W12E02S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	14	0.9	12.5	2.0	2013	1	2019	2
01N21W11P01S	403	--	843	--	PLEASANT VALLEY	PLEASANT VALLEY	80	80.4	6432.7	383.1	1980	1	2019	2
01N21W15D02S	383	--	1083	--	PLEASANT VALLEY	PLEASANT VALLEY	77	347.9	26785.6	1072.2	1981	2	2019	2
01N21W15B01S	336	--	852	--	PLEASANT VALLEY	PLEASANT VALLEY	45	58.6	2635.6	263.6	1979	2	2001	2
01N21W14C01S	270	--	880	--	PLEASANT VALLEY	PLEASANT VALLEY	25	138.9	3471.9	368.7	1979	2	1991	2
01N21W15C02S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	22	0.4	8.8	3.6	1979	2	1997	2

Table 3-9. Well Information

Well ID	Reported Depth to Top of Screen (ft bgs)	Estimated Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Estimated Depth to Bottom of Screen (ft bgs)	DWR (2019) Basin ID	Traditional Basin	Number of Semi-Annual Pumping Records	Average Semi-Annual Reported Pumping (acre-ft)	Total Pumping Volume (acre-ft)	Maximum Semi-Annual Reported Pumping (acre-ft)	First Year of Well Records	First Semi-Annual Period of Well Records	Last Year of Well Records	Last Semi-Annual Period of Well Records
01N21W15H01S	120	--	200	--	PLEASANT VALLEY	PLEASANT VALLEY	71	0.5	38.5	1.0	1984	2	2019	2
01N21W15J04S	377	--	857	--	PLEASANT VALLEY	PLEASANT VALLEY	72	97.3	7002.1	581.3	1982	1	2019	2
01N21W23A02S	38	--	108	--	PLEASANT VALLEY	PLEASANT VALLEY	69	0.3	22.8	1.0	1979	2	2015	2
01N21W23H01S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	69	17.8	1228.9	176.5	1979	2	2015	2
01N21W04A02S	800	--	1160	--	PLEASANT VALLEY	PLEASANT VALLEY	50	45.4	2270.6	287.0	1991	1	2015	2
01N21W15B02S	340	--	880	--	PLEASANT VALLEY	PLEASANT VALLEY	56	82.3	4606.7	247.0	1992	1	2019	2
02N21W35P01S	285	--	325	--	PLEASANT VALLEY	PLEASANT VALLEY	57	0.5	30.2	1.0	1991	2	2019	2
02N21W35M02S	700	--	1100	--	PLEASANT VALLEY	PLEASANT VALLEY	44	6.3	277.4	123.0	1998	1	2019	2
02N20W19M06S	540	--	800	--	PLEASANT VALLEY	PLEASANT VALLEY	48	192.8	9253.5	344.4	1993	2	2019	1
02N20W29B02S	395	--	740	--	PLEASANT VALLEY	PLEASANT VALLEY	47	373.0	17531.4	701.7	1996	1	2019	2
02N21W26R02S	157	--	491	--	PLEASANT VALLEY	PLEASANT VALLEY	72	19.9	1435.3	58.6	1983	2	2019	2
02N21W28Q04S	510	--	1140	--	PLEASANT VALLEY	PLEASANT VALLEY	43	62.0	2666.4	164.1	1991	2	2013	2
01N21W11B03S	--	--	--	--	PLEASANT VALLEY	PLEASANT VALLEY	46	118.7	5460.8	242.4	1997	1	2019	2
01N21W09J03S	480	--	960	--	PLEASANT VALLEY	PLEASANT VALLEY	47	388.4	18253.6	657.0	1996	2	2019	2
01N21W02J04S	310	--	450	--	PLEASANT VALLEY	PLEASANT VALLEY	14	0.5	7.4	1.0	2013	1	2019	2
01N21W03L03S	674	--	990	--	PLEASANT VALLEY	PLEASANT VALLEY	31	120.2	3727.6	273.8	2004	2	2019	2
01N21W01A03S	260	--	390	--	PLEASANT VALLEY	PLEASANT VALLEY	59	101.6	5994.1	217.0	1983	2	2019	2
02N20W19H01S	500	--	880	--	PLEASANT VALLEY	PLEASANT VALLEY	29	111.9	3244.5	393.3	1994	2	2013	2
02N20W20M05S	480	--	680	--	PLEASANT VALLEY	PLEASANT VALLEY	53	83.0	4401.6	148.3	1993	1	2019	2
02N21W36G04S	600	--	1060	--	PLEASANT VALLEY	PLEASANT VALLEY	23	98.7	2270.9	225.9	1995	2	2013	2
01N21W03H02S	615	--	895	--	PLEASANT VALLEY	PLEASANT VALLEY	30	120.9	3628.4	310.2	2005	1	2019	2
02N20W19A01S	555	--	855	--	PLEASANT VALLEY	PLEASANT VALLEY	24	213.3	5118.7	427.0	2001	2	2013	2
01N21W02H04S	240	--	540	--	PLEASANT VALLEY	PLEASANT VALLEY	30	80.3	2409.1	292.2	2005	1	2019	2
02N21W28P07S	520	--	1000	--	PLEASANT VALLEY	PLEASANT VALLEY	23	116.5	2678.4	213.9	2003	2	2015	1
01N21W02H05S	95	--	155	--	PLEASANT VALLEY	PLEASANT VALLEY	20	0.3	7.0	1.0	2010	1	2019	2
01N21W12C06S	240	--	390	--	PLEASANT VALLEY	PLEASANT VALLEY	20	18.2	364.8	19.2	2010	1	2019	2
01N21W01B05S	585	--	910	--	PLEASANT VALLEY	PLEASANT VALLEY	29	136.5	3958.8	247.1	2004	1	2019	2
02N20W19B01S	400	--	650	--	PLEASANT VALLEY	PLEASANT VALLEY	24	101.1	2426.5	224.7	2008	1	2019	2
02N20W22K04S	320	--	440	--	PLEASANT VALLEY	SANTA ROSA	12	27.6	331.2	67.9	2011	2	2019	2
01N21W10L01S	900	--	1050	--	PLEASANT VALLEY	PLEASANT VALLEY	12	100.8	1209.8	210.8	2014	1	2019	2
01N21W01M02S	1070	--	1200	--	PLEASANT VALLEY	PLEASANT VALLEY	12	252.8	3034.2	549.1	2014	1	2019	2
02N20W19B02S	400	--	650	--	PLEASANT VALLEY	PLEASANT VALLEY	10	98.2	982.0	165.3	2014	1	2018	2
02N20W24E01S	290	--	830	--	SANTA ROSA	SANTA ROSA	71	102	7,208	226	1983	2	2019	2
02N20W23G02S	350	--	550	--	SANTA ROSA	SANTA ROSA	32	37.1	1,189	99	1983	2	2013	2
02N20W23G03S	800	--	900	--	SANTA ROSA	SANTA ROSA	56	77	4,300	108	1992	1	2019	2
02N20W23H02S	757	--	910	--	SANTA ROSA	SANTA ROSA	36	66.4	2,389	160	1983	2	2013	2
02N20W23L02S	--	--	--	--	SANTA ROSA	SANTA ROSA	53	45.3	2,402	236.0	1983	2	2013	2
02N20W22K02S	306	--	484	--	SANTA ROSA	SANTA ROSA	62	25.7	1,593.4	52.2	1983	2	2015	1
02N20W23K01S	350	--	800	--	SANTA ROSA	SANTA ROSA	73	31.9	2,327	68.8	1983	2	2019	2
02N20W22J01S	720	--	860	--	SANTA ROSA	SANTA ROSA	55	144.4	7943.2	286.6	1992	2	2019	2
02N20W23J01S	420	--	895	--	SANTA ROSA	SANTA ROSA	56	139.1	7787.7	251.3	1992	1	2019	2
02N20W23M01S	350	--	540	--	SANTA ROSA	SANTA ROSA	43	90.6	3895.0	186.1	1992	2	2019	2
02N20W23L04S	380	--	720	--	SANTA ROSA	SANTA ROSA	38	86.6	3290.5	175.7	2000	2	2019	2
02N20W23H03S	--	--	--	--	SANTA ROSA	SANTA ROSA	9	58.5	526.6	117.6	2009	2	2013	2

Table 4-1. Residual Statistics with All Water Level Data Included

Basin	Data No.	RM	ARM	ARM %	RMS	RMS %	Std Dev	Std Dev %	WL Range	WL Min	WL Max
All Basins	90502	0.95	13.3	1.11%	22.3	1.85%	22.3	1.85%	1203.5	-367.5	836.0
Piru	5481	-1.65	9.1	3.66%	12.2	4.89%	12.1	4.85%	249.5	449.4	698.9
Fillmore	4827	3.01	11.7	2.49%	16.5	3.49%	16.2	3.44%	470.8	220.7	691.5
Santa Paula	16684	-9.54	11.8	4.58%	18.1	7.03%	15.4	5.98%	258.0	28.0	286.0
Forebay	18428	4.23	9.9	3.07%	15.3	4.75%	14.7	4.57%	321.6	-183.1	138.5
Mound	4035	9.25	16.4	7.98%	25.8	12.56%	24.1	11.72%	205.5	-55.4	150.1
Oxnard Plain	29656	2.68	11.1	2.52%	16.3	3.72%	16.1	3.67%	438.4	-324.5	113.9
Pleasant Valley	7355	-0.15	19.5	5.66%	25.7	7.46%	25.7	7.46%	344.9	-200.8	144.1
West Las Posas	3315	16.88	48.7	7.48%	69.4	10.65%	67.3	10.33%	651.3	-367.5	283.8

Notes: Data No. = Number of data points; RM = Residual Mean; ARM = Absolute Residual Mean; ARM % = Absolute Residual Mean percentage of the range of measurements; RMS = Root Mean Square; RMS % = Root Mean Square percentage of the range of measurements; Std Dev = Standard Deviation; Std Dev % = Standard Deviation percentage of the range of measurements; WL Range = range of (water level) measurements; WL Min = Minimum value of (water level) measurements; WL Max = Maximum value of (water level) measurements;

Table 4-2. Residual Statistics Excluding Outlier Wells and Wells with less than 10 Water Level Records

Basin	Data No.	RM	ARM	ARM %	RMS	RMS %	Std Dev	Std Dev %	WL Range	WL Min	WL Max
All Basins	88754	0.04	12.3	1.16%	19.1	1.79%	19.1	1.79%	1063.4	-367.5	695.9
Piru	5451	-1.64	9.1	3.67%	12.0	4.89%	11.9	4.84%	246.5	449.4	695.9
Fillmore	4737	3.10	11.5	4.72%	15.9	6.51%	15.6	6.39%	244.2	220.7	464.9
Santa Paula	16622	-9.49	11.8	4.87%	18.0	7.44%	15.3	6.32%	241.8	44.2	286.0
Forebay	18345	4.18	9.8	3.06%	15.2	4.73%	14.6	4.55%	321.6	-183.1	138.5
Mound	3322	0.36	9.0	6.80%	11.8	8.91%	11.8	8.90%	132.0	-55.4	76.6
Oxnard Plain	29483	2.69	11.0	2.93%	16.1	4.27%	15.9	4.21%	376.5	-262.6	113.9
Pleasant Valley	7326	0.00	19.5	5.64%	25.6	7.42%	25.6	7.42%	344.9	-200.8	144.1
West Las Posas	2781	2.17	34.7	5.33%	48.6	7.46%	48.5	7.45%	651.3	-367.5	283.8

Notes: Data No. = Number of data points; RM = Residual Mean; ARM = Absolute Residual Mean; ARM % = Absolute Residual Mean percentage of the range of measurements; RMS = Root Mean Square; RMS % = Root Mean Square percentage of the range of measurements; Std Dev = Standard Deviation; Std Dev % = Standard Deviation percentage of the range of measurements; WL Range = range of (water level) measurements; WL Min = Minimum value of (water level) measurements; WL Max = Maximum value of (water level) measurements;

Table 4-3. **Average Annual Streamflow at the Freeman Diversion (AF) and Simulated Diversions Based on Streamflow at the Freeman Diversion (AF) for Streamflow Based on Historic Observations, Regional Model Outputs, and Upper Basins Surface Water Model outputs (1985-2015).**

Source for streamflow data	Annual streamflow at Freeman Diversion (AF)	Simulated annual diversions (AF)
Observed	210,186	65,060
UWCD Model	185,750	57,297
Upper Basins Surface Water Model	208,545	65,705

Note:
Simulations of diversions were performed using the HOSS model, assuming bypass flow operations proposed in United's Freeman Diversion Multiple Species Habitat Conservation Plan, without any infrastructure improvements.

Table 4-4. Summary of Simulated Annual-Average (AFY) Flows in Piru Basin

Aquifer System A	Storage	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Outside of Basin, within Model Domain	Underflow from Eastern Basin (LA County)	Internal Flow from Aquifer Above	Internal Flow to Aquifer Below (B)	Underflow to Fillmore Basin (A)	Stream Percolation	Rising Groundwater	Net Stream Percolation	Total Inflows	Total Outflows
	1,204	938	-3,802	10,358	-1,827	14	5,000	--	-40,362	-12,115	72,991	-32,394	40,598	90,505	-90,500
Aquifer System B	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Eastern Basin (LA County)**	**Internal Flow from Aquifer Above (A)**	**Internal Flow to Aquifer Below (C)**	**Underflow to Fillmore Basin (B)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	854	4,535	--	--	-10,570	--	--	40,362	-6,879	-28,302	--	--	--	45,751	-45,751
Aquifer System C	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Eastern Basin (LA County)**	**Internal Flow from Aquifer Above (B)**	**Internal Flow to Aquifer Below**	**Underflow to Fillmore Basin (C)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	61	--	--	--	-233	--	--	6,879	--	-6,707	--	--	--	6,940	-6,940
Sum	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Eastern Basin (LA County)**	**Internal Flow from Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow to Fillmore Basin**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	2,119	5,473	-3,802	10,358	-12,630	14	5,000	47,241	-47,241	-47,124	72,991	-32,394	40,598	143,196	-143,191

Notes: Units are in acre-feet per year (AFY); Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration

Table 4-5. Summary of Simulated Annual-Average (AFY) Flows in Fillmore Basin

Aquifer System A	Storage	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Outside of Basin, within Model Domain	Underflow from Piru Basin (A)	--	Internal Flow to Aquifer Below (B)	Underflow to Santa Paula Basin (A)	Stream Percolation	Rising Groundwater	Net Stream Percolation	Total Inflows	Total Outflows
	1,621	1,124	-4,406	19,925	-5,488	-65	12,115	--	-11,611	-3,192	13,689	-23,710	-10,021	48,473	-48,472
Aquifer System B	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Piru Basin (B)**	**Internal Flow from Aquifer Above (A)**	**Internal Flow to Aquifer Below (C)**	**Underflow to Santa Paula Basin (B)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	879	3,344	--	791	-36,958	732	28,302	11,611	2,585	-10,369	0	-919	-919	48,245	-48,246
Aquifer System C	**STORAGE**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Piru Basin (C)**	**Internal Flow from Aquifer Above (B)**	**--**	**Underflow to Santa Paula Basin (C)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	1,834	2,256	--	80	-4,583	1,191	6,707	-2,585	--	-4,404	51	-549	-498	12,118	-12,121
Sum	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Piru Basin**	**Internal Flow from Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow to Santa Paula Basin**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	4,334	6,723	-4,406	20,796	-47,028	1,858	47,124	9,026	-9,026	-17,965	13,740	-25,178	-11,438	103,601	-103,603

Notes: Units are in acre-feet per year (AFY); Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration

Table 4-6. Summary of Simulated Annual-Average (AFY) Flows in Santa Paula Basin

Aquifer System A	Storage	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Outside of Basin, within Model Domain	Underflow from Fillmore Basin (A)	--	Internal Flow to Aquifer Below (B)	Underflow to Mound Basin (Shallow)	Underflow to Mound Basin (UAS)	Underflow to Mound Basin (LAS)	Underflow to Oxnard Basin (UAS)	Underflow to Oxnard Basin (LAS)	Stream Percolation	Rising Groundwater	Net Stream Percolation	Total Inflows	Total Outflows
	832	--	-2,291	12,396	-2,386	-267	3,192	--	-5,285	1	-27	--	-2,277	--	1,760	-5,647	-4,233	18,181	-18,180
Aquifer System B	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Fillmore Basin (B)**	**Internal Flow to Aquifer Above (A)**	**Internal Flow to Aquifer Below (C)**	**Underflow to Mound Basin (Shallow)**	**Underflow to Mound Basin (UAS)**	**Underflow to Mound Basin (LAS)**	**Underflow to Oxnard Basin (UAS)**	**Underflow to Oxnard Basin (LAS)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	925	1,389	--	3,000	-20,777	1,083	10,369	5,285	1,657	--	-359	-2,509	-1	-6	405	-462	--	24,113	-24,115
Aquifer System C	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Fillmore Basin (C)**	**Internal Flow to Aquifer Above (B)**	**--**	**Underflow to Mound Basin (Shallow)**	**Underflow to Mound Basin (UAS)**	**Underflow to Mound Basin (LAS)**	**Underflow to Oxnard Basin (UAS)**	**Underflow to Oxnard Basin (LAS)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	1,729	5	--	400	-1,398	-67	4,404	-1,657	--	--	--	-3,112	--	-16	0	-289	--	6,538	-6,538
Sum	**Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Fillmore Basin**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow to Mound Basin (Shallow)**	**Underflow to Mound Basin (UAS)**	**Underflow to Mound Basin (LAS)**	**Underflow to Oxnard Basin (UAS)**	**Underflow to Oxnard Basin (LAS)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	3,487	1,394	-2,291	15,796	-24,561	750	17,965	3,628	-3,628	1	-387	-5,621	-2,278	-22	2,165	-6,399	-4,233	45,186	-45,187

Notes: Units are in acre-feet per year (AFY); Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration

Table 4-7. Summary of Simulated Annual-Average (AFY) Flows in Mound Basin

Shallow Aquifer System	Storage	Tile Drains	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Underflow from Santa Paula Basin (A)	Underflow from Santa Paula Basin (B)	Underflow from Santa Paula Basin (C)	Internal Flow to Aquifer Above	Internal Flow to Aquifer Below (UAS)	Underflow with Oxnard Basin (Shallow)	Coastal Flux	Net Stream Percolation	Total Inflows	Total Outflows
	51	-129	--	-665	2,941		-1	--	--	--	-1,480	1,271	-450	-1,541	4,263	-4,265
Upper Aquifer System	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow from Santa Paula Basin (A)**	**Underflow from Santa Paula Basin (B)**	**Underflow from Santa Paula Basin (C)**	**Internal Flow to Aquifer Above (Shallow)**	**Internal Flow to Aquifer Below (LAS)**	**Underflow with Oxnard Basin (UAS)**	**Coastal Flux**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	29	--	--	--	201	-1,911	27	359	--	1,480	-687	452	14	--	2,563	-2,597
Lower Aquifer System	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow from Santa Paula Basin (A)**	**Underflow from Santa Paula Basin (B)**	**Underflow from Santa Paula Basin (C)**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Underflow with Oxnard Basin (LAS)**	**Coastal Flux**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	1,012	--	2,485	--	576	-5,461	--	2,509	3,112	687	--	-4,959	65	--	10,446	-10,420
Sum	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow from Santa Paula Basin (A)**	**Underflow from Santa Paula Basin (B)**	**Underflow from Santa Paula Basin (C)**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow with Oxnard Basin**	**Coastal Flux**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	1,092	-129	2,485	-665	3,719	-7,371	27	2,869	3,112	2,166	-2,166	-3,236	-371	-1,541	15,469	-15,479

Notes: Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration; UAS = Upper Aquifer System; LAS = Lower Aquifer System
Net Streamflow percolation in shallow aquifer represents all aquifer systems;
Totals represent net streamflow percolation and not total inflow or outflow

Table 4-8. Summary of Simulated Annual-Average (AFY) Flows in Oxnard Basin

Semi-Perched Aquifer System	Storage	Tile Drains	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Underflow with Santa Paula Basin	Underflow with Mound Basin	Underflow with Pleasant Valley Basin	Underflow with Las Posas Basin (West)	Internal Flow to Aquifer Above	Internal Flow to Aquifer Below (UAS)	Coastal Flux	Net Stream Percolation (SCR)	Net Stream Percolation (Calleguas Creek)	Total Inflows	Total Outflows
	740	-9,915	--	-8,740	23,312	-31	--	-1,271	3,371	-115	--	-10,609	-1,006	1,220	3,046	31,689	-31,689
Upper Aquifer System	**Storage**	**Tile Drains**	**Mountain Front Recharge (Volcanic Outcrop)**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Santa Paula Basin**	**Underflow with Mound Basin**	**Underflow with Pleasant Valley Basin**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (Semi-Perched)**	**Internal Flow to Aquifer Below (LAS)**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	3,209	-311	11	-56	51,001	-51,967	2,278	-452	1,215	-1,601	10,609	-19,630	3,801	1,884	--	74,009	-74,017
Lower Aquifer System	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Santa Paula Basin**	**Underflow with Mound Basin**	**Underflow with Pleasant Valley Basin**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	468	--	--	--	21	-32,325	22	4,959	519	495	19,630	--	6,206	--	--	32,320	-32,325
Sum	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Santa Paula Basin**	**Underflow with Mound Basin**	**Underflow with Pleasant Valley Basin**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	4,417	-10,225	11	-8,797	74,334	-84,324	2,300	3,236	5,105	-1,222	30,239	-30,239	9,001	3,104	3,046	134,794	-134,806

Notes:

Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;

ET = Evapotranspiration; SCR = Santa Clara River; UAS = Upper Aquifer System; LAS = Lower Aquifer System;

Totals represent net streamflow percolation and not total inflow or outflow

Oxnard Basin include Forebay that have major United spreading activities that add to the areal recharge.

Table 4-9. Summary of Simulated Annual-Average (AFY) Flows in Pleasant Valley Basin

Semi-Perched Aquifer System	Storage	Tile Drains	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Underflow to Oxnard Basin	Underflow from Las Posas Basin (East)	Underflow with Las Posas Basin (West)	Internal Flow to Aquifer Above	Internal Flow to Aquifer Below (UAS)	Net Stream Percolation (Arroyo Las Posas)	Net Stream Percolation (Conejo Creek)	Net Stream Percolation (Calleguas Creek)	Total Inflows	Total Outflows
	-193	-894	--	-160	5630	-216	-3371	--	--	--	-10857	562	4937	4561	15,691	-15,691
Upper Aquifer System	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow to Oxnard Basin**	**Underflow from Las Posas Basin (East)**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (Semi-Perched)**	**Internal Flow to Aquifer Below (LAS)**	**Net Stream Percolation (Arroyo Las Posas)**	**Net Stream Percolation (Conejo Creek)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	-1066	--	1421	-1704	745	-7436	-1215	1646	-500	10857	-8807	3697	2363	--	20,729	-20,729
Lower Aquifer System	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow to Oxnard Basin**	**Underflow from Las Posas Basin (East)**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Net Stream Percolation (Arroyo Las Posas)**	**Net Stream Percolation (Conejo Creek)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	-253	--	--	--	278	-8019	-519	--	-295	8807	--	--	--	--	9,085	-9,086
Sum	**Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow to Oxnard Basin**	**Underflow from Las Posas Basin (East)**	**Underflow with Las Posas Basin (West)**	**Internal Flow with Aquifer Above**	**Internal Flow with Aquifer Below**	**Net Stream Percolation (Arroyo Las Posas)**	**Net Stream Percolation (Conejo Creek)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	-1513	-894	1421	-1865	6653	-15671	-5105	1646	-795	19664	-19664	4260	7300	4561	45,505	-45,506

Notes:

Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;

ET = Evapotranspiration; SCR = Santa Clara River; UAS = Upper Aquifer System; LAS = Lower Aquifer System;

Totals represent net streamflow percolation and not total inflow or outflow

Table 4-10. Summary of Simulated Annual-Average Flows in Las Posas Basin (West)

Semi-Perched and UAS	Storage	Mountain Front Recharge	Areal Recharge	Pumping from Wells	Underflow with Oxnard Basin	Underflow with Pleasant Valley Basin	Internal Flow to Aquifer Above	Internal Flow to Aquifer Below (LAS)	Outside of Basin, within Model Domain	Total Inflows	Total Outflows
	242	--	5371	-343	1717	500	--	-7487	--	7,830	-7,830
Lower Aquifer System	**Storage**	**Mountain Front Recharge**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Oxnard Basin**	**Underflow with Pleasant Valley Basin**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Outside of Basin, within Model Domain**	**Total Inflows**	**Total Outflows**
	1873	1710	2006	-13024	-495	295	7487	--	149	13,519	-13,519
Sum	**Storage**	**Mountain Front Recharge**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Oxnard Basin**	**Underflow with Pleasant Valley Basin**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Outside of Basin, within Model Domain**	**Total Inflows**	**Total Outflows**
	2115	1710	7377	-13367	1222	795	7487	-7487	149	20,854	-20,854

Notes:

Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows;

Rounded to nearest whole number;

ET = Evapotranspiration; SCR = Santa Clara River; UAS = Upper Aquifer System; LAS = Lower Aquifer System;

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters		Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin							
					RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
					Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
SCR Underflow (5000 AFY)		0.5X (2500 AFY)	High	126%	-0.26	-92%	8.69	-10%	11.907	-4%	11.905	-1%	2.97	15%	11.626	1%	15.974	1%	15.697	1%	-9.936	0%	12.079	0%	18.21	0%	15.261	0%
		0.8X (4000 AFY)	High	51%	-1.977	-36%	9.173	-5%	12.111	-2%	11.949	-1%	2.727	6%	11.522	1%	15.85	0%	15.615	0%	-9.966	0%	12.094	0%	18.228	0%	15.263	0%
		1.2X (6000 AFY)	High	52%	-4.171	35%	10.122	5%	12.806	3%	12.108	1%	2.423	-6%	11.399	-1%	15.707	0%	15.521	0%	-10.003	0%	12.114	0%	18.251	0%	15.265	0%
		1.5X (7500 AFY)	High	129%	-5.741	86%	10.944	14%	13.569	9%	12.295	2%	2.209	-14%	11.318	-1%	15.615	-1%	15.46	-1%	-10.03	0%	12.127	0%	18.267	0%	15.267	0%
		2X (10000 AFY)	High	257%	-8.22	166%	12.47	30%	15.138	22%	12.713	6%	1.879	-27%	11.206	-2%	15.488	-2%	15.375	-1%	-10.072	1%	12.149	0%	18.292	0%	15.27	0%
EVT Rate		0.1X	High	186%	-5.882	90%	10.983	14%	13.573	9%	12.233	2%	1.525	-41%	11.374	-1%	15.617	-1%	15.544	0%	-11.418	14%	13.114	8%	19.047	4%	15.245	0%
		10X	High	1415%	19.791	-740%	20.403	112%	24.125	94%	13.799	15%	10.316	301%	14.695	28%	19.604	24%	16.672	7%	-4.143	-59%	9.691	-20%	16.223	-11%	15.685	3%
EVT Extinct Depth (5 ft)		2.5 ft	Low	18%	-3.231	5%	9.68	1%	12.449	0%	12.023	0%	2.473	-4%	11.457	0%	15.778	0%	15.585	0%	-10.427	4%	12.412	3%	18.476	1%	15.254	0%
		10 ft	Medium	41%	-2.728	-12%	9.464	-2%	12.297	-1%	11.991	0%	2.786	8%	11.467	0%	15.776	0%	15.529	0%	-9.028	-10%	11.483	-5%	17.759	-3%	15.294	0%
HFB #9 (0.001)		0.1X (0.0001)	High	166%	-3.16	2%	9.623	0%	12.395	0%	11.986	0%	1.949	-24%	11.669	2%	16.303	3%	16.188	4%	-14.665	47%	16.007	32%	23.612	29%	18.507	21%
		10X (0.01)	High	119%	-3.022	-2%	9.614	0%	12.416	0%	12.043	0%	3.167	23%	11.281	-2%	15.353	-3%	15.024	-3%	-5.266	-47%	10.359	-14%	15.178	-17%	14.235	-7%
HFB #10 and HFB #19 (1.0E-6 to 1.0E-2)		0.1X	Low	9%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.552	-1%	11.461	0%	15.784	0%	15.578	0%	-10.408	4%	12.427	3%	18.454	1%	15.239	0%
		10X	Low	25%	-3.084	0%	9.618	0%	12.406	0%	12.018	0%	2.639	3%	11.445	0%	15.741	0%	15.52	0%	-8.844	-11%	11.331	-6%	17.66	-3%	15.287	0%
HFB #73 (1.0E-7)		0.1X (1.0E-8)	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.104	0%	18.24	0%	15.264	0%
		10X (1.0E-6)	Low	0%	-3.091	0%	9.618	0%	12.405	0%	12.014	0%	2.571	0%	11.456	0%	15.772	0%	15.563	0%	-9.977	0%	12.101	0%	18.236	0%	15.265	0%
HFB #98 (1.1E-4)		0.1X (1.1E-5)	Low	3%	-3.087	0%	9.618	0%	12.406	0%	12.016	0%	2.603	1%	11.45	0%	15.759	0%	15.544	0%	-9.914	-1%	12.076	0%	18.278	0%	15.357	1%
		10X (1.1E-3)	Low	2%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.553	-1%	11.462	0%	15.78	0%	15.573	0%	-9.98	0%	12.083	0%	18.167	0%	15.18	-1%
HFB #98 (1.1E-5)		0.1X (1.1E-6)	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.103	0%	18.235	0%	15.259	0%
		10X (1.1E-4)	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.459	0%	15.777	0%	15.568	0%	-9.991	0%	12.11	0%	18.274	0%	15.302	0%
Surface Recharge from Appiled Water	Fillmore basin only	0.5X	Low	12%	-3.046	-1%	9.617	0%	12.415	0%	12.037	0%	2.777	8%	11.533	1%	15.856	1%	15.613	0%	-9.952	0%	12.088	0%	18.223	0%	15.266	0%
		1.5X	Low	12%	-3.133	1%	9.619	0%	12.395	0%	11.994	0%	2.369	-8%	11.387	-1%	15.699	0%	15.521	0%	-10.018	0%	12.12	0%	18.256	0%	15.263	0%
	Piru basin only	0.5X	Low	14%	-2.793	-10%	9.498	-1%	12.323	-1%	12.004	0%	2.618	2%	11.476	0%	15.796	0%	15.58	0%	-9.979	0%	12.101	0%	18.236	0%	15.264	0%
		1.5X	Low	14%	-3.383	9%	9.743	1%	12.494	1%	12.028	0%	2.527	-2%	11.44	0%	15.755	0%	15.553	0%	-9.99	0%	12.107	0%	18.243	0%	15.264	0%
	Santa Paula basin only	0.5X	Medium	47%	-3.078	0%	9.618	0%	12.407	0%	12.02	0%	2.74	7%	11.426	0%	15.706	0%	15.467	-1%	-7.88	-21%	10.715	-11%	17.168	-6%	15.253	0%
		1.5X	Medium	41%	-3.099	0%	9.619	0%	12.403	0%	12.011	0%	2.434	-5%	11.491	0%	15.84	0%	15.653	1%	-11.722	17%	13.419	11%	19.298	6%	15.331	0%
Surface Recharge from Precipitation	Fillmore basin only	0.5X	High	59%	-2.921	-5%	9.609	0%	12.434	0%	12.087	1%	3.601	40%	11.693	2%	16.052	2%	15.645	1%	-9.508	-5%	11.889	-2%	18	-1%	15.285	0%
		1.5X	High	55%	-3.251	5%	9.629	0%	12.38	0%	11.947	-1%	1.58	-39%	11.305	-1%	15.592	-1%	15.514	0%	-10.449	5%	12.326	2%	18.483	1%	15.246	0%
	Piru basin only	0.5X	High	66%	-1.671	-46%	9.185	-5%	12.182	-2%	12.068	0%	2.827	10%	11.566	1%	15.903	1%	15.651	1%	-9.95	0%	12.086	0%	18.218	0%	15.262	0%
		1.5X	High	63%	-4.412	43%	10.154	6%	12.812	3%	12.03	0%	2.337	-9%	11.363	-1%	15.666	-1%	15.492	0%	-10.017	0%	12.121	0%	18.259	0%	15.266	0%
	Santa Paula basin only	0.5X	High	62%	-3.065	-1%	9.616	0%	12.407	0%	12.024	0%	2.86	11%	11.381	-1%	15.609	-1%	15.347	-1%	-7.371	-26%	10.59	-13%	16.896	-7%	15.204	0%
		1.5X	High	57%	-3.11	1%	9.62	0%	12.403	0%	12.008	0%	2.325	-10%	11.536	1%	15.931	1%	15.763	1%	-12.198	22%	13.729	13%	19.635	8%	15.387	1%
Surface Recharge from Pumped Water	Fillmore basin only	0.5X	High	112%	-2.282	-26%	9.639	0%	12.673	2%	12.467	4%	4.184	63%	12.009	5%	16.457	4%	15.918	2%	-9.623	-4%	11.941	-1%	18.063	-1%	15.287	0%
		1.5X	High	96%	-3.766	22%	9.644	0%	12.27	-1%	11.679	-3%	1.104	-57%	11.149	-3%	15.375	-3%	15.337	-1%	-10.322	3%	12.263	1%	18.41	1%	15.244	0%
	Piru basin only	0.5X	High	68%	-1.626	-47%	9.166	-5%	12.213	-2%	12.105	1%	2.852	11%	11.575	1%	15.913	1%	15.657	1%	-9.951	0%	12.087	0%	18.219	0%	15.262	0%
		1.5X	High	68%	-4.506	46%	10.202	6%	12.807	3%	11.99	0%	2.307	-10%	11.355	-1%	15.657	-1%	15.488	-1%	-10.017	0%	12.121	0%	18.259	0%	15.266	0%
	Santa Paula basin only	0.5X	Medium	26%	-3.082	0%	9.618	0%	12.406	0%	12.018	0%	2.688	5%	11.436	0%	15.731	0%	15.502	0%	-8.868	-11%	11.381	-6%	17.665	-3%	15.279	0%
		1.5X	Low	25%	-3.097	0%	9.618	0%	12.403	0%	12.012	0%	2.462	-4%	11.482	0%	15.82	0%	15.629	0%	-11.013	10%	12.822	6%	18.82	3%	15.262	0%
STR Conductance for Piru Creek		0.1X	High	312%	4.911	-259%	8.934	-7%	12.592	2%	11.596	-3%	3.419	33%	11.81	3%	16.166	2%	15.802	2%	-9.924	-1%	12.077	0%	18.198	0%	15.254	0%
		10X	High	619%	-15.017	386%	18.004	87%	21.076	70%	14.789	23%	1.425	-45%	11.078	-3%	15.374	-3%	15.31	-2%	-10.001	0%	12.103	0%	18.265	0%	15.284	0%
STR Conductance for Sespe Creek		0.1X	High	120%	-2.694	-13%	9.601	0%	12.487	1%	12.194	1%	4.637	80%	12.55	10%	16.963	8%	16.319	5%	-9.815	-2%	12.024	-1%	18.137	-1%	15.253	0%
		10X	High	215%	-3.923	27%	9.689	1%	12.324	-1%	11.684	-3%	-1.855	-172%	11.096	-3%	15.539	-1%	15.43	-1%	-10.331	3%	12.286	2%	18.462	1%	15.301	0%
STR Conductance for Santa Paula Creek		0.1X	Low	4%	-3.093	0%	9.618	0%	12.404	0%	12.014	0%	2.541	-1%	11.469	0%	15.799	0%	15.595	0%	-10.075	1%	12.161	0%	18.307	0%	15.286	0%
		10X	Low	19%	-3.098	0%	9.619	0%	12.404	0%	12.012	0%	2.426	-6%	11.499	0%	15.838	0%	15.653	1%	-10.665	7%	12.487	3%	18.599	2%	15.238	0%
STR Conductance for Santa Clara River	Piru basin only	0.1X	High	4181%	69.362	-2345%	69.586	623%	72.397	484%	20.744	73%	14.877	478%	19.646	71%	24.975	58%	20.063	29%	-8.799	-12%	11.591	-4%	17.605	-3%	15.249	0%
		10X	High	633%	-15.7	408%	19.201	100%	22.618	82%	16.283	36%	2.486	-3%	11.386	-1%	15.637	-1%	15.44	-1%	-9.892	-1%	12.049	0%	18.204	0%	15.282	0%
	Fillmore basin only	0.1X	Low	24%	-3.153	2%	9.665	0%	12.46	0%	12.055	0%	2.758	7%	11.858	3%	16.152	2%	15.916	2%	-10.284	3%	12.243	1%	18.383	1%	15.238	0%
		10X	High	130%	-3.457	12%	9.562	-1%	12.247	-1%	11.75	-2%	0.334	-87%	10.353	-10%	14.681	-7%	14.679	-6%	-9.689	-3%	11.963	-1%	18.111	-1%	15.302	0%
	Santa Paula basin only	0.1X	Low	22%	-3.083	0%	9.617	0%	12.405	0%	12.017	0%	2.728	6%	11.431	0%	15.736	0%	15.5	0%	-9.128	-9%	11.743	-3%	17.924	-2%	15.426	1%
		10X	High	75%	-3.118	1%	9.619	0%	12.399	0%	12.002	0%	1.994	-22%	11.616	1%	15.982	1%	15.859	2%	-12.384	24%	13.67	13%	19.795	9%	15.443	1%
	Oxnard and Mound basins only	0.1X	Low	2%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.577	0%	11.457	0%	15.772	0%	15.562	0%	-9.919	-1%	12.062	0%	18.195	0%	15.254	0%
		10X	Low	3%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.563	0%	11.461	0%	15.782	0%	15.574	0%	-10.123	1%	12.197	1%	18.329	0%	15.28	0%
Model Layer 1	Zone 31 (1200 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		10X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 32 (1200 Ft/day)	0.1X	Medium	36%	-3.956	28%	9.954	3%	12.639	2%	12.005	0%	2.531	-2%	11.432	0%	15.757	0%	15.554	0%	-9.995	0%	12.109	0%	18.246	0%	15.265	0%
		10X	Low	17%	-2.646	-14%	9.464	-2%	12.305	-1%	12.018	0%	2.565	0%	11.469	0%	15.781	0%	15.572	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
	Zone 33 (600 ft/day)	0.1X	Medium	46%	-4.02	30%	9.958	4%	12.628	2%	11.972	0%	2.417	-6%	11.245	-2%	15.625	-1%	15.439	-1%	-9.925	-1%	12.079	0%	18.215	0%	15.274	0%
		10X	Medium	36%	-2.483	-20%	9.451	-2%	12.336	-1%	12.085	1%	2.707	5%	11.788	3%	15.995	1%	15.766	1%	-10.121	1%	12.165	1%	18.301	0%	15.248	0%
	Zone 34 (200 Ft/day)	0.1X	Low	12%	-3.112	1%	9.619	0%	12.4	0%	12.004	0%	2.339	-9%	11.492	0%	15.767	0%	15.594	0%	-10.041	1%	12.139	0%	18.28	0%	15.276	0%
		10X	Medium	34%	-3.027	-2%	9.616	0%	12.419	0%	12.045	0%	3.216	25%	11.379	-1%	15.787	0%	15.458	-1%	-9.714	-3%	11.975	-1%	18.091	-1%	15.262	0%
	Zone 35 (200 ft/day)	0.1X	Low	5%	-3.087	0%	9.618	0%	12.406	0%	12.017	0%	2.625	2%	11.457	0%	15.766	0%	15.548	0%	-9.843	-1%	12.039	-1%	18.18	0%	15.285	0%
		10X	Low	2%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.557	-1%	11.456	0%	15.777	0%	15.57	0%	-10.035	1%	12.17	1%	18.283	0%	15.283	0%
	Zone 36 (200 ft/day)	0.1X	Low	6%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.567	0%	11.459	0%	15.777	0%	15.568	0%	-9.555	-4%	12.108	0%	18.233	0%	15.529	2%
		10X	Low	6%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-10.319	3%	12.303	2%	18.36	1%	15.186	-1%
	Zone 37 (200 ft/day)	0.1X	Low	5%	-3.098	0%	9.619	0%	12.404	0%	12.012	0%	2.577	0%	11.399	-1%	15.704	0%	15.492	0%	-9.829	-2%	12.034	-1%	18.173	0%	15.286	0%
		10X	Low	7%	-3.07	-1%	9.619	0%	12.412	0%	12.027	0%	2.605	1%	11.586	1%	15.908	1%	15.695	1%	-10.103	1%	12.157	0%	18.29	0%	15.247	0%
	Zone 39 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
Model Layer 2	Zone 31 (0.1 ft/day)	0.1X	Low	0%	-3.082	0%	9.614	0%	12.402	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		10X	Low	0%	-3.093	0%	9.62	0%	12.406	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 32 (0.1 ft/day)	0.1X	Low	11%	-3.255	5%	9.771	2%	12.565	1%	12.137	1%	2.54	-1%	11.445	0%	15.779	0%	15.575	0%	-9.998	0%	12.11	0%	18.246	0%	15.263	0%
		10X	Low	19%	-2.653	-14%	9.472	-2%	12.299	-1%	12.011	0%	2.63	2%	11.485	0%	15.796	0%	15.577	0%	-9.978	0%	12.101	0%	18.235	0%	15.263	0%
	Zone 33 (0.1 ft/day)	0.1X	High	118%	-1.661	-46%	9.605	0%	12.755	3%	12.647	5%	3.863	50%	12.005	5%	16.386	4%	15.926	2%	-9.863	-1%	12.046	0%	18.167	0%	15.257	0%
		10X	Medium	48%	-3.655	18%	9.614	0%	12.314	-1%	11.76	-2%	1.98	-23%	11.33	-1%	15.582	-1%	15.457	-1%	-10.047	1%	12.134	0%	18.277	0%	15.268	0%
	Zone 34 (0.1 ft/day)	0.1X	Medium	46%	-3.147	2%	9.621	0%	12.395	0%	11.99	0%	1.884	-27%	11.632	2%	15.933	1%	15.823	2%	-10.761	8%	12.469	3%	18.623	2%	15.2	0%
		10X	Medium	49%	-3.027	-2%	9.615	0%	12.416	0%	12.043	0%	3.321	29%	11.316	-1%	15.666	-1%	15.312	-2%	-9.123	-9%	11.743	-3%	17.857	-2%	15.351	1%
	Zone 35 (0.1 ft/day)	0.1X	Low	5%	-3.086	0%	9.618	0%	12.406	0%	12.017	0%	2.637	3%	11.453	0%	15.762	0%	15.541	0%	-9.858	-1%	12.076	0%	18.19	0%	15.288	0%
		10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.556	-1%	11.46	0%	15.779	0%	15.573	0%	-10.015	0%	12.111	0%	18.251	0%	15.258	0%
	Zone 36 (0.1 ft/day)	0.1X	Low	4%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.559	-1%	11.462	0%	15.783	0%	15.576	0%	-10.16	2%	12.246	1%	18.34	1%	15.269	0%
		10X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.457	0%	15.774	0%	15.564	0%	-9.939	0%	12.068	0%	18.215	0%	15.264	0%
	Zone 37 (100ft/day)	0.1X	Low	0%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.456	0%	15.774	0%	15.564	0%	-9.969	0%	12.097	0%	18.233	0%	15.267	0%
		10X	Low	2%	-3.085	0%	9.617	0%	12.405	0%	12.017	0%	2.568	0%	11.472	0%	15.787	0%	15.579	0%	-10.047	1%	12.131	0%	18.263	0%	15.251	0%
	Zone 39 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 26 (600 ft/day)	0.1X	High	116%	-3.695	20%	9.665	0%	12.329	-1%	11.763	-2%	0.66	-74%	10.472	-9%	14.989	-5%	14.976	-4%	-9.914	-1%	12.078	0%	18.223	0%	15.291	0%
		10X	High	281%	-1.757	-43%	9.604	0%	12.745	3%	12.625	5%	6.599	157%	15.391	34%	19.05	21%	17.873	15%	-10.169	2%	12.18	1%	18.293	0%	15.206	0%
	Zone 31 (1200 ft/day)	0.1X	High	174%	0.483	-116%	9.263	-4%	13.799	11%	13.792	15%	3.156	23%	11.705	2%	16.059	2%	15.748	1%	-9.912	-1%	12.067	0%	18.195	0%	15.259	0%
		10X	High	97%	-4.236	37%	11.405	19%	14.096	14%	13.446	12%	2.256	-12%	11.344	-1%	15.65	-1%	15.488	-1%	-10.032	0%	12.13	0%	18.267	0%	15.266	0%
	Zone 32 (1200 ft/day)	0.1X	High	609%	-14.395	366%	18.511	92%	21.646	74%	16.167	35%	3.443	34%	11.828	3%	16.105	2%	15.735	1%	-9.893	-1%	12.054	0%	18.187	0%	15.262	0%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters			Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin					
						RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
						Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
Horizontal Hydraulic Conductivity	Model Layer 3	Zone 32 (1200 ft/day)	10X	High	1325%	26.771	-966%	27.806	189%	30.208	144%	13.995	16%	2.361	-8%	11.505	0%	15.803	0%	15.628	0%	-10.002	0%	12.119	0%	18.25	0%	15.265	0%
		Zone 33 (400 ft/day)	0.1X	High	137%	-6.011	95%	10.555	10%	12.993	5%	11.52	-4%	2.178	-15%	11.214	-2%	15.545	-1%	15.394	-1%	-9.73	-3%	12	-1%	18.143	-1%	15.314	0%
			10X	High	1047%	13.46	-536%	16.215	69%	21.103	70%	16.254	35%	8.485	230%	16.545	44%	20.906	33%	19.108	23%	-10.453	5%	12.298	2%	18.371	1%	15.108	-1%
		Zone 34 (100 ft/day)	0.1X	Medium	37%	-3.103	0%	9.617	0%	12.399	0%	12.006	0%	2.818	10%	11.579	1%	15.721	0%	15.468	-1%	-8.416	-16%	11.565	-4%	17.75	-3%	15.628	2%
			10X	High	140%	-3.09	0%	9.627	0%	12.42	0%	12.031	0%	1.609	-37%	12.349	8%	17.017	8%	16.943	9%	-14.145	42%	14.675	21%	20.508	12%	14.85	-3%
		Zone 35 (100 ft/day)	0.1X	Medium	43%	-3.111	1%	9.619	0%	12.401	0%	12.005	0%	2.301	-11%	11.57	1%	15.873	1%	15.707	1%	-8.36	-16%	11.267	-7%	17.917	-2%	15.847	4%
			10X	High	127%	-2.975	-4%	9.613	0%	12.427	0%	12.067	0%	4.734	84%	11.764	3%	15.869	1%	15.148	-3%	-10.069	1%	14.163	17%	19.37	6%	16.547	8%
		Zone 36 (100 ft/day)	0.1X	Low	18%	-3.093	0%	9.618	0%	12.404	0%	12.013	0%	2.522	-2%	11.469	0%	15.798	0%	15.597	0%	-10.806	8%	12.732	5%	18.689	2%	15.249	0%
			10X	High	60%	-3.078	0%	9.618	0%	12.407	0%	12.02	0%	2.752	7%	11.426	0%	15.708	0%	15.466	-1%	-7.074	-29%	10.35	-14%	16.977	-7%	15.434	1%
		Zone 37 (100 ft/day)	0.1X	Low	2%	-3.092	0%	9.618	0%	12.404	0%	12.013	0%	2.598	1%	11.464	0%	15.786	0%	15.572	0%	-9.921	-1%	12.082	0%	18.229	0%	15.293	0%
			10X	Low	6%	-3.074	-1%	9.618	0%	12.408	0%	12.022	0%	2.507	-3%	11.465	0%	15.774	0%	15.575	0%	-10.141	2%	12.169	1%	18.294	0%	15.226	0%
		Zone 38 (100 ft/day)	0.1X	Low	21%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.53	-2%	11.467	0%	15.794	0%	15.591	0%	-10.96	10%	12.864	6%	18.752	3%	15.216	0%
			10X	Low	16%	-3.087	0%	9.618	0%	12.405	0%	12.016	0%	2.608	1%	11.451	0%	15.76	0%	15.545	0%	-9.23	-8%	11.564	-4%	17.887	-2%	15.322	0%
		Zone 39 (10 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.978	0%	12.099	0%	18.232	0%	15.26	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.459	0%	15.775	0%	15.566	0%	-9.995	0%	12.113	0%	18.253	0%	15.273	0%
	Model Layer 4	Zone 26 (400 ft/day)	0.1X	Low	1%	-3.093	0%	9.618	0%	12.404	0%	12.013	0%	2.56	0%	11.45	0%	15.769	0%	15.561	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	6%	-3.061	-1%	9.617	0%	12.41	0%	12.028	0%	2.661	3%	11.526	1%	15.828	0%	15.604	0%	-9.989	0%	12.106	0%	18.24	0%	15.263	0%
		Zone 31 (1000 ft/day)	0.1X	Low	1%	-3.066	-1%	9.615	0%	12.415	0%	12.031	0%	2.577	0%	11.46	0%	15.777	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	9%	-3.265	6%	9.658	0%	12.351	0%	11.913	-1%	2.529	-2%	11.443	0%	15.76	0%	15.558	0%	-9.991	0%	12.107	0%	18.243	0%	15.264	0%
		Zone 32 (1000 ft/day)	0.1X	Low	6%	-3.228	4%	9.699	1%	12.474	1%	12.05	0%	2.579	0%	11.46	0%	15.778	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	High	59%	-1.782	-42%	8.911	-7%	11.845	-5%	11.711	-3%	2.526	-2%	11.444	0%	15.762	0%	15.56	0%	-9.99	0%	12.107	0%	18.243	0%	15.264	0%
		Zone 33 (200 ft/day)	0.1X	Low	8%	-3.197	3%	9.633	0%	12.397	0%	11.979	0%	2.657	3%	11.484	0%	15.8	0%	15.577	0%	-9.98	0%	12.102	0%	18.237	0%	15.265	0%
			10X	High	61%	-2.209	-29%	9.539	-1%	12.528	1%	12.333	3%	1.943	-24%	11.317	-1%	15.627	-1%	15.508	0%	-10.024	0%	12.122	0%	18.258	0%	15.26	0%
		Zone 34 (100 ft/day)	0.1X	Low	2%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.59	1%	11.459	0%	15.77	0%	15.558	0%	-9.902	-1%	12.073	0%	18.209	0%	15.282	0%
			10X	Low	19%	-3.088	0%	9.619	0%	12.406	0%	12.017	0%	2.414	-6%	11.487	0%	15.856	1%	15.673	1%	-10.643	7%	12.378	2%	18.508	1%	15.143	-1%
		Zone 35 (1 ft/day)	0.1X	High	59%	-3.073	-1%	9.617	0%	12.408	0%	12.022	0%	2.777	8%	11.385	-1%	15.662	-1%	15.415	-1%	-7.604	-24%	10.138	-16%	16.951	-7%	15.151	-1%
			10X	Low	10%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.465	0%	15.79	0%	15.58	0%	-10.312	3%	12.486	3%	18.551	2%	15.422	1%
		Zone 36 (1 ft/day)	0.1X	Low	4%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.565	0%	11.461	0%	15.779	0%	15.571	0%	-10.148	2%	12.251	1%	18.335	1%	15.272	0%
			10X	Low	9%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.593	1%	11.453	0%	15.766	0%	15.553	0%	-9.57	-4%	11.811	-2%	18.033	-1%	15.284	0%
		Zone 37 (100 ft/day)	0.1X	Low	0%	-3.093	0%	9.618	0%	12.405	0%	12.014	0%	2.565	0%	11.455	0%	15.774	0%	15.566	0%	-9.98	0%	12.102	0%	18.238	0%	15.266	0%
			10X	Low	2%	-3.084	0%	9.618	0%	12.406	0%	12.017	0%	2.566	0%	11.468	0%	15.782	0%	15.573	0%	-10.042	1%	12.128	0%	18.26	0%	15.251	0%
		Zone 38 (1 ft/day)	0.1X	Low	5%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.555	-1%	11.461	0%	15.782	0%	15.576	0%	-9.984	0%	12.338	2%	18.394	1%	15.448	1%
			10X	Low	3%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-10.152	2%	12.176	1%	18.286	0%	15.209	0%
		Zone 39 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.99	0%	12.108	0%	18.244	0%	15.267	0%
	Model Layer 5	Zone 26 (400 ft/day)	0.1X	High	100%	-3.618	17%	9.653	0%	12.326	-1%	11.785	-2%	0.974	-62%	10.484	-9%	15.006	-5%	14.976	-4%	-9.918	-1%	12.079	0%	18.223	0%	15.288	0%
			10X	High	281%	-1.745	-44%	9.61	0%	12.759	3%	12.64	5%	6.578	156%	15.379	34%	19.074	21%	17.905	15%	-10.165	2%	12.178	1%	18.29	0%	15.206	0%
		Zone 31 (1000 ft/day)	0.1X	Medium	27%	-2.573	-17%	9.539	-1%	12.58	1%	12.315	2%	2.68	4%	11.499	0%	15.82	0%	15.593	0%	-9.97	0%	12.096	0%	18.231	0%	15.263	0%
			10X	Low	11%	-3.257	5%	9.702	1%	12.373	0%	11.937	-1%	2.502	-3%	11.435	0%	15.752	0%	15.554	0%	-9.997	0%	12.111	0%	18.246	0%	15.264	0%
		Zone 32 (1000 ft/day)	0.1X	High	716%	-16.002	418%	20.175	110%	23.488	89%	17.196	43%	3.729	45%	11.945	4%	16.236	3%	15.804	2%	-9.868	-1%	12.043	-1%	18.171	0%	15.259	0%
			10X	High	2034%	39.748	-1386%	40.548	322%	43.882	254%	18.596	55%	2.161	-16%	11.428	0%	15.699	0%	15.551	0%	-10.016	0%	12.127	0%	18.259	0%	15.267	0%
		Zone 33 (200 ft/day)	0.1X	High	116%	-5.107	65%	10.04	4%	12.536	1%	11.449	-5%	1.876	-27%	10.999	-4%	15.313	-3%	15.199	-2%	-9.717	-3%	11.998	-1%	18.143	-1%	15.322	0%
			10X	High	1080%	14.614	-573%	17.549	82%	23.191	87%	18.008	50%	7.267	183%	16.089	40%	20.643	31%	19.324	24%	-10.563	6%	12.349	2%	18.423	1%	15.094	-1%
		Zone 34 (100 ft/day)	0.1X	High	52%	-3.107	1%	9.616	0%	12.397	0%	12.002	0%	2.878	12%	11.452	0%	15.594	-1%	15.328	-2%	-7.664	-23%	11.326	-6%	17.554	-4%	15.793	3%
			10X	High	155%	-3.066	-1%	9.628	0%	12.429	0%	12.046	0%	1.665	-35%	12.566	10%	17.297	10%	17.218	11%	-14.618	46%	15.112	25%	20.85	14%	14.868	-3%
		Zone 35 (100 ft/day)	0.1X	High	79%	-3.128	1%	9.62	0%	12.397	0%	11.998	0%	2.018	-22%	11.606	1%	15.938	1%	15.812	2%	-7.179	-28%	10.163	-16%	16.957	-7%	15.363	1%
			10X	High	234%	-2.911	-6%	9.612	0%	12.442	0%	12.097	1%	5.817	126%	12.109	6%	16.232	3%	15.155	-3%	-11.176	12%	16.841	39%	21.54	18%	18.415	21%
		Zone 36 (100 ft/day)	0.1X	High	56%	-3.105	0%	9.619	0%	12.402	0%	12.008	0%	2.363	-8%	11.511	0%	15.88	1%	15.705	1%	-12.017	20%	13.781	14%	19.778	8%	15.71	3%
			10X	High	88%	-3.067	-1%	9.617	0%	12.409	0%	12.025	0%	2.933	14%	11.401	0%	15.651	-1%	15.375	-1%	-5.788	-42%	9.899	-18%	16.534	-9%	15.488	1%
		Zone 37 (100 ft/day)	0.1X	Low	23%	-3.036	-2%	9.614	0%	12.412	0%	12.036	0%	2.953	15%	11.628	1%	15.94	1%	15.666	1%	-9.838	-1%	12.037	-1%	18.18	0%	15.288	0%
			10X	Low	16%	-3.077	0%	9.619	0%	12.409	0%	12.023	0%	2.318	-10%	11.386	-1%	15.69	-1%	15.52	0%	-10.211	2%	12.206	1%	18.326	0%	15.219	0%
		Zone 38 (100 ft/day)	0.1X	Medium	28%	-3.094	0%	9.618	0%	12.404	0%	12.013	0%	2.514	-2%	11.471	0%	15.801	0%	15.602	0%	-11.249	13%	13.113	8%	18.919	4%	15.213	0%
			10X	Low	18%	-3.087	0%	9.618	0%	12.405	0%	12.016	0%	2.612	2%	11.45	0%	15.759	0%	15.542	0%	-9.148	-8%	11.547	-5%	17.872	-2%	15.354	1%
		Zone 39 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.103	0%	18.238	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.991	0%	12.109	0%	18.245	0%	15.267	0%
	Model Layer 6	Zone 31 (1 ft/day)	0.1X	Low	11%	-2.874	-7%	9.505	-1%	12.289	-1%	11.949	-1%	2.591	1%	11.464	0%	15.782	0%	15.569	0%	-9.981	0%	12.102	0%	18.237	0%	15.264	0%
			10X	Low	2%	-3.127	1%	9.637	0%	12.429	0%	12.031	0%	2.568	0%	11.457	0%	15.774	0%	15.565	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 32 (1 ft/day)	0.1X	Low	25%	-2.974	-4%	9.854	2%	12.683	2%	12.33	3%	2.859	11%	11.561	1%	15.871	1%	15.613	0%	-9.949	0%	12.086	0%	18.217	0%	15.26	0%
			10X	Low	14%	-3.063	-1%	9.422	-2%	12.206	-2%	11.817	-2%	2.405	-6%	11.399	-1%	15.722	0%	15.539	0%	-10.005	0%	12.114	0%	18.253	0%	15.267	0%
		Zone 33 (1 ft/day)	0.1X	Low	24%	-2.685	-13%	9.855	2%	12.841	4%	12.558	5%	2.564	0%	11.477	0%	15.794	0%	15.587	0%	-9.985	0%	12.104	0%	18.238	0%	15.263	0%
			10X	Medium	27%	-3.506	13%	9.439	-2%	12.131	-2%	11.615	-3%	2.434	-5%	11.453	0%	15.776	0%	15.588	0%	-10.005	0%	12.114	0%	18.253	0%	15.267	0%
		Zone 34 (1 ft/day)	0.1X	Low	14%	-3.116	1%	9.62	0%	12.401	0%	12.004	0%	2.355	-8%	11.555	1%	15.902	1%	15.728	1%	-10.037	1%	12.163	0%	18.317	0%	15.322	0%
			10X	Low	4%	-3.08	0%	9.618	0%	12.406	0%	12.019	0%	2.633	2%	11.421	0%	15.728	0%	15.507	0%	-10.018	0%	12.098	0%	18.227	0%	15.227	0%
		Zone 35 (1 ft/day)	0.1X	Low	5%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.584	0%	11.459	0%	15.779	0%	15.567	0%	-9.75	-2%	11.933	-1%	18.154	0%	15.314	0%
			10X	Low	6%	-3.084	0%	9.618	0%	12.406	0%	12.017	0%	2.631	2%	11.428	0%	15.734	0%	15.514	0%	-10.1	1%	12.182	1%	18.303	0%	15.264	0%
		Zone 36 (0.1 ft/day)	0.1X	Medium	31%	-3.105	0%	9.619	0%	12.402	0%	12.009	0%	2.419	-6%	11.505	0%	15.882	1%	15.698	1%	-10.969	10%	12.815	6%	19.076	5%	15.607	2%
			10X	Low	13%	-3.085	0%	9.618	0%	12.405	0%	12.017	0%	2.623	2%	11.446	0%	15.748	0%	15.53	0%	-9.405	-6%	11.722	-3%	17.918	-2%	15.251	0%
		Zone 37 (1 ft/day)	0.1X	Low	4%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.656	3%	11.472	0%	15.772	0%	15.549	0%	-9.952	0%	12.093	0%	18.232	0%	15.277	0%
			10X	Low	1%	-3.086	0%	9.618	0%	12.405	0%	12.016	0%	2.587	1%	11.458	0%	15.77	0%	15.558	0%	-10.002	0%	12.11	0%	18.242	0%	15.256	0%
		Zone 38 (0.01 ft/day)	0.1X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.457	0%	15.774	0%	15.564	0%	-10.025	0%	12.129	0%	18.239	0%	15.237	0%
			10X	Low	4%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.458	0%	15.776	0%	15.566	0%	-9.779	-2%	11.983	-1%	18.206	0%	15.358	1%
		Zone 39 (0.1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.99	0%	12.107	0%	18.243	0%	15.265	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
	Model Layer 7	Zone 31 (200 ft/day)	0.1X	Medium	32%	-2.452	-21%	9.435	-2%	12.481	1%	12.239	2%	2.716	6%	11.508	0%	15.826	0%	15.593	0%	-9.97	0%	12.096	0%	18.23	0%	15.263	0%
			10X	Medium	28%	-2.617	-15%	9.224	-4%	11.949	-4%	11.66	-3%	2.532	-2%	11.444	0%	15.761	0%	15.558	0%	-9.991	0%	12.107	0%	18.243	0%	15.264	0%
		Zone 32 (200 ft/day)	0.1X	High	871%	-15.289	395%	21.503	124%	25.305	104%	20.166	68%	6.204	141%	13.309	16%	17.58	11%	16.45	6%	-9.641	-3%	11.935	-1%	18.032	-1%	15.238	0%
			10X	High	2042%	38.068	-1332%	39.12	307%	43.128	248%	20.272	69%	0.636	-75%	11.034	-4%	15.314	-3%	15.302	-2%	-10.167	2%	12.202	1%	18.357	1%	15.285	0%
		Zone 33 (100 ft/day)	0.1X	High	371%	-8.598	178%	13.057	36%	15.725	27%	13.167	10%	5.108	99%	12.049	5%	16.447	4%	15.636	0%	-9.232	-8%	11.797	-3%	17.925	-2%	15.366	1%
			10X	High	2342%	33.215	-1175%	34.287	256%	40.612	227%	23.37	95%	11.971	365%	21.641	89%	26.481	68%	23.624	52%	-10.84	9%	12.463	3%	18.47	1%	14.955	-2%
		Zone 34 (100 ft/day)	0.1X	High	110%	-3.106	1%	9.612	0%	12.39	0%	11.995	0%	3.442	34%	11.567	1%	15.427	-2%	15.04	-3%	-5.476	-45%	10.736	-11%	17.155	-6%	16.258	7%
			10X	High	169%	-3.06	-1%	9.632	0%	12.439	0%	12.058	0%	1.754	-32%	12.912	13%	18.025	14%	17.942	15%	-14.869	49%	15.355	27%	21.135	16%	15.021	-2%
		Zone 35 (50 ft/day)	0.1X	High	133%	-3.174	3%	9.622	0%	12.389	0%	11.977	0%	1.217	-53%	12.032	5%	16.441	4%	16.397	5%	-6.172	-38%	10.504	-13%	17.511	-4%	16.387	7%
			10X	High	339%	-2.805	-9%	9.609	0%	12.466	0%	12.147	1%	7.157	178%	12.532	9%	16.71	6%	15.101	-3%	-11.662	17%	18.758	55%	23.255	28%	20.12	32%
		Zone 36 (50 ft/day)	0.1X	Medium	37%	-3.106	1%	9.619	0%	12.402	0%	12.008	0%	2.35	-9%	11.514	0%	15.886	1%	15.713	1%	-9.791	-2%	13.224	9%	19.299	6%	16.631	9%
			10X	Medium	35%	-3.076	0%	9.617	0%	12.407	0%	12.021	0%	2.791	9%	11.418	0%	15.693	-1%	15.445	-1%	-8.557	-14%	11.388	-6%	17.727	-3%	15.525	2%
		Zone 37 (5 ft/day)	0.1X	Low	20%	-3.163	2%	9.629	0%	12.404	0%	11.995	0%	2.547	-1%	11.493	0%	15.879	1%	15.675	1%	-9.194	-8%	11.73	-3%	18.286	0%	15.808	4%
			10X	Medium	48%	-2.859	-7%	9.606	0%	12.447	0%	12.115	1%	2.982	16%	11.777	3%	15.893	1%	15.613	0%	-11.011	10%	12.723	5%	18.541	2%	14.917	-2%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters			Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin					
						RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
						Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
	Model Layer 8	Zone 38 (20 ft/day)	0.1X	Low	14%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.548	-1%	11.46	0%	15.776	0%	15.571	0%	-10.614	6%	12.689	5%	18.501	1%	15.154	-1%
			10X	Low	9%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.591	1%	11.457	0%	15.775	0%	15.562	0%	-9.621	-4%	11.952	-1%	18.409	1%	15.696	3%
		Zone 39 (5 ft/day)	0.1X	Low	1%	-3.094	0%	9.619	0%	12.405	0%	12.014	0%	2.562	0%	11.449	0%	15.773	0%	15.565	0%	-9.945	0%	12.08	0%	18.219	0%	15.267	0%
			10X	Low	1%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.577	0%	11.463	0%	15.776	0%	15.566	0%	-10.004	0%	12.119	0%	18.255	0%	15.27	0%
		Zone 31 (0.01 ft/day)	0.1X	Low	8%	-3.128	1%	9.862	3%	12.646	2%	12.254	2%	2.583	0%	11.46	0%	15.777	0%	15.565	0%	-9.981	0%	12.102	0%	18.237	0%	15.264	0%
			10X	Low	22%	-3.168	3%	8.941	-7%	11.81	-5%	11.379	-5%	2.519	-2%	11.446	0%	15.767	0%	15.566	0%	-9.999	0%	12.111	0%	18.249	0%	15.266	0%
		Zone 32 (0.01 ft/day)	0.1X	High	137%	-2.407	-22%	12.261	27%	16.637	34%	16.464	37%	2.888	12%	11.459	0%	15.73	0%	15.464	-1%	-9.85	-1%	12.034	-1%	18.146	-1%	15.241	0%
			10X	Medium	35%	-3.058	-1%	8.841	-8%	11.766	-5%	11.363	-5%	2.258	-12%	11.415	0%	15.775	0%	15.614	0%	-10.096	1%	12.162	0%	18.316	0%	15.282	0%
		Zone 33 (0.01 ft/day)	0.1X	Low	21%	-3.24	5%	9.615	0%	12.331	-1%	11.898	-1%	2.33	-9%	11.273	-2%	15.598	-1%	15.425	-1%	-9.893	-1%	12.065	0%	18.198	0%	15.274	0%
			10X	High	100%	-2.268	-27%	9.619	0%	12.68	2%	12.476	4%	3.876	51%	11.94	4%	15.931	1%	15.453	-1%	-9.465	-5%	11.815	-2%	17.82	-2%	15.099	-1%
		Zone 34 (0.01 ft/day)	0.1X	High	105%	-3.453	12%	9.652	0%	12.371	0%	11.88	-1%	1.112	-57%	11.716	2%	17.412	10%	17.378	12%	-9.972	0%	12.315	2%	18.85	3%	15.997	5%
			10X	High	106%	-2.607	-16%	9.585	0%	12.471	1%	12.196	2%	4.106	60%	11.161	-3%	14.803	-6%	14.224	-9%	-9.998	0%	11.872	-2%	17.547	-4%	14.421	-6%
		Zone 35 (0.01 ft/day)	0.1X	High	62%	-3.192	3%	9.626	0%	12.392	0%	11.975	0%	2.093	-19%	11.697	2%	16.581	5%	16.45	6%	-8.775	-12%	11.481	-5%	18.608	2%	16.409	8%
			10X	High	136%	-2.841	-8%	9.603	0%	12.443	0%	12.115	1%	3.792	47%	10.923	-5%	14.562	-8%	14.061	-10%	-12.498	25%	13.844	14%	17.945	-2%	12.878	-16%
		Zone 36 (0.01 ft/day)	0.1X	Low	19%	-3.115	1%	9.62	0%	12.401	0%	12.005	0%	2.377	-8%	11.527	1%	15.95	1%	15.773	1%	-10.043	1%	12.111	0%	18.795	3%	15.888	4%
			10X	High	83%	-2.973	-4%	9.611	0%	12.423	0%	12.063	0%	3.447	34%	11.158	-3%	15.087	-4%	14.689	-6%	-10.164	2%	12.402	2%	16.284	-11%	12.723	-17%
		Zone 37 (0.01 ft/day)	0.1X	Low	6%	-3.06	-1%	9.611	0%	12.4	0%	12.018	0%	2.545	-1%	11.383	-1%	15.805	0%	15.6	0%	-9.867	-1%	12.139	0%	18.113	-1%	15.19	0%
			10X	Medium	32%	-2.966	-4%	9.608	0%	12.419	0%	12.06	0%	2.699	5%	11.322	-1%	15.247	-3%	15.008	-4%	-10.731	7%	12.539	4%	18.407	1%	14.956	-2%
		Zone 38 (0.01 ft/day)	0.1X	Low	9%	-3.097	0%	9.618	0%	12.404	0%	12.012	0%	2.517	-2%	11.477	0%	15.823	0%	15.623	0%	-9.812	-2%	12.014	-1%	18.448	1%	15.623	2%
			10X	Medium	50%	-3.037	-2%	9.615	0%	12.413	0%	12.037	0%	2.987	16%	11.317	-1%	15.436	-2%	15.146	-3%	-10.56	6%	12.645	4%	17.304	-5%	13.708	-10%
		Zone 39 (0.01 ft/day)	0.1X	Low	2%	-3.085	0%	9.618	0%	12.405	0%	12.016	0%	2.567	0%	11.458	0%	15.752	0%	15.543	0%	-10.041	1%	12.122	0%	18.235	0%	15.222	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.457	0%	15.777	0%	15.568	0%	-9.976	0%	12.101	0%	18.24	0%	15.27	0%
	Model Layer 9	Zone 31 (100 ft/day)	0.1X	Low	3%	-3.064	-1%	9.693	1%	12.477	1%	12.096	1%	2.584	0%	11.461	0%	15.778	0%	15.567	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
			10X	Low	2%	-3.123	1%	9.588	0%	12.378	0%	11.979	0%	2.562	0%	11.455	0%	15.773	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 32 (100 ft/day)	0.1X	High	101%	-5.355	73%	10.422	8%	13.161	6%	12.023	0%	2.845	11%	11.506	0%	15.801	0%	15.544	0%	-9.908	-1%	12.064	0%	18.187	0%	15.252	0%
			10X	High	198%	1.342	-143%	9.414	-2%	13.621	10%	13.556	13%	1.928	-25%	11.324	-1%	15.71	0%	15.593	0%	-10.157	2%	12.195	1%	18.359	1%	15.293	0%
		Zone 33 (100 ft/day)	0.1X	High	112%	-4.269	38%	9.777	2%	12.386	0%	11.628	-3%	2.25	-13%	10.311	-10%	14.129	-10%	13.951	-10%	-8.603	-14%	11.426	-6%	17.333	-5%	15.047	-1%
			10X	High	200%	-0.426	-86%	9.543	-1%	12.918	4%	12.912	7%	1.94	-25%	12.864	12%	18.193	15%	18.091	16%	-11.645	17%	13.043	8%	19.474	7%	15.61	2%
		Zone 34 (100 ft/day)	0.1X	High	130%	-3.705	20%	9.679	1%	12.352	0%	11.785	-2%	2.041	-21%	9.925	-13%	13.322	-16%	13.166	-15%	-7.858	-21%	11.01	-9%	16.674	-9%	14.706	-4%
			10X	High	94%	-2.62	-15%	9.587	0%	12.474	1%	12.197	2%	2.686	4%	12.61	10%	18.253	16%	18.056	16%	-11.401	14%	12.94	7%	19.424	6%	15.727	3%
		Zone 35 (50 ft/day)	0.1X	High	112%	-3.251	5%	9.631	0%	12.385	0%	11.951	-1%	1.554	-40%	11.736	2%	16.595	5%	16.523	6%	-8.74	-12%	10.974	-9%	15.561	-15%	12.875	-16%
			10X	High	101%	-2.945	-5%	9.608	0%	12.426	0%	12.073	0%	3.457	34%	11.182	-2%	15.128	-4%	14.729	-5%	-11.081	11%	13.156	9%	20.808	14%	17.613	15%
		Zone 36 (50 ft/day)	0.1X	Low	19%	-3.107	1%	9.619	0%	12.403	0%	12.008	0%	2.428	-6%	11.51	0%	15.906	1%	15.721	1%	-9.899	-1%	11.986	-1%	17.548	-4%	14.49	-5%
			10X	Low	11%	-3.08	0%	9.617	0%	12.406	0%	12.019	0%	2.656	3%	11.427	0%	15.7	0%	15.475	-1%	-10.023	0%	12.167	1%	18.658	2%	15.738	3%
		Zone 37 (5 ft/day)	0.1X	High	51%	-2.808	-9%	9.605	0%	12.45	0%	12.131	1%	3.093	20%	11.254	-2%	15.311	-3%	14.997	-4%	-9.879	-1%	11.935	-1%	17.497	-4%	14.442	-5%
			10X	High	55%	-3.254	5%	9.647	0%	12.415	0%	11.983	0%	2.22	-14%	11.868	4%	16.68	6%	16.533	6%	-10.403	4%	12.505	3%	19.277	6%	16.23	6%
		Zone 38 (20 ft/day)	0.1X	Low	20%	-3.11	1%	9.619	0%	12.402	0%	12.007	0%	2.404	-7%	11.516	1%	15.918	1%	15.737	1%	-10.324	3%	12.336	2%	18.685	2%	15.574	2%
			10X	Low	9%	-3.078	0%	9.617	0%	12.407	0%	12.02	0%	2.671	4%	11.425	0%	15.695	-1%	15.467	-1%	-9.825	-2%	12.004	-1%	18.138	-1%	15.247	0%
		Zone 39 (5 ft/day)	0.1X	Low	14%	-3.071	-1%	9.618	0%	12.409	0%	12.024	0%	2.716	6%	11.417	0%	15.678	-1%	15.443	-1%	-9.751	-2%	11.957	-1%	18.013	-1%	15.146	-1%
			10X	Low	11%	-3.102	0%	9.618	0%	12.402	0%	12.008	0%	2.488	-3%	11.484	0%	15.843	0%	15.648	1%	-10.21	2%	12.266	1%	18.477	1%	15.4	1%
	Model Layer 10	Zone 32 (100 ft/day)	0.1X	High	147%	-6.003	94%	10.663	11%	13.268	7%	11.833	-2%	3.273	27%	11.513	0%	15.759	0%	15.417	-1%	-9.723	-3%	11.97	-1%	18.063	-1%	15.223	0%
			10X	High	230%	1.595	-152%	9.702	1%	14.156	14%	14.067	17%	1.574	-39%	11.247	-2%	15.704	0%	15.626	0%	-10.254	3%	12.245	1%	18.426	1%	15.31	0%
		Zone 33 (100 ft/day)	0.1X	High	153%	-5.406	75%	10.157	6%	12.705	2%	11.498	-4%	3.534	37%	11.07	-3%	15.178	-4%	14.762	-5%	-9.112	-9%	11.669	-4%	17.662	-3%	15.13	-1%
			10X	High	259%	0.501	-116%	9.595	0%	13.173	6%	13.164	10%	1.153	-55%	12.511	9%	17.955	14%	17.92	15%	-11.639	17%	13.038	8%	19.466	7%	15.604	2%
		Zone 34 (100 ft/day)	0.1X	Low	14%	-3.154	2%	9.623	0%	12.397	0%	11.99	0%	2.549	-1%	11.292	-1%	15.45	-2%	15.24	-2%	-9.746	-2%	11.968	-1%	18.042	-1%	15.184	-1%
			10X	Medium	46%	-2.859	-7%	9.601	0%	12.436	0%	12.103	1%	2.594	1%	12.054	5%	17.054	8%	16.858	8%	-10.709	7%	12.516	3%	18.824	3%	15.482	1%
		Zone 35 (50 ft/day)	0.1X	Low	11%	-3.107	1%	9.619	0%	12.402	0%	12.008	0%	2.477	-4%	11.481	0%	15.841	0%	15.648	1%	-9.836	-1%	11.975	-1%	17.944	-2%	15.008	-2%
			10X	Medium	49%	-3.022	-2%	9.613	0%	12.414	0%	12.042	0%	3.007	17%	11.313	-1%	15.416	-2%	15.121	-3%	-10.504	5%	12.603	4%	19.473	7%	16.397	7%
		Zone 36 (50 ft/day)	0.1X	Low	5%	-3.093	0%	9.618	0%	12.404	0%	12.014	0%	2.539	-1%	11.471	0%	15.808	0%	15.605	0%	-9.935	-1%	12.053	0%	18.047	-1%	15.067	-1%
			10X	Low	9%	-3.082	0%	9.618	0%	12.406	0%	12.018	0%	2.637	3%	11.433	0%	15.715	0%	15.494	0%	-10.009	0%	12.149	0%	18.559	2%	15.629	2%
		Zone 37 (1 ft/day)	0.1X	Low	22%	-3.023	-2%	9.617	0%	12.419	0%	12.046	0%	2.812	9%	11.438	0%	15.685	-1%	15.432	-1%	-9.723	-3%	11.929	-1%	17.796	-2%	14.905	-2%
			10X	Medium	34%	-3.244	5%	9.637	0%	12.403	0%	11.972	0%	2.211	-14%	11.548	1%	16.008	1%	15.857	2%	-10.233	2%	12.297	2%	18.813	3%	15.787	3%
		Zone 38 (20 ft/day)	0.1X	Low	17%	-3.107	1%	9.619	0%	12.402	0%	12.008	0%	2.423	-6%	11.509	0%	15.902	1%	15.718	1%	-10.284	3%	12.306	2%	18.583	2%	15.478	1%
			10X	Low	10%	-3.077	0%	9.617	0%	12.407	0%	12.02	0%	2.675	4%	11.424	0%	15.692	-1%	15.464	-1%	-9.805	-2%	11.99	-1%	18.12	-1%	15.238	0%
		Zone 39 (1 ft/day)	0.1X	Low	6%	-3.084	0%	9.618	0%	12.406	0%	12.018	0%	2.638	3%	11.442	0%	15.742	0%	15.521	0%	-9.849	-1%	12.03	-1%	18.146	-1%	15.241	0%
			10X	Low	7%	-3.097	0%	9.618	0%	12.402	0%	12.011	0%	2.506	-3%	11.477	0%	15.811	0%	15.612	0%	-10.166	2%	12.22	1%	18.382	1%	15.316	0%
	Model Layer 1	Zone 31 (120 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32 (120 Ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.1	0%	9.622	0%	12.407	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33 (60 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.455	0%	15.776	0%	15.566	0%	-9.983	0%	12.103	0%	18.239	0%	15.264	0%
		Zone 34 (20 Ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.103	0%	18.239	0%	15.264	0%
			10X	Low	1%	-3.091	0%	9.618	0%	12.405	0%	12.014	0%	2.556	-1%	11.46	0%	15.777	0%	15.57	0%	-9.999	0%	12.11	0%	18.246	0%	15.263	0%
		Zone 35 (20 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 36 (20 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.988	0%	12.107	0%	18.241	0%	15.264	0%
		Zone 37 (20 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.567	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.456	0%	15.771	0%	15.561	0%	-9.979	0%	12.102	0%	18.237	0%	15.265	0%
		Zone 39 (1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 2	Zone 31 (0.01 ft/day)	0.1X	Low	0%	-3.093	0%	9.62	0%	12.406	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.082	0%	9.614	0%	12.402	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32 (0.01 ft/day)	0.1X	Low	19%	-2.653	-14%	9.472	-2%	12.299	-1%	12.011	0%	2.63	2%	11.485	0%	15.796	0%	15.577	0%	-9.978	0%	12.101	0%	18.235	0%	15.263	0%
			10X	Low	11%	-3.255	5%	9.771	2%	12.565	1%	12.137	1%	2.54	-1%	11.445	0%	15.779	0%	15.575	0%	-9.998	0%	12.11	0%	18.246	0%	15.263	0%
		Zone 33 (0.01 ft/day)	0.1X	Medium	49%	-3.658	18%	9.614	0%	12.314	-1%	11.759	-2%	1.978	-23%	11.327	-1%	15.58	-1%	15.456	-1%	-10.047	1%	12.134	0%	18.277	0%	15.268	0%
			10X	High	117%	-1.665	-46%	9.604	0%	12.752	3%	12.644	5%	3.855	50%	12	5%	16.38	4%	15.922	2%	-9.864	-1%	12.046	0%	18.167	0%	15.257	0%
		Zone 34 (0.01 ft/day)	0.1X	Medium	49%	-3.027	-2%	9.615	0%	12.416	0%	12.043	0%	3.322	29%	11.316	-1%	15.666	-1%	15.311	-2%	-9.121	-9%	11.742	-3%	17.856	-2%	15.351	1%
			10X	Medium	46%	-3.147	2%	9.621	0%	12.395	0%	11.99	0%	1.884	-27%	11.632	2%	15.934	1%	15.823	2%	-10.762	8%	12.47	3%	18.623	2%	15.2	0%
		Zone 35 (0.01 ft/day)	0.1X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.556	-1%	11.46	0%	15.779	0%	15.573	0%	-10.014	0%	12.111	0%	18.25	0%	15.258	0%
			10X	Low	5%	-3.086	0%	9.618	0%	12.406	0%	12.017	0%	2.637	3%	11.453	0%	15.762	0%	15.541	0%	-9.858	-1%	12.076	0%	18.19	0%	15.288	0%
		Zone 36 (0.01 ft/day)	0.1X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.457	0%	15.774	0%	15.564	0%	-9.939	0%	12.068	0%	18.215	0%	15.265	0%
			10X	Low	4%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.559	-1%	11.462	0%	15.783	0%	15.576	0%	-10.16	2%	12.246	1%	18.34	1%	15.269	0%
		Zone 37 (10ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.457	0%	15.775	0%	15.566	0%	-9.983	0%	12.103	0%	18.239	0%	15.264	0%
		Zone 39 (1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters			Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin					
						RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
						Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
Vertical Hydraulic Conductivity		Zone 39 (1 ft/day)	10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 3	Zone 26 (60 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.459	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	1%	-3.093	0%	9.618	0%	12.405	0%	12.014	0%	2.552	-1%	11.452	0%	15.768	0%	15.562	0%	-9.987	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 31 (120 ft/day)	0.1X	Low	0%	-3.095	0%	9.621	0%	12.407	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	3%	-3.034	-2%	9.594	0%	12.388	0%	12.012	0%	2.579	0%	11.46	0%	15.778	0%	15.567	0%	-9.984	0%	12.103	0%	18.239	0%	15.264	0%
		Zone 32 (120 ft/day)	0.1X	Low	1%	-3.078	0%	9.613	0%	12.401	0%	12.014	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	4%	-3.189	3%	9.666	0%	12.443	0%	12.028	0%	2.565	0%	11.455	0%	15.773	0%	15.565	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 33 (40 ft/day)	0.1X	Low	0%	-3.092	0%	9.618	0%	12.404	0%	12.013	0%	2.578	0%	11.455	0%	15.774	0%	15.564	0%	-9.982	0%	12.103	0%	18.238	0%	15.264	0%
			10X	Low	4%	-3.062	-1%	9.622	0%	12.415	0%	12.033	0%	2.523	-2%	11.489	0%	15.787	0%	15.586	0%	-10.008	0%	12.114	0%	18.25	0%	15.262	0%
		Zone 34 (10 ft/day)	0.1X	Low	1%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.586	1%	11.455	0%	15.772	0%	15.561	0%	-9.969	0%	12.097	0%	18.232	0%	15.265	0%
			10X	Low	7%	-3.099	0%	9.619	0%	12.403	0%	12.011	0%	2.461	-4%	11.486	0%	15.802	0%	15.611	0%	-10.107	1%	12.16	0%	18.299	0%	15.255	0%
		Zone 35 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.567	0%	-9.988	0%	12.108	0%	18.243	0%	15.266	0%
			10X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.576	0%	11.454	0%	15.771	0%	15.561	0%	-9.951	0%	12.062	0%	18.207	0%	15.248	0%
		Zone 36 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.977	0%	12.099	0%	18.235	0%	15.264	0%
			10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.568	0%	11.459	0%	15.777	0%	15.569	0%	-10.049	1%	12.148	0%	18.273	0%	15.263	0%
		Zone 37 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.457	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 38 (10 ft/day)	0.1X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-9.937	0%	12.07	0%	18.216	0%	15.268	0%
			10X	Low	8%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.557	-1%	11.461	0%	15.782	0%	15.576	0%	-10.352	4%	12.373	2%	18.423	1%	15.24	0%
		Zone 39 (1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 4	Zone 26 (40 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 31 (100 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.087	0%	9.617	0%	12.404	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32 (100 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.092	0%	9.619	0%	12.406	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33 (20 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.089	0%	9.619	0%	12.406	0%	12.016	0%	2.571	0%	11.459	0%	15.776	0%	15.566	0%	-9.986	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 34 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.46	0%	15.777	0%	15.568	0%	-9.99	0%	12.106	0%	18.242	0%	15.264	0%
		Zone 35 (0.1 ft/day)	0.1X	Low	10%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.549	-1%	11.471	0%	15.797	0%	15.591	0%	-10.285	3%	12.455	3%	18.537	2%	15.423	1%
			10X	High	59%	-3.073	-1%	9.617	0%	12.408	0%	12.022	0%	2.779	8%	11.385	-1%	15.661	-1%	15.414	-1%	-7.625	-24%	10.15	-16%	16.958	-7%	15.148	-1%
		Zone 36 (0.1 ft/day)	0.1X	Low	8%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.588	1%	11.454	0%	15.768	0%	15.556	0%	-9.626	-4%	11.855	-2%	18.067	-1%	15.289	0%
			10X	Low	4%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.565	0%	11.46	0%	15.779	0%	15.571	0%	-10.145	2%	12.246	1%	18.332	1%	15.269	0%
		Zone 37 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 38 (0.1 ft/day)	0.1X	Low	3%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-10.157	2%	12.18	1%	18.289	0%	15.209	0%
			10X	Low	5%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.555	-1%	11.461	0%	15.782	0%	15.576	0%	-9.992	0%	12.337	2%	18.392	1%	15.442	1%
		Zone 39 (1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 5	Zone 26 (40 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.576	0%	11.459	0%	15.777	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	2%	-3.096	0%	9.619	0%	12.404	0%	12.013	0%	2.54	-1%	11.448	0%	15.764	0%	15.56	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 31 (100 ft/day)	0.1X	Low	0%	-3.099	0%	9.622	0%	12.408	0%	12.016	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	4%	-3	-3%	9.579	0%	12.375	0%	12.007	0%	2.583	0%	11.461	0%	15.779	0%	15.568	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
		Zone 32 (100 ft/day)	0.1X	Low	1%	-3.077	0%	9.611	0%	12.4	0%	12.013	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	5%	-3.199	4%	9.676	1%	12.45	0%	12.033	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33 (20 ft/day)	0.1X	Low	1%	-3.092	0%	9.615	0%	12.4	0%	12.01	0%	2.594	1%	11.453	0%	15.776	0%	15.563	0%	-9.977	0%	12.101	0%	18.236	0%	15.265	0%
			10X	Low	9%	-3.064	-1%	9.649	0%	12.449	0%	12.067	0%	2.42	-6%	11.492	0%	15.771	0%	15.585	0%	-10.033	0%	12.126	0%	18.263	0%	15.26	0%
		Zone 34 (10 ft/day)	0.1X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.582	0%	11.455	0%	15.772	0%	15.561	0%	-9.976	0%	12.1	0%	18.234	0%	15.264	0%
			10X	Low	5%	-3.098	0%	9.619	0%	12.403	0%	12.011	0%	2.495	-3%	11.481	0%	15.804	0%	15.607	0%	-10.052	1%	12.139	0%	18.279	0%	15.267	0%
		Zone 35 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.106	0%	18.241	0%	15.265	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.57	0%	11.459	0%	15.777	0%	15.568	0%	-9.977	0%	12.088	0%	18.226	0%	15.253	0%
		Zone 36 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.565	0%	-9.967	0%	12.091	0%	18.229	0%	15.264	0%
			10X	Low	3%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.563	0%	11.46	0%	15.78	0%	15.572	0%	-10.129	1%	12.207	1%	18.321	0%	15.266	0%
		Zone 37 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 38 (10 ft/day)	0.1X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-9.95	0%	12.078	0%	18.222	0%	15.266	0%
			10X	Low	6%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.559	-1%	11.461	0%	15.781	0%	15.574	0%	-10.261	3%	12.315	2%	18.384	1%	15.254	0%
		Zone 39 (1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 6	Zone 31 (0.1 ft/day)	0.1X	Low	2%	-3.127	1%	9.637	0%	12.429	0%	12.031	0%	2.568	0%	11.457	0%	15.774	0%	15.565	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	11%	-2.874	-7%	9.505	-1%	12.288	-1%	11.949	-1%	2.591	1%	11.464	0%	15.782	0%	15.569	0%	-9.981	0%	12.102	0%	18.237	0%	15.264	0%
		Zone 32 (0.1 ft/day)	0.1X	Low	13%	-3.074	-1%	9.429	-2%	12.213	-2%	11.821	-2%	2.406	-6%	11.399	-1%	15.723	0%	15.539	0%	-10.005	0%	12.114	0%	18.253	0%	15.267	0%
			10X	Low	25%	-2.972	-4%	9.853	2%	12.681	2%	12.329	3%	2.858	11%	11.561	1%	15.871	1%	15.613	0%	-9.95	0%	12.086	0%	18.217	0%	15.26	0%
		Zone 33 (0.1 ft/day)	0.1X	Medium	28%	-3.559	15%	9.445	-2%	12.129	-2%	11.596	-3%	2.456	-5%	11.458	0%	15.78	0%	15.59	0%	-10.003	0%	12.113	0%	18.252	0%	15.267	0%
			10X	Low	24%	-2.682	-13%	9.852	2%	12.838	3%	12.556	5%	2.562	0%	11.476	0%	15.794	0%	15.586	0%	-9.985	0%	12.104	0%	18.238	0%	15.263	0%
		Zone 34 (0.1 ft/day)	0.1X	Low	5%	-3.08	0%	9.618	0%	12.406	0%	12.019	0%	2.636	2%	11.419	0%	15.725	0%	15.504	0%	-10.003	0%	12.092	0%	18.22	0%	15.23	0%
			10X	Low	14%	-3.116	1%	9.62	0%	12.401	0%	12.004	0%	2.355	-8%	11.555	1%	15.902	1%	15.728	1%	-10.04	1%	12.164	0%	18.318	0%	15.322	0%
		Zone 35 (0.1 ft/day)	0.1X	Low	3%	-3.086	0%	9.618	0%	12.406	0%	12.017	0%	2.606	1%	11.434	0%	15.741	0%	15.526	0%	-10.058	1%	12.129	0%	18.27	0%	15.252	0%
			10X	Low	5%	-3.09	0%	9.618	0%	12.404	0%	12.014	0%	2.587	1%	11.458	0%	15.778	0%	15.566	0%	-9.756	-2%	11.939	-1%	18.157	0%	15.314	0%
		Zone 36 (0.01 ft/day)	0.1X	Low	13%	-3.085	0%	9.618	0%	12.405	0%	12.017	0%	2.622	2%	11.446	0%	15.749	0%	15.53	0%	-9.406	-6%	11.723	-3%	17.919	-2%	15.252	0%
			10X	Medium	31%	-3.105	0%	9.619	0%	12.402	0%	12.009	0%	2.419	-6%	11.505	0%	15.881	1%	15.698	1%	-10.969	10%	12.816	6%	19.076	5%	15.607	2%
		Zone 37 (0.1 ft/day)	0.1X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.553	-1%	11.445	0%	15.764	0%	15.558	0%	-9.991	0%	12.104	0%	18.237	0%	15.257	0%
			10X	Low	4%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.659	3%	11.474	0%	15.773	0%	15.549	0%	-9.953	0%	12.093	0%	18.232	0%	15.275	0%
		Zone 38 (0.001 ft/day)	0.1X	Low	4%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.458	0%	15.776	0%	15.566	0%	-9.776	-2%	11.983	-1%	18.205	0%	15.359	1%
			10X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.457	0%	15.774	0%	15.564	0%	-10.024	0%	12.128	0%	18.238	0%	15.237	0%
		Zone 39 (0.01 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.99	0%	12.107	0%	18.243	0%	15.265	0%
	Model Layer 7	Zone 31 (20 ft/day)	0.1X	Low	2%	-3.125	1%	9.638	0%	12.427	0%	12.029	0%	2.569	0%	11.457	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	10%	-2.89	-6%	9.511	-1%	12.292	-1%	11.949	-1%	2.588	1%	11.463	0%	15.78	0%	15.568	0%	-9.982	0%	12.103	0%	18.238	0%	15.264	0%
		Zone 32 (20 ft/day)	0.1X	Low	2%	-3.073	-1%	9.587	0%	12.376	0%	11.99	0%	2.552	-1%	11.451	0%	15.769	0%	15.563	0%	-9.988	0%	12.105	0%	18.241	0%	15.264	0%
			10X	Low	11%	-3.075	0%	9.764	2%	12.551	1%	12.169	1%	2.709	5%	11.504	0%	15.817	0%	15.585	0%	-9.966	0%	12.094	0%	18.227	0%	15.262	0%
		Zone 33 (10 ft/day)	0.1X	Low	1%	-3.08	0%	9.623	0%	12.414	0%	12.027	0%	2.581	0%	11.461	0%	15.78	0%	15.569	0%	-9.982	0%	12.103	0%	18.238	0%	15.264	0%
			10X	Low	6%	-3.14	2%	9.58	0%	12.346	0%	11.941	-1%	2.521	-2%	11.428	0%	15.737	0%	15.536	0%	-9.993	0%	12.107	0%	18.242	0%	15.262	0%
		Zone 34 (10 ft/day)	0.1X	Low	1%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.583	0%	11.454	0%	15.769	0%	15.557	0%	-9.981	0%	12.101	0%	18.235	0%	15.261	0%
			10X	Low	6%	-3.105	0%	9.619	0%	12.403	0%	12.009	0%	2.477	-4%	11.491	0%	15.84	0%	15.647	1%	-10.013	0%	12.129	0%	18.278	0%	15.292	0%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters		Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin					
					RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
					Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
	Model Layer 7	Zone 35 (5 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.456	0%	15.773	0%	15.563	0%	-9.991	0%	12.107	0%	18.241	0%	15.263	0%
			10X	Low	2%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.561	0%	11.47	0%	15.798	0%	15.591	0%	-9.924	-1%	12.07	0%	18.219	0%	15.28	0%
		Zone 36 (5 ft/day)	0.1X	Low	3%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.581	0%	11.456	0%	15.771	0%	15.56	0%	-9.846	-1%	12.006	-1%	18.157	0%	15.257	0%
			10X	Low	11%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.538	-1%	11.466	0%	15.792	0%	15.589	0%	-10.448	5%	12.441	3%	18.53	2%	15.304	0%
		Zone 37 (0.5 ft/day)	0.1X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.582	0%	11.46	0%	15.79	0%	15.579	0%	-9.998	0%	12.109	0%	18.242	0%	15.259	0%
			10X	Low	2%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.565	0%	11.456	0%	15.747	0%	15.538	0%	-9.918	-1%	12.077	0%	18.223	0%	15.288	0%
		Zone 38 (2 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.985	0%	12.104	0%	18.242	0%	15.267	0%
		Zone 39 (0.5 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.263	0%
	Model Layer 8	Zone 31 (0.001 ft/day)	0.1X	Low	22%	-3.166	2%	8.941	-7%	11.81	-5%	11.379	-5%	2.519	-2%	11.446	0%	15.767	0%	15.566	0%	-9.999	0%	12.111	0%	18.249	0%	15.266	0%
			10X	Low	8%	-3.129	1%	9.863	3%	12.647	2%	12.254	2%	2.583	0%	11.46	0%	15.777	0%	15.565	0%	-9.981	0%	12.102	0%	18.237	0%	15.264	0%
		Zone 32 (0.001 ft/day)	0.1X	Medium	35%	-3.058	-1%	8.841	-8%	11.767	-5%	11.363	-5%	2.258	-12%	11.415	0%	15.775	0%	15.614	0%	-10.096	1%	12.162	0%	18.316	0%	15.282	0%
			10X	High	137%	-2.401	-22%	12.26	27%	16.639	34%	16.466	37%	2.889	12%	11.459	0%	15.73	0%	15.464	-1%	-9.85	-1%	12.034	-1%	18.146	-1%	15.241	0%
		Zone 33 (0.001 ft/day)	0.1X	High	100%	-2.269	-27%	9.619	0%	12.68	2%	12.476	4%	3.876	51%	11.939	4%	15.93	1%	15.453	-1%	-9.465	-5%	11.815	-2%	17.82	-2%	15.099	-1%
			10X	Low	21%	-3.24	5%	9.615	0%	12.331	-1%	11.898	-1%	2.337	-9%	11.28	-2%	15.609	-1%	15.435	-1%	-9.893	-1%	12.065	0%	18.198	0%	15.274	0%
		Zone 34 (0.001 ft/day)	0.1X	High	106%	-2.607	-16%	9.585	0%	12.471	1%	12.196	2%	4.106	60%	11.161	-3%	14.803	-6%	14.224	-9%	-9.998	0%	11.872	-2%	17.547	-4%	14.421	-6%
			10X	High	105%	-3.453	12%	9.652	0%	12.371	0%	11.88	-1%	1.112	-57%	11.716	2%	17.412	10%	17.378	12%	-9.972	0%	12.315	2%	18.85	3%	15.997	5%
		Zone 35 (0.001 ft/day)	0.1X	High	136%	-2.841	-8%	9.603	0%	12.443	0%	12.115	1%	3.791	47%	10.923	-5%	14.562	-8%	14.061	-10%	-12.497	25%	13.843	14%	17.945	-2%	12.878	-16%
			10X	High	62%	-3.192	3%	9.626	0%	12.392	0%	11.975	0%	2.093	-19%	11.697	2%	16.581	5%	16.45	6%	-8.775	-12%	11.48	-5%	18.607	2%	16.408	7%
		Zone 36 (0.001 ft/day)	0.1X	High	83%	-2.973	-4%	9.611	0%	12.423	0%	12.063	0%	3.447	34%	11.158	-3%	15.087	-4%	14.69	-6%	-10.163	2%	12.402	2%	16.284	-11%	12.723	-17%
			10X	Low	19%	-3.115	1%	9.62	0%	12.401	0%	12.004	0%	2.377	-8%	11.527	1%	15.95	1%	15.773	1%	-10.044	1%	12.112	0%	18.797	3%	15.888	4%
		Zone 37 (0.001 ft/day)	0.1X	Medium	32%	-2.966	-4%	9.608	0%	12.419	0%	12.06	0%	2.7	5%	11.323	-1%	15.249	-3%	15.009	-4%	-10.73	7%	12.538	4%	18.407	1%	14.957	-2%
			10X	Low	6%	-3.06	-1%	9.611	0%	12.4	0%	12.018	0%	2.544	-1%	11.382	-1%	15.804	0%	15.599	0%	-9.87	-1%	12.141	0%	18.116	-1%	15.191	0%
		Zone 38 (0.001 ft/day)	0.1X	Medium	50%	-3.037	-2%	9.615	0%	12.413	0%	12.036	0%	2.983	16%	11.318	-1%	15.438	-2%	15.149	-3%	-10.584	6%	12.664	5%	17.33	-5%	13.722	-10%
			10X	Low	9%	-3.097	0%	9.618	0%	12.404	0%	12.012	0%	2.518	-2%	11.476	0%	15.822	0%	15.622	0%	-9.807	-2%	12.011	-1%	18.442	1%	15.619	2%
		Zone 39 (0.001 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.457	0%	15.777	0%	15.568	0%	-9.976	0%	12.101	0%	18.24	0%	15.27	0%
			10X	Low	2%	-3.085	0%	9.618	0%	12.405	0%	12.016	0%	2.567	0%	11.458	0%	15.752	0%	15.543	0%	-10.041	1%	12.122	0%	18.235	0%	15.222	0%
	Model Layer 9	Zone 31 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.619	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.616	0%	12.403	0%	12.013	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	1%	-3.089	0%	9.64	0%	12.424	0%	12.035	0%	2.575	0%	11.458	0%	15.776	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33 (10 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	0%	-3.097	0%	9.619	0%	12.405	0%	12.013	0%	2.574	0%	11.456	0%	15.776	0%	15.566	0%	-9.98	0%	12.101	0%	18.236	0%	15.263	0%
		Zone 34 (10 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.457	0%	15.772	0%	15.562	0%	-9.985	0%	12.104	0%	18.238	0%	15.263	0%
			10X	Low	2%	-3.096	0%	9.619	0%	12.404	0%	12.013	0%	2.544	-1%	11.468	0%	15.812	0%	15.608	0%	-9.981	0%	12.107	0%	18.25	0%	15.279	0%
		Zone 35 (5 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.457	0%	15.772	0%	15.563	0%	-9.986	0%	12.105	0%	18.239	0%	15.263	0%
			10X	Low	1%	-3.092	0%	9.618	0%	12.405	0%	12.014	0%	2.558	-1%	11.468	0%	15.803	0%	15.596	0%	-9.969	0%	12.098	0%	18.242	0%	15.278	0%
		Zone 36 (5 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.984	0%	12.104	0%	18.24	0%	15.265	0%
		Zone 37 (0.5 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.457	0%	15.773	0%	15.563	0%	-9.987	0%	12.105	0%	18.239	0%	15.262	0%
			10X	Low	1%	-3.094	0%	9.618	0%	12.404	0%	12.013	0%	2.57	0%	11.462	0%	15.795	0%	15.586	0%	-9.96	0%	12.095	0%	18.24	0%	15.281	0%
		Zone 38 (2 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.774	0%	15.565	0%	-9.982	0%	12.102	0%	18.235	0%	15.26	0%
			10X	Low	1%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.562	0%	11.462	0%	15.784	0%	15.577	0%	-10.009	0%	12.121	0%	18.279	0%	15.296	0%
		Zone 39 (0.5 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.566	0%	-9.988	0%	12.105	0%	18.24	0%	15.263	0%
	Model Layer 10	Zone 32 (10 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.095	0%	9.619	0%	12.405	0%	12.014	0%	2.576	0%	11.458	0%	15.775	0%	15.565	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
		Zone 33 (10 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	0%	-3.097	0%	9.62	0%	12.406	0%	12.015	0%	2.573	0%	11.456	0%	15.774	0%	15.564	0%	-9.981	0%	12.102	0%	18.237	0%	15.263	0%
		Zone 34 (10 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.57	0%	11.459	0%	15.779	0%	15.57	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 35 (5 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.57	0%	11.46	0%	15.78	0%	15.57	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 36 (5 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.265	0%
		Zone 37 (0.1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.57	0%	11.458	0%	15.777	0%	15.568	0%	-9.984	0%	12.104	0%	18.243	0%	15.268	0%
			10X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.576	0%	11.455	0%	15.768	0%	15.558	0%	-9.989	0%	12.107	0%	18.225	0%	15.244	0%
		Zone 38 (2 ft/day)	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.565	0%	-9.982	0%	12.102	0%	18.235	0%	15.261	0%
			10X	Low	1%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.563	0%	11.461	0%	15.783	0%	15.575	0%	-10.008	0%	12.12	0%	18.279	0%	15.296	0%
		Zone 39 (0.1 ft/day)	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 1 (storage coefficient = 0.001)	Zone 31	0.1X	Low	0%	-3.091	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.092	0%	9.62	0%	12.406	0%	12.016	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.404	0%	12.014	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.088	0%	9.617	0%	12.404	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 37	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 2 (storage coefficient = 0.001)	Zone 31	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.093	0%	9.62	0%	12.407	0%	12.016	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.093	0%	9.618	0%	12.403	0%	12.012	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.091	0%	9.617	0%	12.403	0%	12.013	0%	2.564	0%	11.455	0%	15.773	0%	15.565	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.566	0%	-9.99	0%	12.108	0%	18.243	0%	15.265	0%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters			Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin							
						RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
						Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
Storage Coefficient		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.988	0%	12.108	0%	18.242	0%	15.265	0%
		Zone 37	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.458	0%	15.775	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 3 (storage coefficient = 0.001)	Zone 26	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.565	0%	11.458	0%	15.775	0%	15.567	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 31	0.1X	Low	0%	-3.084	0%	9.616	0%	12.403	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	3%	-3.154	2%	9.646	0%	12.424	0%	12.018	0%	2.565	0%	11.455	0%	15.773	0%	15.565	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 32	0.1X	Low	1%	-3.078	0%	9.612	0%	12.401	0%	12.015	0%	2.574	0%	11.459	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	6%	-3.208	4%	9.678	1%	12.44	0%	12.021	0%	2.552	-1%	11.452	0%	15.769	0%	15.563	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 33	0.1X	Low	0%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.575	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	2%	-3.101	0%	9.616	0%	12.398	0%	12.005	0%	2.547	-1%	11.453	0%	15.772	0%	15.567	0%	-9.987	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.459	0%	15.776	0%	15.567	0%	-9.985	0%	12.106	0%	18.24	0%	15.265	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.982	0%	12.102	0%	18.237	0%	15.264	0%
			10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.567	0%	11.459	0%	15.776	0%	15.568	0%	-10.016	0%	12.125	0%	18.259	0%	15.267	0%
		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.103	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.991	0%	12.11	0%	18.244	0%	15.266	0%
		Zone 37	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.565	0%	11.456	0%	15.774	0%	15.566	0%	-9.987	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 38	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.987	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
	Model Layer 4 (storage coefficient = 0.001)	Zone 26	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.092	0%	9.618	0%	12.404	0%	12.013	0%	2.563	0%	11.457	0%	15.775	0%	15.567	0%	-9.986	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 31	0.1X	Low	0%	-3.082	0%	9.615	0%	12.403	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	4%	-3.175	3%	9.655	0%	12.428	0%	12.017	0%	2.562	0%	11.455	0%	15.772	0%	15.564	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 32	0.1X	Low	1%	-3.064	-1%	9.605	0%	12.398	0%	12.014	0%	2.576	0%	11.459	0%	15.777	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	12%	-3.345	8%	9.747	1%	12.482	1%	12.027	0%	2.529	-2%	11.444	0%	15.761	0%	15.559	0%	-9.989	0%	12.106	0%	18.242	0%	15.264	0%
		Zone 33	0.1X	Low	0%	-3.088	0%	9.618	0%	12.406	0%	12.017	0%	2.576	0%	11.459	0%	15.776	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	3%	-3.107	1%	9.615	0%	12.395	0%	12	0%	2.532	-2%	11.451	0%	15.771	0%	15.569	0%	-9.988	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.459	0%	15.776	0%	15.567	0%	-9.985	0%	12.106	0%	18.24	0%	15.265	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.98	0%	12.101	0%	18.236	0%	15.263	0%
			10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.565	0%	11.46	0%	15.777	0%	15.569	0%	-10.028	0%	12.137	0%	18.271	0%	15.274	0%
		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.103	0%	18.238	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.566	0%	-9.996	0%	12.116	0%	18.249	0%	15.268	0%
		Zone 37	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.564	0%	11.456	0%	15.774	0%	15.566	0%	-9.988	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 38	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.988	0%	12.107	0%	18.242	0%	15.265	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
	Model Layer 5 (storage coefficient = 0.001)	Zone 26	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.092	0%	9.618	0%	12.404	0%	12.013	0%	2.563	0%	11.457	0%	15.775	0%	15.567	0%	-9.986	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 31	0.1X	Low	0%	-3.083	0%	9.615	0%	12.403	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	3%	-3.163	2%	9.65	0%	12.425	0%	12.016	0%	2.563	0%	11.455	0%	15.772	0%	15.564	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 32	0.1X	Low	1%	-3.06	-1%	9.604	0%	12.397	0%	12.015	0%	2.577	0%	11.46	0%	15.777	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	14%	-3.381	9%	9.763	2%	12.49	1%	12.025	0%	2.523	-2%	11.442	0%	15.758	0%	15.557	0%	-9.99	0%	12.106	0%	18.242	0%	15.264	0%
		Zone 33	0.1X	Low	0%	-3.088	0%	9.618	0%	12.406	0%	12.017	0%	2.576	0%	11.459	0%	15.776	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	3%	-3.108	1%	9.615	0%	12.394	0%	11.999	0%	2.53	-2%	11.45	0%	15.771	0%	15.569	0%	-9.988	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.459	0%	15.776	0%	15.567	0%	-9.985	0%	12.106	0%	18.24	0%	15.265	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.981	0%	12.101	0%	18.236	0%	15.263	0%
			10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.565	0%	11.46	0%	15.777	0%	15.569	0%	-10.024	0%	12.139	0%	18.274	0%	15.28	0%
		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.102	0%	18.238	0%	15.263	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.999	0%	12.12	0%	18.253	0%	15.27	0%
		Zone 37	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	1%	-3.093	0%	9.618	0%	12.404	0%	12.013	0%	2.561	0%	11.455	0%	15.774	0%	15.566	0%	-9.988	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 38	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.989	0%	12.109	0%	18.243	0%	15.265	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
	Model Layer 6 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	0%	-3.086	0%	9.616	0%	12.404	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	2%	-3.13	1%	9.636	0%	12.416	0%	12.016	0%	2.567	0%	11.456	0%	15.774	0%	15.565	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 32	0.1X	Low	1%	-3.074	-1%	9.611	0%	12.401	0%	12.015	0%	2.575	0%	11.459	0%	15.776	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	7%	-3.247	5%	9.694	1%	12.448	0%	12.018	0%	2.545	-1%	11.449	0%	15.766	0%	15.561	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 33	0.1X	Low	0%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.575	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	2%	-3.101	0%	9.616	0%	12.398	0%	12.005	0%	2.546	-1%	11.454	0%	15.773	0%	15.568	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.105	0%	18.24	0%	15.265	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.102	0%	18.238	0%	15.263	0%
			10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.459	0%	15.776	0%	15.568	0%	-10.003	0%	12.12	0%	18.256	0%	15.272	0%
		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.103	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.566	0%	-9.99	0%	12.111	0%	18.246	0%	15.268	0%
		Zone 37	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.564	0%	11.457	0%	15.775	0%	15.567	0%	-9.987	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 38	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.986	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.981	0%	12.103	0%	18.238	0%	15.266	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 31	0.1X	Low	0%	-3.085	0%	9.616	0%	12.403	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	2%	-3.144	2%	9.644	0%	12.421	0%	12.018	0%	2.565	0%	11.456	0%	15.773	0%	15.565	0%	-9.986	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 32	0.1X	Low	1%	-3.072	-1%	9.61	0%	12.4	0%	12.015	0%	2.575	0%	11.459	0%	15.777	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	8%	-3.258	5%	9.7	1%	12.452	0%	12.019	0%	2.543	-1%	11.448	0%	15.765	0%	15.56	0%	-9.988	0%	12.105	0%	18.241	0%	15.264	0%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters		Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin							
					RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
					Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
	Model Layer 7 (storage coefficient = 0.0005)	Zone 33	0.1X	Low	0%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.575	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	2%	-3.102	0%	9.616	0%	12.399	0%	12.006	0%	2.545	-1%	11.454	0%	15.774	0%	15.569	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.105	0%	18.24	0%	15.265	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.103	0%	18.238	0%	15.263	0%
			10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.459	0%	15.776	0%	15.568	0%	-10.001	0%	12.12	0%	18.256	0%	15.273	0%
		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.103	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.99	0%	12.112	0%	18.247	0%	15.27	0%
		Zone 37	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.576	0%	11.459	0%	15.776	0%	15.566	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
			10X	Low	2%	-3.097	0%	9.618	0%	12.402	0%	12.01	0%	2.535	-1%	11.45	0%	15.767	0%	15.564	0%	-10.006	0%	12.117	0%	18.254	0%	15.268	0%
		Zone 38	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.972	0%	12.1	0%	18.236	0%	15.268	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
	Model Layer 8 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	0%	-3.08	0%	9.613	0%	12.402	0%	12.014	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	4%	-3.18	3%	9.671	1%	12.459	0%	12.047	0%	2.566	0%	11.456	0%	15.773	0%	15.565	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
		Zone 32	0.1X	Low	1%	-3.073	-1%	9.613	0%	12.401	0%	12.015	0%	2.575	0%	11.459	0%	15.776	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	9%	-3.279	6%	9.675	1%	12.443	0%	12.004	0%	2.542	-1%	11.448	0%	15.765	0%	15.56	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 33	0.1X	Low	0%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.577	0%	11.456	0%	15.774	0%	15.563	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	3%	-3.107	1%	9.617	0%	12.398	0%	12.004	0%	2.515	-2%	11.467	0%	15.79	0%	15.59	0%	-9.99	0%	12.107	0%	18.242	0%	15.264	0%
		Zone 34	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.57	0%	11.459	0%	15.777	0%	15.568	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 35	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.982	0%	12.102	0%	18.238	0%	15.264	0%
			10X	Low	1%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.562	0%	11.46	0%	15.78	0%	15.572	0%	-10.012	0%	12.122	0%	18.258	0%	15.268	0%
		Zone 36	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.102	0%	18.238	0%	15.264	0%
			10X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.566	0%	11.459	0%	15.779	0%	15.571	0%	-10.009	0%	12.122	0%	18.261	0%	15.274	0%
		Zone 37	0.1X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.016	0%	2.577	0%	11.459	0%	15.776	0%	15.566	0%	-9.98	0%	12.101	0%	18.236	0%	15.263	0%
			10X	Low	4%	-3.1	0%	9.617	0%	12.401	0%	12.008	0%	2.517	-2%	11.449	0%	15.77	0%	15.569	0%	-10.03	0%	12.133	0%	18.275	0%	15.276	0%
		Zone 38	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.57	0%	11.458	0%	15.777	0%	15.567	0%	-9.991	0%	12.109	0%	18.245	0%	15.267	0%
		Zone 39	0.1X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			10X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.988	0%	12.106	0%	18.242	0%	15.265	0%
	Model Layer 9 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	7%	-3.067	-1%	9.619	0%	12.411	0%	12.027	0%	2.681	4%	11.497	0%	15.819	0%	15.592	0%	-9.945	0%	12.08	0%	18.21	0%	15.255	0%
			10X	Low	6%	-3.094	0%	9.626	0%	12.418	0%	12.028	0%	2.678	4%	11.496	0%	15.818	0%	15.591	0%	-9.945	0%	12.081	0%	18.21	0%	15.255	0%
		Zone 32	0.1X	Low	7%	-3.053	-1%	9.616	0%	12.409	0%	12.029	0%	2.684	4%	11.498	0%	15.82	0%	15.592	0%	-9.944	0%	12.08	0%	18.21	0%	15.255	0%
			10X	Low	10%	-3.23	5%	9.647	0%	12.444	0%	12.018	0%	2.653	3%	11.488	0%	15.81	0%	15.587	0%	-9.947	0%	12.082	0%	18.211	0%	15.255	0%
		Zone 33	0.1X	Low	7%	-3.066	-1%	9.619	0%	12.413	0%	12.029	0%	2.685	4%	11.495	0%	15.817	0%	15.589	0%	-9.944	0%	12.08	0%	18.209	0%	15.255	0%
			10X	Low	4%	-3.096	0%	9.618	0%	12.404	0%	12.013	0%	2.631	2%	11.502	0%	15.831	0%	15.613	0%	-9.955	0%	12.087	0%	18.215	0%	15.255	0%
		Zone 34	0.1X	Low	7%	-3.069	-1%	9.619	0%	12.412	0%	12.028	0%	2.681	4%	11.497	0%	15.819	0%	15.592	0%	-9.944	0%	12.08	0%	18.21	0%	15.255	0%
			10X	Low	6%	-3.071	-1%	9.619	0%	12.411	0%	12.026	0%	2.677	4%	11.499	0%	15.822	0%	15.595	0%	-9.947	0%	12.082	0%	18.211	0%	15.255	0%
		Zone 35	0.1X	Low	7%	-3.069	-1%	9.619	0%	12.412	0%	12.028	0%	2.683	4%	11.497	0%	15.818	0%	15.591	0%	-9.942	0%	12.079	0%	18.208	0%	15.255	0%
			10X	Low	6%	-3.072	-1%	9.619	0%	12.411	0%	12.026	0%	2.664	4%	11.502	0%	15.829	0%	15.605	0%	-9.972	0%	12.099	0%	18.231	0%	15.263	0%
		Zone 36	0.1X	Low	7%	-3.069	-1%	9.619	0%	12.412	0%	12.028	0%	2.682	4%	11.497	0%	15.818	0%	15.591	0%	-9.942	0%	12.078	0%	18.208	0%	15.254	0%
			10X	Low	6%	-3.071	-1%	9.619	0%	12.411	0%	12.026	0%	2.667	4%	11.5	0%	15.827	0%	15.603	0%	-9.976	0%	12.102	0%	18.239	0%	15.269	0%
		Zone 37	0.1X	Low	7%	-3.067	-1%	9.619	0%	12.412	0%	12.028	0%	2.688	5%	11.498	0%	15.819	0%	15.591	0%	-9.939	0%	12.077	0%	18.205	0%	15.253	0%
			10X	Low	3%	-3.086	0%	9.619	0%	12.407	0%	12.018	0%	2.609	1%	11.49	0%	15.819	0%	15.604	0%	-10.003	0%	12.116	0%	18.257	0%	15.274	0%
		Zone 38	0.1X	Low	7%	-3.069	-1%	9.619	0%	12.412	0%	12.028	0%	2.682	4%	11.497	0%	15.819	0%	15.592	0%	-9.944	0%	12.08	0%	18.21	0%	15.256	0%
			10X	Low	6%	-3.07	-1%	9.619	0%	12.412	0%	12.027	0%	2.676	4%	11.498	0%	15.822	0%	15.596	0%	-9.954	0%	12.087	0%	18.213	0%	15.252	0%
		Zone 39	0.1X	Low	7%	-3.069	-1%	9.619	0%	12.412	0%	12.028	0%	2.681	4%	11.497	0%	15.819	0%	15.592	0%	-9.944	0%	12.08	0%	18.209	0%	15.255	0%
			10X	Low	6%	-3.069	-1%	9.619	0%	12.412	0%	12.027	0%	2.677	4%	11.498	0%	15.821	0%	15.595	0%	-9.954	0%	12.086	0%	18.216	0%	15.256	0%
	Model Layer 10 (storage coefficient = 0.0005)	Zone 32	0.1X	Low	10%	-3.054	-1%	9.618	0%	12.413	0%	12.032	0%	2.741	7%	11.49	0%	15.802	0%	15.564	0%	-9.87	-1%	12.046	0%	18.169	0%	15.254	0%
			10X	Low	10%	-3.14	2%	9.63	0%	12.425	0%	12.023	0%	2.724	6%	11.485	0%	15.797	0%	15.562	0%	-9.872	-1%	12.047	0%	18.169	0%	15.254	0%
		Zone 33	0.1X	Low	10%	-3.059	-1%	9.619	0%	12.415	0%	12.033	0%	2.743	7%	11.488	0%	15.8	0%	15.561	0%	-9.869	-1%	12.046	0%	18.168	0%	15.254	0%
			10X	Low	7%	-3.088	0%	9.618	0%	12.406	0%	12.016	0%	2.689	5%	11.495	0%	15.814	0%	15.585	0%	-9.881	-1%	12.053	0%	18.174	0%	15.254	0%
		Zone 34	0.1X	Low	10%	-3.062	-1%	9.619	0%	12.414	0%	12.032	0%	2.74	7%	11.49	0%	15.802	0%	15.564	0%	-9.87	-1%	12.046	0%	18.168	0%	15.254	0%
			10X	Low	10%	-3.063	-1%	9.619	0%	12.413	0%	12.03	0%	2.735	6%	11.492	0%	15.804	0%	15.568	0%	-9.873	-1%	12.048	0%	18.17	0%	15.254	0%
		Zone 35	0.1X	Low	10%	-3.061	-1%	9.619	0%	12.414	0%	12.032	0%	2.741	7%	11.489	0%	15.801	0%	15.563	0%	-9.868	-1%	12.045	0%	18.167	0%	15.254	0%
			10X	Low	9%	-3.065	-1%	9.619	0%	12.413	0%	12.03	0%	2.722	6%	11.494	0%	15.811	0%	15.577	0%	-9.898	-1%	12.065	0%	18.19	0%	15.262	0%
		Zone 36	0.1X	Low	10%	-3.061	-1%	9.619	0%	12.414	0%	12.032	0%	2.741	7%	11.49	0%	15.801	0%	15.563	0%	-9.867	-1%	12.044	0%	18.166	0%	15.253	0%
			10X	Low	9%	-3.064	-1%	9.619	0%	12.413	0%	12.03	0%	2.724	6%	11.493	0%	15.811	0%	15.576	0%	-9.905	-1%	12.07	0%	18.201	0%	15.27	0%
		Zone 37	0.1X	Low	11%	-3.06	-1%	9.619	0%	12.414	0%	12.033	0%	2.748	7%	11.491	0%	15.802	0%	15.563	0%	-9.863	-1%	12.042	-1%	18.162	0%	15.251	0%
			10X	Low	5%	-3.081	0%	9.618	0%	12.408	0%	12.02	0%	2.655	3%	11.481	0%	15.801	0%	15.578	0%	-9.943	0%	12.091	0%	18.231	0%	15.281	0%
		Zone 38	0.1X	Low	10%	-3.062	-1%	9.619	0%	12.414	0%	12.032	0%	2.74	7%	11.49	0%	15.802	0%	15.564	0%	-9.869	-1%	12.046	0%	18.168	0%	15.255	0%
			10X	Low	10%	-3.062	-1%	9.619	0%	12.414	0%	12.031	0%	2.734	6%	11.491	0%	15.805	0%	15.569	0%	-9.883	-1%	12.055	0%	18.175	0%	15.253	0%
		Zone 39	0.1X	Low	10%	-3.062	-1%	9.619	0%	12.414	0%	12.032	0%	2.741	7%	11.49	0%	15.801	0%	15.563	0%	-9.868	-1%	12.045	0%	18.167	0%	15.254	0%
			10X	Low	9%	-3.063	-1%	9.619	0%	12.414	0%	12.031	0%	2.725	6%	11.493	0%	15.809	0%	15.574	0%	-9.9	-1%	12.062	0%	18.188	0%	15.258	0%
	Model Layer 1 (S.Y. = 0.15)	Zone 31	0.5X	Low	0%	-3.085	0%	9.616	0%	12.404	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	1%	-3.101	0%	9.624	0%	12.409	0%	12.017	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32	0.5X	Low	2%	-3.057	-1%	9.618	0%	12.416	0%	12.035	0%	2.583	0%	11.462	0%	15.78	0%	15.569	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
			2X	Low	4%	-3.152	2%	9.617	0%	12.383	0%	11.976	0%	2.551	-1%	11.45	0%	15.766	0%	15.56	0%	-9.988	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 33	0.5X	Low	1%	-3.089	0%	9.623	0%	12.412	0%	12.023	0%	2.595	1%	11.46	0%	15.776	0%	15.563	0%	-9.981	0%	12.102	0%	18.238	0%	15.264	0%
			2X	Low	2%	-3.09	0%	9.609	0%	12.39	0%	12	0%	2.527	-2%	11.452	0%	15.772	0%	15.57	0%	-9.991	0%	12.107	0%	18.243	0%	15.264	0%
		Zone 34	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.565	0%	-9.985	0%	12.103	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.404	0%	12.014	0%	2.57	0%	11.459	0%	15.777	0%	15.568	0%	-9.983	0%	12.104	0%	18.239	0%	15.265	0%
		Zone 35	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.577	0%	11.458	0%	15.775	0%	15.564	0%	-9.941	0%	12.071	0%	18.209	0%	15.257	0%
			2X	Low	2%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.563	0%	11.458	0%	15.777	0%	15.569	0%	-10.065	1%	12.164	0%	18.291	0%	15.273	0%
		Zone 36	0.5X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-9.951	0%	12.069	0%	18.213	0%	15.255	0%
			2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.57	0%	11.458	0%	15.776	0%	15.567	0%	-10.036	1%	12.15	0%	18.275	0%	15.273	0%
		Zone 37	0.5X	Low	1%	-3.087	0%	9.619	0%	12.406	0%	12.017	0%	2.591	1%	11.46	0%	15.775	0%	15.563	0%	-9.975	0%	12.1	0%	18.236	0%	15.266	0%
			2X	Low	2%	-3.094	0%	9.617	0%	12.402	0%	12.011	0%	2.536	-1%	11.453	0%	15.775	0%	15.571	0%	-10.001	0%	12.11	0%	18.245	0%	15.259	0%
		Zone 39	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.103	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.988	0%	12.105	0%	18.241	0%	15.264	0%
		Zone 31	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.091	0%	9.619	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.091	0%	9.619	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33	0.5X	Low	5%	-3.071	-1%	9.621	0%	12.416	0%	12.031	0%	2.649	3%	11.5	0%	15.809	0%	15.587	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
			2X	Low	5%	-3.109	1%	9.613	0%	12.391	0%	11.996	0%	2.485	-3%	11.425	0%	15.74	0%	15.545	0%	-9.987	0%	12.105	0%	18.241	0%	15.265	0%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters			Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin					
						RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
						Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
Specific Yield	Model Layer 2 (S.Y. = 0.15)	Zone 34	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.458	0%	15.775	0%	15.565	0%	-9.981	0%	12.103	0%	18.238	0%	15.265	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.568	0%	11.458	0%	15.775	0%	15.567	0%	-9.989	0%	12.106	0%	18.241	0%	15.263	0%
		Zone 35	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.988	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 36	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.103	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.987	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 37	0.5X	Low	1%	-3.079	0%	9.619	0%	12.408	0%	12.021	0%	2.593	1%	11.463	0%	15.78	0%	15.567	0%	-9.977	0%	12.099	0%	18.235	0%	15.263	0%
			2X	Low	3%	-3.107	1%	9.616	0%	12.397	0%	12.003	0%	2.529	-2%	11.445	0%	15.764	0%	15.561	0%	-10	0%	12.113	0%	18.247	0%	15.264	0%
		Zone 39	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Model Layer 3 (S.Y. = 0.15)	Zone 26	0.5X	Low	4%	-3.073	-1%	9.621	0%	12.415	0%	12.03	0%	2.647	3%	11.463	0%	15.783	0%	15.561	0%	-9.977	0%	12.101	0%	18.235	0%	15.264	0%
			2X	Low	7%	-3.117	1%	9.613	0%	12.388	0%	11.99	0%	2.446	-5%	11.454	0%	15.766	0%	15.577	0%	-9.997	0%	12.11	0%	18.246	0%	15.264	0%
		Zone 31	0.5X	Medium	34%	-2.307	-25%	9.355	-3%	12.288	-1%	12.071	0%	2.668	4%	11.494	0%	15.812	0%	15.587	0%	-9.973	0%	12.098	0%	18.232	0%	15.263	0%
			2X	High	61%	-4.392	42%	10.264	7%	12.913	4%	12.144	1%	2.418	-6%	11.407	0%	15.724	0%	15.539	0%	-10.002	0%	12.113	0%	18.25	0%	15.265	0%
		Zone 32	0.5X	High	106%	-0.687	-78%	9.048	-6%	12.405	0%	12.387	3%	2.972	16%	11.596	1%	15.921	1%	15.643	0%	-9.941	0%	12.082	0%	18.214	0%	15.263	0%
			2X	High	174%	-6.291	104%	11.771	22%	14.407	16%	12.962	8%	2.042	-21%	11.304	-1%	15.614	-1%	15.481	-1%	-10.033	0%	12.127	0%	18.268	0%	15.266	0%
		Zone 33	0.5X	Low	17%	-2.978	-4%	9.638	0%	12.471	1%	12.111	1%	2.849	11%	11.51	0%	15.812	0%	15.555	0%	-9.961	0%	12.092	0%	18.226	0%	15.264	0%
			2X	Medium	26%	-3.262	6%	9.589	0%	12.312	-1%	11.873	-1%	2.132	-17%	11.412	0%	15.748	0%	15.604	0%	-10.016	0%	12.119	0%	18.257	0%	15.265	0%
		Zone 34	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.565	0%	-9.985	0%	12.103	0%	18.239	0%	15.263	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.404	0%	12.014	0%	2.571	0%	11.459	0%	15.777	0%	15.568	0%	-9.986	0%	12.106	0%	18.241	0%	15.265	0%
		Zone 35	0.5X	Low	11%	-3.085	0%	9.618	0%	12.407	0%	12.018	0%	2.642	3%	11.449	0%	15.764	0%	15.543	0%	-9.537	-4%	11.834	-2%	17.995	-1%	15.261	0%
			2X	Low	14%	-3.095	0%	9.618	0%	12.403	0%	12.011	0%	2.48	-4%	11.473	0%	15.795	0%	15.601	0%	-10.503	5%	12.445	3%	18.562	2%	15.305	0%
		Zone 36	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.966	0%	12.086	0%	18.225	0%	15.259	0%
			2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.458	0%	15.776	0%	15.567	0%	-10.026	0%	12.143	0%	18.269	0%	15.273	0%
		Zone 37	0.5X	Low	1%	-3.085	0%	9.618	0%	12.406	0%	12.017	0%	2.596	1%	11.459	0%	15.775	0%	15.562	0%	-9.977	0%	12.1	0%	18.235	0%	15.264	0%
			2X	Low	2%	-3.098	0%	9.618	0%	12.403	0%	12.011	0%	2.53	-2%	11.453	0%	15.773	0%	15.571	0%	-9.998	0%	12.111	0%	18.247	0%	15.264	0%
		Zone 38	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.962	0%	12.081	0%	18.226	0%	15.263	0%
			2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-10.008	0%	12.127	0%	18.255	0%	15.268	0%
		Zone 39	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.774	0%	15.565	0%	-9.978	0%	12.1	0%	18.234	0%	15.263	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.459	0%	15.778	0%	15.569	0%	-9.998	0%	12.112	0%	18.249	0%	15.267	0%
	Model Layer 4 (S.Y. = 0.05)	Zone 26	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 31	0.5X	Low	0%	-3.088	0%	9.617	0%	12.404	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.094	0%	9.62	0%	12.406	0%	12.015	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32	0.5X	Low	0%	-3.084	0%	9.616	0%	12.404	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	1%	-3.101	0%	9.623	0%	12.407	0%	12.014	0%	2.57	0%	11.457	0%	15.775	0%	15.565	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.404	0%	12.014	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 34	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 35	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-9.969	0%	12.091	0%	18.227	0%	15.259	0%
			2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.568	0%	11.458	0%	15.776	0%	15.567	0%	-10.019	0%	12.131	0%	18.266	0%	15.273	0%
		Zone 36	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-9.96	0%	12.08	0%	18.218	0%	15.255	0%
			2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.568	0%	11.458	0%	15.777	0%	15.568	0%	-10.035	1%	12.15	0%	18.278	0%	15.277	0%
		Zone 37	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 38	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.1	0%	18.236	0%	15.262	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.99	0%	12.113	0%	18.246	0%	15.269	0%
		Zone 39	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
	Model Layer 5 (S.Y. = 0.15)	Zone 26	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 31	0.5X	Low	5%	-2.978	-4%	9.565	-1%	12.376	0%	12.014	0%	2.588	1%	11.464	0%	15.782	0%	15.57	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
			2X	Low	10%	-3.298	7%	9.722	1%	12.467	0%	12.024	0%	2.542	-1%	11.447	0%	15.763	0%	15.559	0%	-9.988	0%	12.106	0%	18.241	0%	15.264	0%
		Zone 32	0.5X	Low	23%	-2.583	-16%	9.484	-1%	12.398	0%	12.127	1%	2.664	4%	11.493	0%	15.818	0%	15.593	0%	-9.978	0%	12.101	0%	18.235	0%	15.263	0%
			2X	Medium	37%	-3.832	24%	9.972	4%	12.649	2%	12.055	0%	2.434	-5%	11.409	0%	15.717	0%	15.529	0%	-9.995	0%	12.109	0%	18.246	0%	15.265	0%
		Zone 33	0.5X	Low	2%	-3.074	-1%	9.621	0%	12.414	0%	12.029	0%	2.602	1%	11.464	0%	15.78	0%	15.565	0%	-9.982	0%	12.103	0%	18.238	0%	15.264	0%
			2X	Low	4%	-3.12	1%	9.612	0%	12.387	0%	11.989	0%	2.514	-2%	11.446	0%	15.766	0%	15.566	0%	-9.99	0%	12.107	0%	18.242	0%	15.264	0%
		Zone 34	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 35	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.458	0%	15.775	0%	15.565	0%	-9.969	0%	12.092	0%	18.227	0%	15.26	0%
			2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.567	0%	11.458	0%	15.776	0%	15.568	0%	-10.018	0%	12.13	0%	18.265	0%	15.273	0%
		Zone 36	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.566	0%	-9.977	0%	12.097	0%	18.234	0%	15.262	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-10	0%	12.118	0%	18.25	0%	15.267	0%
		Zone 37	0.5X	Low	2%	-3.078	0%	9.619	0%	12.409	0%	12.022	0%	2.614	2%	11.47	0%	15.783	0%	15.566	0%	-9.981	0%	12.102	0%	18.237	0%	15.264	0%
			2X	Low	4%	-3.108	1%	9.616	0%	12.397	0%	12.002	0%	2.496	-3%	11.435	0%	15.758	0%	15.561	0%	-9.99	0%	12.107	0%	18.243	0%	15.264	0%
		Zone 38	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.98	0%	12.095	0%	18.23	0%	15.257	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.996	0%	12.117	0%	18.252	0%	15.271	0%
		Zone 39	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
	Model Layer 6 (S.Y. = 0.05)	Zone 31	0.5X	Low	0%	-3.079	0%	9.613	0%	12.401	0%	12.014	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	1%	-3.111	1%	9.629	0%	12.412	0%	12.017	0%	2.57	0%	11.457	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 32	0.5X	Low	0%	-3.084	0%	9.616	0%	12.404	0%	12.016	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.1	0%	9.622	0%	12.406	0%	12.014	0%	2.57	0%	11.457	0%	15.774	0%	15.565	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 33	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 34	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 35	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		Zone 36	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
		Zone 37	0.5X	Low	1%	-3.088	0%	9.618	0%	12.406	0%	12.016	0%	2.588	1%	11.453	0%	15.77	0%	15.558	0%	-9.978	0%	12.1	0%	18.235	0%	15.263	0%
			2X	Low	2%	-3.093	0%	9.618	0%	12.403	0%	12.013	0%	2.541	-1%	11.464	0%	15.782	0%	15.578	0%	-9.998	0%	12.112	0%	18.248	0%	15.266	0%
		Zone 38	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.983	0%	12.103	0%	18.239	0%	15.264	0%
		Zone 39	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.983	0%	12.103	0%	18.238	0%	15.264	0%
			2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.571	0%	11.458	0%	15.776	0%	15.567	0%	-9.989	0%	12.106	0%	18.242	0%	15.265	0%

Table 5-1. Sensitivity Analysis -- Residual Statistics
units: Feet

Parameters		Multiplier	Sensitivity	absolute diff. sum	Piru basin								Fillmore basin								Santa Paula basin							
					RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)	RM	Diff. (%)	ARM	Diff. (%)	RMS	Diff. (%)	Std. Dev.	Diff. (%)
					Default = -3.09		9.618		Default = 12.405		Default = 12.015		Default = 2.572		Default = 11.458		Default = 15.775		Default = 15.566		Default = -9.985		Default = 12.104		Default = 18.239		Default = 15.264	
Model Layer 7 (S.Y. = 0.1)	Zone 31	0.5X	Low	12%	-2.839	-8%	9.473	-2%	12.309	-1%	11.978	0%	2.605	1%	11.468	0%	15.786	0%	15.572	0%	-9.981	0%	12.102	0%	18.237	0%	15.264	0%
		2X	Low	23%	-3.562	15%	9.885	3%	12.612	2%	12.099	1%	2.511	-2%	11.438	0%	15.754	0%	15.554	0%	-9.991	0%	12.107	0%	18.243	0%	15.264	0%
	Zone 32	0.5X	Low	9%	-2.896	-6%	9.535	-1%	12.363	0%	12.02	0%	2.606	1%	11.47	0%	15.788	0%	15.573	0%	-9.981	0%	12.102	0%	18.237	0%	15.264	0%
		2X	Low	17%	-3.452	12%	9.789	2%	12.511	1%	12.027	0%	2.508	-2%	11.436	0%	15.752	0%	15.553	0%	-9.991	0%	12.107	0%	18.243	0%	15.264	0%
	Zone 33	0.5X	Low	0%	-3.087	0%	9.618	0%	12.406	0%	12.017	0%	2.58	0%	11.458	0%	15.774	0%	15.563	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	1%	-3.095	0%	9.618	0%	12.403	0%	12.012	0%	2.555	-1%	11.455	0%	15.776	0%	15.569	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
	Zone 34	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 35	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-9.976	0%	12.097	0%	18.233	0%	15.262	0%
		2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.458	0%	15.776	0%	15.567	0%	-10.004	0%	12.119	0%	18.253	0%	15.268	0%
	Zone 36	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.577	0%	11.457	0%	15.772	0%	15.562	0%	-9.961	0%	12.085	0%	18.213	0%	15.249	0%
		2X	Low	2%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.563	0%	11.461	0%	15.782	0%	15.574	0%	-10.033	0%	12.142	0%	18.287	0%	15.29	0%
	Zone 37	0.5X	Low	12%	-3.068	-1%	9.619	0%	12.412	0%	12.028	0%	2.703	5%	11.442	0%	15.742	0%	15.51	0%	-9.722	-3%	11.931	-1%	18.039	-1%	15.196	0%
		2X	Low	20%	-3.123	1%	9.616	0%	12.392	0%	11.993	0%	2.359	-8%	11.484	0%	15.827	0%	15.652	1%	-10.444	5%	12.406	2%	18.569	2%	15.354	1%
	Zone 38	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.576	0%	11.457	0%	15.772	0%	15.562	0%	-9.967	0%	12.091	0%	18.218	0%	15.251	0%
		2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.565	0%	11.46	0%	15.781	0%	15.572	0%	-10.019	0%	12.128	0%	18.277	0%	15.286	0%
	Zone 39	0.5X	Low	2%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.589	1%	11.454	0%	15.767	0%	15.555	0%	-9.953	0%	12.086	0%	18.217	0%	15.258	0%
		2X	Low	3%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.539	-1%	11.466	0%	15.792	0%	15.589	0%	-10.052	1%	12.141	0%	18.284	0%	15.274	0%
Model Layer 8 (S.Y. = 0.05)	Zone 31	0.5X	Low	0%	-3.089	0%	9.618	0%	12.404	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.085	0%	9.616	0%	12.403	0%	12.015	0%	2.573	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 32	0.5X	Low	0%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.571	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 33	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 34	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 35	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 36	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.575	0%	11.457	0%	15.774	0%	15.564	0%	-9.977	0%	12.099	0%	18.231	0%	15.259	0%
		2X	Low	1%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.567	0%	11.46	0%	15.78	0%	15.572	0%	-10.002	0%	12.116	0%	18.265	0%	15.284	0%
	Zone 37	0.5X	Low	3%	-3.086	0%	9.618	0%	12.406	0%	12.017	0%	2.598	1%	11.457	0%	15.769	0%	15.555	0%	-9.932	-1%	12.068	0%	18.185	0%	15.233	0%
		2X	Low	5%	-3.097	0%	9.618	0%	12.403	0%	12.012	0%	2.524	-2%	11.461	0%	15.791	0%	15.59	0%	-10.085	1%	12.172	1%	18.347	1%	15.326	0%
	Zone 38	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.776	0%	15.566	0%	-9.989	0%	12.107	0%	18.242	0%	15.265	0%
		2X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.573	0%	11.458	0%	15.775	0%	15.565	0%	-9.977	0%	12.099	0%	18.234	0%	15.263	0%
	Zone 39	0.5X	Low	0%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.574	0%	11.458	0%	15.775	0%	15.565	0%	-9.982	0%	12.102	0%	18.237	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.569	0%	11.459	0%	15.777	0%	15.568	0%	-9.991	0%	12.107	0%	18.243	0%	15.265	0%
Model Layer 9 (S.Y. = 0.1)	Zone 31	0.5X	Low	1%	-3.064	-1%	9.614	0%	12.403	0%	12.02	0%	2.576	0%	11.459	0%	15.777	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	2%	-3.142	2%	9.625	0%	12.41	0%	12.007	0%	2.564	0%	11.455	0%	15.773	0%	15.565	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
	Zone 32	0.5X	Low	2%	-3.043	-2%	9.608	0%	12.396	0%	12.017	0%	2.58	0%	11.46	0%	15.778	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	4%	-3.176	3%	9.631	0%	12.419	0%	12.007	0%	2.557	-1%	11.453	0%	15.771	0%	15.564	0%	-9.986	0%	12.105	0%	18.24	0%	15.264	0%
	Zone 33	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 34	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 35	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 36	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.016	0%	2.579	0%	11.456	0%	15.771	0%	15.561	0%	-9.965	0%	12.09	0%	18.217	0%	15.25	0%
		2X	Low	2%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.559	-1%	11.461	0%	15.785	0%	15.578	0%	-10.026	0%	12.132	0%	18.288	0%	15.295	0%
	Zone 37	0.5X	Low	13%	-3.048	-1%	9.62	0%	12.42	0%	12.041	0%	2.754	7%	11.485	0%	15.784	0%	15.543	0%	-9.835	-2%	12.01	-1%	18.095	-1%	15.19	0%
		2X	Low	22%	-3.156	2%	9.615	0%	12.383	0%	11.975	0%	2.26	-12%	11.422	0%	15.782	0%	15.621	0%	-10.27	3%	12.285	1%	18.522	2%	15.415	1%
	Zone 38	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.576	0%	11.457	0%	15.773	0%	15.563	0%	-9.972	0%	12.095	0%	18.224	0%	15.255	0%
		2X	Low	1%	-3.09	0%	9.618	0%	12.404	0%	12.014	0%	2.564	0%	11.46	0%	15.781	0%	15.573	0%	-10.012	0%	12.122	0%	18.271	0%	15.285	0%
	Zone 39	0.5X	Low	4%	-3.085	0%	9.618	0%	12.406	0%	12.018	0%	2.623	2%	11.445	0%	15.75	0%	15.532	0%	-9.891	-1%	12.053	0%	18.178	0%	15.252	0%
		2X	Low	8%	-3.098	0%	9.618	0%	12.403	0%	12.011	0%	2.477	-4%	11.484	0%	15.826	0%	15.633	0%	-10.158	2%	12.197	1%	18.35	1%	15.283	0%
Model Layer 10 (S.Y. = 0.1 except Zone 38)	Zone 32	0.5X	Low	1%	-3.077	0%	9.616	0%	12.404	0%	12.018	0%	2.575	0%	11.459	0%	15.777	0%	15.567	0%	-9.984	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	1%	-3.111	1%	9.619	0%	12.404	0%	12.009	0%	2.567	0%	11.456	0%	15.773	0%	15.564	0%	-9.985	0%	12.104	0%	18.24	0%	15.264	0%
	Zone 33	0.5X	Low	1%	-3.083	0%	9.618	0%	12.407	0%	12.019	0%	2.578	0%	11.459	0%	15.775	0%	15.565	0%	-9.984	0%	12.103	0%	18.239	0%	15.264	0%
		2X	Low	1%	-3.103	0%	9.618	0%	12.401	0%	12.008	0%	2.557	-1%	11.453	0%	15.773	0%	15.566	0%	-9.987	0%	12.105	0%	18.241	0%	15.264	0%
	Zone 34	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 35	0.5X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
		2X	Low	0%	-3.09	0%	9.618	0%	12.405	0%	12.015	0%	2.572	0%	11.458	0%	15.775	0%	15.566	0%	-9.985	0%	12.104	0%	18.239	0%	15.264	0%
	Zone 36	0.5X	Low	1%	-3.088	0%	9.618	0%	12.405	0%	12.016	0%	2.583	0%	11.455	0%	15.768	0%	15.557	0%	-9.954	0%	12.083	0%	18.204	0%	15.242	0%
		2X	Low	3%	-3.092	0%	9.618	0%	12.404	0%	12.014	0%	2.553	-1%	11.463	0%	15.79	0%	15.584	0%	-10.046	1%	12.146	0%	18.312	0%	15.311	0%
	Zone 37	0.5X	Low	8%	-3.067	-1%	9.619	0%	12.412	0%	12.029	0%	2.66	3%	11.467	0%	15.771	0%	15.547	0%	-9.852	-1%	12.014	-1%	18.103	-1%	15.189	0%
		2X	Low	13%	-3.127	1%	9.617	0%	12.394	0%	11.994	0%	2.425	-6%	11.445	0%	15.786	0%	15.601	0%	-10.207	2%	12.256	1%	18.463	1%	15.385	1%
	Zone 38 (S.Y.=0.05)	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.016	0%	2.579	0%	11.456	0%	15.77	0%	15.56	0%	-9.964	0%	12.09	0%	18.215	0%	15.249	0%
		2X	Low	2%	-3.091	0%	9.618	0%	12.404	0%	12.014	0%	2.56	0%	11.461	0%	15.784	0%	15.577	0%	-10.024	0%	12.131	0%	18.286	0%	15.294	0%
	Zone 39	0.5X	Low	1%	-3.089	0%	9.618	0%	12.405	0%	12.015	0%	2.586	1%	11.454	0%	15.768	0%	15.556	0%	-9.958	0%	12.09	0%	18.224	0%	15.263	0%
		2X	Low	2%	-3.092	0%	9.618	0%	12.405	0%	12.014	0%	2.547	-1%	11.466	0%	15.79	0%	15.585	0%	-10.031	0%	12.128	0%	18.265	0%	15.265	0%

Table 5-2. Sensitivity Analysis -- Inter-basin Flows and Stream Percolation

units: Acre-feet per year

Parameters		Multiplier	Sensitivity	diff (%)	Sum of absolute fluxes	Piru to Fillmore in System		Piru to Fillmore in System		Piru to Fillmore in System		Fillmore to Santa Paula in		Fillmore to Santa Paula in		Fillmore to Santa Paula		Santa Paula to		Santa Paula to Mound ib		Santa Paula to Mound ib		Santa Paula to Oxnard in		Santa Paula to		Santa Paula to		STR Percolation in Piru		STR Percolation in Fillmore		STR Percolation in Santa	
					Default = 129641.846	Default = 12018.990		Default = 28271.821		Default = 6703.143		Default = -3213.897		Default = -10473.213		Default = -4414.391		Default = -25.615		Default = -2855.593		Default = -3108.92		Default = -2263.948		Default = -6.86		Default = -16.337		Default = 40597.518		Default = -11438.262		Default = -4233.34	
					Sum of absolute diff	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.
SCR Underflow (5000 AFY)		0.5X (2500 AFY)	Low	2%	2761.00	11683.81	-335.18	28008.68	-263.14	6636.22	-66.93	-3190.18	23.71	-10364.33	108.88	-4392.03	22.36	-26.68	-1.07	-2868.41	-12.81	-3110.25	-1.33	-2276.84	-12.90	-6.90	-0.04	-16.35	-0.01	41882.82	1285.30	-10813.06	625.21	-4235.48	-2.14
		0.8X (4000 AFY)	Low	1%	1123.94	11943.68	-75.30	28187.54	-84.28	6679.00	-24.15	-3191.38	22.52	-10367.32	105.89	-4399.26	15.13	-26.70	-1.08	-2868.58	-12.98	-3111.27	-2.34	-2277.01	-13.07	-6.90	-0.04	-16.36	-0.02	41116.43	518.91	-11190.96	247.30	-4234.26	-0.92
		1.2X (6000 AFY)	Low	1%	1366.59	12284.17	265.18	28412.64	140.82	6733.08	29.93	-3192.84	21.06	-10370.94	102.28	-4408.33	6.06	-26.71	-1.10	-2868.79	-13.20	-3112.54	-3.62	-2277.23	-13.28	-6.90	-0.04	-16.36	-0.03	40070.68	-526.84	-11680.37	-242.11	-4232.29	1.05
		1.5X (7500 AFY)	Low	2%	2962.55	12531.52	512.53	28571.54	299.72	6771.41	68.27	-3193.82	20.08	-10373.34	99.87	-4414.73	-0.34	-26.73	-1.11	-2868.95	-13.36	-3113.44	-4.52	-2277.39	-13.44	-6.90	-0.04	-16.37	-0.03	39263.93	-1333.59	-12031.07	-592.80	-4230.48	2.86
		2X (10000 AFY)	Low	4%	5611.85	12922.89	903.90	28819.78	547.96	6832.00	128.85	-3195.25	18.65	-10376.83	96.38	-4424.63	-10.24	-26.74	-1.13	-2869.20	-13.60	-3114.83	-5.91	-2277.63	-13.68	-6.90	-0.04	-16.38	-0.04	37877.00	-2720.52	-12582.71	-1144.45	-4226.86	6.48
EVT Rate		0.1X	Medium	8%	10165.77	12810.28	791.29	28524.23	252.41	6755.66	52.52	-3181.84	32.06	-10283.47	189.74	-4411.88	2.51	-28.72	-3.11	-2891.77	-36.18	-3119.08	-10.16	-2321.03	-57.08	-6.96	-0.10	-16.40	-0.07	38353.88	-2243.64	-16244.56	-4806.29	-5921.95	-1688.61
		10X	High	33%	42678.32	8269.18	-3749.81	26249.07	-2022.76	6254.58	-448.56	-3111.93	101.96	-10365.82	107.39	-4268.57	145.83	-15.70	9.92	-2737.99	117.60	-3074.17	34.75	-1923.95	340.00	-6.55	0.31	-16.18	0.16	50590.89	9993.37	10381.69	21819.95	-447.38	3785.96
EVT Extinct Depth (5 ft)		2.5 ft	Low	1%	1455.93	12160.63	141.64	28315.22	43.40	6707.55	4.40	-3184.92	28.98	-10327.23	145.98	-4399.08	15.31	-27.26	-1.64	-2875.56	-19.97	-3113.31	-4.39	-2284.80	-20.85	-6.92	-0.06	-16.37	-0.03	40427.25	-170.27	-11914.04	-475.78	-4616.57	-383.23
		10 ft	Low	1%	1927.97	12018.99	0.00	28271.82	0.00	6703.14	0.00	-3213.90	0.00	-10473.21	0.00	-4414.39	0.00	-25.62	0.00	-2855.59	0.00	-3108.92	0.00	-2263.95	0.00	-6.86	0.00	-16.34	0.00	40982.95	385.43	-10589.67	848.60	-3539.40	693.94
HFB #9 (0.001)		0.1X (0.0001)	Medium	7%	9345.22	12128.47	109.48	28268.18	-3.64	6653.40	-49.74	-3171.27	42.63	-10259.53	213.68	-3438.73	975.67	11.95	37.57	-537.91	2317.68	-664.72	2444.20	-2388.60	-124.65	-7.79	-0.93	-19.10	-2.77	40540.67	-56.85	-12310.23	-871.97	-6327.12	-2093.78
		10X (0.01)	Medium	6%	7935.65	12101.90	82.91	28335.22	63.40	6757.16	54.02	-3219.15	-5.26	-10506.22	-33.01	-5304.25	-889.86	-43.16	-17.54	-4814.55	-1958.96	-5337.13	-2228.21	-2156.91	107.04	-6.05	0.81	-13.72	2.61	40652.08	54.56	-10589.65	848.61	-2644.49	1588.85
HFB #10 and HFB #19 (1.0E-6 to 1.0E-2)		0.1X	Low	3%	3807.20	12115.22	96.23	28301.68	29.85	6705.53	2.39	-3186.85	27.05	-10346.63	126.58	-4392.36	22.03	-28.59	-2.97	-2902.90	-47.31	-3121.01	-12.09	-351.51	1912.43	-0.77	6.09	-1.75	14.59	40596.44	-1.07	-11468.72	-30.46	-5709.39	-1476.05
		10X	Low	4%	5817.34	12113.93	94.94	28305.25	33.42	6710.75	7.61	-3205.60	8.30	-10427.95	45.26	-4463.04	-48.65	-23.57	2.04	-2805.60	49.99	-3088.85	20.07	-5298.06	-3034.12	-54.04	-47.18	-129.18	-112.85	40601.95	4.43	-11337.13	101.13	-2025.99	2207.35
HFB #73 (1.0E-7)		0.1X (1.0E-8)	Low	0%	297.39	12114.93	95.94	28302.45	30.63	6706.66	3.52	-3192.20	21.70	-10369.43	103.79	-4403.95	10.45	-26.70	-1.09	-2868.69	-13.10	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.63	0.11	-11437.58	0.68	-4233.48	-0.14
		10X (1.0E-6)	Low	0%	307.85	12115.29	96.30	28301.85	30.03	6705.49	2.35	-3191.52	22.37	-10366.95	106.27	-4403.19	11.20	-26.70	-1.09	-2868.65	-13.06	-3111.81	-2.89	-2277.09	-13.15	-6.90	-0.04	-16.36	-0.02	40596.43	-1.08	-11444.95	-6.69	-4232.01	1.33
HFB #98 (1.1E-4)		0.1X (1.1E-5)	Low	0%	372.22	12114.21	95.23	28304.09	32.27	6709.00	5.86	-3198.31	15.59	-10396.07	77.14	-4439.30	-24.91	-26.77	-1.16	-2869.37	-13.77	-3113.18	-4.26	-2277.55	-13.60	-6.90	-0.04	-16.36	-0.02	40600.42	2.91	-11380.65	57.61	-4205.49	27.85
		10X (1.1E-3)	Low	0%	439.61	12115.64	96.66	28301.29	29.47	6704.97	1.83	-3184.97	28.92	-10338.31	134.90	-4386.13	28.27	-26.56	-0.95	-2867.58	-11.98	-3107.82	1.10	-2276.33	-12.38	-6.89	-0.03	-16.34	-0.01	40595.66	-1.86	-11486.62	-48.35	-4276.25	-42.91
HFB #98 (1.1E-5)		0.1X (1.1E-6)	Low	0%	297.64	12114.95	95.96	28302.43	30.61	6706.61	3.46	-3192.10	21.79	-10369.11	104.10	-4404.92	9.47	-26.72	-1.11	-2868.60	-13.01	-3112.38	-3.46	-2277.10	-13.15	-6.90	-0.04	-16.35	-0.02	40597.58	0.06	-11437.47	0.80	-4232.72	0.62
		10X (1.1E-4)	Low	0%	312.95	12115.12	96.13	28302.15	30.33	6706.15	3.01	-3192.36	21.54	-10369.86	103.35	-4396.17	18.22	-26.55	-0.93	-2869.42	-13.82	-3107.88	1.04	-2277.33	-13.38	-6.90	-0.04	-16.41	-0.08	40597.07	-0.45	-11444.15	-5.89	-4238.09	-4.75
Surface Recharge from Appiled Water	Fillmore basin only	0.5X	Low	1%	863.51	12112.26	93.27	28350.53	78.71	6712.60	9.46	-3188.73	25.17	-10362.66	110.56	-4400.32	14.07	-26.69	-1.08	-2868.51	-12.92	-3111.26	-2.34	-2276.97	-13.02	-6.90	-0.04	-16.36	-0.02	40638.65	41.13	-10979.17	459.09	-4230.71	2.64
		1.5X	Low	1%	776.42	12117.67	98.69	28254.65	-17.17	6700.57	-2.58	-3195.53	18.37	-10375.68	97.54	-4407.40	6.99	-26.72	-1.10	-2868.86	-13.26	-3112.56	-3.64	-2277.28	-13.33	-6.90	-0.04	-16.36	-0.03	40556.73	-40.79	-11898.59	-460.33	-4235.90	-2.56
	Piru basin only	0.5X	Low	0%	450.11	12062.88	43.89	28268.42	-3.40	6698.85	-4.29	-3191.92	21.97	-10368.68	104.53	-4402.55	11.84	-26.70	-1.09	-2868.65	-13.06	-3111.73	-2.81	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40752.50	154.99	-11363.58	74.68	-4233.69	-0.35
		1.5X	Low	0%	618.18	12166.85	147.86	28335.99	64.17	6714.16	11.02	-3192.34	21.56	-10369.70	103.52	-4405.20	9.19	-26.71	-1.09	-2868.72	-13.13	-3112.10	-3.18	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40441.95	-155.56	-11512.49	-74.23	-4232.94	0.40
	Santa Paula basin only	0.5X	Low	1%	1633.56	12113.02	94.03	28308.13	36.31	6714.54	11.40	-3243.04	-29.14	-10573.12	-99.90	-4482.53	-68.14	-22.07	3.54	-2815.32	40.27	-3085.45	23.47	-2248.45	15.50	-6.76	0.10	-16.23	0.11	40606.10	8.58	-11174.83	263.43	-3293.72	939.62
		1.5X	Low	2%	1964.86	12116.62	97.64	28297.58	25.76	6699.82	-3.32	-3149.96	63.93	-10203.76	269.46	-4335.22	79.17	-30.91	-5.29	-2915.78	-60.19	-3135.15	-26.23	-2298.80	-34.85	-7.02	-0.16	-16.47	-0.14	40590.22	-7.30	-11657.32	-219.06	-5305.71	-1072.37
Surface Recharge from Precipitation	Fillmore basin only	0.5X	Low	3%	3782.82	12109.81	90.82	28474.57	202.75	6764.82	61.68	-3144.00	69.90	-10265.65	207.57	-4330.50	83.89	-26.53	-0.91	-2866.48	-10.89	-3100.67	8.25	-2275.00	-11.05	-6.89	-0.03	-16.29	0.04	40781.44	183.92	-8662.53	2775.73	-4157.94	75.40
		1.5X	Low	3%	3489.08	12120.29	101.31	28136.10	-135.72	6650.21	-52.93	-3245.95	-32.06	-10474.66	-1.44	-4470.97	-56.58	-26.87	-1.25	-2870.81	-15.22	-3122.41	-13.49	-2279.13	-15.18	-6.91	-0.05	-16.42	-0.08	40419.92	-177.60	-14247.07	-2808.80	-4310.71	-77.37
	Piru basin only	0.5X	Low	2%	2458.65	11791.23	-227.76	28113.23	-158.59	6659.56	-43.58	-3191.05	22.84	-10366.59	106.63	-4396.22	18.17	-26.69	-1.07	-2868.48	-12.89	-3110.78	-1.86	-2276.93	-12.98	-6.90	-0.04	-16.35	-0.02	41970.41	1372.89	-10961.60	476.66	-4236.01	-2.67
		1.5X	Low	2%	2692.67	12426.58	407.60	28475.19	203.37	6750.05	46.90	-3193.08	20.81	-10371.47	101.74	-4410.94	3.45	-26.72	-1.10	-2868.87	-13.28	-3112.96	-4.04	-2277.31	-13.36	-6.90	-0.04	-16.37	-0.03	39176.11	-1421.41	-11890.94	-452.68	-4230.48	2.86
	Santa Paula basin only	0.5X	Low	2%	2593.83	12110.89	91.90	28314.39	42.56	6724.13	20.99	-3255.31	-41.41	-10605.34	-132.13	-4652.04	-237.65	-20.90	4.72	-2791.36	64.24	-3043.93	64.99	-2240.11	23.84	-6.69	0.17	-16.03	0.30	40616.84	19.33	-10995.49	442.77	-2826.51	1406.83
		1.5X	Low	2%	2923.21	12118.51	99.52	28292.09	20.27	6691.47	-11.68	-3136.15	77.74	-10164.02	309.19	-4191.46	222.93	-32.15	-6.54	-2939.73	-84.14	-3170.78	-61.86	-2307.85	-43.90	-7.08	-0.22	-16.64	-0.31	40580.78	-16.74	-11822.01	-383.75	-5817.77	-1584.43
Surface Recharge from Pumped Water	Fillmore basin only	0.5X	Low	5%	6340.66	12666.14	647.15	28743.36	471.54	6726.27	23.12	-3148.55	65.35	-10302.72	170.50	-4363.16	51.23	-26.56	-0.95	-2866.79	-11.20	-3104.92	4.00	-2275.43	-11.48	-6.89	-0.03	-16.32	0.02	41383.02	785.50	-7368.36	4069.91	-4204.66	28.68
		1.5X	Low	5%	5865.95	11744.93	-274.06	27809.04	-462.78	6680.66	-22.49	-3234.29	-20.39	-10431.37	41.84	-4440.83	-26.44	-26.83	-1.22	-2870.43	-14.84	-3118.29	-9.37	-2278.68	-14.74	-6.91	-0.04	-16.40	-0.06	39899.58	-697.93	-15693.21	-4254.95	-4258.15	-24.81
	Piru basin only	0.5X	Low	1%	1788.25	11783.59	-235.40	28104.95	-166.87	6663.42	-39.73	-3190.79	23.11	-10365.86	107.36	-4395.71	18.68	-26.69	-1.07	-2868.49	-12.90	-3110.77	-1.85	-2276.93	-12.98	-6.90	-0.04	-16.35	-0.02	41314.51	716.99	-10988.70	449.56	-4235.05	-1.71
		1.5X	Low	2%	2018.07	12446.30	427.31	28489.61	217.79	6747.71	44.57	-3193.36	20.54	-10372.22	100.99	-4411.65	2.74	-26.72	-1.10	-2868.87	-13.28	-3113.00	-4.08	-2277.31	-13.36	-6.90	-0.04	-16.37	-0.03	39868.08	-729.44	-11878.96	-440.69	-4231.24	2.10
	Santa Paula basin only	0.5X	Low	1%	955.34	12113.69	94.70	28306.17	34.35	6711.70	8.56	-3236.67	-22.78	-10513.66	-40.45	-4447.24	-32.85	-23.92	1.70	-2839.68	15.91	-3102.36	6.56	-2262.17	1.78	-6.82	0.04	-16.30	0.04	40603.13	5.61	-11253.63	184.64	-3727.93	505.41
		1.5X	Low	1%	1270.58	12116.18	97.19	28298.85	27.03	6701.71	-1.44	-3149.37	64.53	-10233.94	239.27	-4362.79	51.60	-29.46	-3.84	-2895.79	-40.20	-3121.15	-12.23	-2290.17	-26.23	-6.97	-0.11	-16.42	-0.08	40592.28	-5.24	-11612.38	-174.12	-4760.84	-527.50
STR Conductance for Piru Creek		0.1X	Medium	5%	6920.18	10965.09	-1053.90	27559.39	-712.44	6512.19	-190.95	-3185.22	28.68	-10349.57	123.65	-4376.46	37.93	-26.68	-1.06	-2868.52	-12.92	-3108.34	0.58	-2276.82	-12.87	-6.90	-0.04	-16.34	0.00	37667.43	-2930.09	-9651.71	1786.55	-4204.81	28.53
		10X	Medium	8%	10530.36	13915.77	1896.79	29346.65	1074.83	6988.19	285.04	-3205.25	8.65	-10407.59	65.62	-4442.65	-28.26	-26.71	-1.09	-2868.43	-12.84	-3116.56	-7.63	-2277.19	-13.24	-6.90	-0.04	-16.39	-0.05	44990.42	4392.91	-14106.82	-2668.56	-4308.16	-74.82
STR Conductance for Sespe Creek		0.1X	Low	2%	2378.13	12090.97	71.98	28741.97	470.14	6814.53	111.38	-3180.81	33.08	-10338.25	134.97	-4357.18	57.21	-26.64	-1.02	-2867.97	-12.38	-3105.42	3.50	-2276.32	-12.37	-6.89	-0.03	-16.32	0.02	41016.25	418.73	-12460.94	-1022.67	-4204.70	28.64
		10X	Low	3%	4466.87	12169.80	150.81	27293.27	-978.55	6467.80	-235.35	-3207.15	6.75	-10410.24	62.98	-4499.78	-85.39	-26.84	-1.23	-2870.33	-14.74	-3125.49	-16.57	-2278.93	-14.98	-6.91	-0.05	-16.44	-0.10	39595.99	-1001.53	-9567.18	1871.09	-4260.11	-26.77
STR Conductance for Santa Paula Creek		0.1X	Low	0%	630.37	12115.52	96.53	28300.84	29.02	6704.17	1.02	-3192.62	21.28	-10357.05	116.16	-4361.70	52.69	-26.74	-1.12	-2869.02	-13.43	-3115.91	-6.99	-2277.56	-13.61	-6.90	-0.04	-16.38	-0.05	40594.95	-2.57	-11481.20	-42.93	-4000.43	232.91
		10X	Low	1%	1357.63	12116.42	97.43	28297.97	26.15	6700.65	-2.50	-3134.80	79.10	-10168.66	304.55	-4364.80	49.60	-26.94	-1.33	-2872.21	-16.62	-3118.27	-9.34	-2279.86	-15.91	-6.91	-0.05	-16.40	-0.06	40590.90	-6.62	-11680.92	-242.65	-3727.61	505.73
STR Conductance for Santa Clara River	Piru basin only	0.1X	High	48%	61960.11	2872.62	-9146.37	19311.79	-8960.03	4795.40	-1907.74	-3105.06	108.84	-10135.62	337.59	-4047.01	367.39	-26.20	-0.59	-2864.15	-8.56	-3064.70	44.22	-2271.03	-7.08	-6.87	-0.01	-16.08	0.26	16104.60	-24492.92	4915.62	16353.89	-4008.69	224.65
		10X	Medium	5%	6614.28	10923.20	-1095.79	28663.36	391.54	6947.53	244.39	-3200.05	13.85	-10393.42	79.79	-4415.15	-0.76	-26.66	-1.05	-2868.01	-12.41	-3112.72	-3.80	-2276.64	-12.69	-6.90	-0.04	-16.36	-0.03	36667.46	-3930.06	-10670.10	768.16	-4293.27	-59.93
	Fillmore basin only	0.1X	Low	1%	1455.43	11772.57	-246.41	28302.48	30.66	6711.38	8.23	-3226.12	-12.22	-10458.90	14.31	-4422.35	-7.96	-26.80	-1.19	-2870.19	-14.60	-3116.10	-7.18	-2278.34	-14.39	-6.90	-0.04	-16.38	-0.05	40293.60	-303.91	-10696.21	742.06	-4285.56	-52.22
		10X	Low	2%	2081.90	12851.40	832.41	27585.64	-686.18	6633.99	-69.15	-3189.65	24.25	-10288.14	185.07	-4407.78	6.61	-26.60	-0.98	-2866.88	-11.29	-3110.40	-1.48	-2275.87	-11.92	-6.89	-0.03	-16.35	-0.01	40555.51	-42.01	-11646.33	-208.07	-4235.78	-2.44
	Santa Paula basin only	0.1X	Low	1%	1236.97	12114.03	95.05	28306.03	34.21	6710.68	7.54	-3301.34	-87.44	-10665.29	-192.07	-4371.26	43.13	-27.86	-2.25	-2878.78	-23.19	-3116.85	-7.92	-2353.14	-89.19	-6.93	-0.07	-16.39	-0.05	40602.60	5.08	-11130.01	308.25	-4574.87	-341.53
		10X	Low	4%	4790.54	12119.57	100.58	28287.41	15.59	6688.25	-14.89	-2797.23	416.66	-9398.77	1074.45	-4422.23	-7.84	-20.74	4.88	-2813.55	42.05	-3122.20	-13.28	-1910.60	353.35	-6.75	0.11	-16.45	-0.11	40576.65	-20.87	-12516.76	-1078.50	-2585.95	1647.39
	Oxnard and Mound basins only	0.1X	Low	0%	468.11	12114.88	95.89	28302.64	30.82	6706.92	3.77	-3192.56	21.33	-10371.15	102.06	-4410.07	4.32	-27.06	-1.44	-2894.53	-38.93	-3124.90	-15.98	-2341.56	-77.61	-7.08	-0.22	-16.56	-0.22	40597.91	0.39	-11431.52	6.74	-4164.96	68.38
		10X	Low	1%	775.88	12115.14	96.15	28301.97	30.15	6705.89	2.75	-3191.06	22.84	-10364.42	108.80	-4392.85	21.54	-26.15	-0.54	-2825.93	29.66	-3090.30	18.62	-2046.19	217.76	-6.44	0.42	-15.85	0.49	40596.61	-0.90	-11451.49	-13.23	-4445.38	-212.04
Model Layer 1	Zone 31 (1200 ft/day)	0.1X	Low	0%	296.91	12115.05	96.06	28302.39	30.57	6706.55	3.41	-3192.14	21.76	-10369.20	104.01	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.64	0.12	-11438.33	-0.07	-4233.35	-0.01
		10X	Low	0%	296.99	12114.87	95.88	28302.30	30.48	6706.53	3.39	-3192.13	21.76	-10369.20	104.01	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.20	-0.32	-11438.03	0.23	-4233.35	-0.01
	Zone 32 (1200 Ft/day)	0.1X	Low	3%	3623.59	10610.23	-1408.76	29035.92	764.10	6768.38	65.23	-3192.84	21.05	-10371.23	101.99	-4408.05	6.34	-26.71	-1.09	-2868.73	-13.13	-3112.46	-3.54	-2277.18	-13.23	-6.90	-0.04	-16.36	-0.02	40016.33	-581.19	-10796.92	641.35	-4235.87	-2.53
		10X	Low	2%	2628.37	13112.68	1093.69	27854.39	-417.43	6670.07	-33.07	-3191.82	22.08	-10368.27	104.94	-4402.25	12.14	-26.70	-1.09	-2868.68	-13.09	-3111.72	-2.80	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	41019.31	421.79	-11929.76	-491.49	-4231.81	1.53
	Zone 33 (600 ft/day)	0.1X	Low	4%	5075.74	10069.76	-1949.23	29148.47	876.65	6769.35	66.21	-3184.76	29.14	-10351.06	122.16	-4403.21	11.19	-26.68	-1.07	-2868.40	-12.80	-3111.45	-2.53	-2276.89	-12.94	-6.90	-0.04	-16.36	-0.02	39629.95	-967.57	-10423.86	1014.41	-4223.55	9.80
		10X	Low	4%	4925.80	13983.35	1964.36	27739.92	-531.90	6660.46	-42.68	-3207.31	6.59	-10406.81	66.40	-4412.42	1.97	-26.75	-1.14	-2869.34	-13.75	-3113.79	-4.86	-2277.69	-13.74	-6.90	-0.04	-16.37	-0.03	41687.74	1090.22	-12605.07	-1166.81	-4254.63	-21.29
	Zone 34 (200 Ft/day)	0.1X	Low	0%	357.14	12117.85	98.86	28284.12	12.30	6697.05	-6.10	-3163.98	49.92	-10406.71	66.50	-4418.45	-4.06	-26.72	-1.11	-2868.96	-13.36	-3114.12	-5.20	-2277.38	-13.43	-6.90	-0.04	-16.37	-0.04	40577.94	-19.58	-11489.63	-51.36	-4248.62	-15.28
		10X	Low	1%	873.35	12106.68	87.70	28350.07	78.25	6734.84	31.70	-3220.00	-6.11	-10257.04	216.17	-4357.94	56.45	-26.61	-0.99	-2867.43	-11.84	-3104.62	4.30	-2275.94	-11.99	-6.89	-0.03	-16.32	0.02	40650.06	52.54	-11694.56	-256.29	-4174.37	58.97
	Zone 35 (200 ft/day)	0.1X	Low	0%	525.86	12114.49	95.50	28303.87	32.05	6708.38	5.23	-3138.24	75.66	-10346.54	126.68	-4401.92	12.47	-26.63	-1.02	-2867.54	-11.95	-3110.79	-1.87	-2276.29	-12.34	-6.89	-0.03	-16.35	-0.01	40599.47	1.95	-11546.71	-108.45	-4192.69	40.65
		10X	Low	0%	414.05	12115.12	96.13	28301.90	30.08	6705.97	2.83	-3225.42	-11.52	-10400.23	72.98	-4403.42	10.97	-26.80	-1.19	-2870.68	-15.08	-3112.46	-3.54	-2278.34	-14.39	-6.90	-0.04	-16.36	-0.03	40596.88	-0.64	-11352.97	85.30	-4302.66	-69.32
	Zone 36 (200 ft/day)	0.1X	Low	0%	385.77	12115.02	96.03	28302.20	30.38	6706.36	3.21	-3189.89	24.01	-10359.94	113.27	-4403.64	10.75	-6.62	19.00	-2820.67	34.92	-3116.42	-7.50	-2280.81	-16.86	-6.74	0.12	-16.34	0.00	40597.24	-0.27	-11447.80	-9.54	-4253.24	-19.90
		10X	Low	0%	401.25	12114.95	95.96	28302.41	30.59	6706.60	3.45	-3193.32	20.57	-10374.09	99.13	-4403.08	11.31	-39.44	-13.83	-2900.44	-44.85	-3109.23	-0.31	-2277.09	-13.15	-6.99	-0.13	-16.37	-0.03	40597.55	0.04	-11433.80	4.46	-4296.79	-63.45
	Zone 37 (200 ft/day)	0.1X	Low	0%	434.35	12115.58	96.59	28294.63	22.80	6703.90	0.76	-3156.48	57.42	-10300.95	172.27	-4421.53	-7.14	-26.65	-1.03	-2867.59	-12.00	-3112.32	-3.40	-2276.44	-12.49	-6.89	-0.03	-16.36	-0.02	40589.89	-7.63	-11440.75	-2.48	-4195.05	38.29
		10X	Low	0%	328.59	12114.52	95.54	28327.97	56.15	6705.47	2.32	-3216.88	-2.99	-10409.29	63.92	-4403.39	11.00	-26.74	-1.13	-2869.29	-13.70	-3112.71	-3.79	-2277.60	-13.66	-6.90	-0.04	-16.36	-0.03	40615.87	18.35	-11416.33	21.93	-4257.39	-24.05
	Zone 39 (10 ft/day)	0.1X	Low	0%	296.75	12114.96	95.98	28302.36	30.54	6706.54	3.40	-3192.10	21.80	-10369.19	104.02	-4404.00	10.40	-26.70	-1.09	-2868.68	-13.09	-3111.93	-3.01	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.45	-0.06	-11438.13	0.14	-4233.35	-0.01
		10X	Low	0%	296.74	12114.98	95.99	28302.36	30.54	6706.55	3.40	-3192.19	21.71	-10369.20	104.02	-4403.80	10.59	-26.70	-1.09	-2868.69	-13.10	-3111.91	-2.99	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.24	0.02	-4233.31	0.03
Model Layer 2	Zone 31 (0.1 ft/day)	0.1X	Low	0%	299.02	12114.06	95.07	28301.95	30.13	6706.40	3.26	-3192.13	21.76	-10369.20	104.02	-4403.87	10.52	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40594.90	-2.62	-11437.07	1.20	-4233.38	-0.04
		10X	Low	0%	299.18	12115.36	96.37	28302.60	30.78	6706.62	3.48	-3192.13	21.77	-10369.19	104.03	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40598.80	1.29	-11438.80	-0.54	-4233.31	0.03
	Zone 32 (0.1 ft/day)	0.1X	Low	3%	4269.21	10461.55	-1557.44	29075.03	803.21	6750.62	47.48	-3192.35	21.55	-10369.75	103.46	-4407.02	7.37	-26.71	-1.10	-2868.75	-13.16	-3112.33	-3.41	-2277.20	-13.25	-6.90	-0.04	-16.36	-0.02	39661.57	-935.95	-10678.22	760.05	-4231.60	1.74
		10X	Low	1%	1691.83	12748.24	729.25	27909.37	-362.45	6676.34	-26.80	-3191.53	22.37	-10367.48	105.74	-4400.96	13.43	-26.70	-1.09	-2868.67	-13.07	-3111.54	-2.62	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40789.90	192.38	-11645.45	-207.19	-4231.10	2.24
	Zone 33 (0.1 ft/day)	0.1X	Low	3%	3995.65	12013.36	-5.63	29769.92	1498.10	6687.89	-15.25	-3182.28	31.61	-10343.01	130.20	-4371.01	43.38	-26.66	-1.04	-2868.16	-12.56	-3107.28	1.64	-2276.52	-12.57	-6.89	-0.03	-16.33	0.01	41721.49	1123.97	-12532.93	-1094.67	-4208.36	24.98
		10X	Low	3%	4281.24	12582.51	563.52	26718.85	-1552.97	6682.10	-21.04	-3197.57	16.32	-10383.72	89.50	-4421.31	-6.92	-26.73	-1.11	-2868.94	-13.35	-3114.35	-5.43	-2277.43	-13.48	-6.90	-0.04	-16.37	-0.04	39551.37	-1046.15	-10501.89	936.37	-4248.35	-15.01
	Zone 34 (0.1 ft/day)	0.1X	Low	1%	948.65	12124.03	105.04	28263.11	-8.72	6674.22	-28.93	-3302.08	-88.18	-10611.16	-137.95	-4460.15	-45.76	-26.95	-1.34	-2872.38	-16.78	-3123.82	-14.90	-2280.16	-16.22	-6.91	-0.05	-16.43	-0.09	40547.89	-49.63	-11175.20	263.06	-4405.34	-172.00
		10X	Low	1%	1300.94	12105.26	86.27	28346.38	74.56	6741.14	38.00	-3088.21	125.69	-10115.53	357.68	-4344.97	69.42	-26.42	-0.81	-2864.41	-8.82	-3099.09	9.84	-2273.67	-9.72	-6.88	-0.02	-16.28	0.05	40652.20	54.69	-11723.90	-285.64	-4053.59	179.75
	Zone 35 (0.1 ft/day)	0.1X	Low	0%	414.58	12114.39	95.41	28304.23	32.41	6708.75	5.61	-3133.30	80.60	-10344.38	128.83	-4400.79	13.60	-26.64	-1.03	-2867.87	-12.28	-3110.67	-1.74	-2276.43	-12.48	-6.89	-0.03	-16.35	-0.01	40599.96	2.44	-11447.04	-8.78	-4214.01	19.33
		10X	Low	0%	285.49	12115.10	96.11	28301.96	30.13	6706.02	2.88	-3207.84	6.06	-10375.77	97.44	-4404.67	9.72	-26.72	-1.10	-2868.86	-13.27	-3112.22	-3.30	-2277.28	-13.33	-6.90	-0.04	-16.36	-0.02	40596.92	-0.60	-11430.37	7.90	-4236.93	-3.59
	Zone 36 (0.1 ft/day)	0.1X	Low	0%	458.25	12115.17	96.19	28301.84	30.02	6705.74	2.60	-3189.66	24.24	-10358.85	114.37	-4392.26	22.13	-26.07	-0.45	-2872.61	-17.02	-3114.79	-5.87	-2282.02	-18.07	-6.91	-0.05	-16.38	-0.04	40596.60	-0.92	-11458.25	-19.98	-4127.03	106.31
		10X	Low	0%	320.48	12114.92	95.94	28302.51	30.69	6706.71	3.57	-3192.83	21.07	-10372.08	101.14	-4405.85	8.54	-26.82	-1.21	-2867.58	-11.98	-3111.46	-2.54	-2275.72	-11.78	-6.89	-0.03	-16.36	-0.02	40597.70	0.18	-11433.72	4.54	-4260.60	-27.26
	Zone 37 (100ft/day)	0.1X	Low	0%	313.79	12115.26	96.28	28302.99	31.17	6706.27	3.12	-3188.52	25.37	-10364.84	108.37	-4405.10	9.29	-26.70	-1.08	-2868.60	-13.01	-3111.95	-3.03	-2277.07	-13.12	-6.90	-0.04	-16.36	-0.02	40598.27	0.76	-11444.31	-6.05	-4230.25	3.09
		10X	Low	0%	306.45	12114.20	95.21	28305.00	33.18	6709.21	6.07	-3208.70	5.19	-10387.77	85.45	-4397.91	16.48	-26.72	-1.11	-2869.03	-13.43	-3111.66	-2.74	-2277.34	-13.40	-6.90	-0.04	-16.36	-0.02	40601.05	3.53	-11420.39	17.87	-4246.07	-12.73
	Zone 39 (10 ft/day)	0.1X	Low	0%	296.66	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.91	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.01	-4233.34	0.00
		10X	Low	0%	296.78	12114.97	95.98	28302.40	30.58	6706.56	3.41	-3192.17	21.73	-10369.19	104.02	-4403.81	10.58	-26.70	-1.09	-2868.69	-13.10	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.32	-0.05	-4233.32	0.02
Model Layer 3	Zone 26 (600 ft/day)	0.1X	Low	2%	2452.38	12142.68	123.69	27625.04	-646.78	6649.97	-53.17	-3180.41	33.49	-10342.03	131.19	-4420.43	-6.04	-26.68	-1.07	-2868.27	-12.68	-3113.38	-4.46	-2276.89	-12.94	-6.90	-0.04	-16.37	-0.03	40034.14	-563.38	-10579.33	858.93	-4228.84	4.50
		10X	Low	4%	4743.31	12053.89	34.90	29713.81	1441.99	6824.44	121.29	-3217.15	-3.25	-10426.54	46.67	-4369.20	45.19	-26.76	-1.15	-2869.77	-14.18	-3109.10	-0.17	-2277.81	-13.86	-6.90	-0.04	-16.34	-0.01	41754.16	1156.64	-13299.56	-1861.29	-4236.01	-2.67
	Zone 31 (1200 ft/day)	0.1X	Low	2%	2887.58	11430.85	-588.13	27854.96	-416.86	6595.47	-107.67	-3189.34	24.56	-10362.18	111.03	-4386.27	28.12	-26.67	-1.06	-2868.28	-12.69	-3109.43	-0.51	-2276.71	-12.76	-6.90	-0.04	-16.34	-0.01	40036.69	-560.83	-10417.64	1020.62	-4236.04	-2.70
		10X	Low	2%	2143.08	12526.00	507.01	28544.87	273.05	6769.13	65.99	-3193.07	20.83	-10371.18	102.03	-4413.32	1.07	-26.73	-1.11	-2868.98	-13.39	-3113.32	-4.40	-2277.40	-13.45	-6.90	-0.04	-16.37	-0.03	40069.79	-527.73	-12043.68	-605.42	-4225.80	7.54
	Zone 32 (1200 ft/day)	0.1X	Medium	8%	9874.04	8353.04	-3665.94	28905.23	633.41	6922.87	219.73	-3190.40	23.49	-10365.39	107.82	-4390.17	24.22	-26.67	-1.05	-2868.20	-12.61	-3109.66	-0.74	-2276.66	-12.71	-6.90	-0.03	-16.35	-0.01	38217.24	-2380.28	-8655.01	2783.25	-4242.08	-8.74
		10X	Medium	7%	8735.82	15605.90	3586.92	27848.07	-423.75	6165.82	-537.33	-3189.06	24.84	-10360.01	113.20	-4395.17	19.22	-26.70	-1.09	-2868.88	-13.28	-3111.38	-2.46	-2277.17	-13.23	-6.90	-0.04	-16.36	-0.02	41859.96	1262.45	-14156.37	-2718.10	-4213.43	19.91
	Zone 33 (400 ft/day)	0.1X	High	12%	15828.88	6279.72	-5739.27	29389.01	1117.19	6873.22	170.08	-3159.23	54.66	-10290.18	183.04	-4406.19	8.21	-26.61	-1.00	-2867.41	-11.82	-3110.59	-1.67	-2276.07	-12.12	-6.89	-0.03	-16.35	-0.01	36799.96	-3797.55	-6740.60	4697.67	-4198.78	34.56
		10X	High	35%	45233.13	28696.60	16677.61	24848.51	-3423.31	6087.91	-615.24	-3269.45	-55.55	-10548.26	-75.04	-4289.06	125.33	-26.82	-1.21	-2871.14	-15.55	-3101.69	7.23	-2278.45	-14.50	-6.90	-0.04	-16.30	0.04	50922.81	10325.30	-25281.82	-13843.56	-4286.97	-53.63
	Zone 34 (100 ft/day)	0.1X	Low	2%	2135.37	12115.29	96.30	28284.38	12.56	6707.96	4.82	-2399.79	814.11	-10453.61	19.60	-4417.63	-3.23	-26.17	-0.56	-2860.78	-5.19	-3104.35	4.58	-2271.09	-7.14	-6.87	-0.01	-16.31	0.03	40584.76	-12.76	-12320.49	-882.22	-3961.08	272.27
		10X	Low	5%	6390.11	12123.30	104.31	28342.68	70.86	6667.15	-35.99	-4498.19	-1284.30	-11421.33	-948.12	-4484.48	-70.09	-27.95	-2.34	-2886.99	-31.40	-3147.16	-38.24	-2291.30	-27.35	-6.97	-0.11	-16.58	-0.24	40602.32	4.80	-8616.06	2822.20	-5183.10	-949.76
	Zone 35 (100 ft/day)	0.1X	Low	5%	6087.60	12118.91	99.92	28289.44	17.62	6692.92	-10.23	-425.16	2788.74	-11643.49	-1170.28	-4478.43	-64.04	-24.71	0.91	-2838.80	16.79	-3113.58	-4.66	-2252.90	11.05	-6.81	0.06	-16.35	-0.01	40579.54	-17.98	-12651.15	-1212.89	-3560.90	672.44
		10X	High	15%	19423.09	12094.71	75.72	28368.48	96.66	6781.32	78.18	-11097.85	-7883.95	-8555.23	1917.98	-4168.73	245.67	-30.82	-5.20	-2937.28	-81.68	-3086.93	21.99	-2323.16	-59.21	-7.10	-0.24	-16.26	0.08	40690.96	93.44	-6641.71	4796.55	-8299.87	-4066.53
	Zone 36 (100 ft/day)	0.1X	Low	1%	979.31	12115.60	96.62	28300.60	28.78	6704.05	0.91	-3177.65	36.25	-10308.84	164.38	-4377.99	36.40	-28.61	-2.99	-2897.17	-41.58	-3118.96	-10.03	-2202.87	61.08	-7.00	-0.14	-16.45	-0.12	40594.76	-2.75	-11518.97	-80.71	-3816.77	416.57
		10X	Low	2%	2218.11	12113.00	94.01	28308.28	36.46	6714.55	11.41	-3249.89	-35.99	-10610.77	-137.56	-4469.50	-55.11	-23.37	2.25	-2800.59	55.01	-3094.99	13.93	-2329.90	-65.95	-6.66	0.20	-16.18	0.16	40606.25	8.73	-11147.46	290.80	-5643.89	-1410.55
	Zone 37 (100 ft/day)	0.1X	Low	0%	378.93	12115.24	96.26	28302.26	30.44	6707.05	3.91	-3137.00	76.89	-10387.89	85.33	-4405.93	8.46	-26.68	-1.07	-2868.29	-12.69	-3112.07	-3.15	-2276.86	-12.91	-6.90	-0.04	-16.36	-0.02	40598.78	1.27	-11470.20	-31.94	-4218.78	14.56
		10X	Low	0%	407.38	12113.39	94.40	28310.88	39.06	6707.80	4.65	-3256.65	-42.76	-10384.14	89.08	-4396.22	18.17	-26.75	-1.14	-2869.50	-13.91	-3111.93	-3.01	-2277.70	-13.75	-6.90	-0.04	-16.36	-0.02	40602.46	4.95	-11385.13	53.13	-4262.65	-29.31
	Zone 38 (100 ft/day)	0.1X	Low	1%	1482.76	12115.47	96.48	28300.93	29.11	6704.51	1.36	-3179.71	34.18	-10317.12	156.10	-4383.41	30.99	-1.41	24.21	-2948.27	-92.68	-3118.88	-9.96	-1427.72	836.22	-7.32	-0.46	-16.68	-0.34	40595.32	-2.20	-11505.32	-67.06	-4334.74	-101.40
		10X	Low	1%	1013.21	12114.55	95.56	28303.63	31.81	6708.27	5.13	-3202.86	11.04	-10414.20	59.01	-4420.64	-6.25	-76.30	-50.68	-2791.49	64.10	-3107.39	1.53	-2363.81	-99.87	-6.76	0.10	-16.28	0.05	40599.39	1.87	-11381.10	57.17	-4762.38	-529.04
	Zone 39 (10 ft/day)	0.1X	Low	0%	301.47	12114.92	95.93	28302.47	30.64	6706.62	3.48	-3192.61	21.28	-10372.07	101.14	-4404.13	10.26	-26.70	-1.09	-2868.63	-13.03	-3111.85	-2.93	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40597.60	0.08	-11435.19	3.07	-4238.68	-5.34
		10X	Low	0%	318.33	12115.05	96.06	28302.32	30.50	6706.46	3.31	-3191.29	22.61	-10364.07	109.14	-4403.71	10.68	-26.71	-1.09	-2868.79	-13.19	-3111.99	-3.07	-2277.18	-13.24	-6.90	-0.04	-16.36	-0.02	40597.43	-0.09	-11443.56	-5.30	-4223.34	10.00
Model Layer 4	Zone 26 (400 ft/day)	0.1X	Low	0%	301.26	12115.15	96.16	28298.16	26.34	6706.20	3.06	-3192.07	21.83	-10369.04	104.17	-4404.00	10.39	-26.70	-1.09	-2868.68	-13.09	-3111.93	-3.01	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40594.04	-3.48	-11432.86	5.40	-4233.33	0.01
		10X	Low	0%	393.83	12113.65	94.66	28334.10	62.28	6709.14	6.00	-3192.71	21.19	-10370.53	102.68	-4403.17	11.22	-26.71	-1.09	-2868.71	-13.12	-3111.86	-2.94	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40623.62	26.10	-11477.39	-39.13	-4233.52	-0.18
	Zone 31 (1000 ft/day)	0.1X	Low	0%	300.12	12107.95	88.96	28298.41	26.59	6705.52	2.37	-3192.11	21.78	-10369.15	104.07	-4403.74	10.65	-26.70	-1.09	-2868.68	-13.09	-3111.89	-2.97	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40592.46	-5.06	-11428.09	10.17	-4233.42	-0.08
		10X	Low	0%	521.45	12171.57	152.58	28334.70	62.88	6715.05	11.90	-3192.28	21.62	-10369.53	103.68	-4405.13	9.26	-26.71	-1.09	-2868.72	-13.13	-3112.10	-3.18	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40642.84	45.32	-11521.05	-82.78	-4232.59	0.76
	Zone 32 (1000 ft/day)	0.1X	Low	0%	313.99	12108.07	89.08	28279.63	7.81	6709.23	6.08	-3192.12	21.77	-10369.18	104.03	-4403.80	10.59	-26.70	-1.09	-2868.68	-13.09	-3111.90	-2.98	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40579.10	-18.41	-11412.55	25.71	-4233.46	-0.12
		10X	Low	1%	814.62	12295.16	276.17	28329.25	57.43	6686.01	-17.13	-3192.13	21.76	-10369.11	104.10	-4404.46	9.93	-26.71	-1.09	-2868.72	-13.13	-3112.03	-3.11	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40713.40	115.89	-11618.67	-180.41	-4232.14	1.20
	Zone 33 (200 ft/day)	0.1X	Low	0%	564.25	12059.50	40.51	28197.27	-74.55	6715.88	12.74	-3191.61	22.29	-10367.87	105.34	-4403.38	11.01	-26.70	-1.09	-2868.66	-13.07	-3111.83	-2.91	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40477.30	-120.22	-11291.76	146.51	-4232.54	0.80
		10X	Low	3%	3814.34	12487.47	468.48	29218.09	946.27	6634.33	-68.81	-3196.49	17.41	-10380.04	93.17	-4407.48	6.91	-26.72	-1.10	-2868.87	-13.27	-3112.58	-3.66	-2277.30	-13.35	-6.90	-0.04	-16.36	-0.03	41571.13	973.61	-12640.26	-1202.00	-4239.56	-6.22
	Zone 34 (100 ft/day)	0.1X	Low	0%	388.37	12115.02	96.03	28301.63	29.81	6706.48	3.34	-3170.54	43.36	-10352.48	120.74	-4404.88	9.51	-26.68	-1.06	-2868.29	-12.70	-3111.54	-2.62	-2276.82	-12.88	-6.90	-0.04	-16.36	-0.02	40596.91	-0.61	-11479.43	-41.17	-4218.84	14.50
		10X	Low	1%	834.26	12115.33	96.34	28306.42	34.60	6704.49	1.34	-3327.25	-113.35	-10546.24	-73.02	-4403.27	11.12	-26.91	-1.30	-2871.80	-16.21	-3115.89	-6.97	-2279.52	-15.57	-6.91	-0.05	-16.38	-0.05	40599.16	1.64	-11097.69	340.57	-4355.48	-122.14
	Zone 35 (1 ft/day)	0.1X	Low	1%	1393.72	12112.12	93.13	28310.57	38.75	6717.44	14.29	-3089.80	124.09	-10905.69	-432.48	-4464.99	-50.60	-24.50	1.11	-2831.88	23.71	-3097.28	11.65	-2252.87	11.08	-6.78	0.08	-16.25	0.09	40609.61	12.09	-11027.55	410.72	-4403.19	-169.85
		10X	Low	0%	338.05	12115.09	96.10	28302.09	30.27	6705.94	2.80	-3124.22	89.68	-10440.48	32.74	-4389.78	24.61	-27.15	-1.53	-2875.91	-20.31	-3114.00	-5.08	-2281.62	-17.68	-6.92	-0.06	-16.38	-0.04	40597.01	-0.51	-11440.88	-2.62	-4247.37	-14.03

Table 5-2. Sensitivity Analysis -- Inter-basin Flows and Stream Percolation

units: Acre-feet per year

Parameters			Multiplier	Sensitivity	diff (%)	Sum of absolute fluxes	Piru to Fillmore in System		Piru to Fillmore in System		Piru to Fillmore in System		Fillmore to Santa Paula in		Fillmore to Santa Paula in		Fillmore to Santa Paula		Santa Paula to		Santa Paula to Mound ib		Santa Paula to Mound ib		Santa Paula to Oxnard in		Santa Paula to		Santa Paula to		STR Percolation in Piru		STR Percolation in Fillmore		STR Percolation in Santa	
						Default = 129641.846	Default = 12018.990		Default = 28271.821		Default = 6703.143		Default = -3213.897		Default = -10473.213		Default = -4414.391		Default = -25.615		Default = -2855.593		Default = -3108.92		Default = -2263.948		Default = -6.86		Default = -16.337		Default = 40597.518		Default = -11438.262		Default = -4233.34	
						Sum of absolute diff	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.
Horizontal Hydraulic Conductivity		Zone 36 (1 ft/day)	0.1X	Low	0%	469.31	12115.06	96.07	28302.12	30.30	6706.16	3.02	-3190.11	23.79	-10361.05	112.16	-4399.44	14.95	-22.76	2.86	-2871.68	-16.09	-3113.50	-4.58	-2281.21	-17.26	-6.90	-0.04	-16.37	-0.03	40597.09	-0.43	-11450.56	-12.30	-4097.91	135.44
			10X	Low	0%	551.80	12114.69	95.70	28303.17	31.35	6707.62	4.47	-3198.55	15.35	-10395.78	77.43	-4414.46	-0.07	-27.40	-1.78	-2850.54	5.05	-3109.56	-0.64	-2260.94	3.01	-6.84	0.02	-16.33	0.01	40598.73	1.21	-11402.88	35.38	-4513.66	-280.32
		Zone 37 (100 ft/day)	0.1X	Low	0%	304.35	12115.40	96.41	28300.55	28.72	6705.00	1.86	-3190.53	23.37	-10367.63	105.59	-4405.22	9.17	-26.70	-1.09	-2868.66	-13.07	-3112.03	-3.11	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40595.24	-2.28	-11432.65	5.61	-4232.50	0.85
			10X	Low	0%	299.27	12114.05	95.06	28305.67	33.85	6710.24	7.10	-3207.00	6.90	-10386.62	86.59	-4397.76	16.63	-26.72	-1.11	-2868.99	-13.40	-3111.61	-2.69	-2277.33	-13.38	-6.90	-0.04	-16.36	-0.02	40602.10	4.58	-11431.28	6.99	-4244.28	-10.94
		Zone 38 (1 ft/day)	0.1X	Low	0%	575.57	12115.15	96.17	28301.85	30.03	6705.80	2.66	-3186.84	27.06	-10347.11	126.11	-4397.39	17.00	-38.32	-12.71	-2826.12	29.47	-3116.65	-7.73	-2261.67	2.28	-6.83	0.03	-16.38	-0.04	40596.68	-0.84	-11465.14	-26.88	-4036.74	196.60
			10X	Low	0%	382.77	12114.95	95.96	28302.46	30.63	6706.63	3.48	-3192.95	20.94	-10372.61	100.60	-4404.06	10.34	-3.08	22.53	-2921.28	-65.69	-3110.36	-1.44	-2278.00	-14.05	-6.95	-0.09	-16.36	-0.03	40597.60	0.08	-11434.78	3.48	-4246.76	-13.42
		Zone 39 (10 ft/day)	0.1X	Low	0%	297.11	12114.96	95.97	28302.41	30.58	6706.56	3.42	-3192.17	21.72	-10369.46	103.75	-4403.94	10.46	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11437.96	0.30	-4233.85	-0.51
			10X	Low	0%	305.59	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.46	-0.06	-11440.53	-2.27	-4229.43	3.91
	Model Layer 5	Zone 26 (400 ft/day)	0.1X	Low	2%	2114.47	12139.66	120.67	27714.66	-557.16	6658.76	-44.39	-3181.51	32.38	-10344.52	128.69	-4417.52	-3.13	-26.68	-1.07	-2868.29	-12.70	-3113.07	-4.15	-2276.89	-12.94	-6.90	-0.04	-16.37	-0.03	40113.72	-483.80	-10728.80	709.46	-4229.47	3.87
			10X	Low	4%	4766.25	12052.40	33.41	29724.38	1452.56	6824.44	121.30	-3216.82	-2.92	-10425.73	47.48	-4368.91	45.48	-26.76	-1.15	-2869.76	-14.17	-3109.03	-0.11	-2277.79	-13.85	-6.90	-0.04	-16.34	-0.01	41758.36	1160.84	-13309.33	-1871.07	-4235.21	-1.87
		Zone 31 (1000 ft/day)	0.1X	Low	0%	549.74	11979.40	-39.59	28220.62	-51.20	6687.64	-15.51	-3191.74	22.16	-10368.28	104.94	-4400.76	13.63	-26.70	-1.08	-2868.60	-13.00	-3111.46	-2.54	-2277.04	-13.09	-6.90	-0.04	-16.36	-0.02	40526.09	-71.43	-11238.49	199.77	-4235.09	-1.75
			10X	Low	0%	614.73	12214.37	195.38	28357.06	85.24	6720.04	16.89	-3192.25	21.65	-10369.38	103.83	-4405.91	8.48	-26.71	-1.09	-2868.76	-13.17	-3112.23	-3.31	-2277.19	-13.25	-6.90	-0.04	-16.36	-0.02	40600.73	3.21	-11584.95	-146.69	-4230.87	2.47
		Zone 32 (1000 ft/day)	0.1X	Medium	7%	9553.93	9810.54	-2208.45	27010.66	-1261.16	6884.80	181.66	-3188.13	25.77	-10359.30	113.92	-4380.46	33.93	-26.66	-1.04	-2868.09	-12.49	-3108.47	0.45	-2276.51	-12.57	-6.89	-0.03	-16.34	0.00	37959.58	-2637.94	-8377.93	3060.33	-4237.53	-4.19
			10X	Medium	7%	8718.26	15272.81	3253.82	28719.17	447.34	6032.75	-670.39	-3189.42	24.47	-10360.51	112.71	-4396.91	17.48	-26.71	-1.09	-2868.99	-13.40	-3111.64	-2.72	-2277.26	-13.31	-6.90	-0.04	-16.36	-0.02	41715.35	1117.83	-14457.26	-3019.00	-4208.69	24.65
		Zone 33 (200 ft/day)	0.1X	Medium	8%	10170.68	12853.75	834.76	24618.89	-3652.93	6753.66	50.52	-3155.42	58.48	-10281.13	192.08	-4413.94	0.45	-26.61	-1.00	-2867.33	-11.74	-3111.39	-2.47	-2276.09	-12.14	-6.89	-0.03	-16.36	-0.02	38249.95	-2347.57	-8471.05	2967.22	-4194.07	39.27
			10X	High	37%	48137.39	7081.55	-4937.44	46669.23	18397.41	5920.75	-782.40	-3282.87	-68.97	-10581.25	-108.03	-4298.72	115.67	-26.87	-1.25	-2871.72	-16.13	-3103.51	5.41	-2278.97	-15.02	-6.90	-0.04	-16.31	0.03	50701.31	10103.79	-24956.74	-13518.48	-4300.65	-67.31
		Zone 34 (100 ft/day)	0.1X	Low	2%	2800.71	12115.03	96.04	28276.79	4.97	6710.15	7.01	-3058.73	155.17	-9493.79	979.42	-4422.78	-8.39	-25.91	-0.29	-2856.83	-1.24	-3100.00	8.92	-2268.00	-4.06	-6.86	0.00	-16.28	0.05	40580.66	-16.86	-12562.01	-1123.75	-3838.79	394.55
			10X	Medium	5%	7101.89	12121.92	102.93	28369.00	97.17	6669.68	-33.47	-3989.50	-775.60	-12250.59	-1777.38	-4483.21	-68.82	-28.10	-2.48	-2888.99	-33.40	-3150.47	-41.55	-2292.77	-28.82	-6.97	-0.11	-16.60	-0.26	40622.53	25.01	-8409.77	3028.50	-5319.72	-1086.38
		Zone 35 (100 ft/day)	0.1X	Medium	6%	7740.63	12121.67	102.68	28279.85	8.03	6682.42	-20.73	-4018.26	-804.36	-7105.75	3367.47	-4552.29	-137.89	-22.74	2.88	-2807.20	48.39	-3112.92	-4.00	-2231.82	32.13	-6.71	0.15	-16.33	0.01	40566.57	-30.95	-13405.40	-1967.14	-3019.51	1213.83
			10X	High	19%	24919.72	12083.72	64.73	28405.25	133.43	6822.41	119.26	-1892.13	1321.77	-20325.37	-9852.16	-3985.08	429.32	-33.64	-8.02	-3029.47	-173.87	-3079.36	29.56	-2371.08	-107.13	-7.37	-0.51	-16.28	0.06	40741.42	143.91	-4682.26	6756.00	-10013.33	-5779.99
		Zone 36 (100 ft/day)	0.1X	Low	2%	2444.59	12117.82	98.83	28294.49	22.67	6695.40	-7.74	-3135.00	78.90	-10131.47	341.74	-4277.41	136.99	-21.11	4.50	-2883.36	-27.77	-3160.06	-51.14	-2073.99	189.96	-7.08	-0.22	-16.71	-0.38	40585.20	-12.31	-11776.54	-338.27	-3100.19	1133.15
			10X	Low	3%	3393.83	12111.03	92.04	28314.15	42.33	6722.33	19.18	-3313.08	-99.18	-10876.98	-403.77	-4520.74	-106.35	-32.60	-6.99	-2867.97	-12.38	-3071.77	37.15	-2454.21	-190.26	-6.82	0.04	-16.08	0.26	40615.11	17.59	-10838.10	600.16	-5999.50	-1766.16
		Zone 37 (100 ft/day)	0.1X	Low	0%	630.72	12114.31	95.32	28372.16	100.33	6705.31	2.16	-3197.28	16.61	-10294.89	178.32	-4410.58	3.81	-26.66	-1.04	-2867.94	-12.35	-3111.67	-2.75	-2276.59	-12.64	-6.90	-0.03	-16.36	-0.02	40653.65	56.13	-11562.94	-124.67	-4208.83	24.51
			10X	Low	0%	314.68	12107.03	88.04	28269.52	-2.30	6731.12	27.98	-3219.36	-5.47	-10455.20	18.01	-4384.93	29.46	-26.77	-1.16	-2869.83	-14.23	-3111.28	-2.36	-2277.89	-13.95	-6.90	-0.04	-16.36	-0.02	40578.92	-18.60	-11382.46	55.80	-4270.61	-37.26
		Zone 38 (100 ft/day)	0.1X	Low	1%	1137.85	12115.68	96.69	28300.35	28.53	6703.70	0.55	-3175.40	38.50	-10299.20	174.01	-4374.49	39.90	-15.12	10.49	-2779.98	75.61	-3119.88	-10.96	-2207.41	56.53	-7.21	-0.35	-16.50	-0.16	40594.41	-3.10	-11530.45	-92.19	-3723.08	510.26
			10X	Low	1%	905.71	12114.49	95.50	28303.78	31.96	6708.49	5.35	-3203.72	10.18	-10417.83	55.39	-4423.40	-9.01	-12.41	13.21	-2893.42	-37.83	-3108.51	0.41	-2261.04	2.91	-6.72	0.14	-16.30	0.04	40599.62	2.10	-11375.28	62.99	-4812.06	-578.72
		Zone 39 (10 ft/day)	0.1X	Low	0%	297.30	12114.96	95.97	28302.41	30.59	6706.56	3.42	-3192.19	21.71	-10369.55	103.66	-4403.96	10.43	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11437.85	0.42	-4234.05	-0.71
			10X	Low	0%	307.61	12115.01	96.02	28302.34	30.52	6706.49	3.35	-3191.79	22.11	-10366.88	106.33	-4403.32	11.07	-26.71	-1.09	-2868.74	-13.14	-3111.98	-3.06	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40597.45	-0.07	-11441.04	-2.77	-4228.53	4.81
	Model Layer 6	Zone 31 (1 ft/day)	0.1X	Low	0%	333.35	12089.64	70.65	28288.36	16.53	6700.75	-2.39	-3192.09	21.81	-10369.10	104.11	-4403.29	11.10	-26.70	-1.09	-2868.67	-13.07	-3111.83	-2.91	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40560.22	-37.30	-11399.66	38.60	-4233.91	-0.57
			10X	Low	0%	321.55	12120.27	101.28	28305.40	33.58	6707.75	4.61	-3192.14	21.76	-10369.21	104.00	-4404.02	10.37	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40604.92	7.41	-11446.24	-7.98	-4233.21	0.13
		Zone 32 (1 ft/day)	0.1X	Low	2%	3137.51	12999.03	980.04	27149.10	-1122.72	6563.42	-139.72	-3189.72	24.18	-10362.50	110.71	-4391.34	23.05	-26.69	-1.07	-2868.54	-12.95	-3110.22	-1.30	-2276.93	-12.99	-6.90	-0.04	-16.35	-0.01	40255.35	-342.17	-11079.86	358.40	-4225.18	8.16
			10X	Low	2%	2137.30	11349.59	-669.40	29196.32	924.50	6769.45	66.31	-3193.53	20.37	-10373.06	100.15	-4411.16	3.23	-26.71	-1.10	-2868.77	-13.18	-3112.90	-3.98	-2277.24	-13.29	-6.90	-0.04	-16.37	-0.03	40748.27	150.76	-11604.58	-166.31	-4238.01	-4.67
		Zone 33 (1 ft/day)	0.1X	Low	1%	1830.67	11297.71	-721.28	29038.83	767.01	6714.73	11.59	-3192.52	21.37	-10369.95	103.27	-4401.40	12.99	-26.70	-1.09	-2868.69	-13.10	-3111.65	-2.73	-2277.10	-13.16	-6.90	-0.04	-16.36	-0.02	40537.76	-59.76	-11335.44	102.82	-4233.81	-0.47
			10X	Low	2%	1993.19	12921.43	902.44	27643.68	-628.14	6715.25	12.11	-3193.52	20.38	-10373.09	100.12	-4411.70	2.69	-26.71	-1.10	-2868.77	-13.18	-3112.95	-4.03	-2277.24	-13.29	-6.90	-0.04	-16.37	-0.03	40724.83	127.31	-11601.91	-163.65	-4238.04	-4.70
		Zone 34 (1 ft/day)	0.1X	Low	0%	427.45	12120.08	101.09	28287.65	15.83	6688.01	-15.13	-3074.01	139.89	-10481.51	-8.30	-4456.31	-41.92	-26.73	-1.12	-2868.88	-13.28	-3118.86	-9.94	-2277.57	-13.63	-6.90	-0.04	-16.40	-0.06	40574.83	-22.69	-11415.84	22.43	-4255.45	-22.11
			10X	Low	0%	433.78	12113.17	94.18	28307.80	35.98	6713.05	9.90	-3269.73	-55.83	-10318.62	154.59	-4382.51	31.88	-26.71	-1.09	-2868.86	-13.26	-3109.36	-0.44	-2277.13	-13.18	-6.90	-0.04	-16.34	-0.01	40605.60	8.08	-11423.72	14.54	-4234.10	-0.76
		Zone 35 (1 ft/day)	0.1X	Low	0%	397.05	12115.40	96.41	28301.59	29.77	6705.45	2.31	-3088.84	125.06	-10473.92	-0.71	-4458.13	-43.74	-26.16	-0.55	-2859.31	-3.72	-3108.44	0.48	-2271.30	-7.35	-6.87	-0.01	-16.33	0.00	40596.20	-1.32	-11411.18	27.08	-4174.80	58.54
			10X	Low	0%	434.30	12113.88	94.89	28305.29	33.47	6710.43	7.28	-3244.33	-30.44	-10422.30	50.91	-4378.92	35.47	-26.90	-1.29	-2872.05	-16.46	-3110.65	-1.73	-2279.22	-15.28	-6.91	-0.05	-16.35	-0.02	40602.05	4.53	-11353.27	84.99	-4290.84	-57.50
		Zone 36 (0.1 ft/day)	0.1X	Low	1%	1522.02	12118.05	99.06	28294.58	22.76	6694.78	-8.36	-3173.22	40.68	-10286.83	186.38	-4212.11	202.28	-20.56	5.06	-2939.45	-83.86	-3165.60	-56.68	-2236.33	27.62	-7.24	-0.38	-16.75	-0.41	40584.54	-12.98	-11675.87	-237.61	-3695.44	537.90
			10X	Low	0%	624.15	12114.07	95.08	28304.75	32.92	6709.91	6.76	-3203.38	10.52	-10416.73	56.48	-4448.85	-34.46	-26.84	-1.22	-2849.62	5.97	-3100.18	8.74	-2305.17	-41.22	-6.76	0.10	-16.25	0.08	40601.59	4.07	-11352.14	86.12	-4473.74	-240.40
		Zone 37 (1 ft/day)	0.1X	Low	0%	333.95	12114.36	95.37	28298.13	26.31	6710.09	6.94	-3189.24	24.65	-10358.61	114.61	-4400.04	14.35	-26.69	-1.08	-2868.50	-12.91	-3111.02	-2.10	-2276.95	-13.00	-6.90	-0.04	-16.35	-0.02	40596.28	-1.24	-11455.04	-16.78	-4228.78	4.56
			10X	Low	0%	302.43	12114.68	95.69	28305.37	33.55	6707.37	4.23	-3201.96	11.94	-10369.36	103.86	-4401.04	13.35	-26.71	-1.09	-2868.81	-13.22	-3111.45	-2.53	-2277.18	-13.23	-6.90	-0.04	-16.36	-0.02	40600.28	2.76	-11442.05	-3.78	-4236.48	-3.14
		Zone 38 (0.01 ft/day)	0.1X	Low	0%	316.71	12114.92	95.94	28302.52	30.70	6706.75	3.60	-3191.84	22.06	-10368.08	105.13	-4407.94	6.45	-25.77	-0.16	-2839.78	15.81	-3115.08	-6.15	-2276.02	-12.07	-6.88	-0.02	-16.35	-0.01	40597.70	0.18	-11436.22	2.04	-4249.72	-16.38
			10X	Low	0%	381.61	12114.97	95.98	28302.38	30.56	6706.49	3.35	-3194.28	19.62	-10377.93	95.28	-4399.73	14.66	-32.85	-7.23	-2922.78	-67.19	-3104.05	4.87	-2287.54	-23.59	-6.84	0.02	-16.36	-0.02	40597.53	0.02	-11432.84	5.42	-4247.15	-13.81
		Zone 39 (0.1 ft/day)	0.1X	Low	0%	304.19	12114.97	95.98	28302.39	30.57	6706.55	3.41	-3191.88	22.02	-10367.42	105.80	-4404.22	10.17	-26.71	-1.09	-2868.72	-13.12	-3111.89	-2.97	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.47	-0.05	-11439.80	-1.54	-4229.10	4.24
			10X	Low	0%	297.06	12114.97	95.98	28302.40	30.57	6706.55	3.40	-3192.10	21.79	-10369.06	104.16	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.10	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.42	-0.16	-4233.29	0.05
	Model Layer 7	Zone 31 (200 ft/day)	0.1X	Low	1%	1077.79	11893.60	-125.39	28174.89	-96.94	6688.34	-14.80	-3191.37	22.53	-10367.16	106.05	-4399.74	14.65	-26.70	-1.08	-2868.61	-13.02	-3111.34	-2.42	-2277.04	-13.10	-6.90	-0.04	-16.36	-0.02	40248.28	-349.23	-11120.64	317.63	-4232.43	0.91
			10X	Low	0%	541.75	12184.48	165.49	28340.16	68.33	6706.05	2.91	-3192.16	21.73	-10369.18	104.03	-4404.86	9.53	-26.71	-1.09	-2868.73	-13.13	-3112.08	-3.15	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40635.82	38.30	-11537.53	-99.27	-4231.84	1.50
		Zone 32 (200 ft/day)	0.1X	High	21%	26807.84	14879.49	2860.50	17726.83	-10545.00	6957.92	254.78	-3171.36	42.54	-10313.31	159.90	-4306.81	107.58	-26.57	-0.95	-2867.18	-11.59	-3098.43	10.49	-2275.35	-11.40	-6.89	-0.03	-16.28	0.06	34581.58	-6015.94	-4701.52	6736.74	-4183.00	50.34
			10X	High	13%	16295.34	11599.36	-419.63	34805.87	6534.05	6215.65	-487.49	-3200.85	13.05	-10392.17	81.05	-4450.36	-35.97	-26.77	-1.15	-2869.56	-13.97	-3118.82	-9.90	-2278.03	-14.09	-6.90	-0.04	-16.40	-0.06	44024.29	3426.77	-16679.87	-5241.61	-4249.85	-16.51
		Zone 33 (100 ft/day)	0.1X	High	31%	39623.27	17256.02	5237.04	12448.23	-15823.59	7722.46	1019.32	-3103.78	110.11	-10151.20	322.01	-4354.06	60.33	-26.44	-0.82	-2865.09	-9.49	-3101.44	7.48	-2273.94	-10.00	-6.88	-0.02	-16.30	0.04	32565.30	-8032.22	-2571.92	8866.34	-4108.89	124.45
			10X	High	50%	65141.84	3032.80	-8986.19	54188.25	25916.43	4719.19	-1983.95	-3344.91	-131.02	-10722.07	-248.85	-4168.85	245.54	-26.93	-1.31	-2873.46	-17.87	-3090.23	18.69	-2279.51	-15.56	-6.91	-0.04	-16.24	0.10	51999.53	11402.01	-27523.95	-16085.69	-4321.93	-88.59
		Zone 34 (100 ft/day)	0.1X	Low	4%	4983.97	12110.24	91.25	28255.51	-16.31	6732.78	29.64	-3040.53	173.37	-8729.56	1743.66	-4367.19	47.20	-25.04	0.58	-2844.84	10.75	-3078.34	30.58	-2257.88	6.07	-6.81	0.05	-16.15	0.19	40578.76	-18.76	-13516.07	-2077.81	-3495.58	737.76
			10X	Medium	6%	7526.55	12126.82	107.83	28397.58	125.76	6646.81	-56.33	-3698.02	-484.12	-12625.05	-2151.84	-4593.36	-178.97	-28.23	-2.61	-2889.89	-34.30	-3166.77	-57.85	-2294.13	-30.18	-6.98	-0.12	-16.69	-0.36	40628.54	31.02	-8340.79	3097.47	-5401.14	-1167.80
		Zone 35 (50 ft/day)	0.1X	Medium	9%	11098.14	12130.15	111.16	28254.80	-17.02	6650.57	-52.58	-3474.05	-260.16	-6079.41	4393.81	-4651.82	-237.43	-16.64	8.98	-2673.68	181.91	-3127.41	-18.49	-2138.76	125.19	-6.30	0.57	-16.32	0.01	40529.54	-67.98	-14674.06	-3235.80	-1846.28	2387.06
			10X	High	26%	33118.31	12064.70	45.71	28465.54	193.72	6893.01	189.87	-2299.74	914.16	-23191.58	-12718.37	-3709.33	705.06	-34.33	-8.72	-3129.80	-274.21	-3057.51	51.41	-2417.63	-153.68	-7.68	-0.82	-16.22	0.12	40827.42	229.91	-2161.07	9277.19	-12588.72	-8355.38
		Zone 36 (50 ft/day)	0.1X	Low	2%	2322.21	12117.96	98.97	28294.11	22.28	6694.82	-8.32	-3131.80	82.09	-10117.99	355.22	-4271.06	143.34	-23.69	1.93	-2355.10	500.49	-3204.64	-95.72	-2193.10	70.84	-5.82	1.04	-16.39	-0.05	40584.63	-12.89	-11793.98	-355.72	-3660.04	573.31
			10X	Low	2%	1980.47	12112.43	93.44	28309.79	37.97	6716.55	13.41	-3263.03	-49.13	-10665.68	-192.47	-4486.33	-71.94	-26.11	-0.50	-3133.16	-277.57	-3060.82	48.11	-2333.92	-69.97	-7.46	-0.60	-16.32	0.02	40608.90	11.39	-11074.85	363.41	-4983.89	-750.55
		Zone 37 (5 ft/day)	0.1X	Low	1%	1361.51	12131.24	112.25	28291.70	19.88	6638.26	-64.88	-3265.78	-51.88	-10305.78	167.43	-4281.21	133.18	-26.02	-0.41	-2852.11	3.48	-3156.20	-47.28	-2269.65	-5.71	-6.86	0.00	-16.60	-0.27	40551.67	-45.85	-10993.08	445.18	-3969.52	263.83
			10X	Low	2%	2077.99	12085.42	66.43	28463.23	191.41	6811.14	108.00	-3160.98	52.92	-11055.73	-582.52	-4382.34	32.05	-27.33	-1.72	-2886.00	-30.40	-3071.34	37.58	-2284.99	-21.04	-6.94	-0.07	-16.14	0.20	40776.48	178.96	-11779.28	-341.02	-4666.99	-433.65
		Zone 38 (20 ft/day)	0.1X	Low	2%	2833.81	12114.99	96.00	28302.14	30.32	6706.43	3.28	-3177.60	36.29	-10309.44	163.78	-4422.18	-7.79	-23.11	2.51	-1392.85	1462.75	-3198.97	-90.05	-2320.71	-56.76	-7.36	-0.50	-16.37	-0.04	40597.21	-0.31	-11482.65	-44.38	-5072.39	-839.05
			10X	Low	1%	1874.74	12114.94	95.96	28302.64	30.82	6706.70	3.56	-3203.21	10.69	-10414.89	58.32	-4390.78	23.61	-18.47	7.15	-3851.38	-995.79	-3039.70	69.22	-2246.19	17.76	-6.48	0.38	-16.34	0.00	40597.77	0.25	-11403.63	34.63	-3706.74	526.60
		Zone 39 (5 ft/day)	0.1X	Low	0%	304.11	12115.40	96.41	28300.02	28.20	6704.13	0.99	-3189.67	24.23	-10368.10	105.12	-4401.51	12.88	-26.69	-1.08	-2868.37	-12.78	-3112.60	-3.68	-2276.97	-13.02	-6.90	-0.04	-16.36	-0.03	40594.31	-3.21	-11436.27	1.99	-4232.87	0.47
			10X	Low	0%	306.00	12114.81	95.82	28303.46	31.64	6707.70	4.55	-3193.06	20.84	-10367.91	105.30	-4405.61	8.78	-26.71	-1.10	-2868.87	-13.28	-3111.81	-2.89	-2277.23	-13.28	-6.90	-0.04	-16.36	-0.02	40599.06	1.54	-11441.02	-2.76	-4229.17	4.17
	Model Layer 8	Zone 31 (0.01 ft/day)	0.1X	Low	0%	375.91	12118.80	99.82	28308.01	36.19	6672.76	-30.38	-3191.98	21.92	-10368.74	104.47	-4402.74	11.65	-26.70	-1.09	-2868.67	-13.08	-3111.76	-2.84	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40577.45	-20.06	-11417.64	20.62	-4232.77	0.57
			10X	Low	0%	597.63	12112.37	93.39	28287.02	15.20	6840.46	137.32	-3192.82	21.07	-10371.16	102.05	-4408.71	5.68	-26.71	-1.09	-2868.74	-13.15	-3112.58	-3.65	-2277.20	-13.25	-6.90	-0.04	-16.36	-0.03	40686.33	88.82	-11538.74	-100.48	-4235.75	-2.41
		Zone 32 (0.01 ft/day)	0.1X	Low	3%	4285.42	12496.62	477.63	28980.41	708.59	5054.89	-1648.25	-3184.51	29.39	-10347.10	126.12	-4351.57	62.82	-26.65	-1.04	-2868.17	-12.58	-3104.90	4.03	-2276.42	-12.47	-6.89	-0.03	-16.32	0.02	39906.95	-690.57	-10959.75	478.52	-4199.98	33.36
			10X	Low	2%	3226.33	11833.89	-185.10	27612.67	-659.15	8144.19	1441.04	-3198.31	15.59	-10387.06	86.15	-4446.94	-32.54	-26.75	-1.13	-2869.12	-13.52	-3117.68	-8.76	-2277.71	-13.77	-6.90	-0.04	-16.39	-0.06	40969.75	372.23	-11809.83	-371.56	-4259.02	-25.68
		Zone 33 (0.01 ft/day)	0.1X	Low	2%	2403.89	11913.39	-105.60	27507.06	-764.76	7295.17	592.03	-3186.16	27.73	-10352.66	120.55	-4385.51	28.88	-26.66	-1.04	-2868.39	-12.80	-3109.60	-0.68	-2276.72	-12.77	-6.90	-0.04	-16.35	-0.01	40258.81	-338.71	-11049.63	388.64	-4223.68	9.66
			10X	Low	4%	5678.42	12228.65	209.66	29859.05	1587.23	6246.83	-456.32	-3174.38	39.52	-10308.19	165.02	-4125.48	288.91	-26.50	-0.89	-2866.71	-11.12	-3075.15	33.77	-2274.05	-10.11	-6.88	-0.02	-16.14	0.19	41580.35	982.83	-13175.25	-1736.98	-4077.49	155.85
		Zone 34 (0.01 ft/day)	0.1X	Low	3%	3292.77	12195.19	176.21	28137.57	-134.25	6405.70	-297.44	-3061.21	152.69	-9984.80	488.42	-5239.15	-824.76	-26.82	-1.20	-2866.43	-10.84	-3210.01	-101.09	-2280.34	-16.39	-6.92	-0.06	-16.93	-0.59	40286.31	-311.21	-10795.19	643.08	-4367.87	-134.53
			10X	Low	3%	3735.81	12011.12	-7.87	28512.70	240.88	7099.41	396.27	-3344.18	-130.28	-10845.09	-371.88	-3391.78	1022.61	-26.55	-0.93	-2871.33	-15.73	-2992.88	116.04	-2273.13	-9.18	-6.87	0.00	-15.67	0.67	40999.77	402.25	-12298.80	-860.54	-4072.67	160.67
		Zone 35 (0.01 ft/day)	0.1X	Low	2%	1985.26	12136.52	117.54	28255.15	-16.67	6625.92	-77.22	-3270.98	-57.08	-10571.14	-97.93	-3685.85	728.54	-25.90	-0.28	-2846.68	8.91	-3280.13	-171.21	-2270.69	-6.74	-6.89	-0.02	-17.32	-0.99	40513.21	-84.31	-11763.36	-325.09	-3940.63	292.71
			10X	Medium	5%	6914.03	12062.89	43.91	28417.47	145.65	6899.85	196.70	-2986.76	227.14	-9710.96	762.25	-6816.37	-2401.98	-28.95	-3.34	-2931.55	-75.96	-2628.45	480.47	-2294.26	-30.31	-6.93	-0.07	-13.56	2.78	40801.74	204.22	-10233.60	1204.66	-5367.94	-1134.60
		Zone 36 (0.01 ft/day)	0.1X	Low	1%	1393.11	12120.16	101.17	28290.19	18.36	6687.21	-15.94	-3200.90	13.00	-10395.87	77.34	-4031.39	383.00	-26.20	-0.59	-2843.62	11.98	-3205.43	-96.51	-2269.23	-5.28	-6.86	0.00	-17.00	-0.66	40576.82	-20.69	-11709.49	-271.22	-3855.97	377.37
			10X	Low	5%	5920.15	12091.19	72.20	28358.72	86.90	6795.46	92.31	-3146.09	67.81	-10222.22	250.99	-6116.46	-1702.07	-31.35	-5.74	-3023.49	-167.90	-2579.94	528.98	-2323.61	-59.66	-7.17	-0.31	-13.37	2.97	40693.45	95.93	-10214.93	1223.33	-5796.40	-1563.06
		Zone 37 (0.01 ft/day)	0.1X	Low	1%	1026.54	12105.67	86.68	28293.32	21.49	6756.44	53.30	-3150.91	62.99	-10251.49	221.73	-4670.96	-256.57	-27.14	-1.52	-2877.72	-22.12	-3081.23	27.69	-2280.85	-16.90	-6.92	-0.06	-16.22	0.12	40623.50	25.98	-11289.83	148.44	-4314.28	-80.94
			10X	Low	1%	1043.12	12091.69	72.70	28373.50	101.68	6787.95	84.81	-3216.11	-2.21	-10238.04	235.17	-4595.33	-180.94	-26.67	-1.06	-2871.18	-15.59	-3047.90	61.03	-2276.25	-12.30	-6.88	-0.02	-15.97	0.37	40700.25	102.74	-11574.25	-135.99	-4269.87	-36.52
		Zone 38 (0.01 ft/day)	0.1X	Low	0%	626.45	12116.48	97.50	28298.90	27.08	6701.02	-2.12	-3194.50	19.40	-10376.13	97.09	-4297.73	116.66	-29.14	-3.52	-2884.60	-29.01	-3145.24	-36.32	-2272.11	-8.17	-6.79	0.07	-15.30	1.04	40591.60	-5.91	-11516.06	-77.80	-4128.56	104.78
			10X	Low	2%	2518.68	12104.37	85.38	28328.06	56.24	6746.86	43.72	-3180.26	33.64	-10339.36	133.85	-5169.13	-754.74	-12.94	12.68	-3045.49	-189.89	-3157.27	-48.35	-2297.04	-33.09	-7.41	-0.55	-14.27	2.07	40641.11	43.60	-10856.17	582.09	-4732.14	-498.80
		Zone 39 (0.01 ft/day)	0.1X	Low	0%	384.46	12114.03	95.04	28304.41	32.59	6710.26	7.12	-3202.64	11.26	-10444.87	28.35	-4300.19	114.21	-26.72	-1.10	-2869.08	-13.49	-3107.79	1.14	-2277.18	-13.23	-6.90	-0.04	-16.34	0.00	40601.57	4.05	-11462.11	-23.85	-4194.33	39.01
			10X	Low	0%	308.57	12115.11	96.12	28302.11	30.28	6706.00	2.85	-3190.22	23.67	-10362.06	111.15	-4416.26	-1.87	-26.70	-1.09	-2868.63	-13.03	-3112.54	-3.62	-2277.11	-13.17	-6.90	-0.04	-16.36	-0.02	40596.91	-0.60	-11434.25	4.02	-4240.38	-7.04
	Model Layer 9	Zone 31 (100 ft/day)	0.1X	Low	0%	323.80	12109.12	90.13	28300.33	28.51	6690.70	-12.45	-3192.02	21.88	-10368.88	104.33	-4403.19	11.20	-26.70	-1.09	-2868.68	-13.08	-3111.82	-2.90	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40592.56	-4.96	-11418.54	19.72	-4233.02	0.32
			10X	Low	0%	351.59	12122.78	103.79	28306.28	34.46	6716.03	12.89	-3192.22	21.67	-10369.44	103.77	-4404.39	10.00	-26.70	-1.09	-2868.69	-13.10	-3111.98	-3.06	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40614.37	16.85	-11455.66	-17.39	-4233.61	-0.27
		Zone 32 (100 ft/day)	0.1X	Low	2%	2252.32	12182.74	163.75	28437.06	165.24	5922.91	-780.24	-3188.02	25.88	-10357.46	115.76	-4376.10	38.29	-26.67	-1.06	-2868.38	-12.78	-3108.15	0.77	-2276.72	-12.77	-6.90	-0.03	-16.34	0.00	40173.78	-423.74	-10942.02	496.24	-4217.55	15.79
			10X	Low	4%	4719.85	11761.30	-257.69	27864.86	-406.97	8671.32	1968.18	-3201.60	12.30	-10396.40	76.81	-4468.07	-53.68	-26.77	-1.16	-2869.37	-13.77	-3120.60	-11.68	-2278.03	-14.08	-6.90	-0.04	-16.41	-0.07	41454.78	857.26	-12446.19	-1007.93	-4271.58	-38.24
		Zone 33 (100 ft/day)	0.1X	Low	3%	4507.52	12395.68	376.69	28035.46	-236.37	5506.25	-1196.89	-3121.15	92.74	-10162.88	310.34	-3847.67	566.72	-26.12	-0.51	-2863.11	-7.52	-3038.14	70.78	-2269.40	-5.45	-6.86	0.00	-15.93	0.41	39662.78	-934.74	-11057.96	380.30	-3905.29	328.05
			10X	Medium	7%	8470.89	11404.69	-614.30	28308.70	36.88	9805.24	3102.10	-3290.39	-76.50	-10657.88	-184.67	-5113.44	-699.05	-27.35	-1.73	-2874.61	-19.02	-3205.36	-96.44	-2285.85	-21.90	-6.95	-0.09	-16.91	-0.57	42473.73	1876.21	-12749.03	-1310.77	-4664.01	-430.67
		Zone 34 (100 ft/day)	0.1X	Low	3%	4384.10	12241.81	222.82	28025.41	-246.41	6216.85	-486.29	-3137.54	76.35	-10182.08	291.14	-3253.04	1161.35	-25.70	-0.08	-2860.68	-5.08	-2964.98	143.94	-2263.71	0.24	-6.82	0.04	-15.50	0.84	40094.92	-502.59	-12147.73	-709.47	-3695.88	537.46
			10X	Low	2%	2920.34	12019.89	0.91	28508.28	236.46	7071.71	368.57	-3237.80	-23.90	-10531.59	-58.38	-5219.11	-804.72	-27.30	-1.69	-2873.24	-17.65	-3215.55	-106.63	-2285.42	-21.47	-6.95	-0.09	-16.96	-0.63	40971.21	373.69	-10933.24	505.02	-4633.88	-400.54
		Zone 35 (50 ft/day)	0.1X	Low	4%	5465.34	12146.67	127.68	28225.00	-46.82	6582.65	-120.49	-3274.44	-60.55	-10639.90	-166.69	-2208.63	2205.76	-25.61	0.00	-2873.06	-17.46	-2688.82	420.11	-2258.36	5.59	-6.77	0.09	-13.87	2.47	40465.25	-132.27	-12909.32	-1471.06	-3545.03	688.31
			10X	Low	4%	5226.81	12086.15	67.16	28371.60	99.78	6817.25	114.10	-3117.47	96.43	-10084.58	388.63	-6391.88	-1977.49	-27.75	-2.14	-2865.26	-9.66	-3468.36	-359.44	-2291.87	-27.92	-7.00	-0.14	-18.45	-2.11	40716.21	118.69	-10133.03	1305.24	-4891.21	-657.87
		Zone 36 (50 ft/day)	0.1X	Low	1%	1074.26	12118.22	99.23	28293.86	22.04	6693.21	-9.93	-3194.73	19.17	-10373.93	99.28	-4150.56	263.84	-27.43	-1.82	-2888.83	-33.24	-2856.00	252.92	-2276.99	-13.04	-6.87	-0.01	-14.94	1.40	40583.18	-14.34	-11634.04	-195.78	-4185.10	48.24
			10X	Low	1%	714.85	12113.21	94.23	28307.27	35.45	6714.08	10.94	-3190.91	22.99	-10367.34	105.88	-4546.34	-131.95	-26.19	-0.58	-2856.39	-0.79	-3264.24	-155.32	-2276.99	-13.04	-6.91	-0.05	-17.22	-0.89	40605.68	8.16	-11328.06	110.20	-4257.74	-24.40
		Zone 37 (5 ft/day)	0.1X	Low	2%	1972.00	12034.67	15.69	28381.99	110.17	6986.27	283.13	-3207.08	6.82	-10352.48	120.74	-4376.52	37.87	-26.71	-1.09	-2873.18	-17.58	-2968.68	140.24	-2273.32	-9.37	-6.86	0.00	-15.55	0.79	40829.67	232.15	-10536.50	901.77	-4138.76	94.58
			10X	Low	2%	2313.15	12180.55	161.57	28283.70	11.88	6465.29	-237.85	-3186.66	27.24	-10267.92	205.30	-5075.43	-661.04	-26.77	-1.16	-2866.69	-11.10	-3274.21	-165.29	-2282.95	-19.00	-6.94	-0.08	-17.28	-0.94	40424.10	-173.41	-11764.58	-326.32	-4544.31	-310.97
		Zone 38 (20 ft/day)	0.1X	Low	1%	1767.95	12118.89	99.90	28292.64	20.82	6691.30	-11.85	-3191.69	22.21	-10360.25	112.97	-4119.95	294.44	-27.80	-2.18	-2956.16	-100.57	-2409.04	699.88	-2286.07	-22.12	-6.92	-0.06	-16.96	-0.62	40581.19	-16.33	-11672.43	-234.17	-4363.19	-129.85
			10X	Low	1%	1046.24	12112.59	93.60	28308.21	36.39	6715.64	12.50	-3192.19	21.70	-10373.75	99.47	-4572.93	-158.54	-26.04	-0.43	-2829.28	26.32	-3484.27	-375.35	-2272.66	-8.71	-6.89	-0.03	-15.82	0.51	40607.27	9.75	-11299.57	138.69	-4169.09	64.25
		Zone 39 (5 ft/day)	0.1X	Low	0%	631.36	12110.28	91.29	28312.62	40.80	6722.03	18.89	-3186.29	27.60	-10372.92	100.30	-4442.10	-27.71	-26.60	-0.99	-2867.59	-12.00	-3092.17	16.75	-2275.52	-11.58	-6.89	-0.03	-16.24	0.09	40615.50	17.98	-11186.75	251.51	-4247.19	-13.85
			10X	Low	1%	717.06	12118.67	99.68	28295.84	24.02	6695.97	-7.17	-3182.19	31.70	-10307.14	166.07	-4378.32	36.07	-26.78	-1.17	-2869.77	-14.18	-3130.67	-21.75	-2278.60	-14.65	-6.91	-0.05	-16.47	-0.13	40585.72	-11.80	-11600.56	-162.30	-4107.04	126.31
	Model Layer 10	Zone 32 (100 ft/day)	0.1X	Medium	5%	6973.55	12662.16	643.17	29208.17	936.35	3882.77	-2820.38	-3177.91	35.98	-10328.41	144.81	-4307.18	107.22	-26.59	-0.98	-2867.48	-11.89	-3098.66	10.26	-2275.65	-11.70	-6.89	-0.03	-16.28	0.06	39544.54	-1052.98	-10304.04	1134.22	-4169.80	63.54
			10X	Medium	6%	7378.64	11484.64	-534.35	27439.74	-832.08	9836.01	3132.87	-3207.64	6.26	-10414.01	59.21	-4509.01	-94.62	-26.80	-1.18	-2869.55	-13.96	-3125.79	-16.87	-2278.46	-14.51	-6.91	-0.04	-16.44	-0.10	41825.19	1227.67	-12823.87	-1385.60	-4292.65	-59.31
		Zone 33 (100 ft/day)	0.1X	Medium	7%	9232.87	12693.35	674.37	29133.16	861.34	3164.14	-3539.00	-3145.67	68.22	-10234.80	238.41	-4065.21	349.18	-26.34	-0.72	-2865.04	-9.45	-3066.55	42.37	-2272.27	-8.32	-6.87	-0.01	-16.09	0.24	38896.28	-1701.24	-9906.78	1531.48	-4024.84	208.50
			10X	Medium	9%	11835.07	11189.35	-829.64	27759.65	-512.18	11272.05	4568.91	-3290.50	-76.61	-10657.70	-184.49	-5105.88	-691.49	-27.34	-1.72	-2874.41	-18.82	-3204.29	-95.37	-2285.71	-21.76	-6.95	-0.09	-16.90	-0.56	43034.99	2437.47	-13411.43	-1973.16	-4656.17	-422.83
		Zone 34 (100 ft/day)	0.1X	Low	1%	712.42	12128.25	109.27	28273.36	1.54	6655.54	-47.61	-3187.70	26.20	-10350.66	122.55	-4262.34	152.06	-26.59	-0.97	-2867.71	-12.12	-3093.72	15.20	-2275.55	-11.61	-6.89	-0.03	-16.25	0.09	40545.05	-52.47	-11530.72	-92.46	-4165.08	68.27
			10X	Low	1%	1509.11	12068.01	49.02	28404.40	132.58	6886.65	183.51	-3215.98	-2.08	-10455.43	17.78	-4807.09	-392.70	-27.00	-1.39	-2870.96	-15.36	-3163.08	-54.16	-2281.32	-17.37	-6.92	-0.06	-16.66	-0.32	40782.49	184.97	-11176.10	262.16	-4428.99	-195.65
		Zone 35 (50 ft/day)	0.1X	Low	1%	766.23	12118.46	99.47	28293.98	22.16	6693.00	-10.14	-3201.26	12.64	-10401.21	72.00	-4173.56	240.84	-26.59	-0.98	-2868.93	-13.33	-3070.02	38.90	-2275.21	-11.26	-6.88	-0.02	-16.11	0.22	40583.11	-14.41	-11590.08	-151.82	-4155.32	78.03
			10X	Low	2%	2648.31	12101.58	82.59	28334.68	62.85	6758.06	54.92	-3156.37	57.53	-10229.13	244.09	-5361.31	-946.91	-27.10	-1.48	-2866.27	-10.67	-3287.74	-178.82	-2284.25	-20.30	-6.95	-0.09	-17.39	-1.05	40652.79	55.27	-10810.32	627.95	-4537.13	-303.79
		Zone 36 (50 ft/day)	0.1X	Low	0%	487.38	12115.51	96.52	28300.60	28.78	6703.74	0.59	-3193.26	20.63	-10372.77	100.44	-4348.65	65.74	-26.86	-1.25	-2872.42	-16.83	-3046.59	62.34	-2276.41	-12.47	-6.89	-0.02	-15.97	0.37	40594.59	-2.92	-11476.79	-38.53	-4193.41	39.93
			10X	Low	0%	606.22	12113.68	94.69	28306.08	34.26	6712.21	9.07	-3191.34	22.55	-10368.22	104.99	-4510.87	-96.48	-26.27	-0.66	-2859.08	-3.49	-3229.85	-120.93	-2276.93	-12.98	-6.91	-0.05	-17.05	-0.72	40603.63	6.11	-11355.70	82.57	-4250.01	-16.67
		Zone 37 (1 ft/day)	0.1X	Low	1%	1119.05	12096.14	77.15	28327.85	56.03	6762.72	59.57	-3188.29	25.61	-10363.34	109.87	-4617.53	-203.14	-26.74	-1.13	-2871.30	-15.71	-3044.05	64.87	-2275.65	-11.70	-6.88	-0.02	-16.01	0.33	40649.75	52.23	-11098.37	339.89	-4131.54	101.80
			10X	Low	1%	1473.86	12161.09	142.10	28254.11	-17.71	6542.06	-161.09	-3199.53	14.37	-10380.40	92.81	-4233.56	180.84	-26.47	-0.86	-2864.18	-8.59	-3216.03	-107.11	-2278.78	-14.83	-6.92	-0.06	-16.89	-0.55	40454.82	-142.70	-11869.31	-431.05	-4392.56	-159.22
		Zone 38 (20 ft/day)	0.1X	Low	1%	1598.59	12118.33	99.35	28293.90	22.08	6693.23	-9.91	-3191.69	22.21	-10361.11	112.10	-4155.29	259.10	-27.69	-2.08	-2930.71	-75.12	-2465.00	643.92	-2285.25	-21.30	-6.92	-0.05	-16.89	-0.56	40583.48	-14.04	-11641.50	-203.23	-4346.89	-113.55
			10X	Low	1%	1080.83	12112.54	93.55	28308.29	36.47	6715.79	12.65	-3192.41	21.48	-10374.78	98.43	-4575.62	-161.23	-26.02	-0.40	-2832.04	23.55	-3509.56	-400.64	-2272.21	-8.27	-6.89	-0.03	-15.83	0.51	40607.27	9.75	-11297.51	140.75	-4160.23	73.11
		Zone 39 (1 ft/day)	0.1X	Low	0%	545.90	12113.65	94.66	28306.04	34.22	6711.46	8.31	-3183.41	30.48	-10351.58	121.64	-4408.17	6.22	-26.65	-1.03	-2867.85	-12.26	-3106.81	2.11	-2276.41	-12.46	-6.89	-0.03	-16.33	0.01	40603.78	6.26	-11314.14	124.12	-4141.27	92.07

Table 5-2. Sensitivity Analysis -- Inter-basin Flows and Stream Percolation

units: Acre-feet per year

Parameters			Multiplier	Sensitivity	diff (%)	Sum of absolute fluxes	Piru to Fillmore in System		Piru to Fillmore in System		Piru to Fillmore in System		Fillmore to Santa Paula in		Fillmore to Santa Paula in		Fillmore to Santa Paula		Santa Paula to		Santa Paula to Mound ib		Santa Paula to Mound ib		Santa Paula to Oxnard in		Santa Paula to		Santa Paula to		STR Percolation in Piru		STR Percolation in Fillmore		STR Percolation in Santa	
						Default = 129641.846	Default = 12018.990		Default = 28271.821		Default = 6703.143		Default = -3213.897		Default = -10473.213		Default = -4414.391		Default = -25.615		Default = -2855.593		Default = -3108.92		Default = -2263.948		Default = -6.86		Default = -16.337		Default = 40597.518		Default = -11438.262		Default = -4233.34	
						Sum of absolute diff	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.
		Zone 39 (1 ft/day)	10X	Low	0%	558.51	12116.88	97.89	28298.55	26.73	6701.18	-1.96	-3194.61	19.28	-10340.48	132.74	-4346.12	68.27	-26.77	-1.16	-2869.55	-13.96	-3119.95	-11.03	-2278.10	-14.15	-6.90	-0.04	-16.41	-0.07	40591.55	-5.96	-11583.88	-145.61	-4213.68	19.66
Vertical Hydraulic Conductivity	Model Layer 1	Zone 31 (120 ft/day)	0.1X	Low	0%	296.67	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
			10X	Low	0%	296.67	12114.96	95.97	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	0.00	-11438.26	0.01	-4233.34	0.00
		Zone 32 (120 Ft/day)	0.1X	Low	0%	298.96	12116.80	97.81	28301.47	29.65	6706.48	3.33	-3192.13	21.77	-10369.19	104.03	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40598.19	0.67	-11439.04	-0.78	-4233.34	0.00
			10X	Low	0%	302.68	12096.87	77.88	28311.55	39.73	6707.31	4.16	-3192.14	21.76	-10369.22	103.99	-4403.95	10.44	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40590.90	-6.61	-11430.61	7.65	-4233.38	-0.04
		Zone 33 (60 ft/day)	0.1X	Low	0%	296.89	12114.95	95.97	28302.25	30.43	6706.55	3.40	-3192.15	21.75	-10369.23	103.99	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.33	-0.18	-11438.01	0.25	-4233.36	-0.02
			10X	Low	0%	303.36	12115.06	96.08	28303.90	32.08	6706.62	3.48	-3192.00	21.90	-10368.85	104.36	-4403.78	10.61	-26.70	-1.09	-2868.68	-13.09	-3111.90	-2.97	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40599.33	1.81	-11440.77	-2.51	-4233.17	0.17
		Zone 34 (20 Ft/day)	0.1X	Low	0%	298.43	12114.94	95.96	28302.50	30.68	6706.62	3.48	-3191.95	21.95	-10368.74	104.47	-4403.78	10.61	-26.70	-1.09	-2868.68	-13.09	-3111.89	-2.97	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.64	0.12	-11438.74	-0.48	-4233.03	0.31
			10X	Low	0%	297.30	12115.16	96.17	28301.40	29.58	6705.89	2.74	-3193.92	19.97	-10373.59	99.62	-4404.93	9.46	-26.71	-1.09	-2868.75	-13.16	-3112.14	-3.22	-2277.18	-13.23	-6.90	-0.04	-16.36	-0.02	40596.36	-1.16	-11433.52	4.75	-4236.41	-3.07
		Zone 35 (20 ft/day)	0.1X	Low	0%	296.61	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.21	21.69	-10369.23	103.99	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	0.00	-11438.23	0.03	-4233.37	-0.03
			10X	Low	0%	298.44	12114.96	95.97	28302.42	30.60	6706.58	3.44	-3191.36	22.54	-10368.85	104.37	-4403.85	10.54	-26.70	-1.09	-2868.68	-13.08	-3111.90	-2.98	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.55	0.03	-11438.58	-0.32	-4233.07	0.27
		Zone 36 (20 ft/day)	0.1X	Low	0%	296.76	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.14	21.76	-10369.21	104.00	-4403.91	10.48	-26.71	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.23	0.04	-4233.45	-0.11
			10X	Low	0%	298.75	12114.97	95.98	28302.39	30.57	6706.54	3.40	-3192.07	21.82	-10368.96	104.26	-4403.75	10.64	-26.66	-1.05	-2868.71	-13.12	-3111.96	-3.03	-2277.26	-13.31	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11438.62	-0.36	-4232.21	1.13
		Zone 37 (20 ft/day)	0.1X	Low	0%	296.72	12114.96	95.97	28302.41	30.58	6706.56	3.42	-3192.22	21.68	-10369.39	103.82	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.10	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.06	0.20	-4233.44	-0.10
			10X	Low	0%	302.02	12114.98	95.99	28302.34	30.52	6706.51	3.37	-3191.35	22.55	-10367.27	105.94	-4404.03	10.36	-26.70	-1.09	-2868.66	-13.07	-3111.89	-2.97	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40597.43	-0.09	-11440.15	-1.89	-4232.36	0.98
		Zone 39 (1 ft/day)	0.1X	Low	0%	296.66	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
			10X	Low	0%	296.69	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.27	-0.01	-4233.34	0.00
	Model Layer 2	Zone 31 (0.01 ft/day)	0.1X	Low	0%	299.18	12115.36	96.37	28302.60	30.78	6706.62	3.48	-3192.13	21.77	-10369.19	104.03	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40598.80	1.29	-11438.80	-0.54	-4233.31	0.03
			10X	Low	0%	299.02	12114.06	95.07	28301.95	30.13	6706.40	3.26	-3192.13	21.76	-10369.20	104.02	-4403.87	10.52	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40594.90	-2.62	-11437.07	1.20	-4233.38	-0.04
		Zone 32 (0.01 ft/day)	0.1X	Low	1%	1691.80	12748.22	729.24	27909.38	-362.44	6676.34	-26.80	-3191.53	22.37	-10367.48	105.74	-4400.96	13.43	-26.70	-1.09	-2868.67	-13.07	-3111.54	-2.62	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40789.90	192.39	-11645.44	-207.18	-4231.10	2.24
			10X	Low	3%	4269.20	10461.55	-1557.44	29075.02	803.20	6750.62	47.48	-3192.35	21.55	-10369.75	103.46	-4407.02	7.37	-26.71	-1.10	-2868.75	-13.16	-3112.33	-3.41	-2277.20	-13.25	-6.90	-0.04	-16.36	-0.02	39661.57	-935.95	-10678.22	760.04	-4231.60	1.74
		Zone 33 (0.01 ft/day)	0.1X	Low	3%	4291.04	12582.18	563.19	26715.65	-1556.17	6682.23	-20.92	-3197.56	16.34	-10383.68	89.53	-4421.31	-6.91	-26.73	-1.11	-2868.94	-13.35	-3114.35	-5.43	-2277.43	-13.48	-6.90	-0.04	-16.37	-0.04	39548.64	-1048.87	-10497.59	940.67	-4248.33	-14.99
			10X	Low	3%	3997.06	12013.81	-5.17	29767.16	1495.33	6687.67	-15.47	-3182.33	31.56	-10343.15	130.07	-4371.18	43.21	-26.66	-1.04	-2868.16	-12.57	-3107.30	1.62	-2276.52	-12.58	-6.89	-0.03	-16.33	0.00	41719.97	1122.45	-12539.31	-1101.04	-4208.44	24.90
		Zone 34 (0.01 ft/day)	0.1X	Low	1%	1302.78	12105.26	86.27	28346.36	74.54	6741.15	38.00	-3087.81	126.08	-10115.14	358.07	-4344.97	69.42	-26.42	-0.80	-2864.40	-8.81	-3099.07	9.85	-2273.66	-9.71	-6.88	-0.02	-16.28	0.06	40652.20	54.68	-11724.67	-286.41	-4053.28	180.06
			10X	Low	1%	948.85	12124.03	105.04	28263.10	-8.73	6674.20	-28.94	-3302.25	-88.35	-10611.30	-138.08	-4460.17	-45.78	-26.95	-1.34	-2872.38	-16.79	-3123.83	-14.90	-2280.17	-16.22	-6.91	-0.05	-16.43	-0.09	40547.88	-49.64	-11175.49	262.78	-4405.46	-172.12
		Zone 35 (0.01 ft/day)	0.1X	Low	0%	285.39	12115.11	96.12	28301.95	30.13	6706.02	2.87	-3207.36	6.54	-10375.99	97.23	-4404.70	9.69	-26.72	-1.10	-2868.86	-13.26	-3112.22	-3.30	-2277.28	-13.33	-6.90	-0.04	-16.36	-0.02	40596.91	-0.61	-11430.59	7.67	-4236.82	-3.48
			10X	Low	0%	414.50	12114.39	95.41	28304.24	32.41	6708.75	5.61	-3133.37	80.52	-10344.34	128.87	-4400.79	13.60	-26.64	-1.03	-2867.87	-12.28	-3110.67	-1.74	-2276.43	-12.48	-6.89	-0.03	-16.35	-0.01	40599.96	2.44	-11447.01	-8.75	-4214.03	19.31
		Zone 36 (0.01 ft/day)	0.1X	Low	0%	320.47	12114.92	95.94	28302.51	30.69	6706.71	3.57	-3192.83	21.07	-10372.08	101.14	-4405.85	8.54	-26.82	-1.20	-2867.57	-11.98	-3111.46	-2.54	-2275.73	-11.78	-6.89	-0.03	-16.36	-0.02	40597.70	0.18	-11433.72	4.54	-4260.60	-27.26
			10X	Low	0%	458.25	12115.17	96.19	28301.84	30.02	6705.74	2.60	-3189.66	24.24	-10358.85	114.37	-4392.26	22.13	-26.07	-0.45	-2872.61	-17.02	-3114.79	-5.87	-2282.02	-18.07	-6.91	-0.05	-16.38	-0.04	40596.60	-0.92	-11458.25	-19.98	-4127.03	106.31
		Zone 37 (10ft/day)	0.1X	Low	0%	296.68	12114.96	95.97	28302.37	30.55	6706.55	3.41	-3192.15	21.75	-10369.24	103.97	-4403.89	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.46	-0.06	-11438.22	0.04	-4233.37	-0.03
			10X	Low	0%	298.53	12115.04	96.05	28302.70	30.88	6706.55	3.41	-3191.96	21.94	-10368.65	104.56	-4403.97	10.42	-26.70	-1.09	-2868.68	-13.09	-3111.92	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.93	0.41	-11438.46	-0.19	-4233.08	0.26
		Zone 39 (1 ft/day)	0.1X	Low	0%	296.66	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
			10X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Model Layer 3	Zone 26 (60 ft/day)	0.1X	Low	0%	300.52	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.91	0.39	-11438.99	-0.73	-4233.30	0.04
			10X	Low	0%	309.23	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40594.27	-3.24	-11431.96	6.30	-4233.67	-0.32
		Zone 31 (120 ft/day)	0.1X	Low	0%	302.24	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40598.87	1.35	-11439.77	-1.50	-4233.32	0.02
			10X	Low	0%	326.50	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40585.03	-12.48	-11423.82	14.45	-4233.55	-0.21
		Zone 32 (120 ft/day)	0.1X	Low	0%	301.60	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40596.33	-1.19	-11437.26	1.00	-4233.29	0.05
			10X	Low	0%	317.19	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40607.06	9.54	-11446.16	-7.90	-4233.73	-0.39
		Zone 33 (40 ft/day)	0.1X	Low	0%	303.72	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40595.71	-1.81	-11440.24	-1.98	-4232.76	0.58
			10X	Low	0%	336.08	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40616.48	18.96	-11425.29	12.97	-4238.13	-4.79
		Zone 34 (10 ft/day)	0.1X	Low	0%	309.02	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40598.58	1.06	-11443.52	-5.26	-4230.01	3.34
			10X	Low	0%	372.26	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40589.09	-8.43	-11400.23	38.03	-4259.78	-26.44
		Zone 35 (10 ft/day)	0.1X	Low	0%	299.83	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.55	-0.28	-4233.19	0.15
			10X	Low	0%	304.35	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.87	0.35	-11435.04	3.22	-4234.76	-1.41
		Zone 36 (10 ft/day)	0.1X	Low	0%	303.75	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.54	0.03	-11437.57	0.70	-4237.01	-3.67
			10X	Low	0%	336.51	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.28	-0.24	-11444.31	-6.05	-4202.48	30.86
		Zone 37 (10 ft/day)	0.1X	Low	0%	299.42	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.51	0.00	-11438.22	0.05	-4233.35	-0.01
			10X	Low	0%	299.92	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.72	-0.46	-4233.25	0.09
		Zone 38 (10 ft/day)	0.1X	Low	0%	329.74	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.63	0.11	-11435.09	3.17	-4260.44	-27.10
			10X	Low	0%	524.02	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40596.68	-0.84	-11462.62	-24.36	-4033.87	199.47
		Zone 39 (1 ft/day)	0.1X	Low	0%	299.39	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.01	-4233.36	-0.02
			10X	Low	0%	299.62	12115.00	96.01	28302.35	30.53	6706.50	3.36	-3191.85	22.05	-10367.26	105.95	-4403.47	10.92	-26.71	-1.09	-2868.73	-13.14	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.33	-0.07	-4233.15	0.19
	Model Layer 4	Zone 26 (40 ft/day)	0.1X	Low	0%	296.72	12114.96	95.98	28302.41	30.59	6706.56	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.29	-0.02	-4233.34	0.00
			10X	Low	0%	296.86	12114.97	95.99	28302.26	30.44	6706.53	3.39	-3192.14	21.76	-10369.20	104.01	-4403.91	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.39	-0.13	-11438.03	0.24	-4233.35	-0.01
		Zone 31 (100 ft/day)	0.1X	Low	0%	296.84	12115.00	96.01	28302.42	30.60	6706.56	3.42	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.57	0.05	-11438.32	-0.06	-4233.34	0.00
			10X	Low	0%	297.07	12114.60	95.61	28302.20	30.38	6706.50	3.35	-3192.13	21.77	-10369.19	104.02	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.05	-0.47	-11437.71	0.55	-4233.35	-0.01
		Zone 32 (100 ft/day)	0.1X	Low	0%	296.68	12114.97	95.99	28302.37	30.55	6706.55	3.40	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.49	-0.03	-11438.24	0.02	-4233.34	0.00
			10X	Low	0%	297.49	12114.86	95.87	28302.72	30.89	6706.61	3.47	-3192.13	21.76	-10369.20	104.02	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.85	0.33	-11438.49	-0.23	-4233.35	-0.01
		Zone 33 (20 ft/day)	0.1X	Low	0%	297.05	12116.76	97.77	28300.71	28.89	6706.55	3.40	-3192.12	21.78	-10369.17	104.05	-4403.89	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.57	0.05	-11438.44	-0.18	-4233.32	0.02
			10X	Low	0%	297.71	12097.16	78.17	28319.28	47.46	6706.62	3.47	-3192.23	21.66	-10369.45	103.77	-4403.95	10.44	-26.70	-1.09	-2868.69	-13.10	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.22	-0.30	-11436.44	1.82	-4233.52	-0.18
		Zone 34 (10 ft/day)	0.1X	Low	0%	297.29	12114.96	95.97	28302.42	30.60	6706.58	3.44	-3192.48	21.42	-10368.65	104.56	-4403.83	10.56	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.55	0.03	-11438.46	-0.20	-4233.23	0.11
			10X	Low	0%	297.29	12115.04	96.05	28302.17	30.35	6706.30	3.15	-3188.87	25.03	-10374.33	98.88	-4404.51	9.88	-26.71	-1.09	-2868.71	-13.12	-3112.03	-3.11	-2277.14	-13.20	-6.90	-0.04	-16.36	-0.02	40597.17	-0.34	-11436.34	1.93	-4234.45	-1.11
		Zone 35 (0.1 ft/day)	0.1X	Low	0%	484.35	12115.34	96.35	28301.28	29.46	6705.05	1.90	-3131.77	82.13	-10356.78	116.44	-4393.23	21.16	-27.04	-1.43	-2874.06	-18.47	-3114.21	-5.29	-2280.37	-16.42	-6.91	-0.05	-16.38	-0.04	40595.89	-1.63	-11502.71	-64.45	-4204.20	29.14
			10X	Low	1%	1410.72	12112.09	93.11	28310.64	38.82	6717.51	14.36	-3088.90	125.00	-10913.52	-440.30	-4464.44	-50.05	-24.52	1.09	-2832.24	23.35	-3097.29	11.63	-2253.14	10.81	-6.78	0.08	-16.25	0.09	40609.71	12.19	-11021.98	416.28	-4406.90	-173.56
		Zone 36 (0.1 ft/day)	0.1X	Low	0%	517.34	12114.75	95.76	28303.00	31.18	6707.38	4.24	-3196.91	16.99	-10388.96	84.26	-4412.50	1.89	-27.10	-1.48	-2850.79	4.81	-3110.26	-1.34	-2259.76	4.19	-6.84	0.02	-16.34	0.00	40598.47	0.96	-11411.24	27.02	-4476.55	-243.21
			10X	Low	0%	463.10	12115.05	96.07	28302.14	30.32	6706.19	3.04	-3190.28	23.62	-10361.77	111.44	-4399.62	14.77	-23.08	2.54	-2872.14	-16.55	-3113.37	-4.45	-2281.55	-17.60	-6.90	-0.04	-16.37	-0.03	40597.11	-0.41	-11449.72	-11.46	-4102.59	130.76
		Zone 37 (10 ft/day)	0.1X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.12	21.77	-10369.21	104.00	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.25	0.01	-4233.34	0.00
			10X	Low	0%	296.86	12114.96	95.98	28302.41	30.59	6706.56	3.42	-3192.22	21.68	-10369.01	104.20	-4403.92	10.47	-26.70	-1.09	-2868.69	-13.10	-3111.90	-2.98	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.37	-0.11	-4233.35	-0.01
		Zone 38 (0.1 ft/day)	0.1X	Low	0%	378.63	12114.95	95.96	28302.45	30.63	6706.61	3.47	-3192.87	21.03	-10372.25	100.96	-4403.93	10.46	-3.24	22.37	-2912.17	-56.57	-3110.47	-1.55	-2278.28	-14.33	-6.94	-0.08	-16.36	-0.03	40597.59	0.07	-11435.23	3.03	-4251.43	-18.09
			10X	Low	0%	572.05	12115.15	96.17	28301.85	30.03	6705.81	2.66	-3186.90	27.00	-10347.34	125.87	-4397.43	16.96	-38.20	-12.59	-2833.17	22.43	-3116.53	-7.61	-2261.50	2.45	-6.87	-0.01	-16.38	-0.04	40596.69	-0.83	-11464.88	-26.62	-4032.55	200.79
		Zone 39 (1 ft/day)	0.1X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.35	-0.01
			10X	Low	0%	296.76	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.28	-0.02	-4233.29	0.06
	Model Layer 5	Zone 26 (40 ft/day)	0.1X	Low	0%	300.06	12114.92	95.93	28303.27	31.44	6706.68	3.54	-3192.11	21.79	-10369.12	104.09	-4403.82	10.57	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40598.30	0.78	-11439.72	-1.45	-4233.28	0.06
			10X	Low	0%	305.65	12115.33	96.35	28295.98	24.16	6705.61	2.47	-3192.31	21.59	-10369.66	103.56	-4404.41	9.98	-26.70	-1.09	-2868.70	-13.10	-3111.99	-3.07	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40591.80	-5.72	-11427.36	10.91	-4233.76	-0.42
		Zone 31 (100 ft/day)	0.1X	Low	0%	303.89	12116.57	97.58	28303.27	31.45	6706.81	3.67	-3192.13	21.76	-10369.19	104.02	-4403.93	10.46	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40599.62	2.10	-11440.64	-2.38	-4233.30	0.04
			10X	Low	0%	313.49	12099.94	80.95	28294.22	22.40	6704.09	0.95	-3192.11	21.79	-10369.15	104.07	-4403.57	10.82	-26.70	-1.09	-2868.68	-13.08	-3111.87	-2.95	-2277.11	-13.17	-6.90	-0.04	-16.36	-0.02	40578.00	-19.51	-11415.93	22.34	-4233.66	-0.32
		Zone 32 (100 ft/day)	0.1X	Low	0%	297.36	12114.73	95.75	28302.35	30.53	6706.42	3.28	-3192.13	21.77	-10369.18	104.04	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40596.78	-0.74	-11437.96	0.31	-4233.30	0.04
			10X	Low	0%	306.78	12116.95	97.97	28302.01	30.19	6707.50	4.36	-3192.17	21.73	-10369.30	103.92	-4403.95	10.44	-26.70	-1.09	-2868.68	-13.09	-3111.92	-3.00	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40603.28	5.77	-11439.97	-1.71	-4233.63	-0.29
		Zone 33 (20 ft/day)	0.1X	Low	0%	321.08	12137.95	118.97	28282.58	10.76	6707.21	4.07	-3191.27	22.63	-10367.04	106.17	-4403.15	11.24	-26.70	-1.09	-2868.65	-13.06	-3111.78	-2.86	-2277.09	-13.15	-6.90	-0.04	-16.36	-0.02	40600.36	2.84	-11450.90	-12.64	-4231.77	1.57
			10X	Low	0%	582.57	11910.90	-108.09	28482.77	210.95	6702.11	-1.03	-3197.79	16.11	-10383.33	89.88	-4408.70	5.69	-26.72	-1.11	-2868.91	-13.32	-3112.80	-3.88	-2277.32	-13.37	-6.90	-0.04	-16.36	-0.03	40576.85	-20.66	-11350.27	87.99	-4243.76	-10.42
		Zone 34 (10 ft/day)	0.1X	Low	0%	308.37	12114.78	95.80	28303.03	31.21	6707.22	4.08	-3193.60	20.30	-10364.49	108.73	-4402.39	12.00	-26.70	-1.09	-2868.64	-13.05	-3111.67	-2.75	-2277.08	-13.14	-6.90	-0.04	-16.36	-0.02	40598.41	0.90	-11441.50	-3.24	-4231.29	2.05
			10X	Low	0%	310.08	12116.50	97.51	28297.29	25.47	6701.01	-2.13	-3177.70	36.20	-10408.05	65.16	-4416.59	-2.20	-26.73	-1.11	-2869.00	-13.41	-3113.93	-5.01	-2277.43	-13.48	-6.90	-0.04	-16.37	-0.03	40590.23	-7.29	-11413.34	24.93	-4249.44	-16.10
		Zone 35 (10 ft/day)	0.1X	Low	0%	297.32	12114.96	95.97	28302.42	30.60	6706.58	3.44	-3192.01	21.89	-10369.19	104.03	-4403.57	10.82	-26.71	-1.09	-2868.73	-13.14	-3111.92	-2.99	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.55	0.03	-11438.30	-0.04	-4233.36	-0.02
			10X	Low	0%	292.34	12115.04	96.05	28302.23	30.41	6706.32	3.17	-3192.56	21.34	-10370.28	102.94	-4406.94	7.45	-26.67	-1.06	-2868.22	-12.63	-3111.90	-2.98	-2276.83	-12.88	-6.90	-0.04	-16.36	-0.02	40597.22	-0.29	-11437.41	0.85	-4233.11	0.23
		Zone 36 (10 ft/day)	0.1X	Low	0%	304.24	12114.95	95.96	28302.44	30.62	6706.61	3.47	-3192.44	21.46	-10370.46	102.75	-4404.51	9.88	-26.75	-1.13	-2867.38	-11.79	-3111.81	-2.89	-2277.45	-13.50	-6.89	-0.03	-16.36	-0.02	40597.57	0.06	-11436.49	1.77	-4242.25	-8.91
			10X	Low	0%	406.88	12115.08	96.09	28302.07	30.25	6706.09	2.95	-3189.66	24.24	-10358.92	114.30	-4398.84	15.55	-26.30	-0.69	-2879.18	-23.59	-3112.81	-3.89	-2274.35	-10.40	-6.94	-0.08	-16.38	-0.04	40597.01	-0.51	-11452.69	-14.42	-4163.46	69.88
		Zone 37 (10 ft/day)	0.1X	Low	0%	296.75	12114.97	95.99	28302.39	30.57	6706.51	3.37	-3192.14	21.75	-10369.21	104.01	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.15	0.12	-4233.35	-0.01
			10X	Low	0%	299.12	12114.89	95.90	28302.53	30.70	6706.96	3.82	-3192.02	21.88	-10369.02	104.19	-4403.82	10.57	-26.70	-1.09	-2868.68	-13.09	-3111.90	-2.98	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.86	0.35	-11439.48	-1.22	-4233.24	0.10
		Zone 38 (10 ft/day)	0.1X	Low	0%	316.82	12114.95	95.96	28302.46	30.63	6706.63	3.49	-3192.59	21.31	-10371.11	102.10	-4404.72	9.67	-26.33	-0.72	-2867.02	-11.43	-3111.75	-2.83	-2277.96	-14.01	-6.89	-0.03	-16.36	-0.02	40597.60	0.08	-11435.72	2.54	-4255.34	-22.00
			10X	Low	0%	520.09	12115.12	96.13	28301.95	30.13	6705.92	2.77	-3188.47	25.43	-10353.84	119.37	-4397.24	17.15	-29.90	-4.29	-2881.47	-25.88	-3113.33	-4.41	-2268.01	-4.06	-6.96	-0.10	-16.39	-0.05	40596.82	-0.69	-11458.58	-20.32	-4064.04	169.30
		Zone 39 (1 ft/day)	0.1X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.35	-0.01
			10X	Low	0%	296.77	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.28	-0.02	-4233.29	0.06
	Model Layer 6	Zone 31 (0.1 ft/day)	0.1X	Low	0%	321.46	12120.25	101.26	28305.39	33.57	6707.75	4.61	-3192.14	21.76	-10369.21	104.00	-4404.02	10.37	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40604.93	7.41	-11446.19	-7.93	-4233.21	0.13
			10X	Low	0%	333.37	12089.64	70.66	28288.36	16.54	6700.75	-2.39	-3192.09	21.81	-10369.10	104.11	-4403.29	11.10	-26.70	-1.09	-2868.67	-13.07	-3111.83	-2.91	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40560.21	-37.31	-11399.67	38.60	-4233.91	-0.57
		Zone 32 (0.1 ft/day)	0.1X	Low	2%	2129.96	11349.75	-669.24	29193.25	921.43	6769.66	66.52	-3193.53	20.37	-10373.05	100.16	-4411.14	3.25	-26.71	-1.10	-2868.77	-13.18	-3112.90	-3.98	-2277.23	-13.29	-6.90	-0.04	-16.37	-0.03	40746.41	148.89	-11602.09	-163.83	-4238.01	-4.67
			10X	Low	2%	3132.49	12997.94	978.95	27151.36	-1120.46	6563.32	-139.83	-3189.72	24.18	-10362.51	110.71	-4391.35	23.04	-26.69	-1.07	-2868.54	-12.95	-3110.23	-1.30	-2276.93	-12.99	-6.90	-0.04	-16.35	-0.01	40256.17	-341.35	-11080.81	357.45	-4225.18	8.16
		Zone 33 (0.1 ft/day)	0.1X	Low	2%	2000.64	12949.35	930.36	27540.59	-731.24	6718.80	15.65	-3193.28	20.62	-10372.50	100.71	-4411.74	2.65	-26.71	-1.10	-2868.76	-13.17	-3112.95	-4.03	-2277.23	-13.28	-6.90	-0.04	-16.37	-0.03	40667.23	69.72	-11531.86	-93.59	-4237.80	-4.46
			10X	Low	1%	1837.75	11291.21	-727.78	29053.39	781.57	6714.25	11.10	-3192.56	21.34	-10370.04	103.18	-4401.42	12.97	-26.70	-1.09	-2868.69	-13.10	-3111.65	-2.73	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40543.90	-53.62	-11342.71	95.55	-4233.86	-0.52
		Zone 34 (0.1 ft/day)	0.1X	Low	0%	430.91	12113.16	94.18	28307.61	35.79	6713.11	9.97	-3268.12	-54.22	-10313.20	160.01	-4382.41	31.98	-26.70	-1.09	-2868.78	-13.19	-3109.26	-0.34	-2277.07	-13.12	-6.90	-0.04	-16.34	-0.01	40605.50	7.99	-11431.31	6.95	-4231.28	2.06
			10X	Low	0%	430.83	12120.08	101.09	28287.69	15.87	6688.01	-15.13	-3073.98	139.91	-10482.94	-9.73	-4456.28	-41.88	-26.73	-1.12	-2868.89	-13.30	-3118.88	-9.95	-2277.59	-13.64	-6.90	-0.04	-16.40	-0.06	40574.87	-22.65	-11414.45	23.81	-4255.99	-22.65
		Zone 35 (0.1 ft/day)	0.1X	Low	0%	428.03	12114.10	95.11	28304.60	32.78	6709.62	6.48	-3255.68	-41.79	-10347.41	125.80	-4382.42	31.97	-26.83	-1.21	-2870.65	-15.06	-3110.85	-1.93	-2278.33	-14.38	-6.90	-0.04	-16.35	-0.02	40601.07	3.55	-11403.05	35.21	-4256.06	-22.72
			10X	Low	0%	410.04	12115.37	96.38	28301.68	29.86	6705.56	2.42	-3087.19	126.71	-10483.06	-9.85	-4457.81	-43.42	-26.17	-0.56	-2859.48	-3.88	-3108.41	0.51	-2271.41	-7.46	-6.87	-0.01	-16.33	0.00	40596.32	-1.19	-11405.03	33.23	-4178.77	54.57
		Zone 36 (0.01 ft/day)	0.1X	Low	0%	623.14	12114.07	95.08	28304.74	32.92	6709.89	6.75	-3203.28	10.61	-10416.33	56.89	-4448.74	-34.35	-26.83	-1.21	-2849.25	6.34	-3100.24	8.68	-2305.03	-41.08	-6.76	0.10	-16.25	0.08	40601.58	4.06	-11352.63	85.64	-4472.69	-239.35
			10X	Low	1%	1521.29	12118.05	99.06	28294.59	22.77	6694.79	-8.35	-3173.22	40.67	-10286.86	186.36	-4212.38	202.01	-20.56	5.05	-2939.62	-84.03	-3165.49	-56.57	-2236.36	27.59	-7.24	-0.38	-16.75	-0.41	40584.55	-12.96	-11675.64	-237.37	-3695.64	537.70
		Zone 37 (0.1 ft/day)	0.1X	Low	0%	299.58	12115.02	96.03	28302.76	30.94	6706.19	3.05	-3198.23	15.67	-10367.09	106.12	-4403.45	10.94	-26.71	-1.09	-2868.74	-13.14	-3111.87	-2.95	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40597.64	0.12	-11433.32	4.94	-4234.66	-1.31
			10X	Low	0%	333.88	12114.32	95.33	28298.34	26.52	6710.24	7.10	-3189.06	24.83	-10359.39	113.82	-4400.04	14.35	-26.69	-1.08	-2868.52	-12.92	-3110.97	-2.05	-2276.96	-13.01	-6.90	-0.04	-16.35	-0.02	40596.52	-1.00	-11455.85	-17.59	-4229.11	4.23
		Zone 38 (0.001 ft/day)	0.1X	Low	0%	380.23	12114.97	95.98	28302.38	30.56	6706.49	3.35	-3194.25	19.65	-10377.81	95.40	-4399.76	14.64	-32.92	-7.30	-2919.79	-64.20	-3104.21	4.71	-2287.65	-23.70	-6.84	0.02	-16.36	-0.02	40597.53	0.01	-11432.95	5.32	-4248.71	-15.37
			10X	Low	0%	314.73	12114.92	95.94	28302.52	30.70	6706.75	3.60	-3191.84	22.05	-10368.10	105.11	-4407.93	6.46	-25.79	-0.17	-2841.20	14.39	-3115.01	-6.09	-2275.98	-12.03	-6.90	-0.04	-16.35	-0.01	40597.70	0.18	-11436.20	2.07	-4249.22	-15.88
		Zone 39 (0.01 ft/day)	0.1X	Low	0%	297.24	12114.97	95.98	28302.40	30.58	6706.56	3.41	-3192.16	21.73	-10369.39	103.82	-4403.91	10.48	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.52	0.01	-11438.06	0.21	-4233.96	-0.62
			10X	Low	0%	304.33	12114.97	95.98	28302.39	30.57	6706.55	3.41	-3191.87	22.03	-10367.38	105.84	-4404.23	10.16	-26.71	-1.09	-2868.72	-13.12	-3111.88	-2.96	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.47	-0.05	-11439.83	-1.57	-4229.04	4.30
		Zone 31 (20 ft/day)	0.1X	Low	0%	315.28	12119.00	100.01	28304.60	32.78	6707.48	4.33	-3192.14	21.76	-10369.20	104.01	-4403.99	10.40	-26.70	-1.09	-2868.69	-13.10	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40602.86	5.35	-11444.37	-6.11	-4233.24	0.10
			10X	Low	0%	325.30	12093.16	74.17	28290.41	18.59	6701.39	-1.75	-3192.09	21.81	-10369.11	104.11	-4403.37	11.02	-26.70	-1.09	-2868.67	-13.08	-3111.84	-2.92	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40567.57	-29.94	-11405.12	33.14	-4233.81	-0.47
		Zone 32 (20 ft/day)	0.1X	Low	0%	370.56	12057.40	38.41	28374.91	103.09	6719.75	16.61	-3192.31	21.59	-10369.68	103.54	-4404.87	9.52	-26.71	-1.09	-2868.70	-13.11	-3112.05	-3.13	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40619.77	22.25	-11462.67	-24.41	-4233.92	-0.57
			10X	Low	1%	1520.03	12486.55	467.56	27828.60	-443.22	6609.46	-93.69	-3190.91	22.99	-10365.79	107.42	-4397.16	17.23	-26.70	-1.08	-2868.61	-13.01	-3111.01	-2.09	-2277.02	-13.07	-6.90	-0.04	-16.35	-0.02	40436.18	-161.34	-11265.16	173.10	-4229.16	4.18

Table 5-2. Sensitivity Analysis -- Inter-basin Flows and Stream Percolation

units: Acre-feet per year

Parameters		Multiplier	Sensitivity	diff (%)	Sum of absolute fluxes Default = 129641.846	Piru to Fillmore in System Default = 12018.990		Piru to Fillmore in System Default = 28271.821		Piru to Fillmore in System Default = 6703.143		Fillmore to Santa Paula in Default = -3213.897		Fillmore to Santa Paula in Default = -10473.213		Fillmore to Santa Paula Default = -4414.391		Santa Paula to Default = -25.615		Santa Paula to Mound ib Default = -2855.593		Santa Paula to Mound ib Default = -3108.92		Santa Paula to Oxnard in Default = -2263.948		Santa Paula to Default = -6.86		Santa Paula to Default = -16.337		STR Percolation in Piru Default = 40597.518		STR Percolation in Fillmore Default = -11438.262		STR Percolation in Santa Default = -4233.34	
					Sum of absolute diff	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.
Model Layer 7	Zone 33 (10 ft/day)	0.1X	Low	0%	340.77	12131.32	112.33	28301.30	29.48	6705.21	2.06	-3191.79	22.11	-10368.35	104.86	-4403.85	10.54	-26.70	-1.09	-2868.67	-13.08	-3111.89	-2.97	-2277.11	-13.17	-6.90	-0.04	-16.36	-0.02	40608.59	11.07	-11455.67	-17.41	-4232.80	0.54
		10X	Low	0%	408.89	12001.38	-17.60	28323.07	51.25	6721.78	18.64	-3193.48	20.42	-10372.33	100.88	-4402.28	12.11	-26.71	-1.09	-2868.73	-13.14	-3111.80	-2.88	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40535.25	-62.27	-11344.50	93.76	-4234.93	-1.59
	Zone 34 (10 ft/day)	0.1X	Low	0%	306.68	12114.63	95.64	28303.26	31.44	6707.80	4.65	-3194.60	19.29	-10367.22	105.99	-4400.29	14.10	-26.70	-1.09	-2868.68	-13.08	-3111.46	-2.54	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40598.94	1.43	-11441.11	-2.85	-4231.98	1.36
		10X	Low	0%	370.10	12118.04	99.06	28294.71	22.89	6695.18	-7.96	-3169.83	44.07	-10384.75	88.47	-4437.09	-22.70	-26.72	-1.10	-2868.75	-13.16	-3116.09	-7.17	-2277.37	-13.42	-6.90	-0.04	-16.38	-0.05	40584.69	-12.82	-11412.65	25.61	-4244.93	-11.59
	Zone 35 (5 ft/day)	0.1X	Low	0%	299.25	12114.90	95.91	28302.55	30.73	6706.80	3.66	-3194.50	19.40	-10368.20	105.02	-4402.08	12.31	-26.72	-1.10	-2868.85	-13.26	-3111.75	-2.83	-2277.24	-13.29	-6.90	-0.04	-16.36	-0.02	40597.80	0.28	-11437.98	0.28	-4234.47	-1.13
		10X	Low	0%	307.42	12115.56	96.57	28301.14	29.32	6704.46	1.32	-3173.90	39.99	-10380.43	92.78	-4419.67	-5.28	-26.58	-0.96	-2866.82	-11.23	-3113.30	-4.38	-2276.00	-12.05	-6.89	-0.03	-16.37	-0.03	40595.29	-2.23	-11435.66	2.60	-4224.68	8.66
	Zone 36 (5 ft/day)	0.1X	Low	0%	354.20	12114.83	95.85	28302.76	30.94	6707.06	3.92	-3194.74	19.16	-10380.07	93.14	-4409.64	4.76	-27.26	-1.64	-2856.96	-1.36	-3110.92	-2.00	-2281.64	-17.70	-6.85	0.01	-16.34	0.00	40598.10	0.58	-11422.67	15.60	-4300.88	-67.54
		10X	Low	1%	663.05	12115.47	96.48	28301.04	29.22	6704.63	1.49	-3183.18	30.72	-10331.81	141.40	-4380.99	33.40	-24.83	0.79	-2908.92	-53.33	-3116.46	-7.54	-2259.10	4.84	-7.07	-0.21	-16.44	-0.10	40595.36	-2.16	-11494.46	-56.20	-4028.16	205.18
	Zone 37 (0.5 ft/day)	0.1X	Low	0%	297.25	12115.01	96.03	28303.32	31.50	6705.66	2.52	-3197.09	16.80	-10370.31	102.90	-4403.25	11.14	-26.71	-1.09	-2868.76	-13.17	-3111.76	-2.84	-2277.17	-13.22	-6.90	-0.04	-16.36	-0.02	40597.65	0.13	-11434.48	3.78	-4235.41	-2.07
		10X	Low	0%	350.02	12114.34	95.35	28298.69	26.87	6712.09	8.95	-3183.23	30.67	-10349.29	123.92	-4406.70	7.69	-26.68	-1.07	-2868.30	-12.71	-3113.12	-4.20	-2276.91	-12.96	-6.90	-0.04	-16.37	-0.03	40598.36	0.84	-11453.78	-15.51	-4224.12	9.22
	Zone 38 (2 ft/day)	0.1X	Low	0%	296.79	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.76	-10369.19	104.02	-4403.99	10.40	-26.71	-1.09	-2868.67	-13.08	-3111.94	-3.02	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.52	0.01	-11438.18	0.08	-4233.45	-0.11
		10X	Low	0%	299.28	12114.98	95.99	28302.37	30.55	6706.50	3.36	-3192.13	21.77	-10369.16	104.06	-4402.93	11.46	-26.66	-1.05	-2868.82	-13.22	-3111.71	-2.78	-2276.99	-13.04	-6.90	-0.04	-16.37	-0.03	40597.45	-0.07	-11439.07	-0.81	-4232.28	1.06
	Zone 39 (0.5 ft/day)	0.1X	Low	0%	296.70	12114.97	95.98	28302.39	30.57	6706.54	3.40	-3192.10	21.79	-10369.04	104.17	-4404.09	10.30	-26.70	-1.09	-2868.69	-13.09	-3111.93	-3.01	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.24	0.03	-4233.36	-0.02
		10X	Low	0%	297.46	12114.94	95.95	28302.45	30.63	6706.65	3.51	-3192.41	21.48	-10370.66	102.55	-4401.94	12.46	-26.70	-1.09	-2868.69	-13.10	-3111.80	-2.88	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.62	0.10	-11438.55	-0.29	-4233.14	0.20
Model Layer 8	Zone 31 (0.001 ft/day)	0.1X	Low	0%	596.20	12112.11	93.12	28286.85	15.02	6840.40	137.26	-3192.82	21.07	-10371.16	102.05	-4408.70	5.69	-26.71	-1.09	-2868.74	-13.15	-3112.57	-3.65	-2277.20	-13.25	-6.90	-0.04	-16.36	-0.03	40685.82	88.30	-11538.32	-100.06	-4235.75	-2.41
		10X	Low	0%	376.03	12118.87	99.88	28308.06	36.24	6672.78	-30.36	-3191.98	21.92	-10368.74	104.47	-4402.74	11.65	-26.70	-1.09	-2868.67	-13.08	-3111.76	-2.84	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40577.34	-20.18	-11417.73	20.53	-4232.77	0.57
	Zone 32 (0.001 ft/day)	0.1X	Low	2%	3226.23	11833.87	-185.12	27612.64	-659.18	8144.16	1441.01	-3198.31	15.59	-10387.06	86.15	-4446.93	-32.54	-26.75	-1.13	-2869.12	-13.52	-3117.68	-8.76	-2277.71	-13.77	-6.90	-0.04	-16.39	-0.06	40969.71	372.19	-11809.75	-371.49	-4259.02	-25.68
		10X	Low	3%	4283.24	12495.58	476.59	28979.81	707.99	5054.39	-1648.76	-3184.50	29.40	-10347.08	126.13	-4351.53	62.86	-26.65	-1.04	-2868.17	-12.58	-3104.89	4.03	-2276.42	-12.47	-6.89	-0.03	-16.32	0.02	39909.74	-687.78	-10958.06	480.21	-4199.98	33.36
	Zone 33 (0.001 ft/day)	0.1X	Low	4%	5678.08	12228.67	209.69	29858.90	1587.08	6246.75	-456.40	-3174.37	39.53	-10308.17	165.04	-4125.46	288.93	-26.50	-0.89	-2866.71	-11.11	-3075.14	33.78	-2274.05	-10.11	-6.88	-0.02	-16.14	0.19	41580.18	982.67	-13175.05	-1736.79	-4077.47	155.87
		10X	Low	2%	2403.87	11913.39	-105.60	27507.06	-764.76	7295.19	592.05	-3186.17	27.73	-10352.66	120.55	-4385.51	28.89	-26.66	-1.04	-2868.39	-12.80	-3109.60	-0.68	-2276.72	-12.77	-6.90	-0.04	-16.35	-0.01	40258.83	-338.69	-11049.66	388.61	-4223.68	9.66
	Zone 34 (0.001 ft/day)	0.1X	Low	3%	3735.80	12011.12	-7.86	28512.70	240.87	7099.40	396.26	-3344.17	-130.27	-10845.06	-371.85	-3391.77	1022.62	-26.55	-0.93	-2871.33	-15.73	-2992.88	116.05	-2273.13	-9.18	-6.87	0.00	-15.67	0.67	40999.76	402.24	-12298.83	-860.57	-4072.66	160.68
		10X	Low	3%	3292.56	12195.19	176.20	28137.59	-134.23	6405.73	-297.42	-3061.21	152.69	-9984.81	488.41	-5239.12	-824.73	-26.82	-1.20	-2866.43	-10.84	-3210.01	-101.09	-2280.34	-16.39	-6.92	-0.06	-16.93	-0.59	40286.33	-311.19	-10795.25	643.01	-4367.86	-134.52
	Zone 35 (0.001 ft/day)	0.1X	Medium	5%	6912.56	12062.90	43.91	28417.46	145.63	6899.83	196.69	-2986.77	227.12	-9710.96	762.25	-6815.89	-2401.50	-28.95	-3.34	-2931.54	-75.95	-2628.44	480.48	-2294.25	-30.30	-6.93	-0.07	-13.56	2.78	40801.72	204.20	-10233.97	1204.29	-5367.39	-1134.05
		10X	Low	2%	1984.75	12136.52	117.54	28255.15	-16.67	6625.93	-77.22	-3270.93	-57.04	-10570.96	-97.74	-3686.02	728.37	-25.90	-0.28	-2846.68	8.91	-3280.10	-171.18	-2270.69	-6.75	-6.89	-0.02	-17.32	-0.99	40513.21	-84.30	-11763.43	-325.17	-3940.77	292.57
	Zone 36 (0.001 ft/day)	0.1X	Low	5%	5917.80	12091.19	72.20	28358.70	86.88	6795.43	92.29	-3146.10	67.80	-10222.25	250.97	-6116.03	-1701.63	-31.35	-5.74	-3023.28	-167.69	-2580.25	528.67	-2323.58	-59.63	-7.17	-0.31	-13.37	2.97	40693.43	95.91	-10215.24	1223.02	-5795.43	-1562.09
		10X	Low	1%	1393.06	12120.16	101.17	28290.17	18.35	6687.19	-15.95	-3200.89	13.01	-10395.81	77.40	-4031.10	383.29	-26.20	-0.59	-2843.70	11.90	-3205.55	-96.63	-2269.25	-5.30	-6.86	0.00	-17.00	-0.66	40576.80	-20.72	-11709.81	-271.55	-3856.82	376.52
	Zone 37 (0.001 ft/day)	0.1X	Low	1%	1039.60	12091.68	72.69	28373.52	101.70	6787.91	84.77	-3216.25	-2.35	-10238.58	234.63	-4594.89	-180.50	-26.67	-1.06	-2871.15	-15.56	-3048.01	60.91	-2276.23	-12.29	-6.88	-0.02	-15.97	0.37	40700.26	102.75	-11572.73	-134.47	-4268.89	-35.55
		10X	Low	1%	1024.90	12105.70	86.71	28293.23	21.41	6756.37	53.22	-3150.88	63.02	-10251.32	221.90	-4670.06	-255.67	-27.14	-1.53	-2877.76	-22.17	-3081.42	27.50	-2280.89	-16.94	-6.92	-0.06	-16.22	0.12	40623.38	25.86	-11292.07	146.19	-4315.95	-82.60
	Zone 38 (0.001 ft/day)	0.1X	Low	2%	2492.48	12104.46	85.47	28327.85	56.03	6746.53	43.39	-3180.11	33.78	-10338.60	134.61	-5163.21	-748.82	-12.86	12.76	-3054.03	-198.44	-3121.47	-12.55	-2297.67	-33.72	-7.41	-0.55	-14.02	2.32	40640.76	43.24	-10861.60	576.67	-4743.47	-510.13
		10X	Low	0%	629.24	12116.46	97.47	28298.96	27.14	6701.11	-2.03	-3194.53	19.37	-10376.29	96.92	-4299.38	115.01	-29.14	-3.53	-2882.82	-27.22	-3152.01	-43.09	-2271.86	-7.91	-6.79	0.07	-16.69	-0.35	40591.70	-5.82	-11514.59	-76.33	-4126.37	106.97
	Zone 39 (0.001 ft/day)	0.1X	Low	0%	308.59	12115.11	96.12	28302.10	30.28	6706.00	2.85	-3190.23	23.67	-10362.06	111.15	-4416.26	-1.87	-26.70	-1.09	-2868.63	-13.03	-3112.54	-3.62	-2277.11	-13.17	-6.90	-0.04	-16.36	-0.02	40596.91	-0.60	-11434.24	4.02	-4240.39	-7.05
		10X	Low	0%	384.48	12114.03	95.04	28304.41	32.59	6710.26	7.12	-3202.64	11.26	-10444.87	28.35	-4300.18	114.21	-26.72	-1.10	-2869.08	-13.49	-3107.79	1.14	-2277.18	-13.23	-6.90	-0.04	-16.34	0.00	40601.57	4.05	-11462.12	-23.86	-4194.33	39.01
Model Layer 9	Zone 31 (10 ft/day)	0.1X	Low	0%	296.68	12114.97	95.98	28302.40	30.58	6706.56	3.42	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.01	-11438.27	0.00	-4233.34	0.00
		10X	Low	0%	296.86	12115.03	96.04	28302.45	30.63	6706.50	3.35	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.60	0.08	-11438.32	-0.06	-4233.34	0.00
	Zone 32 (10 ft/day)	0.1X	Low	0%	298.00	12114.85	95.86	28302.16	30.34	6707.44	4.29	-3192.14	21.76	-10369.20	104.01	-4403.92	10.47	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.91	0.39	-11438.70	-0.44	-4233.36	-0.02
		10X	Low	0%	310.60	12116.14	97.16	28304.74	32.92	6697.98	-5.16	-3192.09	21.81	-10369.07	104.15	-4403.60	10.79	-26.70	-1.09	-2868.68	-13.09	-3111.88	-2.96	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40593.67	-3.85	-11434.02	4.24	-4233.17	0.17
	Zone 33 (10 ft/day)	0.1X	Low	0%	298.51	12114.78	95.79	28302.33	30.50	6707.69	4.55	-3192.17	21.73	-10369.30	103.91	-4404.16	10.23	-26.70	-1.09	-2868.69	-13.10	-3111.95	-3.03	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40598.21	0.69	-11438.75	-0.49	-4233.50	-0.16
		10X	Low	0%	316.22	12116.49	97.50	28303.42	31.60	6696.77	-6.38	-3191.85	22.05	-10368.38	104.83	-4401.93	12.46	-26.70	-1.09	-2868.67	-13.08	-3111.66	-2.74	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40591.83	-5.68	-11433.83	4.43	-4232.16	1.18
	Zone 34 (10 ft/day)	0.1X	Low	0%	299.37	12114.83	95.84	28302.69	30.87	6707.08	3.93	-3192.42	21.47	-10370.13	103.09	-4402.19	12.20	-26.70	-1.09	-2868.69	-13.10	-3111.72	-2.80	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40598.06	0.54	-11439.28	-1.01	-4233.14	0.20
		10X	Low	0%	319.92	12116.32	97.34	28299.60	27.78	6701.48	-1.67	-3189.30	24.60	-10360.13	113.08	-4420.43	-6.04	-26.71	-1.09	-2868.62	-13.03	-3113.84	-4.92	-2277.18	-13.23	-6.90	-0.04	-16.37	-0.03	40592.30	-5.22	-11428.34	9.92	-4235.29	-1.94
	Zone 35 (5 ft/day)	0.1X	Low	0%	297.03	12114.92	95.93	28302.50	30.68	6706.74	3.59	-3192.11	21.79	-10369.86	103.35	-4403.69	10.70	-26.70	-1.09	-2868.70	-13.11	-3111.74	-2.82	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.71	0.19	-11437.97	0.29	-4233.58	-0.24
		10X	Low	0%	306.53	12115.43	96.45	28301.42	29.59	6704.83	1.69	-3192.34	21.56	-10362.94	110.27	-4405.92	8.47	-26.70	-1.08	-2868.51	-12.92	-3113.68	-4.76	-2277.09	-13.14	-6.90	-0.04	-16.37	-0.03	40595.74	-1.78	-11440.79	-2.53	-4231.12	2.22
	Zone 36 (5 ft/day)	0.1X	Low	0%	296.75	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.77	-10369.18	104.03	-4403.95	10.44	-26.70	-1.09	-2868.69	-13.10	-3111.91	-2.99	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.23	0.04	-4233.43	-0.09
		10X	Low	0%	298.29	12114.97	95.98	28302.38	30.56	6706.53	3.38	-3192.15	21.74	-10369.28	103.94	-4403.37	11.02	-26.70	-1.09	-2868.62	-13.03	-3112.12	-3.19	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.58	-0.32	-4232.56	0.78
	Zone 37 (0.5 ft/day)	0.1X	Low	0%	299.41	12114.67	95.68	28302.37	30.55	6707.52	4.38	-3192.46	21.44	-10369.52	103.69	-4402.99	11.40	-26.70	-1.09	-2868.70	-13.11	-3111.65	-2.73	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40598.05	0.53	-11439.80	-1.54	-4233.38	-0.04
		10X	Low	0%	311.49	12116.49	97.51	28301.72	29.90	6701.91	-1.23	-3189.15	24.75	-10365.63	107.58	-4410.60	3.79	-26.70	-1.09	-2868.55	-12.96	-3114.07	-5.14	-2277.14	-13.19	-6.90	-0.04	-16.37	-0.04	40594.41	-3.11	-11428.31	9.95	-4232.12	1.22
	Zone 38 (2 ft/day)	0.1X	Low	0%	302.03	12114.94	95.95	28302.47	30.65	6706.66	3.52	-3192.14	21.76	-10369.26	103.95	-4405.90	8.49	-26.70	-1.08	-2867.96	-12.37	-3117.25	-8.33	-2277.06	-13.11	-6.90	-0.04	-16.36	-0.02	40597.64	0.12	-11436.59	1.67	-4232.35	0.99
		10X	Low	0%	384.26	12115.20	96.21	28301.80	29.98	6705.62	2.48	-3192.08	21.82	-10368.56	104.66	-4386.55	27.85	-26.77	-1.15	-2874.82	-19.23	-3065.80	43.12	-2277.70	-13.76	-6.90	-0.04	-16.39	-0.06	40596.51	-1.00	-11452.63	-14.37	-4241.89	-8.55
	Zone 39 (0.5 ft/day)	0.1X	Low	0%	296.97	12114.97	95.98	28302.40	30.58	6706.55	3.40	-3192.11	21.79	-10369.08	104.13	-4404.18	10.21	-26.70	-1.09	-2868.68	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.15	0.12	-4233.69	-0.35
		10X	Low	0%	302.91	12114.94	95.95	28302.42	30.60	6706.61	3.47	-3192.34	21.56	-10370.28	102.94	-4401.02	13.37	-26.70	-1.09	-2868.70	-13.11	-3111.88	-2.96	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.56	0.05	-11439.41	-1.15	-4229.91	3.44
Model Layer 10	Zone 32 (10 ft/day)	0.1X	Low	0%	298.42	12114.44	95.45	28301.45	29.63	6708.72	5.57	-3192.14	21.76	-10369.22	103.99	-4403.96	10.43	-26.70	-1.09	-2868.69	-13.09	-3111.93	-3.01	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40598.08	0.56	-11438.81	-0.55	-4233.38	-0.04
		10X	Low	0%	337.17	12120.03	101.04	28311.56	39.74	6685.56	-17.59	-3192.04	21.86	-10368.92	104.30	-4403.24	11.15	-26.70	-1.09	-2868.68	-13.09	-3111.83	-2.91	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40592.11	-5.41	-11432.87	5.39	-4232.94	0.40
	Zone 33 (10 ft/day)	0.1X	Low	0%	298.96	12115.29	96.30	28301.20	29.38	6708.42	5.28	-3192.16	21.74	-10369.27	103.94	-4404.09	10.30	-26.70	-1.09	-2868.69	-13.09	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40598.31	0.79	-11438.93	-0.67	-4233.46	-0.12
		10X	Low	0%	326.80	12111.48	92.49	28312.10	40.28	6691.77	-11.37	-3191.92	21.98	-10368.57	104.64	-4402.35	12.04	-26.70	-1.09	-2868.67	-13.08	-3111.71	-2.79	-2277.10	-13.16	-6.90	-0.04	-16.36	-0.02	40590.60	-6.92	-11432.28	5.99	-4232.42	0.92
	Zone 34 (10 ft/day)	0.1X	Low	0%	296.73	12114.96	95.97	28302.40	30.58	6706.56	3.42	-3192.14	21.76	-10369.20	104.01	-4403.86	10.53	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.29	-0.03	-4233.33	0.01
		10X	Low	0%	296.85	12114.99	96.00	28302.35	30.53	6706.47	3.32	-3192.08	21.81	-10369.07	104.14	-4404.22	10.17	-26.70	-1.09	-2868.68	-13.09	-3111.96	-3.03	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.42	-0.10	-11438.02	0.24	-4233.41	-0.07
	Zone 35 (5 ft/day)	0.1X	Low	0%	296.68	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.77	-10369.21	104.01	-4403.91	10.48	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.24	0.02	-4233.35	-0.01
		10X	Low	0%	297.20	12114.98	95.99	28302.38	30.55	6706.51	3.37	-3192.14	21.76	-10369.06	104.16	-4403.75	10.64	-26.70	-1.09	-2868.69	-13.09	-3111.86	-2.94	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.46	-0.06	-11438.47	-0.21	-4233.23	0.11
	Zone 36 (5 ft/day)	0.1X	Low	0%	296.75	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.03	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.10	-3111.87	-2.95	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.28	-0.01	-4233.44	-0.10
		10X	Low	0%	297.54	12114.96	95.97	28302.40	30.58	6706.56	3.41	-3192.14	21.76	-10369.22	103.99	-4403.96	10.43	-26.70	-1.09	-2868.65	-13.06	-3112.19	-3.26	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.16	0.10	-4232.69	0.65
	Zone 37 (0.1 ft/day)	0.1X	Low	0%	301.73	12115.01	96.03	28302.20	30.38	6706.42	3.27	-3192.20	21.70	-10369.40	103.82	-4401.51	12.89	-26.70	-1.08	-2868.56	-12.96	-3112.67	-3.75	-2277.08	-13.13	-6.90	-0.04	-16.36	-0.02	40597.29	-0.23	-11440.07	-1.81	-4232.70	0.64
		10X	Low	0%	295.31	12114.98	96.00	28302.96	31.14	6706.46	3.32	-3191.82	22.07	-10368.20	105.01	-4414.85	-0.46	-26.74	-1.12	-2869.22	-13.63	-3108.71	0.21	-2277.31	-13.37	-6.90	-0.04	-16.34	-0.01	40597.80	0.29	-11431.86	6.41	-4235.59	-2.25
	Zone 38 (2 ft/day)	0.1X	Low	0%	302.05	12114.94	95.95	28302.47	30.65	6706.66	3.51	-3192.14	21.76	-10369.26	103.95	-4405.82	8.57	-26.70	-1.08	-2868.40	-12.81	-3116.80	-7.88	-2277.06	-13.11	-6.90	-0.04	-16.35	-0.02	40597.63	0.11	-11436.67	1.60	-4232.31	1.03
		10X	Low	0%	369.02	12115.18	96.19	28301.87	30.05	6705.72	2.58	-3192.09	21.81	-10368.61	104.60	-4388.41	25.98	-26.76	-1.15	-2870.31	-14.71	-3072.92	36.00	-2277.67	-13.72	-6.90	-0.04	-16.40	-0.06	40596.63	-0.89	-11451.03	-12.77	-4241.82	-8.48
	Zone 39 (0.1 ft/day)	0.1X	Low	0%	296.71	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.14	21.76	-10369.19	104.02	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.29	-0.02	-4233.38	-0.04
		10X	Low	0%	297.51	12114.96	95.97	28302.40	30.58	6706.55	3.41	-3192.08	21.82	-10369.16	104.05	-4403.77	10.63	-26.70	-1.09	-2868.68	-13.09	-3111.93	-3.01	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.05	0.22	-4232.93	0.41
Model Layer 1 (storage coefficient = 0.001)	Zone 31	0.1X	Low	0%	297.13	12115.11	96.12	28302.50	30.68	6706.58	3.43	-3192.13	21.76	-10369.19	104.02	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.43	-0.08	-11438.38	-0.12	-4233.34	0.00
		10X	Low	0%	301.42	12115.15	96.16	28302.48	30.65	6706.58	3.44	-3192.13	21.77	-10369.18	104.03	-4403.90	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40601.86	4.34	-11438.34	-0.08	-4233.30	0.04
	Zone 32	0.1X	Low	0%	296.79	12115.03	96.04	28302.36	30.54	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.35	-0.08	-4233.35	-0.01
		10X	Low	0%	297.61	12114.33	95.35	28302.82	31.00	6706.57	3.43	-3192.13	21.77	-10369.18	104.03	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.28	-0.24	-11437.43	0.83	-4233.29	0.06
	Zone 33	0.1X	Low	0%	296.92	12115.10	96.11	28302.34	30.52	6706.56	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.63	0.11	-11438.32	-0.06	-4233.35	-0.01
		10X	Low	0%	297.75	12113.61	94.63	28302.98	31.16	6706.53	3.38	-3192.13	21.76	-10369.19	104.03	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40596.34	-1.18	-11437.64	0.63	-4233.27	0.07
	Zone 34	0.1X	Low	0%	296.86	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.14	21.76	-10369.21	104.00	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.06	0.20	-4233.37	-0.03
		10X	Low	0%	299.27	12114.96	95.97	28302.42	30.60	6706.57	3.43	-3192.05	21.85	-10369.01	104.21	-4403.86	10.53	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.55	0.04	-11440.24	-1.97	-4233.08	0.26
	Zone 35	0.1X	Low	0%	296.68	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.14	21.76	-10369.21	104.00	-4403.89	10.50	-26.70	-1.09	-2868.68	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.24	0.02	-4233.32	0.02
		10X	Low	0%	297.32	12114.97	95.98	28302.40	30.57	6706.55	3.40	-3192.10	21.80	-10369.02	104.20	-4403.88	10.51	-26.70	-1.09	-2868.70	-13.10	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.49	-0.23	-4233.52	-0.18
	Zone 36	0.1X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.20	104.02	-4403.89	10.50	-26.70	-1.09	-2868.68	-13.09	-3111.92	-3.00	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.01	-4233.32	0.02
		10X	Low	0%	297.21	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.12	21.78	-10369.13	104.08	-4403.87	10.52	-26.72	-1.11	-2868.76	-13.17	-3111.92	-2.99	-2277.17	-13.23	-6.90	-0.04	-16.36	-0.02	40597.51	0.00	-11438.34	-0.07	-4233.57	-0.23
	Zone 37	0.1X	Low	0%	296.71	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.19	104.03	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.22	0.04	-4233.34	0.00
		10X	Low	0%	297.02	12114.98	95.99	28302.36	30.54	6706.54	3.40	-3192.12	21.78	-10369.22	104.00	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.49	-0.03	-11438.63	-0.37	-4233.33	0.01
	Zone 39	0.1X	Low	0%	296.68	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.03	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.01	-4233.34	0.00
		10X	Low	0%	296.72	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.14	21.76	-10369.21	104.00	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.33	-0.07	-4233.36	-0.02
Model Layer 2 (storage coefficient = 0.001)	Zone 31	0.1X	Low	0%	297.14	12115.10	96.11	28302.50	30.68	6706.57	3.43	-3192.13	21.76	-10369.19	104.02	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.40	-0.12	-11438.37	-0.11	-4233.34	0.00
		10X	Low	0%	302.30	12115.26	96.28	28302.53	30.71	6706.60	3.46	-3192.13	21.77	-10369.18	104.03	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40602.39	4.87	-11438.50	-0.24	-4233.30	0.04
	Zone 32	0.1X	Low	0%	297.00	12115.03	96.04	28302.30	30.48	6706.54	3.40	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.76	0.24	-11438.40	-0.13	-4233.35	-0.01
		10X	Low	0%	301.01	12114.36	95.37	28303.43	31.61	6706.65	3.50	-3192.13	21.76	-10369.19	104.02	-4403.92	10.47	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40595.11	-2.40	-11436.92	1.34	-4233.24	0.10
	Zone 33	0.1X	Low	0%	297.20	12115.02	96.03	28302.48	30.66	6706.56	3.42	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.70	0.18	-11438.08	0.18	-4233.35	-0.01
		10X	Low	0%	298.67	12114.45	95.46	28301.61	29.78	6706.45	3.31	-3192.17	21.73	-10369.28	103.93	-4404.00	10.39	-26.70	-1.09	-2868.69	-13.10	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40595.75	-1.77	-11440.07	-1.81	-4233.29	0.05
	Zone 34	0.1X	Low	0%	297.14	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11437.83	0.43	-4233.37	-0.03
		10X	Low	0%	301.31	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.12	21.78	-10369.18	104.04	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.10	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11442.53	-4.27	-4233.01	0.33
	Zone 35	0.1X	Low	0%	296.73	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.14	21.76	-10369.26	103.96	-4403.90	10.49	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.18	0.08	-4233.27	0.07
		10X	Low	0%	299.10	12114.97	95.98	28302.38	30.56	6706.53	3.39	-3192.02	21.87	-10368.52	104.69	-4403.84	10.55	-26.71	-1.09	-2868.73	-13.13	-3111.94	-3.01	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11439.10	-0.83	-4234.02	-0.68
	Zone 36	0.1X	Low	0%	296.74	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.14	21.76	-10369.21	104.00	-4403.90	10.49	-26.70	-1.09	-2868.66	-13.07	-3111.92	-3.00	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.24	0.03	-4233.21	0.13
		10X	Low	0%	298.99	12114.97	95.98	28302.39	30.57	6706.54	3.40	-3192.08	21.82	-10368.97	104.25	-4403.81	10.59	-26.74	-1.13	-2868.91	-13.32	-3111.92	-3.00	-2277.27	-13.32	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.53	-0.27	-4234.62	-1.28
	Zone 37	0.1X	Low	0%	296.96	12114.96	95.97	28302.43	30.61	6706.56	3.42	-3192.14	21.76	-10369.17	104.04	-4403.88	10.51	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.02	0.24	-4233.34	0.00
		10X	Low	0%	298.78	12115.04	96.05	28302.12	30.30	6706.50	3.35	-3192.10	21.80	-10369.40	103.81	-4403.95	10.44	-26.70	-1.09	-2868.69	-13.10	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.41	-0.11	-11440.70	-2.44	-4233.38	-0.04
	Zone 39	0.1X	Low	0%	296.70	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.03	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.24	0.02	-4233.34	0.00
		10X	Low	0%	296.80	12114.97	95.98	28302.39	30.57	6706.55	3.40	-3192.15	21.75	-10369.24	103.98	-4403.92	10.47	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.45	-0.18	-4233.39	-0.05
Model Layer 3 (storage coefficient = 0.001)	Zone 26	0.1X	Low	0%	297.39	12114.94	95.95	28302.48	30.66	6706.57	3.42	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.55	0.03	-11437.68	0.58	-4233.35	-0.01
		10X	Low	0%	301.82	12115.17	96.19	28301.55	29.73	6706.41	3.27	-3192.18	21.72	-10369.30	103.91	-4404.02	10.37	-26.70	-1.09	-2868.69	-13.10	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.24	-0.28	-11444.05	-5.78	-4233.21	0.13
	Zone 31	0.1X	Low	0%	299.01	12114.11	95.13	28301.90	30.08	6706.42	3.28	-3192.13	21.77	-10369.18	104.03	-4403.87	10.52	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40595.02	-2.50	-11436.96	1.30	-4233.35	-0.01
		10X	Low	0%	352.76	12124.35	105.36	28308.04	36.22	6708.00	4.85	-3192.16	21.74	-10369.27	103.95	-4404.11	10.28	-26.70	-1.09	-2868.69	-13.10	-3111.95	-3.03	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40624.11	26.59	-11451.49	-13.23	-4233.24	0.10
	Zone 32	0.1X	Low	0%	297.56	12113.44	94.45	28301.08	29.26	6706.29	3.15	-3192.12	21.78	-10369.17	104.05	-4403.84	10.55	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40595.30	-2.22	-11436.58	1.68	-4233.36	-0.02
		10X	Low	0%	365.16	12129.99	111.00	28315.45	43.63	6709.15	6.01	-3192.23	21.67	-10369.43	103.79	-4404.42	9.97	-26.71	-1.09	-2868.70	-13.11	-3111.98	-3.06	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40619.27	21.75	-11454.84	-16.58	-4233.07	0.27
	Zone 33	0.1X	Low	0%	299.36	12114.94	95.95	28302.79	30.97	6706.59	3.44	-3192.12	21.78	-10369.17	104.05	-4403.85	10.55	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.71	0.20	-11436.29	1.98	-4233.40	-0.06
		10X	Low	0%	314.10	12115.25	96.26	28298.51	26.69	6706.21	3.06	-3192.23	21.66	-10369.42	103.79	-4404.32	10.07	-26.71	-1.09	-2868.70	-13.11	-3111.97	-3.05	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40595.71	-1.81	-11457.99	-19.72	-4232.80	0.54
	Zone 34	0.1X	Low	0%	297.45	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.17	104.04	-4403.89	10.50	-26.70	-1.09	-2868.68	-13.09	-3111.92	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11437.56	0.70	-4233.38	-0.04
		10X	Low	0%	303.87	12114.97	95.98	28302.40	30.57	6706.54	3.40	-3192.18	21.72	-10369.38	103.83	-4403.93	10.46	-26.70	-1.09	-2868.70	-13.10	-3111.92	-3.00	-2277.13	-13.19	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11445.25	-6.99	-4232.90	0.44
	Zone 35	0.1X	Low	0%	296.97	12114.96	95.97	28302.41	30.59	6706.57	3.43	-3192.27	21.62	-10369.75	103.46	-4403.92	10.47	-26.70	-1.09	-2868.66	-13.06	-3111.90	-2.98	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11437.57	0.69	-4232.96	0.38
		10X	Low	0%	315.25	12115.02	96.03	28302.28	30.46	6706.40	3.26	-3190.72	23.17	-10363.69	109.52	-4403.57	10.82	-26.73	-1.11	-2868.98	-13.39	-3112.05	-3.13	-2277.40	-13.45	-6.90	-0.04	-16.36	-0.02	40597.39	-0.13	-11445.13	-6.87	-4237.19	-3.85
	Zone 36	0.1X	Low	0%	296.86	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.14	21.76	-10369.23	103.98	-4403.91	10.48	-26.70	-1.08	-2868.65	-13.06	-3111.92	-2.99	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.21	0.05	-4233.07	0.28
		10X	Low	0%	301.26	12114.97	95.98	28302.39	30.57	6706.54	3.39	-3192.03	21.86	-10368.76	104.45	-4403.74	10.65	-26.75	-1.14	-2868.99	-13.40	-3111.92	-3.00	-2277.40	-13.45	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11438.76	-0.50	-4236.13	-2.79
	Zone 37	0.1X	Low	0%	297.33	12114.94	95.95	28302.49	30.67	6706.57	3.42	-3192.13	21.76	-10369.16	104.06	-4403.88	10.51	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.55	0.04	-11437.75	0.51	-4233.34	0.00
		10X	Low	0%	301.27	12115.21	96.22	28301.50	29.68	6706.40	3.26	-3192.15	21.75	-10369.54	103.67	-4404.00	10.39	-26.70	-1.09	-2868.70	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.14	-0.38	-11443.68	-5.42	-4233.39	-0.05
	Zone 38	0.1X	Low	0%	296.73	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.19	104.02	-4403.89	10.50	-26.71	-1.10	-2868.68	-13.09	-3111.92	-3.00	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.01	-4233.28	0.06

Table 5-2. Sensitivity Analysis -- Inter-basin Flows and Stream Percolation

units: Acre-feet per year

Parameters			Multiplier	Sensitivity	diff (%)	Sum of absolute fluxes Default = 129641.846	Piru to Fillmore in System Default = 12018.990		Piru to Fillmore in System Default = 28271.821		Piru to Fillmore in System Default = 6703.143		Fillmore to Santa Paula in Default = -3213.897		Fillmore to Santa Paula in Default = -10473.213		Fillmore to Santa Paula Default = -4414.391		Santa Paula to Default = -25.615		Santa Paula to Mound ib Default = -2855.593		Santa Paula to Mound ib Default = -3108.92		Santa Paula to Oxnard in Default = -2263.948		Santa Paula to Default = -6.86		Santa Paula to Default = -16.337		STR Percolation in Piru Default = 40597.518		STR Percolation in Fillmore Default = -11438.262		STR Percolation in Santa Default = -4233.34	
						Sum of absolute diff	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.
Storage Coefficient		Zone 38	10X	Low	0%	297.40	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.12	21.78	-10369.15	104.06	-4403.87	10.52	-26.61	-1.00	-2868.71	-13.11	-3111.91	-2.99	-2277.18	-13.23	-6.90	-0.04	-16.36	-0.02	40597.51	0.00	-11438.32	-0.06	-4233.96	-0.62
		Zone 39	0.1X	Low	0%	296.85	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.76	-10369.20	104.01	-4403.91	10.48	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.21	0.05	-4233.18	0.16
			10X	Low	0%	299.05	12114.97	95.98	28302.39	30.56	6706.53	3.39	-3192.13	21.77	-10369.09	104.12	-4403.74	10.65	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.77	-0.50	-4234.93	-1.59
	Model Layer 4 (storage coefficient = 0.001)	Zone 26	0.1X	Low	0%	297.53	12114.94	95.95	28302.51	30.69	6706.57	3.43	-3192.13	21.77	-10369.18	104.04	-4403.88	10.52	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11437.58	0.68	-4233.35	-0.01
			10X	Low	0%	302.62	12115.23	96.24	28301.32	29.50	6706.38	3.23	-3192.20	21.70	-10369.34	103.87	-4404.05	10.34	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.16	-0.35	-11445.07	-6.81	-4233.20	0.14
		Zone 31	0.1X	Low	0%	298.72	12113.75	94.76	28301.68	29.85	6706.37	3.22	-3192.13	21.77	-10369.18	104.03	-4403.86	10.53	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40595.16	-2.36	-11436.48	1.78	-4233.35	-0.01
			10X	Low	0%	359.62	12127.21	108.22	28309.80	37.97	6708.43	5.29	-3192.17	21.72	-10369.30	103.92	-4404.18	10.21	-26.70	-1.09	-2868.69	-13.10	-3111.96	-3.03	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40622.36	24.84	-11455.12	-16.85	-4233.22	0.12
		Zone 32	0.1X	Low	0%	298.32	12111.34	92.36	28299.42	27.60	6705.94	2.80	-3192.11	21.79	-10369.13	104.09	-4403.77	10.62	-26.70	-1.09	-2868.68	-13.09	-3111.90	-2.98	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40592.87	-4.65	-11434.25	4.01	-4233.36	-0.01
			10X	Low	0%	449.25	12150.27	131.29	28331.49	59.67	6712.46	9.31	-3192.38	21.52	-10369.82	103.39	-4405.09	9.30	-26.71	-1.09	-2868.71	-13.12	-3112.06	-3.14	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40642.65	45.13	-11477.13	-38.87	-4233.18	0.16
		Zone 33	0.1X	Low	0%	300.50	12114.91	95.93	28303.03	31.21	6706.61	3.47	-3192.11	21.79	-10369.15	104.07	-4403.82	10.57	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.75	0.23	-11435.47	2.79	-4233.40	-0.06
			10X	Low	0%	319.58	12115.52	96.53	28296.22	24.40	6705.99	2.84	-3192.33	21.57	-10369.65	103.57	-4404.59	9.80	-26.71	-1.09	-2868.71	-13.12	-3112.00	-3.08	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40595.36	-2.16	-11465.88	-27.62	-4232.79	0.55
		Zone 34	0.1X	Low	0%	297.50	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.17	104.04	-4403.89	10.50	-26.70	-1.09	-2868.68	-13.09	-3111.92	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.50	-0.01	-11437.51	0.75	-4233.39	-0.05
			10X	Low	0%	304.35	12114.98	95.99	28302.39	30.57	6706.54	3.39	-3192.18	21.72	-10369.41	103.80	-4403.93	10.46	-26.70	-1.09	-2868.70	-13.10	-3111.93	-3.01	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11445.73	-7.47	-4232.88	0.47
		Zone 35	0.1X	Low	0%	297.28	12114.96	95.97	28302.42	30.60	6706.58	3.44	-3192.37	21.53	-10370.13	103.08	-4403.95	10.45	-26.70	-1.09	-2868.64	-13.04	-3111.89	-2.97	-2277.08	-13.13	-6.90	-0.04	-16.36	-0.02	40597.54	0.02	-11437.16	1.10	-4232.53	0.81
			10X	Low	0%	328.88	12115.05	96.06	28302.21	30.38	6706.31	3.17	-3189.82	24.07	-10359.95	113.26	-4403.36	11.03	-26.74	-1.13	-2869.18	-13.59	-3112.13	-3.21	-2277.58	-13.63	-6.90	-0.04	-16.36	-0.02	40597.32	-0.20	-11449.14	-10.88	-4241.53	-8.19
		Zone 36	0.1X	Low	0%	297.32	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.16	21.74	-10369.31	103.91	-4403.93	10.46	-26.70	-1.08	-2868.62	-13.03	-3111.91	-2.99	-2277.07	-13.12	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.13	0.13	-4232.53	0.81
			10X	Low	0%	309.11	12114.98	95.99	28302.37	30.55	6706.51	3.37	-3191.87	22.02	-10368.06	105.15	-4403.54	10.85	-26.78	-1.16	-2869.30	-13.70	-3111.95	-3.03	-2277.63	-13.68	-6.90	-0.04	-16.36	-0.02	40597.47	-0.05	-11439.56	-1.30	-4241.53	-8.19
		Zone 37	0.1X	Low	0%	297.44	12114.94	95.95	28302.51	30.69	6706.57	3.43	-3192.13	21.76	-10369.17	104.04	-4403.88	10.51	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11437.66	0.60	-4233.33	0.01
			10X	Low	0%	302.39	12115.25	96.26	28301.31	29.49	6706.35	3.20	-3192.12	21.78	-10369.41	103.81	-4404.02	10.38	-26.71	-1.09	-2868.70	-13.11	-3111.95	-3.03	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.00	-0.52	-11444.61	-6.35	-4233.47	-0.13
		Zone 38	0.1X	Low	0%	296.74	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.20	104.02	-4403.90	10.49	-26.67	-1.06	-2868.72	-13.12	-3111.92	-3.00	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.01	-4233.25	0.09
			10X	Low	0%	297.81	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.12	21.78	-10369.13	104.09	-4403.85	10.54	-26.98	-1.37	-2868.40	-12.81	-3111.91	-2.99	-2277.20	-13.26	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.35	-0.09	-4234.22	-0.88
		Zone 39	0.1X	Low	0%	296.90	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.76	-10369.21	104.00	-4403.92	10.47	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.19	0.08	-4233.13	0.21
			10X	Low	0%	300.15	12114.97	95.98	28302.38	30.56	6706.52	3.38	-3192.11	21.79	-10368.96	104.25	-4403.60	10.79	-26.70	-1.09	-2868.69	-13.10	-3111.96	-3.04	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.47	-0.05	-11439.04	-0.78	-4235.45	-2.11
	Model Layer 5 (storage coefficient = 0.001)	Zone 26	0.1X	Low	0%	297.52	12114.94	95.95	28302.51	30.69	6706.57	3.43	-3192.13	21.77	-10369.18	104.04	-4403.88	10.51	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.55	0.04	-11437.59	0.68	-4233.35	-0.01
			10X	Low	0%	302.65	12115.23	96.24	28301.32	29.49	6706.38	3.23	-3192.20	21.70	-10369.34	103.87	-4404.05	10.34	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.16	-0.35	-11445.10	-6.83	-4233.20	0.14
		Zone 31	0.1X	Low	0%	298.33	12113.95	94.96	28301.78	29.96	6706.40	3.25	-3192.13	21.77	-10369.18	104.03	-4403.87	10.52	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40595.58	-1.94	-11436.78	1.48	-4233.34	0.00
			10X	Low	0%	351.12	12125.54	106.55	28308.99	37.17	6708.20	5.06	-3192.17	21.73	-10369.29	103.92	-4404.15	10.24	-26.70	-1.09	-2868.69	-13.10	-3111.95	-3.03	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40619.02	21.50	-11452.66	-14.40	-4233.25	0.09
		Zone 32	0.1X	Low	0%	298.17	12110.76	91.77	28298.88	27.06	6705.84	2.69	-3192.10	21.80	-10369.11	104.10	-4403.75	10.65	-26.70	-1.09	-2868.68	-13.09	-3111.90	-2.98	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40592.38	-5.14	-11433.69	4.57	-4233.35	-0.01
			10X	Low	0%	470.21	12155.77	136.78	28336.47	64.65	6713.46	10.32	-3192.42	21.47	-10369.95	103.26	-4405.30	9.10	-26.71	-1.09	-2868.71	-13.12	-3112.08	-3.16	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40647.13	49.62	-11482.55	-44.29	-4233.25	0.09
		Zone 33	0.1X	Low	0%	300.73	12114.92	95.93	28303.07	31.25	6706.61	3.47	-3192.11	21.79	-10369.14	104.07	-4403.81	10.58	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.76	0.24	-11435.32	2.95	-4233.41	-0.07
			10X	Low	0%	320.86	12115.50	96.51	28295.82	24.00	6705.96	2.81	-3192.34	21.56	-10369.67	103.54	-4404.63	9.76	-26.71	-1.09	-2868.71	-13.12	-3112.01	-3.09	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40595.26	-2.25	-11467.53	-29.27	-4232.74	0.60
		Zone 34	0.1X	Low	0%	297.49	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.17	104.04	-4403.89	10.50	-26.70	-1.09	-2868.68	-13.09	-3111.92	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11437.52	0.74	-4233.39	-0.05
			10X	Low	0%	304.36	12114.98	95.99	28302.39	30.57	6706.54	3.39	-3192.18	21.72	-10369.43	103.79	-4403.93	10.46	-26.70	-1.09	-2868.70	-13.10	-3111.93	-3.01	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11445.76	-7.49	-4232.88	0.46
		Zone 35	0.1X	Low	0%	297.46	12114.96	95.97	28302.42	30.60	6706.58	3.44	-3192.38	21.52	-10370.25	102.97	-4403.96	10.44	-26.70	-1.08	-2868.63	-13.03	-3111.89	-2.97	-2277.07	-13.12	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11437.07	1.19	-4232.28	1.06
			10X	Low	0%	334.07	12115.06	96.07	28302.19	30.37	6706.29	3.14	-3189.66	24.23	-10358.79	114.42	-4403.25	11.15	-26.75	-1.13	-2869.27	-13.68	-3112.16	-3.24	-2277.64	-13.69	-6.90	-0.04	-16.36	-0.02	40597.29	-0.23	-11450.21	-11.94	-4244.06	-10.72
		Zone 36	0.1X	Low	0%	297.59	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.17	21.73	-10369.36	103.86	-4403.95	10.44	-26.69	-1.08	-2868.60	-13.01	-3111.91	-2.99	-2277.06	-13.11	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.08	0.18	-4232.18	1.16
			10X	Low	0%	314.47	12114.98	95.99	28302.36	30.53	6706.50	3.35	-3191.76	22.13	-10367.58	105.63	-4403.35	11.04	-26.80	-1.19	-2869.53	-13.93	-3111.97	-3.05	-2277.78	-13.83	-6.90	-0.04	-16.36	-0.02	40597.45	-0.07	-11440.14	-1.88	-4245.11	-11.77
		Zone 37	0.1X	Low	0%	297.77	12114.92	95.94	28302.55	30.73	6706.59	3.44	-3192.13	21.76	-10369.17	104.05	-4403.87	10.52	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.58	0.06	-11437.41	0.86	-4233.33	0.01
			10X	Low	0%	304.69	12115.38	96.39	28300.89	29.07	6706.21	3.07	-3192.13	21.76	-10369.45	103.76	-4404.09	10.30	-26.71	-1.09	-2868.70	-13.11	-3111.96	-3.04	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40596.77	-0.74	-11447.22	-8.96	-4233.49	-0.15
		Zone 38	0.1X	Low	0%	296.73	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.20	104.01	-4403.90	10.49	-26.69	-1.07	-2868.66	-13.07	-3111.92	-3.00	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.26	0.00	-4233.21	0.13
			10X	Low	0%	298.81	12114.96	95.98	28302.39	30.57	6706.55	3.40	-3192.11	21.79	-10369.08	104.13	-4403.83	10.56	-26.87	-1.26	-2868.92	-13.33	-3111.90	-2.98	-2277.24	-13.30	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.42	-0.16	-4234.63	-1.29
		Zone 39	0.1X	Low	0%	296.90	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.76	-10369.22	104.00	-4403.92	10.47	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.19	0.07	-4233.12	0.22
			10X	Low	0%	300.37	12114.97	95.98	28302.37	30.55	6706.52	3.38	-3192.11	21.79	-10368.95	104.26	-4403.59	10.81	-26.70	-1.09	-2868.69	-13.10	-3111.96	-3.04	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.46	-0.05	-11439.10	-0.83	-4235.58	-2.24
	Model Layer 6 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	0%	297.58	12114.44	95.45	28302.07	30.25	6706.47	3.33	-3192.13	21.77	-10369.19	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40596.42	-1.10	-11437.53	0.73	-4233.34	0.00
			10X	Low	0%	327.70	12120.82	101.83	28306.06	34.24	6707.47	4.32	-3192.15	21.74	-10369.25	103.97	-4404.04	10.35	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40610.29	12.77	-11446.26	-7.99	-4233.30	0.04
		Zone 32	0.1X	Low	0%	297.39	12112.71	93.72	28300.48	28.66	6706.16	3.02	-3192.12	21.78	-10369.15	104.07	-4403.81	10.58	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40594.79	-2.72	-11435.82	2.45	-4233.34	0.00
			10X	Low	0%	391.37	12137.18	118.20	28321.21	49.39	6710.35	7.21	-3192.30	21.60	-10369.62	103.59	-4404.65	9.74	-26.71	-1.09	-2868.70	-13.11	-3112.01	-3.09	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40624.32	26.80	-11462.52	-24.26	-4233.30	0.04
		Zone 33	0.1X	Low	0%	299.23	12114.90	95.92	28302.83	31.01	6706.60	3.45	-3192.12	21.78	-10369.16	104.06	-4403.84	10.55	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.66	0.14	-11436.38	1.88	-4233.38	-0.04
			10X	Low	0%	312.38	12115.58	96.59	28298.11	26.29	6706.14	2.99	-3192.28	21.62	-10369.54	103.68	-4404.37	10.02	-26.71	-1.09	-2868.70	-13.11	-3111.98	-3.06	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40596.19	-1.33	-11457.24	-18.98	-4232.96	0.38
		Zone 34	0.1X	Low	0%	297.08	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.18	104.04	-4403.89	10.50	-26.70	-1.09	-2868.68	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.50	-0.01	-11437.90	0.36	-4233.36	-0.02
			10X	Low	0%	300.53	12114.97	95.98	28302.39	30.57	6706.54	3.40	-3192.14	21.76	-10369.34	103.87	-4403.93	10.46	-26.70	-1.09	-2868.69	-13.10	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.01	-11442.10	-3.84	-4233.12	0.22
		Zone 35	0.1X	Low	0%	297.07	12114.96	95.97	28302.41	30.59	6706.57	3.42	-3192.26	21.64	-10369.75	103.47	-4403.93	10.46	-26.70	-1.09	-2868.66	-13.06	-3111.90	-2.98	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11437.65	0.61	-4232.77	0.57
			10X	Low	0%	316.49	12115.01	96.03	28302.29	30.47	6706.41	3.27	-3190.85	23.05	-10363.68	109.54	-4403.54	10.85	-26.73	-1.11	-2868.99	-13.40	-3112.04	-3.12	-2277.39	-13.44	-6.90	-0.04	-16.36	-0.02	40597.39	-0.13	-11444.61	-6.34	-4239.03	-5.69
		Zone 36	0.1X	Low	0%	297.25	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.16	21.74	-10369.29	103.92	-4403.93	10.46	-26.70	-1.08	-2868.63	-13.03	-3111.91	-2.99	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.16	0.11	-4232.58	0.76
			10X	Low	0%	308.32	12114.98	95.99	28302.37	30.55	6706.51	3.37	-3191.90	22.00	-10368.16	105.06	-4403.47	10.92	-26.77	-1.15	-2869.27	-13.68	-3111.97	-3.05	-2277.49	-13.54	-6.90	-0.04	-16.36	-0.02	40597.47	-0.05	-11439.56	-1.30	-4240.95	-7.61
		Zone 37	0.1X	Low	0%	297.40	12114.94	95.95	28302.49	30.67	6706.58	3.43	-3192.13	21.76	-10369.19	104.03	-4403.88	10.51	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.56	0.05	-11437.68	0.58	-4233.32	0.02
			10X	Low	0%	302.35	12115.23	96.24	28301.44	29.62	6706.31	3.17	-3192.12	21.77	-10369.26	103.95	-4404.00	10.39	-26.70	-1.09	-2868.70	-13.10	-3111.95	-3.03	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.04	-0.48	-11444.35	-6.09	-4233.51	-0.17
		Zone 38	0.1X	Low	0%	297.04	12115.00	96.01	28302.42	30.60	6706.56	3.42	-3192.13	21.76	-10369.20	104.01	-4403.90	10.49	-26.70	-1.08	-2868.66	-13.06	-3111.92	-3.00	-2277.11	-13.17	-6.90	-0.04	-16.36	-0.02	40597.33	-0.18	-11438.33	-0.07	-4233.21	0.13
			10X	Low	0%	298.77	12114.95	95.97	28302.38	30.56	6706.54	3.40	-3192.11	21.79	-10369.07	104.14	-4403.81	10.58	-26.78	-1.17	-2868.93	-13.34	-3111.88	-2.96	-2277.22	-13.27	-6.90	-0.04	-16.36	-0.02	40597.58	0.07	-11438.44	-0.17	-4234.63	-1.29
		Zone 39	0.1X	Low	0%	296.78	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.76	-10369.21	104.01	-4403.91	10.48	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.23	0.03	-4233.21	0.13
			10X	Low	0%	298.85	12114.97	95.98	28302.38	30.56	6706.53	3.39	-3192.11	21.78	-10369.04	104.17	-4403.70	10.70	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.77	-0.51	-4234.61	-1.27
	Model Layer 7 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	0%	297.70	12114.31	95.32	28301.99	30.17	6706.45	3.31	-3192.13	21.77	-10369.19	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40596.27	-1.24	-11437.33	0.94	-4233.34	0.00
			10X	Low	0%	336.26	12122.66	103.67	28307.38	35.56	6707.77	4.63	-3192.16	21.73	-10369.27	103.94	-4404.09	10.30	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40613.18	15.66	-11448.54	-10.27	-4233.30	0.04
		Zone 32	0.1X	Low	0%	297.48	12112.54	93.56	28300.32	28.50	6706.13	2.99	-3192.11	21.78	-10369.14	104.07	-4403.81	10.59	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40594.58	-2.94	-11435.60	2.66	-4233.34	0.00
			10X	Low	0%	398.75	12138.79	119.80	28322.82	50.99	6710.66	7.51	-3192.31	21.59	-10369.65	103.56	-4404.71	9.68	-26.71	-1.09	-2868.70	-13.11	-3112.01	-3.09	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40626.46	28.94	-11464.36	-26.10	-4233.31	0.03
		Zone 33	0.1X	Low	0%	299.33	12114.87	95.88	28302.87	31.05	6706.60	3.46	-3192.12	21.78	-10369.15	104.06	-4403.84	10.55	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.66	0.14	-11436.30	1.97	-4233.38	-0.04
			10X	Low	0%	312.76	12115.88	96.89	28297.70	25.88	6706.10	2.96	-3192.28	21.61	-10369.56	103.66	-4404.40	10.00	-26.71	-1.09	-2868.70	-13.11	-3111.98	-3.06	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40596.21	-1.31	-11457.84	-19.57	-4232.98	0.36
		Zone 34	0.1X	Low	0%	297.10	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.77	-10369.17	104.04	-4403.89	10.50	-26.70	-1.09	-2868.68	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11437.88	0.39	-4233.36	-0.02
			10X	Low	0%	300.49	12114.97	95.98	28302.39	30.57	6706.54	3.39	-3192.13	21.77	-10369.38	103.83	-4403.94	10.45	-26.70	-1.09	-2868.69	-13.10	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11442.13	-3.87	-4233.14	0.20
		Zone 35	0.1X	Low	0%	297.13	12114.96	95.97	28302.41	30.59	6706.57	3.43	-3192.27	21.63	-10369.78	103.43	-4403.93	10.46	-26.70	-1.09	-2868.65	-13.06	-3111.90	-2.98	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40597.52	0.01	-11437.60	0.66	-4232.72	0.62
			10X	Low	0%	317.77	12115.01	96.03	28302.28	30.46	6706.41	3.26	-3190.78	23.11	-10363.32	109.90	-4403.51	10.88	-26.73	-1.11	-2869.00	-13.41	-3112.05	-3.13	-2277.40	-13.45	-6.90	-0.04	-16.36	-0.02	40597.39	-0.13	-11444.91	-6.65	-4239.53	-6.19
		Zone 36	0.1X	Low	0%	297.45	12114.96	95.97	28302.41	30.58	6706.56	3.42	-3192.16	21.74	-10369.32	103.89	-4404.00	10.39	-26.70	-1.08	-2868.61	-13.02	-3111.89	-2.97	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.06	0.20	-4232.35	0.99
			10X	Low	0%	312.90	12114.99	96.00	28302.34	30.52	6706.47	3.33	-3191.83	22.06	-10367.88	105.33	-4402.79	11.60	-26.78	-1.16	-2869.46	-13.87	-3112.23	-3.31	-2277.52	-13.57	-6.90	-0.04	-16.36	-0.02	40597.43	-0.09	-11440.36	-2.10	-4243.24	-9.90
		Zone 37	0.1X	Low	0%	304.23	12114.81	95.82	28302.84	31.02	6706.89	3.75	-3192.08	21.81	-10369.13	104.08	-4403.79	10.60	-26.70	-1.09	-2868.66	-13.07	-3111.85	-2.93	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40598.01	0.50	-11432.62	5.64	-4232.62	0.72
			10X	Low	0%	358.50	12116.55	97.56	28297.93	26.11	6703.20	0.05	-3192.58	21.32	-10369.67	103.54	-4404.80	9.59	-26.72	-1.10	-2868.96	-13.36	-3112.53	-3.61	-2277.31	-13.36	-6.90	-0.04	-16.36	-0.02	40592.60	-4.92	-11495.05	-56.78	-4240.46	-7.12
		Zone 38	0.1X	Low	0%	296.90	12114.97	95.98	28302.40	30.58	6706.56	3.41	-3192.14	21.76	-10369.22	104.00	-4403.93	10.46	-26.70	-1.08	-2868.61	-13.01	-3111.96	-3.04	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.23	0.04	-4233.08	0.27
			10X	Low	0%	300.95	12114.97	95.98	28302.38	30.56	6706.53	3.39	-3192.07	21.82	-10368.93	104.29	-4403.55	10.84	-26.80	-1.18	-2869.41	-13.82	-3111.48	-2.56	-2277.25	-13.30	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.76	-0.50	-4235.99	-2.65
		Zone 39	0.1X	Low	0%	296.91	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.77	-10369.21	104.00	-4403.92	10.47	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.01	-11438.15	0.12	-4233.17	0.17
			10X	Low	0%	300.06	12114.98	95.99	28302.37	30.54	6706.51	3.36	-3192.13	21.76	-10369.00	104.21	-4403.62	10.78	-26.70	-1.09	-2868.70	-13.10	-3111.97	-3.05	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.45	-0.07	-11439.44	-1.18	-4235.02	-1.68
	Model Layer 8 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	0%	298.59	12114.54	95.55	28302.09	30.27	6706.46	3.32	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40595.33	-2.19	-11437.72	0.54	-4233.34	0.00
			10X	Low	0%	328.78	12121.45	102.47	28306.93	35.11	6707.79	4.65	-3192.17	21.73	-10369.28	103.93	-4404.08	10.31	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40609.32	11.80	-11446.60	-8.33	-4233.34	0.00
		Zone 32	0.1X	Low	0%	297.36	12112.79	93.80	28300.42	28.60	6705.90	2.76	-3192.11	21.78	-10369.14	104.07	-4403.80	10.59	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40594.64	-2.88	-11435.79	2.47	-4233.34	0.00
			10X	Low	0%	400.13	12138.07	119.08	28322.57	50.75	6712.88	9.73	-3192.34	21.56	-10369.73	103.49	-4404.79	9.60	-26.71	-1.09	-2868.70	-13.11	-3112.02	-3.10	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40625.74	28.22	-11465.25	-26.99	-4233.50	-0.16
		Zone 33	0.1X	Low	0%	302.09	12114.78	95.79	28302.88	31.06	6707.03	3.89	-3192.09	21.80	-10369.09	104.13	-4403.64	10.75	-26.70	-1.09	-2868.68	-13.09	-3111.89	-2.97	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.90	0.38	-11434.36	3.90	-4233.32	0.02
			10X	Low	0%	330.50	12117.51	98.52	28297.76	25.94	6701.91	-1.23	-3192.59	21.31	-10370.37	102.85	-4406.33	8.06	-26.71	-1.09	-2868.72	-13.13	-3112.20	-3.28	-2277.17	-13.22	-6.90	-0.04	-16.36	-0.02	40594.50	-3.01	-11476.49	-38.23	-4233.91	-0.57
		Zone 34	0.1X	Low	0%	297.56	12114.96	95.97	28302.42	30.60	6706.59	3.45	-3192.12	21.78	-10369.15	104.07	-4403.82	10.57	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.55	0.04	-11437.59	0.68	-4233.33	0.01
			10X	Low	0%	302.23	12115.04	96.05	28302.19	30.37	6706.19	3.05	-3192.23	21.67	-10369.62	103.59	-4404.61	9.78	-26.71	-1.09	-2868.70	-13.11	-3112.00	-3.08	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.18	-0.34	-11444.96	-6.70	-4233.50	-0.16
		Zone 35	0.1X	Low	0%	297.46	12114.95	95.96	28302.45	30.63	6706.63	3.49	-3192.24	21.65	-10369.72	103.50	-4404.99	9.40	-26.70	-1.09	-2868.65	-13.06	-3111.73	-2.81	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40597.57	0.05	-11436.78	1.48	-4232.19	1.15
			10X	Low	0%	341.21	12115.25	96.26	28301.94	30.12	6705.82	2.68	-3191.14	22.75	-10364.26	108.95	-4393.39	21.00	-26.73	-1.11	-2869.02	-13.43	-3113.68	-4.76	-2277.47	-13.52	-6.90	-0.04	-16.37	-0.03	40596.89	-0.63	-11452.77	-14.51	-4244.76	-11.42
		Zone 36	0.1X	Low	0%	297.75	12114.95	95.96	28302.43	30.61	6706.61	3.46	-3192.17	21.73	-10369.36	103.85	-4404.83	9.56	-26.70	-1.08	-2868.60	-13.01	-3111.61	-2.69	-2277.07	-13.12	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11437.38	0.89	-4231.66	1.68
			10X	Low	0%	336.55	12115.15	96.16	28302.08	30.26	6706.04	2.90	-3191.84	22.06	-10367.64	105.57	-4394.96	19.43	-26.74	-1.12	-2869.47	-13.87	-3114.83	-5.91	-2277.67	-13.72	-6.90	-0.04	-16.38	-0.04	40597.02	-0.50	-11446.74	-8.48	-4249.83	-16.49
		Zone 37	0.1X	Low	0%	307.74	12114.75	95.76	28303.00	31.18	6707.13	3.98	-3192.02	21.88	-10369.02	104.20	-4404.30	10.09	-26.70	-1.09	-2868.64	-13.05	-3111.67	-2.75	-2277.08	-13.14	-6.90	-0.04	-16.36	-0.02	40598.19	0.67	-11430.01	8.26	-4231.68	1.66
			10X	Low	0%	402.72	12117.39	98.40	28296.54	24.72	6700.92	-2.22	-3193.25	20.65	-10370.87	102.35	-4399.76	14.63	-26.73	-1.12	-2869.16	-13.57	-3114.33	-5.41	-2277.52	-13.57	-6.90	-0.04	-16.37	-0.04	40590.47	-7.05	-11520.77	-82.51	-4249.78	-16.44
		Zone 38	0.1X	Low	0%	297.09	12114.96	95.97	28302.41	30.59	6706.57	3.43	-3192.14	21.76	-10369.23	103.98	-4404.18	10.21	-26.70	-1.09	-2868.64	-13.04	-3112.00	-3.08	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.01	0.25	-4232.87	0.47
			10X	Low	0%	306.47	12115.02	96.03	28302.30	30.48	6706.40	3.26	-3192.07	21.82	-10368.85	104.36	-4401.15	13.24	-26.69	-1.07	-2869.13	-13.54	-3111.00	-2.08	-2277.26	-13.32	-6.90	-0.04	-16.39	-0.05	40597.37	-0.15	-11440.66	-2.40	-4237.97	-4.63
		Zone 39	0.1X	Low	0%	297.14	12114.96	95.97	28302.41	30.58	6706.56	3.42	-3192.12	21.78	-10369.19	104.02	-4403.92	10.47	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.01	0.26	-4233.12	0.22
			10X	Low	0%	301.81	12114.99	96.00	28302.32	30.50	6706.45	3.31	-3192.23	21.66	-10369.18	104.03	-4403.61	10.79	-26.71	-1.09	-2868.70	-13.11	-3112.02	-3.10	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.39	-0.13	-11440.85	-2.59	-4235.58	-2.24
	Model Layer 9 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	0%	608.29	12109.52	90.53	28316.55	44.73	6718.94	15.80	-3191.08	22.82	-10369.30	103.91	-4404.36	10.03	-26.69	-1.07	-2868.46	-12.86	-3110.30	-1.38	-2276.91	-12.96	-6.90	-0.04	-16.35	-0.01	40616.06	18.54	-11232.85	205.41	-4165.15	68.19
			10X	Low	0%	616.66	12112.59	93.61	28318.99	47.17	6719.83	16.69	-3191.10	22.79	-10369.36	103.86	-4404.47	9.92	-26.69	-1.07	-2868.46	-12.87	-3110.31	-1.39	-2276.91	-12.97	-6.90	-0.04	-16.35	-0.01	40621.96	24.44	-11236.61	201.65	-4165.16	68.19
		Zone 32	0.1X	Low	0%	604.38	12107.74	88.75	28314.93	43.11	6718.11	14.97	-3191.06	22.83	-10369.25	103.96	-4404.27	10.12	-26.69	-1.07	-2868.46	-12.86	-3110.29	-1.37	-2276.91	-12.96	-6.90	-0.04	-16.35	-0.01	40614.17	16.66	-11230.79	207.47	-4165.15	68.19
			10X	Low	1%	651.87	12129.78	110.79	28334.31	62.49	6727.46	24.31	-3191.29	22.61	-10369.84	103.38	-4405.31	9.08	-26.69	-1.08	-2868.47	-12.88	-3110.40	-1.48	-2276.93	-12.98	-6.90	-0.04	-16.35	-0.01	40639.14	41.62	-11257.17	181.09	-4165.31	68.03
		Zone 33	0.1X	Low	0%	617.14	12109.38	90.39	28317.20	45.38	6720.22	17.08	-3191.01	22.89	-10369.09	104.13	-4403.76	10.63	-26.69	-1.07	-2868.45	-12.86	-3110.23	-1.31	-2276.90	-12.95	-6.90	-0.04	-16.35	-0.01	40617.11	19.60	-11227.81	210.46	-4164.98	68.36
			10X	Low	0%	525.83	12114.08	95.09	28311.95	40.13	6707.06	3.91	-3191.92	21.98	-10371.57	101.64	-4410.30	4.09	-26.69	-1.08	-2868.53	-12.94	-3110.99	-2.07	-2277.00	-13.06	-6.90	-0.04	-16.35	-0.02	40609.31	11.79	-11286.47	151.79	-4167.12	66.22
		Zone 34	0.1X	Low	0%	610.01	12109.69	90.70	28316.75	44.93	6719.10	15.96	-3191.07	22.83	-10369.25	103.96	-4404.18	10.21	-26.69	-1.07	-2868.46	-12.86	-3110.28	-1.36	-2276.91	-12.96	-6.90	-0.04	-16.35	-0.01	40616.40	18.89	-11232.28	205.98	-4165.09	68.25
			10X	Low	0%	595.48	12109.95	90.96	28316.22	44.40	6718.09	14.94	-3191.24	22.66	-10369.82	103.39	-4406.19	8.20	-26.69	-1.08	-2868.48	-12.88	-3110.51	-1.59	-2276.94	-12.99	-6.90	-0.04	-16.35	-0.01	40615.54	18.02	-11241.52	196.74	-4165.77	67.57
		Zone 35	0.1X	Low	0%	609.33	12109.65	90.66	28316.81	44.99	6719.19	16.04	-3191.08	22.82	-10369.37	103.84	-4407.37	7.02	-26.69	-1.07	-2868.45	-12.85	-3109.81	-0.89	-2276.88	-12.93	-6.90	-0.04	-16.35	-0.01	40616.49	18.97	-11230.56	207.70	-4163.86	69.48
			10X	Low	0%	601.92	12110.37	91.38	28315.66	43.83	6717.26	14.11	-3191.17	22.72	-10368.71	104.50	-4374.73	39.66	-26.70	-1.09	-2868.57	-12.98	-3115.13	-6.21	-2277.23	-13.28	-6.90	-0.04	-16.38	-0.04	40614.74	17.22	-11258.63	179.63	-4178.12	55.22
		Zone 36	0.1X	Low	0%	609.23	12109.66	90.67	28316.78	44.96	6719.14	16.00	-3191.10	22.80	-10369.44	103.77	-4406.84	7.55	-26.69	-1.07	-2868.46	-12.86	-3109.48	-0.55	-2276.87	-12.92	-6.90	-0.04	-16.35	-0.01	40616.45	18.93	-11231.10	207.17	-4163.43	69.91
			10X	Low	0%	602.68	12110.21	91.22	28315.87	44.05	6717.66	14.52	-3190.98	22.92	-10368.02	105.19	-4379.92	34.48	-26.71	-1.09	-2868.48	-12.89	-3118.44	-9.51	-2277.33	-13.38	-6.90	-0.04	-16.39	-0.06	40615.04	17.52	-11253.46	184.81	-4182.34	51.00
		Zone 37	0.1X	Low	0%	623.73	12109.35	90.36	28317.47	45.65	6720.00	16.85	-3190.89	23.01	-10368.85	104.37	-4405.31	9.08	-26.69	-1.07	-2868.41	-12.82	-3109.80	-0.88	-2276.86	-12.91	-6.90	-0.04	-16.35	-0.01	40617.42	19.91	-11221.84	216.42	-4162.98	70.36
			10X	Low	0%	458.46	12113.47	94.48	28308.94	37.12	6709.17	6.02	-3193.06	20.83	-10373.75	99.46	-4394.85	19.54	-26.72	-1.11	-2868.91	-13.31	-3115.18	-6.26	-2277.41	-13.47	-6.90	-0.04	-16.38	-0.04	40605.40	7.88	-11345.98	92.28	-4186.73	46.61
		Zone 38	0.1X	Low	0%	609.09	12109.69	90.71	28316.73	44.91	6719.05	15.91	-3191.09	22.81	-10369.35	103.86	-4405.18	9.22	-26.69	-1.07	-2868.49	-12.90	-3110.21	-1.29	-2276.90	-12.95	-6.90	-0.04	-16.35	-0.01	40616.37	18.85	-11232.48	205.79	-4164.54	68.80
			10X	Low	0%	604.24	12109.88	90.89	28316.43	44.61	6718.56	15.42	-3191.04	22.86	-10368.83	104.38	-4396.34	18.05	-26.69	-1.07	-2868.16	-12.57	-3111.19	-2.27	-2277.04	-13.10	-6.90	-0.04	-16.37	-0.04	40615.91	18.39	-11239.81	198.45	-4171.23	62.11
		Zone 39	0.1X	Low	0%	610.64	12109.70	90.71	28316.72	44.90	6719.04	15.89	-3191.06	22.84	-10369.30	103.91	-4404.42	9.97	-26.69	-1.07	-2868.45	-12.86	-3110.27	-1.34	-2276.91	-12.96	-6.90	-0.04	-16.35	-0.01	40616.36	18.84	-11232.42	205.84	-4163.90	69.44
			10X	Low	0%	588.78	12109.80	90.81	28316.48	44.66	6718.70	15.56	-3191.30	22.59	-10369.32	103.89	-4403.81	10.58	-26.69	-1.08	-2868.51	-12.91	-3110.64	-1.72	-2276.96	-13.01	-6.90	-0.04	-16.35	-0.01	40615.96	18.44	-11240.43	197.83	-4177.70	55.64

Table 5-2. Sensitivity Analysis -- Inter-basin Flows and Stream Percolation
units: Acre-feet per year

Parameters			Multiplier	Sensitivity	diff (%)	Sum of absolute fluxes Default = 129641.846	Piru to Fillmore in System Default = 12018.990		Piru to Fillmore in System Default = 28271.821		Piru to Fillmore in System Default = 6703.143		Fillmore to Santa Paula in Default = -3213.897		Fillmore to Santa Paula in Default = -10473.213		Fillmore to Santa Paula Default = -4414.391		Santa Paula to Default = -25.615		Santa Paula to Mound ib Default = -2855.593		Santa Paula to Mound ib Default = -3108.92		Santa Paula to Oxnard in Default = -2263.948		Santa Paula to Default = -6.86		Santa Paula to Default = -16.337		STR Percolation in Piru Default = 40597.518		STR Percolation in Fillmore Default = -11438.262		STR Percolation in Santa Default = -4233.34	
						Sum of absolute diff	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.	flux	diff.
	Model Layer 10 (storage coefficient = 0.0005)	Zone 32	0.1X	Low	1%	729.88	12107.14	88.15	28320.27	48.45	6723.30	20.15	-3181.92	31.98	-10341.31	131.90	-4379.35	35.05	-26.66	-1.05	-2868.11	-12.52	-3108.21	0.71	-2276.60	-12.65	-6.89	-0.03	-16.34	0.00	40621.80	24.28	-11142.79	295.48	-4205.86	27.48
			10X	Low	1%	753.92	12118.03	99.04	28330.41	58.59	6729.50	26.35	-3182.05	31.85	-10341.65	131.57	-4379.95	34.44	-26.66	-1.05	-2868.12	-12.53	-3108.28	0.64	-2276.61	-12.66	-6.89	-0.03	-16.34	0.00	40632.83	35.31	-11155.87	282.40	-4205.90	27.44
		Zone 33	0.1X	Low	1%	740.69	12107.78	88.79	28321.70	49.88	6725.10	21.95	-3181.85	32.05	-10341.13	132.09	-4378.79	35.60	-26.66	-1.05	-2868.10	-12.51	-3108.15	0.77	-2276.59	-12.64	-6.89	-0.03	-16.34	0.00	40623.56	26.05	-11138.61	299.65	-4205.69	27.65
			10X	Low	0%	647.36	12112.46	93.47	28316.41	44.58	6711.88	8.73	-3182.77	31.13	-10343.62	129.60	-4385.38	29.01	-26.67	-1.05	-2868.19	-12.59	-3108.91	0.01	-2276.69	-12.74	-6.89	-0.03	-16.34	0.00	40615.66	18.15	-11197.53	240.73	-4207.82	25.52
		Zone 34	0.1X	Low	1%	733.41	12108.09	89.10	28321.25	49.42	6723.97	20.83	-3181.91	31.99	-10341.29	131.92	-4379.22	35.17	-26.66	-1.05	-2868.11	-12.52	-3108.20	0.72	-2276.60	-12.65	-6.89	-0.03	-16.34	0.00	40622.83	25.31	-11143.10	295.16	-4205.80	27.54
			10X	Low	1%	718.42	12108.34	89.35	28320.71	48.89	6722.95	19.81	-3182.08	31.81	-10341.86	131.35	-4381.23	33.17	-26.67	-1.05	-2868.13	-12.54	-3108.43	0.49	-2276.62	-12.68	-6.89	-0.03	-16.34	0.00	40621.96	24.44	-11152.33	285.93	-4206.47	26.87
		Zone 35	0.1X	Low	1%	733.67	12108.05	89.06	28321.30	49.48	6724.06	20.91	-3181.92	31.97	-10341.41	131.80	-4382.41	31.98	-26.66	-1.05	-2868.10	-12.51	-3107.73	1.19	-2276.57	-12.62	-6.89	-0.03	-16.33	0.00	40622.92	25.40	-11141.38	296.88	-4204.56	28.78
			10X	Low	1%	723.81	12108.77	89.78	28320.15	48.32	6722.12	18.98	-3182.01	31.89	-10340.73	132.48	-4349.77	64.62	-26.68	-1.06	-2868.23	-12.63	-3113.06	-4.14	-2276.92	-12.97	-6.90	-0.04	-16.37	-0.03	40621.15	23.63	-11169.50	268.76	-4218.86	14.48
		Zone 36	0.1X	Low	1%	734.50	12108.06	89.07	28321.29	49.47	6724.02	20.88	-3181.94	31.95	-10341.49	131.72	-4382.04	32.35	-26.66	-1.05	-2868.11	-12.51	-3107.31	1.61	-2276.55	-12.60	-6.89	-0.03	-16.33	0.00	40622.89	25.37	-11141.76	296.51	-4203.98	29.36
			10X	Low	1%	724.18	12108.64	89.65	28320.31	48.49	6722.44	19.30	-3181.79	32.10	-10339.92	133.29	-4353.38	61.01	-26.68	-1.07	-2868.13	-12.54	-3117.20	-8.28	-2277.05	-13.10	-6.90	-0.04	-16.38	-0.05	40621.37	23.85	-11165.65	272.61	-4224.53	8.81
		Zone 37	0.1X	Low	1%	750.53	12107.67	88.68	28322.11	50.29	6725.06	21.92	-3181.73	32.17	-10340.89	132.32	-4380.77	33.62	-26.66	-1.04	-2868.05	-12.46	-3107.57	1.35	-2276.53	-12.59	-6.89	-0.03	-16.33	0.00	40624.07	26.55	-11130.99	307.27	-4203.09	30.25
			10X	Low	0%	559.15	12112.65	93.66	28312.05	40.23	6712.05	8.90	-3183.93	29.97	-10345.72	127.49	-4365.78	48.61	-26.71	-1.09	-2868.68	-13.09	-3114.57	-5.65	-2277.24	-13.29	-6.90	-0.04	-16.37	-0.04	40609.71	12.19	-11273.39	164.87	-4233.31	0.03
		Zone 38	0.1X	Low	1%	732.71	12108.09	89.10	28321.23	49.41	6723.93	20.79	-3181.94	31.96	-10341.40	131.81	-4380.35	34.05	-26.66	-1.05	-2868.15	-12.56	-3108.21	0.71	-2276.58	-12.63	-6.89	-0.03	-16.33	0.00	40622.80	25.28	-11143.16	295.11	-4205.12	28.22
			10X	Low	1%	725.49	12108.30	89.32	28320.88	49.06	6723.36	20.22	-3181.86	32.03	-10340.77	132.45	-4370.03	44.36	-26.66	-1.05	-2867.73	-12.13	-3108.26	0.66	-2276.76	-12.81	-6.90	-0.04	-16.36	-0.03	40622.25	24.73	-11151.77	286.50	-4213.22	20.13
		Zone 39	0.1X	Low	1%	739.07	12108.08	89.09	28321.27	49.45	6723.98	20.84	-3181.76	32.14	-10341.01	132.21	-4379.22	35.17	-26.66	-1.05	-2868.09	-12.50	-3108.12	0.80	-2276.58	-12.64	-6.89	-0.03	-16.34	0.00	40622.88	25.37	-11141.30	296.96	-4202.51	30.83
			10X	Low	1%	675.93	12108.40	89.42	28320.42	48.60	6722.83	19.69	-3183.57	30.33	-10344.71	128.51	-4381.19	33.20	-26.67	-1.06	-2868.26	-12.67	-3109.18	-0.26	-2276.74	-12.79	-6.90	-0.03	-16.34	-0.01	40621.46	23.94	-11170.26	268.00	-4240.78	-7.44
Specific Yield	Model Layer 1 (S.Y. = 0.15)	Zone 31	0.5X	Low	0%	302.96	12114.19	95.21	28302.02	30.20	6706.43	3.29	-3192.13	21.77	-10369.19	104.02	-4403.88	10.51	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40591.11	-6.41	-11437.14	1.13	-4233.36	-0.02
			2X	Low	0%	310.77	12116.44	97.45	28303.03	31.21	6706.76	3.62	-3192.13	21.77	-10369.19	104.03	-4403.92	10.47	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40607.26	9.74	-11440.31	-2.04	-4233.31	0.03
		Zone 32	0.5X	Low	0%	297.41	12113.24	94.25	28293.16	21.34	6705.44	2.30	-3192.09	21.81	-10369.10	104.11	-4403.59	10.80	-26.70	-1.09	-2868.68	-13.08	-3111.88	-2.96	-2277.11	-13.17	-6.90	-0.04	-16.36	-0.02	40606.38	8.87	-11441.31	-3.05	-4233.87	-0.53
			2X	Low	0%	339.23	12121.13	102.14	28319.94	48.12	6708.82	5.68	-3192.23	21.67	-10369.40	103.81	-4404.48	9.91	-26.71	-1.09	-2868.71	-13.11	-3111.98	-3.06	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40583.42	-14.10	-11435.86	2.40	-4232.46	0.88
		Zone 33	0.5X	Low	0%	339.35	12123.14	104.15	28303.01	31.19	6707.13	3.99	-3191.97	21.93	-10368.87	104.34	-4403.46	10.93	-26.70	-1.09	-2868.66	-13.07	-3111.86	-2.93	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40613.28	15.76	-11422.43	15.83	-4234.27	-0.93
			2X	Low	0%	336.97	12097.95	78.96	28301.41	29.59	6705.43	2.29	-3192.51	21.38	-10369.99	103.22	-4404.70	9.69	-26.71	-1.09	-2868.73	-13.14	-3112.03	-3.11	-2277.16	-13.22	-6.90	-0.04	-16.36	-0.02	40566.06	-31.46	-11466.66	-28.40	-4231.98	1.36
		Zone 34	0.5X	Low	0%	316.66	12114.93	95.94	28302.39	30.56	6706.51	3.36	-3192.43	21.47	-10369.92	103.29	-4404.00	10.40	-26.70	-1.09	-2868.68	-13.08	-3111.94	-3.02	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.30	-0.21	-11419.24	19.03	-4235.33	-1.99
			2X	Low	0%	341.57	12115.05	96.06	28302.31	30.49	6706.61	3.46	-3191.68	22.22	-10367.94	105.27	-4403.74	10.65	-26.70	-1.09	-2868.70	-13.10	-3111.88	-2.96	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.83	0.31	-11477.86	-39.60	-4230.23	3.11
		Zone 35	0.5X	Low	0%	301.20	12114.91	95.92	28302.53	30.71	6706.72	3.57	-3193.13	20.77	-10374.88	98.33	-4404.35	10.04	-26.68	-1.07	-2868.33	-12.74	-3111.76	-2.84	-2276.83	-12.88	-6.90	-0.04	-16.36	-0.02	40597.66	0.14	-11431.52	6.74	-4227.94	5.40
			2X	Low	0%	335.24	12115.06	96.07	28302.16	30.34	6706.26	3.11	-3190.43	23.47	-10358.94	114.27	-4403.06	11.33	-26.75	-1.13	-2869.32	-13.73	-3112.20	-3.28	-2277.66	-13.71	-6.90	-0.04	-16.36	-0.02	40597.24	-0.27	-11451.18	-12.92	-4244.88	-11.54
		Zone 36	0.5X	Low	0%	299.59	12114.94	95.96	28302.46	30.64	6706.64	3.49	-3192.62	21.28	-10371.32	101.90	-4404.69	9.70	-26.30	-0.69	-2866.63	-11.04	-3111.89	-2.97	-2275.70	-11.75	-6.89	-0.03	-16.36	-0.02	40597.61	0.09	-11435.72	2.55	-4225.85	7.49
			2X	Low	0%	331.84	12114.99	96.00	28302.32	30.49	6706.44	3.30	-3191.45	22.44	-10366.23	106.98	-4402.72	11.68	-27.19	-1.58	-2871.76	-16.16	-3111.96	-3.04	-2279.00	-15.05	-6.91	-0.04	-16.36	-0.02	40597.39	-0.13	-11441.86	-3.60	-4254.66	-21.31
		Zone 37	0.5X	Low	0%	316.26	12114.58	95.59	28303.95	32.13	6707.04	3.90	-3192.76	21.14	-10368.13	105.09	-4403.18	11.21	-26.70	-1.08	-2868.64	-13.05	-3111.79	-2.87	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40598.31	0.79	-11422.20	16.06	-4233.49	-0.15
			2X	Low	0%	324.02	12115.59	96.60	28299.52	27.70	6705.71	2.57	-3191.47	22.42	-10371.16	102.06	-4404.73	9.66	-26.71	-1.09	-2868.73	-13.14	-3112.07	-3.15	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40595.99	-1.53	-11468.67	-30.41	-4233.77	-0.43
		Zone 39	0.5X	Low	0%	299.33	12114.95	95.96	28302.44	30.62	6706.60	3.46	-3191.97	21.92	-10368.82	104.39	-4403.68	10.71	-26.70	-1.09	-2868.68	-13.09	-3111.88	-2.96	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.58	0.06	-11436.79	1.47	-4232.98	0.36
			2X	Low	0%	298.90	12114.99	96.00	28302.32	30.50	6706.45	3.31	-3192.44	21.46	-10369.93	103.28	-4404.34	10.05	-26.70	-1.09	-2868.70	-13.11	-3111.99	-3.07	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.38	-0.14	-11441.19	-2.93	-4234.07	-0.72
	Model Layer 2 (S.Y. = 0.15)	Zone 31	0.5X	Low	0%	297.14	12114.92	95.94	28302.36	30.54	6706.54	3.40	-3192.13	21.76	-10369.20	104.01	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40596.95	-0.57	-11438.26	0.01	-4233.35	-0.01
			2X	Low	0%	299.03	12115.24	96.25	28302.51	30.69	6706.59	3.44	-3192.13	21.76	-10369.20	104.02	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40599.03	1.51	-11438.70	-0.44	-4233.34	0.00
		Zone 32	0.5X	Low	0%	299.74	12115.61	96.63	28302.37	30.55	6706.55	3.41	-3192.14	21.76	-10369.22	104.00	-4403.90	10.49	-26.70	-1.09	-2868.68	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40599.16	1.64	-11439.08	-0.81	-4233.40	-0.06
			2X	Low	0%	300.31	12113.62	94.64	28302.37	30.55	6706.54	3.40	-3192.12	21.78	-10369.16	104.05	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40594.17	-3.35	-11436.75	1.51	-4233.22	0.12
		Zone 33	0.5X	Low	0%	315.91	12112.67	93.68	28314.28	42.46	6707.20	4.05	-3191.86	22.04	-10368.49	104.73	-4403.10	11.29	-26.70	-1.09	-2868.67	-13.08	-3111.81	-2.89	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40602.84	5.32	-11439.69	-1.43	-4232.71	0.63
			2X	Low	0%	299.44	12117.57	98.58	28289.25	17.42	6705.77	2.63	-3192.48	21.42	-10370.08	103.13	-4404.83	9.56	-26.71	-1.09	-2868.70	-13.11	-3112.04	-3.12	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40591.16	-6.36	-11447.19	-8.93	-4234.17	-0.83
		Zone 34	0.5X	Low	0%	303.02	12114.93	95.94	28302.47	30.65	6706.64	3.50	-3191.59	22.31	-10368.08	105.14	-4403.72	10.67	-26.70	-1.09	-2868.67	-13.08	-3111.88	-2.96	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.57	0.06	-11434.09	4.18	-4233.10	0.24
			2X	Low	0%	300.84	12115.01	96.02	28302.24	30.42	6706.43	3.28	-3192.96	20.94	-10370.80	102.41	-4404.11	10.28	-26.71	-1.09	-2868.71	-13.12	-3111.96	-3.04	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.39	-0.13	-11444.64	-6.38	-4233.81	-0.47
		Zone 35	0.5X	Low	0%	296.63	12114.97	95.98	28302.38	30.56	6706.55	3.41	-3192.19	21.71	-10369.44	103.78	-4403.91	10.48	-26.70	-1.09	-2868.67	-13.08	-3111.91	-2.99	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.51	0.00	-11438.10	0.16	-4233.16	0.18
			2X	Low	0%	298.26	12114.97	95.98	28302.37	30.55	6706.54	3.39	-3192.02	21.88	-10368.70	104.52	-4403.86	10.53	-26.71	-1.09	-2868.71	-13.12	-3111.93	-3.01	-2277.15	-13.20	-6.90	-0.04	-16.36	-0.02	40597.49	-0.02	-11438.76	-0.49	-4233.76	-0.41
		Zone 36	0.5X	Low	0%	297.03	12114.97	95.98	28302.38	30.56	6706.55	3.41	-3192.15	21.75	-10369.27	103.94	-4403.92	10.47	-26.70	-1.08	-2868.64	-13.05	-3111.91	-2.99	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40597.51	-0.01	-11438.23	0.03	-4232.77	0.57
			2X	Low	0%	298.38	12114.97	95.98	28302.37	30.55	6706.54	3.40	-3192.10	21.80	-10369.06	104.16	-4403.84	10.55	-26.71	-1.10	-2868.78	-13.18	-3111.93	-3.01	-2277.20	-13.25	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11438.48	-0.22	-4234.47	-1.13
		Zone 37	0.5X	Low	0%	326.78	12113.72	94.73	28306.42	34.60	6706.61	3.47	-3191.67	22.23	-10367.32	105.89	-4403.41	10.98	-26.70	-1.09	-2868.64	-13.04	-3111.81	-2.89	-2277.08	-13.13	-6.90	-0.04	-16.36	-0.02	40598.19	0.67	-11414.69	23.57	-4232.91	0.43
			2X	Low	0%	332.21	12117.26	98.27	28294.93	23.11	6706.18	3.04	-3193.38	20.51	-10373.03	100.18	-4404.82	9.57	-26.71	-1.10	-2868.77	-13.18	-3112.11	-3.19	-2277.20	-13.26	-6.90	-0.04	-16.36	-0.02	40596.11	-1.40	-11482.48	-44.22	-4234.46	-1.12
		Zone 39	0.5X	Low	0%	296.81	12114.97	95.98	28302.38	30.56	6706.55	3.41	-3192.12	21.78	-10369.16	104.05	-4403.87	10.52	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.18	0.08	-4233.31	0.03
			2X	Low	0%	296.90	12114.97	95.98	28302.37	30.55	6706.54	3.40	-3192.16	21.74	-10369.26	103.95	-4403.94	10.45	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.49	-0.03	-11438.59	-0.32	-4233.41	-0.07
	Model Layer 3 (S.Y. = 0.15)	Zone 26	0.5X	Low	0%	360.10	12112.79	93.80	28311.88	40.06	6708.13	4.99	-3191.49	22.41	-10367.66	105.55	-4402.46	11.93	-26.70	-1.09	-2868.64	-13.04	-3111.73	-2.81	-2277.08	-13.13	-6.90	-0.04	-16.36	-0.02	40600.92	3.40	-11391.06	47.20	-4233.98	-0.64
			2X	Low	0%	374.11	12118.75	99.76	28286.88	15.06	6704.02	0.88	-3193.15	20.74	-10371.58	101.63	-4406.18	8.21	-26.71	-1.10	-2868.77	-13.17	-3112.22	-3.30	-2277.20	-13.26	-6.90	-0.04	-16.36	-0.02	40592.34	-5.18	-11528.90	-90.64	-4232.21	1.13
		Zone 31	0.5X	Low	0%	632.36	11997.66	-21.33	28229.14	-42.68	6688.23	-14.91	-3191.65	22.24	-10367.99	105.23	-4401.01	13.38	-26.70	-1.08	-2868.62	-13.03	-3111.53	-2.61	-2277.06	-13.11	-6.90	-0.04	-16.36	-0.02	40382.30	-215.22	-11271.28	166.99	-4233.84	-0.50
			2X	Low	1%	1206.05	12304.50	285.51	28418.47	146.65	6735.48	32.34	-3192.93	20.97	-10371.22	101.99	-4408.50	5.90	-26.71	-1.10	-2868.78	-13.18	-3112.52	-3.60	-2277.23	-13.28	-6.90	-0.04	-16.36	-0.02	40922.40	324.88	-11694.03	-255.77	-4232.52	0.82
		Zone 32	0.5X	Low	1%	1572.34	11776.70	-242.29	28027.46	-244.36	6648.83	-54.31	-3189.86	24.03	-10363.41	109.80	-4392.33	22.06	-26.68	-1.07	-2868.46	-12.86	-3110.51	-1.59	-2276.87	-12.92	-6.90	-0.04	-16.35	-0.01	40146.46	-451.06	-11044.49	393.78	-4235.49	-2.15
			2X	Low	2%	2315.19	12579.89	560.91	28664.67	392.85	6779.83	76.68	-3195.46	18.44	-10377.82	95.40	-4418.93	-4.54	-26.73	-1.11	-2868.93	-13.34	-3113.67	-4.75	-2277.41	-13.46	-6.90	-0.04	-16.37	-0.03	41236.71	639.19	-11930.57	-492.31	-4235.47	-2.13
		Zone 33	0.5X	Low	0%	538.51	12112.69	93.70	28344.87	73.05	6711.17	8.02	-3190.43	23.46	-10365.19	108.02	-4398.65	15.74	-26.69	-1.08	-2868.52	-12.93	-3111.26	-2.34	-2276.96	-13.01	-6.90	-0.04	-16.36	-0.02	40610.68	13.16	-11267.37	170.90	-4236.38	-3.04
			2X	Low	0%	614.34	12121.21	102.23	28238.81	-33.01	6700.35	-2.79	-3194.56	19.34	-10374.93	98.28	-4411.44	2.95	-26.72	-1.11	-2868.90	-13.31	-3112.86	-3.94	-2277.34	-13.39	-6.90	-0.04	-16.37	-0.03	40583.20	-14.32	-11745.20	-306.93	-4230.66	2.68
		Zone 34	0.5X	Low	0%	305.07	12114.94	95.95	28302.41	30.58	6706.59	3.45	-3192.20	21.70	-10369.16	104.06	-4403.77	10.62	-26.70	-1.09	-2868.68	-13.08	-3111.90	-2.98	-2277.11	-13.17	-6.90	-0.04	-16.36	-0.02	40597.46	-0.06	-11430.51	7.75	-4233.86	-0.52
			2X	Low	0%	312.18	12115.05	96.06	28302.30	30.48	6706.45	3.30	-3192.11	21.78	-10369.43	103.79	-4404.15	10.24	-26.71	-1.09	-2868.71	-13.11	-3111.96	-3.03	-2277.14	-13.20	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11453.46	-15.20	-4232.55	0.80
		Zone 35	0.5X	Low	0%	310.99	12114.19	95.20	28304.17	32.35	6708.75	5.60	-3215.43	-1.54	-10454.80	18.41	-4408.29	6.10	-26.38	-0.77	-2864.45	-8.86	-3109.99	-1.07	-2273.06	-9.11	-6.88	-0.02	-16.35	-0.01	40599.33	1.82	-11339.94	98.32	-4201.52	31.82
			2X	Low	0%	647.03	12115.96	96.97	28300.18	28.35	6703.82	0.67	-3163.17	50.72	-10269.03	204.19	-4399.43	14.96	-27.05	-1.43	-2873.40	-17.80	-3114.14	-5.22	-2281.34	-17.39	-6.91	-0.05	-16.38	-0.04	40595.22	-2.30	-11562.16	-123.90	-4316.37	-83.03
		Zone 36	0.5X	Low	0%	312.06	12114.95	95.96	28302.44	30.62	6706.61	3.47	-3192.57	21.33	-10371.16	102.05	-4404.28	10.11	-26.61	-1.00	-2867.84	-12.24	-3111.94	-3.02	-2275.89	-11.94	-6.90	-0.03	-16.36	-0.02	40597.56	0.04	-11436.34	1.92	-4215.03	18.31
			2X	Low	0%	347.46	12115.00	96.01	28302.31	30.49	6706.43	3.29	-3191.32	22.58	-10365.55	107.67	-4402.80	11.59	-26.84	-1.23	-2870.25	-14.65	-3112.00	-3.08	-2279.30	-15.35	-6.90	-0.04	-16.36	-0.02	40597.40	-0.11	-11442.20	-3.93	-4270.76	-37.42
		Zone 37	0.5X	Low	0%	315.97	12114.32	95.34	28305.83	34.01	6707.66	4.51	-3192.25	21.65	-10370.02	103.20	-4403.46	10.93	-26.70	-1.09	-2868.64	-13.05	-3111.82	-2.89	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40600.38	2.86	-11425.80	12.46	-4232.55	0.79
			2X	Low	0%	324.04	12116.09	97.10	28296.79	24.97	6704.81	1.67	-3191.83	22.07	-10367.40	105.81	-4404.54	9.85	-26.71	-1.09	-2868.76	-13.17	-3112.08	-3.16	-2277.19	-13.24	-6.90	-0.04	-16.36	-0.02	40593.16	-4.36	-11464.18	-25.92	-4234.91	-1.57
		Zone 38	0.5X	Low	0%	300.65	12114.96	95.97	28302.41	30.59	6706.57	3.42	-3192.19	21.71	-10369.45	103.76	-4404.07	10.32	-28.69	-3.07	-2868.30	-12.71	-3111.97	-3.05	-2276.61	-12.66	-6.89	-0.03	-16.36	-0.02	40597.53	0.01	-11437.90	0.36	-4230.40	2.94
			2X	Low	0%	304.30	12114.97	95.98	28302.39	30.56	6706.53	3.39	-3192.06	21.84	-10368.87	104.34	-4403.63	10.76	-24.68	0.93	-2868.84	-13.25	-3111.84	-2.92	-2277.82	-13.87	-6.90	-0.04	-16.36	-0.02	40597.48	-0.04	-11438.79	-0.53	-4239.17	-5.83
		Zone 39	0.5X	Low	0%	301.90	12114.93	95.95	28302.49	30.67	6706.67	3.53	-3192.38	21.52	-10370.69	102.53	-4405.46	8.93	-26.70	-1.09	-2868.65	-13.06	-3111.74	-2.82	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40597.67	0.16	-11435.26	3.00	-4227.89	5.45
			2X	Low	0%	320.35	12115.01	96.02	28302.23	30.41	6706.32	3.18	-3191.68	22.22	-10366.41	106.81	-4400.76	13.63	-26.71	-1.09	-2868.74	-13.15	-3112.26	-3.34	-2277.17	-13.22	-6.90	-0.04	-16.36	-0.02	40597.21	-0.31	-11444.08	-5.81	-4244.43	-11.09
	Model Layer 4 (S.Y. = 0.05)	Zone 26	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
			2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		Zone 31	0.5X	Low	0%	296.86	12114.70	95.72	28302.21	30.39	6706.51	3.37	-3192.13	21.77	-10369.19	104.03	-4403.89	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.21	-0.31	-11437.90	0.36	-4233.34	0.00
			2X	Low	0%	299.34	12115.55	96.56	28302.82	31.00	6706.65	3.51	-3192.13	21.76	-10369.20	104.01	-4403.91	10.48	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40598.32	0.81	-11439.05	-0.79	-4233.34	0.00
		Zone 32	0.5X	Low	0%	296.62	12114.05	95.06	28301.59	29.77	6706.39	3.24	-3192.12	21.77	-10369.17	104.05	-4403.86	10.53	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40596.68	-0.84	-11437.32	0.94	-4233.33	0.01
			2X	Low	0%	303.88	12116.79	97.80	28304.01	32.19	6706.88	3.74	-3192.15	21.75	-10369.23	103.98	-4403.96	10.43	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40599.20	1.68	-11440.12	-1.86	-4233.36	-0.02
		Zone 33	0.5X	Low	0%	296.95	12115.00	96.01	28302.56	30.74	6706.56	3.41	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.49	-0.03	-11438.22	0.04	-4233.34	0.00
			2X	Low	0%	296.41	12114.91	95.92	28302.09	30.27	6706.55	3.40	-3192.14	21.76	-10369.21	104.01	-4403.91	10.48	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.57	0.05	-11438.36	-0.09	-4233.35	-0.01
		Zone 34	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
			2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		Zone 35	0.5X	Low	0%	300.24	12114.94	95.95	28302.45	30.63	6706.62	3.48	-3192.72	21.17	-10371.76	101.46	-4404.23	10.16	-26.68	-1.07	-2868.37	-12.78	-3111.84	-2.92	-2276.84	-12.89	-6.90	-0.04	-16.36	-0.02	40597.57	0.06	-11435.73	2.53	-4228.24	5.10
			2X	Low	0%	319.90	12115.01	96.02	28302.30	30.48	6706.43	3.28	-3191.00	22.90	-10364.24	108.98	-4403.20	11.19	-26.75	-1.13	-2869.30	-13.71	-3112.07	-3.15	-2277.67	-13.72	-6.90	-0.04	-16.36	-0.02	40597.40	-0.12	-11443.18	-4.92	-4243.59	-10.24
		Zone 36	0.5X	Low	0%	309.00	12114.93	95.94	28302.47	30.65	6706.65	3.51	-3192.79	21.11	-10372.04	101.18	-4404.74	9.65	-26.62	-1.00	-2867.51	-11.92	-3111.78	-2.86	-2276.20	-12.26	-6.89	-0.03	-16.36	-0.02	40597.62	0.10	-11434.97	3.29	-4217.86	15.49
			2X	Low	0%	345.42	12115.02	96.03	28302.27	30.45	6706.38	3.23	-3191.01	22.89	-10364.30	108.92	-4402.31	12.08	-26.85	-1.24	-2870.85	-15.26	-3112.18	-3.26	-2278.76	-14.82	-6.90	-0.04	-16.36	-0.02	40597.35	-0.17	-11443.98	-5.72	-4264.63	-31.29
		Zone 37	0.5X	Low	0%	297.29	12114.96	95.97	28302.42	30.60	6706.56	3.42	-3192.14	21.76	-10369.19	104.02	-4403.89	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.51	0.00	-11437.66	0.60	-4233.35	-0.01
			2X	Low	0%	297.82	12114.98	95.99	28302.36	30.53	6706.54	3.40	-3192.12	21.78	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11439.39	-1.13	-4233.32	0.02
		Zone 38	0.5X	Low	0%	297.59	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.16	21.74	-10369.30	103.92	-4403.95	10.44	-25.23	0.38	-2869.47	-13.87	-3111.93	-3.01	-2277.03	-13.08	-6.90	-0.04	-16.36	-0.02	40597.52	0.01	-11438.12	0.15	-4232.37	0.97
			2X	Low	0%	300.65	12114.97	95.98	28302.39	30.57	6706.54	3.40	-3192.09	21.81	-10369.01	104.20	-4403.78	10.61	-28.54	-2.92	-2868.19	-12.60	-3111.89	-2.97	-2277.29	-13.35	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11438.52	-0.25	-4235.25	-1.91
		Zone 39	0.5X	Low	0%	297.03	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.76	-10369.22	103.99	-4403.94	10.45	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.53	0.01	-11438.13	0.14	-4233.03	0.31
			2X	Low	0%	297.75	12114.97	95.98	28302.39	30.57	6706.54	3.40	-3192.13	21.77	-10369.13	104.09	-4403.80	10.59	-26.70	-1.09	-2868.69	-13.09	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.50	-0.02	-11438.54	-0.28	-4233.96	-0.62
	Model Layer 5 (S.Y. = 0.15)	Zone 26	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
			2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		Zone 31	0.5X	Low	0%	308.87	12099.08	80.09	28290.62	18.80	6703.80	0.66	-3192.04	21.86	-10368.95	104.26	-4403.41	10.98	-26.70	-1.09	-2868.68	-13.08	-3111.86	-2.94	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40574.95	-22.57	-11418.97	19.30	-4233.32	0.02
			2X	Low	0%	428.63	12144.52	125.53	28324.35	52.53	6711.61	8.47	-3192.31	21.59	-10369.66	103.55	-4404.77	9.63	-26.71	-1.09	-2868.70	-13.11	-3112.02	-3.10	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40638.77	41.25	-11473.73	-35.47	-4233.40	-0.06
		Zone 32	0.5X	Low	0%	384.49	12041.95	22.96	28232.13	-39.69	6692.17	-10.98	-3191.45	22.44	-10367.35	105.87	-4401.07	13.32	-26.70	-1.09	-2868.65	-13.06	-3111.60	-2.68	-2277.08	-13.14	-6.90	-0.04	-16.36	-0.02	40529.02	-68.50	-11368.50	69.77	-4232.40	0.94
			2X	Low	1%	750.76	12228.49	209.50	28403.81	131.99	6726.75	23.60	-3193.12	20.78	-10371.86	101.35	-4408.05	6.34	-26.71	-1.09	-2868.74	-13.14	-3112.39	-3.47	-2277.19	-13.24	-6.90	-0.04	-16.36	-0.02	40710.42	112.91	-11550.20	-111.94	-4234.68	-1.34
		Zone 33	0.5X	Low	0%	328.75	12114.80	95.81	28308.12	36.30	6706.98	3.84	-3192.01	21.89	-10368.88	104.33	-4403.29	11.10	-26.70	-1.09	-2868.66	-13.07	-3111.84	-2.92	-2277.10	-13.15	-6.90	-0.04	-16.36	-0.02	40598.60	1.09	-11414.91	23.35	-4234.09	-0.75
			2X	Low	0%	331.84	12115.73	96.75	28291.63	19.81	6705.82	2.68	-3192.43	21.47	-10369.93	103.29	-4405.03	9.36	-26.71	-1.09	-2868.73	-13.13	-3112.06	-3.14	-2277.16	-13.22	-6.90	-0.04	-16.36	-0.02	40595.96	-1.56	-11483.45	-45.18	-4232.22	1.12
		Zone 34	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
			2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		Zone 35	0.5X	Low	0%	298.05	12114.93	95.94	28302.47	30.65	6706.64	3.50	-3193.32	20.57	-10373.22	99.99	-4404.12	10.27	-26.69	-1.07	-2868.46	-12.87	-3111.83	-2.91	-2276.91	-12.96	-6.90	-0.04	-16.36	-0.02	40597.58	0.07	-11434.25	4.02	-4230.18	3.16
			2X	Low	0%	321.73	12115.03	96.04	28302.26	30.44	6706.38	3.23	-3190.05	23.85	-10361.48	111.74	-4403.38	11.01	-26.74	-1.12	-2869.13	-13.54	-3112.08	-3.16	-2277.54	-13.59	-6.90	-0.04	-16.36	-0.02	40597.36	-0.16	-11445.96	-7.69	-4239.44	-6.10
		Zone 36	0.5X	Low	0%	300.54	12114.95	95.97	28302.42	30.60	6706.59	3.44	-3192.28	21.62	-10369.84	103.37	-4404.30	10.09	-26.67	-1.06	-2868.25	-12.66	-3111.82	-2.90	-2276.83	-12.88	-6.90	-0.04	-16.36	-0.02	40597.55	0.03	-11437.34	0.92	-4228.38	4.96
			2X	Low	0%	311.87	12114.98	96.00	28302.36	30.53	6706.49	3.35	-3191.86	22.04	-10367.98	105.23	-4403.22	11.17	-26.76	-1.15	-2869.51	-13.91	-3112.06	-3.14	-2277.68	-13.73	-6.90	-0.04	-16.36	-0.02	40597.44	-0.08	-11439.96	-1.70	-4243.13	-9.78
		Zone 37	0.5X	Low	0%	334.87	12113.28	94.30	28307.99	36.17	6708.42	5.27	-3191.91	21.99	-10368.59	104.62	-4402.91	11.49	-26.70	-1.09	-2868.67	-13.07	-3111.79	-2.87	-2277.10	-13.16	-6.90	-0.04	-16.36	-0.02	40600.69	3.17	-11410.92	27.35	-4233.07	0.28
			2X	Low	0%	343.04	12117.80	98.81	28292.80	20.97	6703.42	0.28	-3192.50	21.40	-10370.21	103.00	-4405.54	8.85	-26.71	-1.09	-2868.72	-13.12	-3112.13	-3.21	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40592.13	-5.38	-11491.43	-53.17	-4233.82	-0.48
		Zone 38	0.5X	Low	0%	293.75	12114.96	95.97	28302.42	30.60	6706.58	3.44	-3192.20	21.69	-10369.52	103.70	-4404.34	10.05	-26.60	-0.98	-2863.77	-8.18	-3112.60	-3.68	-2276.89	-12.95	-6.90	-0.04	-16.36	-0.02	40597.55	0.03	-11437.63	0.64	-4231.55	1.79
			2X	Low	0%	309.31	12114.97	95.98	28302.37	30.55	6706.51	3.37	-3192.02	21.88	-10368.68	104.53	-4403.30	11.09	-26.78	-1.16	-2873.95	-18.36	-3111.21	-2.29	-2277.49	-13.55	-6.90	-0.04	-16.36	-0.02	40597.46	-0.05	-11439.20	-0.94	-4238.84	-5.50
		Zone 39	0.5X	Low	0%	298.02	12114.96	95.97	28302.41	30.59	6706.57	3.43	-3192.14	21.76	-10369.27	103.94	-4404.04	10.35	-26.70	-1.09	-2868.68	-13.09	-3111.89	-2.97	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.54	0.02	-11437.86	0.40	-4232.16	1.19
			2X	Low	0%	300.38	12114.97	95.98	28302.38	30.55	6706.52	3.38	-3192.12	21.78	-10369.02	104.20	-4403.58	10.81	-26.70	-1.09	-2868.69	-13.10	-3111.96	-3.04	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.47	-0.05	-11439.08	-0.82	-4235.68	-2.34
		Zone 31	0.5X	Low	0%	298.53	12113.50	94.52	28301.41	29.59	6706.32	3.17	-3192.13	21.77	-10369.18	104.04	-4403.86	10.54	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40595.09	-2.43	-11436.20	2.07	-4233.35	-0.01
			2X	Low	0%	310.69	12117.84	98.85	28304.31	32.49	6707.01	3.87	-3192.14	21.75	-10369.22	103.99	-4403.96	10.43	-26.70	-1.09	-2868.69	-13.09	-3111.93	-3.01	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40602.36	4.84	-11442.28	-4.02	-4233.32	0.02
		Zone 32	0.5X	Low	0%	296.29	12114.22	95.23	28301.60	29.78	6706.39	3.25	-3192.12	21.77	-10369.17	104.04	-4403.86	10.53	-26.70	-1.09	-2868.69	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40596.93	-0.59	-11437.60	0.67	-4233.33	0.02
			2X	Low	0%	302.37	12116.41	97.42	28303.95	32.13	6706.87	3.72	-3192.15	21.75	-10369.23	103.98	-4403.95	10.44	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40598.69	1.17	-11439.57	-1.31	-4233.37	-0.03
		Zone 33	0.5X	Low	0%	296.78	12114.95	95.96	28302.48	30.66	6706.56	3.42	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.24	0.02	-4233.34	0.00
			2X	Low	0%	296.54	12115.00	96.01	28302.24	30.42	6706.54	3.39	-3192.14	21.76	-10369.21	104.01	-4403.91	10.48	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.31	-0.05	-4233.35	-0.01
		Zone 34	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00

Table 5-2. Sensitivity Analysis -- Inter-basin Flows and Stream Percolation
units: Acre-feet per year

Parameters		Multiplier	Sensitivity	diff (%)	Sum of absolute fluxes Default = 129641.846 Sum of absolute diff	Piru to Fillmore in System Default = 12018.990 flux	diff.	Piru to Fillmore in System Default = 28271.821 flux	diff.	Piru to Fillmore in System Default = 6703.143 flux	diff.	Fillmore to Santa Paula in Default = -3213.897 flux	diff.	Fillmore to Santa Paula in Default = -10473.213 flux	diff.	Fillmore to Santa Paula Default = -4414.391 flux	diff.	Santa Paula to Default = -25.615 flux	diff.	Santa Paula to Mound ib Default = -2855.593 flux	diff.	Santa Paula to Mound ib Default = -3108.92 flux	diff.	Santa Paula to Oxnard in Default = -2263.948 flux	diff.	Santa Paula to Default = -6.86 flux	diff.	Santa Paula to Default = -16.337 flux	diff.	STR Percolation in Piru Default = 40597.518 flux	diff.	STR Percolation in Fillmore Default = -11438.262 flux	diff.	STR Percolation in Santa Default = -4233.34 flux	diff.
Model Layer 6 (S.Y. = 0.05)	Zone 34	2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 35	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 36	0.5X	Low	0%	296.70	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.14	21.76	-10369.21	104.00	-4403.93	10.46	-26.70	-1.09	-2868.67	-13.08	-3111.90	-2.98	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.24	0.03	-4233.23	0.11
		2X	Low	0%	297.09	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.16	104.06	-4403.83	10.56	-26.71	-1.09	-2868.71	-13.12	-3111.94	-3.02	-2277.15	-13.21	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.31	-0.05	-4233.54	-0.20
	Zone 37	0.5X	Low	0%	305.25	12114.73	95.74	28303.23	31.41	6706.82	3.68	-3192.35	21.55	-10370.38	102.83	-4404.01	10.38	-26.70	-1.09	-2868.65	-13.05	-3111.83	-2.91	-2277.09	-13.15	-6.90	-0.04	-16.36	-0.02	40597.91	0.40	-11430.46	7.80	-4232.12	1.22
		2X	Low	0%	316.45	12115.41	96.42	28300.85	29.03	6706.05	2.91	-3191.75	22.15	-10366.84	106.38	-4403.56	10.83	-26.71	-1.09	-2868.76	-13.17	-3112.08	-3.15	-2277.18	-13.23	-6.90	-0.04	-16.36	-0.02	40596.76	-0.75	-11453.08	-14.82	-4235.80	-2.46
	Zone 38	0.5X	Low	0%	297.82	12114.96	95.98	28302.40	30.58	6706.56	3.41	-3192.13	21.77	-10369.17	104.04	-4403.94	10.45	-26.70	-1.08	-2869.19	-13.60	-3112.08	-3.16	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.84	-0.49
		2X	Low	0%	296.08	12114.97	95.98	28302.40	30.58	6706.55	3.41	-3192.15	21.75	-10369.25	103.97	-4403.82	10.57	-26.71	-1.09	-2867.33	-11.73	-3111.58	-2.66	-2277.09	-13.14	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.25	0.01	-4232.20	1.14
	Zone 39	0.5X	Low	0%	297.84	12114.96	95.97	28302.42	30.60	6706.59	3.44	-3192.19	21.71	-10369.54	103.67	-4404.37	10.02	-26.70	-1.09	-2868.68	-13.09	-3111.86	-2.94	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40597.56	0.04	-11437.45	0.81	-4232.11	1.23
		2X	Low	0%	302.61	12114.98	95.99	28302.35	30.53	6706.48	3.34	-3192.02	21.88	-10368.52	104.70	-4402.92	11.48	-26.71	-1.09	-2868.70	-13.11	-3112.02	-3.10	-2277.14	-13.19	-6.90	-0.04	-16.36	-0.02	40597.42	-0.09	-11439.89	-1.63	-4235.77	-2.43
Model Layer 7 (S.Y. = 0.1)	Zone 31	0.5X	Low	0%	337.03	12080.42	61.43	28277.75	5.92	6700.67	-2.48	-3191.95	21.95	-10368.72	104.49	-4402.91	11.48	-26.70	-1.09	-2868.67	-13.07	-3111.79	-2.87	-2277.10	-13.16	-6.90	-0.04	-16.36	-0.02	40541.67	-55.85	-11395.09	43.17	-4233.35	-0.01
		2X	Low	0%	588.38	12177.07	158.09	28347.76	75.94	6716.98	13.84	-3192.49	21.40	-10370.15	103.07	-4405.67	8.72	-26.71	-1.09	-2868.72	-13.12	-3112.13	-3.21	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40697.63	100.11	-11514.52	-76.26	-4233.60	-0.26
	Zone 32	0.5X	Low	0%	304.78	12088.05	69.06	28278.21	6.39	6701.46	-1.68	-3191.92	21.98	-10368.63	104.58	-4402.89	11.50	-26.70	-1.09	-2868.67	-13.08	-3111.80	-2.88	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40566.38	-31.13	-11410.12	28.14	-4233.30	0.04
		2X	Low	0%	514.43	12166.22	147.23	28347.40	75.58	6715.95	12.81	-3192.54	21.36	-10370.27	102.95	-4405.75	8.64	-26.71	-1.09	-2868.72	-13.12	-3112.13	-3.21	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40658.36	60.85	-11492.39	-54.13	-4233.55	-0.21
	Zone 33	0.5X	Low	0%	306.33	12114.71	95.72	28303.03	31.21	6707.33	4.19	-3192.07	21.82	-10369.04	104.17	-4403.66	10.73	-26.70	-1.09	-2868.68	-13.09	-3111.89	-2.97	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40598.09	0.57	-11430.81	7.45	-4233.25	0.09
		2X	Low	0%	309.64	12115.63	96.64	28300.63	28.81	6705.47	2.33	-3192.25	21.65	-10369.47	103.74	-4404.30	10.09	-26.70	-1.09	-2868.69	-13.10	-3111.97	-3.05	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40596.52	-1.00	-11452.98	-14.72	-4233.50	-0.16
	Zone 34	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 35	0.5X	Low	0%	299.09	12114.94	95.95	28302.45	30.63	6706.62	3.48	-3193.25	20.65	-10371.79	101.42	-4404.15	10.24	-26.69	-1.08	-2868.48	-12.89	-3111.82	-2.90	-2276.98	-13.04	-6.90	-0.04	-16.36	-0.02	40597.57	0.06	-11435.26	3.00	-4229.64	3.70
		2X	Low	0%	318.25	12115.01	96.02	28302.30	30.47	6706.42	3.28	-3190.26	23.63	-10364.19	109.02	-4403.29	11.11	-26.73	-1.11	-2869.09	-13.50	-3112.11	-3.18	-2277.40	-13.45	-6.90	-0.04	-16.36	-0.02	40597.39	-0.13	-11444.06	-5.80	-4240.81	-7.47
	Zone 36	0.5X	Low	0%	307.99	12114.85	95.86	28302.69	30.87	6706.99	3.84	-3192.54	21.36	-10371.09	102.12	-4411.23	3.16	-26.68	-1.06	-2868.19	-12.60	-3108.64	0.28	-2276.66	-12.71	-6.90	-0.03	-16.35	-0.01	40598.01	0.49	-11430.45	7.81	-4217.55	15.79
		2X	Low	0%	365.51	12115.16	96.17	28301.91	30.09	6705.82	2.68	-3191.36	22.54	-10365.61	107.61	-4391.47	22.92	-26.76	-1.14	-2869.77	-14.18	-3117.32	-8.40	-2278.03	-14.08	-6.90	-0.04	-16.38	-0.04	40596.69	-0.83	-11451.84	-13.58	-4264.56	-31.22
	Zone 37	0.5X	Low	0%	548.27	12111.18	92.19	28311.85	40.02	6717.53	14.39	-3191.59	22.31	-10382.18	91.04	-4427.85	-13.46	-26.52	-0.90	-2865.76	-10.17	-3103.32	5.60	-2274.84	-10.89	-6.89	-0.02	-16.31	0.03	40607.66	10.15	-11286.22	152.04	-4148.29	85.06
		2X	Low	1%	792.05	12121.40	102.41	28287.80	15.98	6691.30	-11.84	-3193.86	20.04	-10349.56	123.66	-4369.40	45.00	-27.02	-1.40	-2873.60	-18.01	-3124.72	-15.80	-2280.83	-16.88	-6.92	-0.06	-16.43	-0.10	40582.48	-15.04	-11697.06	-258.79	-4380.40	-147.06
	Zone 38	0.5X	Low	0%	325.98	12114.86	95.87	28302.66	30.84	6706.95	3.80	-3192.25	21.65	-10369.85	103.36	-4410.91	3.48	-26.74	-1.13	-2879.40	-23.80	-3122.69	-13.77	-2277.26	-13.31	-6.90	-0.04	-16.35	-0.01	40597.96	0.45	-11431.89	6.37	-4225.25	8.09
		2X	Low	0%	336.43	12115.12	96.13	28302.00	30.18	6705.96	2.82	-3191.93	21.96	-10368.11	105.11	-4393.25	21.14	-26.62	-1.01	-2853.19	2.41	-3091.49	17.43	-2276.81	-12.86	-6.90	-0.04	-16.38	-0.04	40596.83	-0.69	-11448.03	-9.77	-4248.18	-14.84
	Zone 39	0.5X	Low	0%	349.18	12114.57	95.59	28303.36	31.53	6707.87	4.72	-3190.25	23.64	-10367.27	105.94	-4398.83	15.56	-26.69	-1.08	-2868.52	-12.92	-3110.65	-1.73	-2276.96	-13.01	-6.90	-0.04	-16.35	-0.01	40599.11	1.59	-11407.52	30.74	-4222.28	11.06
		2X	Low	0%	363.92	12115.66	96.67	28300.60	28.78	6704.10	0.95	-3196.25	17.64	-10376.02	97.19	-4411.39	3.00	-26.73	-1.11	-2869.02	-13.43	-3114.26	-5.34	-2277.44	-13.49	-6.90	-0.04	-16.37	-0.04	40594.51	-3.01	-11499.97	-61.70	-4254.86	-21.52
Model Layer 8 (S.Y. = 0.05)	Zone 31	0.5X	Low	0%	301.73	12115.36	96.38	28302.54	30.72	6706.56	3.42	-3192.13	21.76	-10369.19	104.02	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40593.92	-3.60	-11439.18	-0.92	-4233.34	0.00
		2X	Low	0%	303.90	12113.84	94.86	28301.90	30.08	6706.45	3.31	-3192.13	21.77	-10369.18	104.03	-4403.87	10.52	-26.70	-1.09	-2868.68	-13.09	-3111.91	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40604.33	6.81	-11436.15	2.12	-4233.35	-0.01
	Zone 32	0.5X	Low	0%	300.80	12115.57	96.58	28302.74	30.92	6706.72	3.57	-3192.13	21.76	-10369.20	104.02	-4403.91	10.48	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40595.51	-2.01	-11439.30	-1.04	-4233.34	0.00
		2X	Low	0%	298.02	12114.81	95.83	28302.33	30.51	6706.51	3.36	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40598.86	1.34	-11437.99	0.28	-4233.34	0.00
	Zone 33	0.5X	Low	0%	296.75	12114.95	95.96	28302.42	30.60	6706.58	3.44	-3192.13	21.77	-10369.18	104.03	-4403.88	10.51	-26.70	-1.09	-2868.69	-13.09	-3111.92	-2.99	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.23	0.03	-4233.34	0.00
		2X	Low	0%	296.64	12114.98	95.99	28302.38	30.56	6706.53	3.39	-3192.13	21.76	-10369.20	104.02	-4403.90	10.49	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.29	-0.02	-4233.34	0.00
	Zone 34	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 35	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 36	0.5X	Low	0%	298.34	12114.86	95.88	28302.59	30.77	6706.83	3.69	-3192.18	21.72	-10369.54	103.67	-4408.81	5.58	-26.70	-1.09	-2868.72	-13.13	-3109.79	-0.86	-2277.03	-13.08	-6.90	-0.04	-16.35	-0.01	40597.83	0.31	-11433.89	4.38	-4229.21	4.13
		2X	Low	0%	328.99	12115.11	96.12	28302.02	30.20	6706.00	2.85	-3192.07	21.82	-10368.66	104.55	-4393.97	20.43	-26.71	-1.10	-2868.61	-13.01	-3116.17	-7.24	-2277.28	-13.33	-6.90	-0.04	-16.38	-0.04	40596.84	-0.68	-11447.05	-8.78	-4242.13	-8.79
	Zone 37	0.5X	Low	0%	365.35	12114.08	95.09	28304.77	32.95	6709.53	6.38	-3192.22	21.68	-10370.75	102.46	-4424.98	-10.57	-26.67	-1.05	-2868.23	-12.64	-3105.92	3.00	-2276.59	-12.64	-6.89	-0.03	-16.33	0.01	40601.24	3.72	-11398.22	40.04	-4210.25	23.09
		2X	Low	1%	466.28	12116.51	97.52	28298.09	26.27	6701.09	-2.06	-3192.04	21.85	-10366.86	106.35	-4365.05	49.34	-26.78	-1.16	-2869.45	-13.86	-3122.87	-13.95	-2278.09	-14.14	-6.90	-0.04	-16.42	-0.08	40590.81	-6.71	-11510.59	-72.32	-4273.96	-40.62
	Zone 38	0.5X	Low	0%	302.52	12114.98	95.99	28302.37	30.55	6706.51	3.37	-3192.08	21.82	-10368.96	104.25	-4403.23	11.16	-26.71	-1.10	-2869.26	-13.67	-3112.72	-3.80	-2277.20	-13.25	-6.90	-0.04	-16.36	-0.02	40597.46	-0.06	-11439.07	-0.80	-4235.99	-2.65
		2X	Low	0%	298.31	12114.95	95.96	28302.45	30.62	6706.62	3.48	-3192.22	21.68	-10369.58	103.64	-4405.07	9.33	-26.68	-1.07	-2868.23	-12.64	-3110.00	-1.08	-2276.98	-13.04	-6.90	-0.04	-16.36	-0.02	40597.59	0.07	-11436.93	1.33	-4229.01	4.33
	Zone 39	0.5X	Low	0%	302.11	12114.92	95.94	28302.49	30.67	6706.68	3.53	-3191.88	22.02	-10368.73	104.48	-4403.60	10.79	-26.70	-1.09	-2868.67	-13.08	-3111.80	-2.88	-2277.11	-13.16	-6.90	-0.04	-16.36	-0.02	40597.67	0.15	-11435.17	3.09	-4232.16	1.18
		2X	Low	0%	303.32	12115.04	96.06	28302.22	30.40	6706.31	3.17	-3192.63	21.27	-10370.13	103.08	-4404.51	9.88	-26.71	-1.09	-2868.72	-13.13	-3112.15	-3.23	-2277.16	-13.21	-6.90	-0.04	-16.36	-0.02	40597.22	-0.30	-11444.39	-6.12	-4235.68	-2.34
Model Layer 9 (S.Y. = 0.1)	Zone 31	0.5X	Low	0%	297.06	12112.34	93.35	28300.00	28.18	6705.79	2.65	-3192.11	21.79	-10369.14	104.07	-4403.78	10.61	-26.70	-1.09	-2868.68	-13.09	-3111.90	-2.98	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40594.05	-3.47	-11435.75	2.51	-4233.37	-0.03
		2X	Low	0%	326.52	12121.16	102.17	28307.93	36.11	6708.11	4.97	-3192.18	21.71	-10369.33	103.88	-4404.12	10.27	-26.70	-1.09	-2868.69	-13.10	-3111.94	-3.02	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40608.47	10.95	-11444.25	-5.99	-4233.32	0.02
	Zone 32	0.5X	Low	0%	301.27	12109.01	90.03	28297.76	25.94	6705.09	1.95	-3192.08	21.82	-10369.07	104.15	-4403.67	10.72	-26.70	-1.09	-2868.68	-13.09	-3111.89	-2.97	-2277.12	-13.17	-6.90	-0.04	-16.36	-0.02	40588.34	-9.18	-11431.21	7.05	-4233.28	0.06
		2X	Low	0%	349.74	12125.95	106.96	28311.32	39.50	6709.59	6.45	-3192.23	21.66	-10369.46	103.75	-4404.30	10.09	-26.70	-1.09	-2868.69	-13.10	-3111.96	-3.04	-2277.13	-13.18	-6.90	-0.04	-16.36	-0.02	40615.58	18.06	-11450.95	-12.69	-4233.45	-0.11
	Zone 33	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 34	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 35	0.5X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
		2X	Low	0%	296.67	12114.96	95.98	28302.40	30.58	6706.55	3.41	-3192.13	21.77	-10369.19	104.02	-4403.89	10.50	-26.70	-1.09	-2868.69	-13.09	-3111.92	-3.00	-2277.12	-13.18	-6.90	-0.04	-16.36	-0.02	40597.52	0.00	-11438.26	0.00	-4233.34	0.00
	Zone 36	0.5X	Low	0%	327.16	12114.65	95.67	28303.01	31.19	6707.51	4.37	-3192.29	21.61	-10370.43	102.78	-4421.17	-6.78	-26.67	-1.06	-2868.74	-13.15	-3102.41	6.51	-2276.72	-12.77	-6.90	-0.03	-16.33	0.01	40598.48	0.96	-11423.60	14.67	-4217.73	15.61
		2X	Low	1%	407.66	12115.50	96.51	28301.23	29.41	6704.75	1.61	-3191.83	22.07	-10366.94	106.27	-4371.38	43.01	-26.76	-1.15	-2868.58	-12.99	-3129.68	-20.76	-2277.87	-13.92	-6.90	-0.04	-16.41	-0.07	40595.60	-1.92	-11466.14	-27.87	-4263.41	-30.06
	Zone 37	0.5X	Low	0%	546.35	12108.70	89.71	28312.48	40.66	6723.66	20.52	-3192.33	21.57	-10372.68	100.54	-4449.39	-35.00	-26.58	-0.96	-2867.08	-11.48	-3098.19	10.73	-2275.58	-11.63	-6.89	-0.03	-16.28	0.05	40614.67	17.15	-11312.98	125.28	-4172.30	61.04
		2X	Low	1%	763.82	12124.81	105.82	28283.19	11.37	6675.15	-27.99	-3191.97	21.93	-10364.47	108.74	-4333.75	80.64	-26.91	-1.30	-2871.13	-15.54	-3133.80	-24.88	-2279.56	-15.61	-6.91	-0.05	-16.48	-0.14	40563.60	-33.92	-11659.58	-221.32	-4327.91	-94.57
	Zone 38 (S.Y.=0.05)	0.5X	Low	0%	319.92	12114.77	95.78	28302.80	30.98	6707.19	4.04	-3192.23	21.66	-10370.00	103.22	-4415.33	-0.94	-26.69	-1.07	-2868.64	-13.05	-3124.62	-15.70	-2276.90	-12.95	-6.90	-0.04	-16.34	0.00	40598.15	0.63	-11428.64	9.62	-4223.11	10.23
		2X	Low	0%	369.99	12115.29	96.31	28301.67	29.85	6705.43	2.28	-3191.95	21.95	-10367.80	105.42	-4383.47	30.92	-26.73	-1.12	-2868.17	-12.58	-3090.43	18.49	-2277.50	-13.55	-6.90	-0.04	-16.39	-0.05	40596.33	-1.19	-11455.58	-17.31	-4252.27	-18.93
	Zone 39	0.5X	Low	0%	362.02	12114.78	95.79	28303.01	31.19	6707.42	4.27	-3190.94	22.96	-10365.52	107.70	-4401.78	12.61	-26.69	-1.08	-2868.58	-12.99	-3111.13	-2.21	-2277.01	-13.06	-6.90	-0.04	-16.35	-0.02	40598.52	1.00	-11417.14	21.12	-4197.36	35.98
		2X	Low	0%	381.47	12115.29	96.31	28301.39	29.57	6705.08	1.93	-3194.00	19.89	-10375.38	97.84	-4407.27	7.12	-26.72	-1.11	-2868.87	-13.28	-3113.28	-4.36	-2277.33	-13.38	-6.90	-0.04	-16.37	-0.03	40595.89	-1.63	-11473.64	-35.38	-4292.95	-59.61

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
SCR Underflow (5000 AFY)		0.5X (2500 AFY)	High	Low
		0.8X (4000 AFY)	High	Low
		1.2X (6000 AFY)	High	Low
		1.5X (7500 AFY)	High	Low
		2X (10000 AFY)	High	Low
EVT Rate		0.1X	High	Medium
		10X	High	High
EVT Extinct Depth (5 ft)		2.5 ft	Low	Low
		10 ft	Medium	Low
HFB #9 (0.001)		0.1X (0.0001)	High	Medium
		10X (0.01)	High	Medium
HFB #10 and HFB #19 (1.0E-6 to 1.0E-2)		0.1X	Low	Low
		10X	Low	Low
HFB #73 (1.0E-7)		0.1X (1.0E-8)	Low	Low
		10X (1.0E-6)	Low	Low
HFB #98 (1.1E-4)		0.1X (1.1E-5)	Low	Low
		10X (1.1E-3)	Low	Low
HFB #98 (1.1E-5)		0.1X (1.1E-6)	Low	Low
		10X (1.1E-4)	Low	Low
Surface Recharge from Appiled Water	Fillmore basin only	0.5X	Low	Low
		1.5X	Low	Low
	Piru basin only	0.5X	Low	Low
		1.5X	Low	Low
	Santa Paula basin only	0.5X	Medium	Low
		1.5X	Medium	Low
Surface Recharge from Precipitation	Fillmore basin only	0.5X	High	Low
		1.5X	High	Low
	Piru basin only	0.5X	High	Low
		1.5X	High	Low
	Santa Paula basin only	0.5X	High	Low
		1.5X	High	Low
Surface Recharge from Pumped Water	Fillmore basin only	0.5X	High	Low
		1.5X	High	Low
	Piru basin only	0.5X	High	Low
		1.5X	High	Low
	Santa Paula basin only	0.5X	Medium	Low
		1.5X	Low	Low
STR Conductance for Piru Creek		0.1X	High	Medium
		10X	High	Medium
STR Conductance for Sespe Creek		0.1X	High	Low
		10X	High	Low
STR Conductance for Santa Paula Creek		0.1X	Low	Low
		10X	Low	Low
STR Conductance for Santa Clara River	Piru basin only	0.1X	High	High
		10X	High	Medium
	Fillmore basin only	0.1X	Low	Low
		10X	High	Low
	Santa Paula basin only	0.1X	Low	Low
		10X	High	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Oxnard and Mound basins only		0.1X	Low	Low
		10X	Low	Low
Horizontal Hydraulic Conductivity		**Multiplier**	**Calibration Residual Sensitivity**	**Flow Budget Sensitivity**
Model Layer 1	Zone 31 (1200 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (1200 Ft/day)	0.1X	Medium	Low
		10X	Low	Low
	Zone 33 (600 ft/day)	0.1X	Medium	Low
		10X	Medium	Low
	Zone 34 (200 Ft/day)	0.1X	Low	Low
		10X	Medium	Low
	Zone 35 (200 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 36 (200 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (200 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 2	Zone 31 (0.1 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (0.1 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 33 (0.1 ft/day)	0.1X	High	Low
		10X	Medium	Low
	Zone 34 (0.1 ft/day)	0.1X	Medium	Low
		10X	Medium	Low
	Zone 35 (0.1 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 36 (0.1 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (100ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 3	Zone 26 (600 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 31 (1200 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 32 (1200 ft/day)	0.1X	High	Medium
		10X	High	Medium
	Zone 33 (400 ft/day)	0.1X	High	High
		10X	High	High
	Zone 34 (100 ft/day)	0.1X	Medium	Low
		10X	High	Low
	Zone 35 (100 ft/day)	0.1X	Medium	Low
		10X	High	High

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

	Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Horizontal Hydraulic Conductivity	Model Layer 4	Zone 36 (100 ft/day)	0.1X	Low	Low
			10X	High	Low
		Zone 37 (100 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 38 (100 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 39 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 26 (400 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 31 (1000 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 32 (1000 ft/day)	0.1X	Low	Low
			10X	High	Low
		Zone 33 (200 ft/day)	0.1X	Low	Low
			10X	High	Low
		Zone 34 (100 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 35 (1 ft/day)	0.1X	High	Low
			10X	Low	Low
		Zone 36 (1 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 37 (100 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 38 (1 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 39 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
	Model Layer 5	Zone 26 (400 ft/day)	0.1X	High	Low
			10X	High	Low
		Zone 31 (1000 ft/day)	0.1X	Medium	Low
			10X	Low	Low
		Zone 32 (1000 ft/day)	0.1X	High	Medium
			10X	High	Medium
		Zone 33 (200 ft/day)	0.1X	High	Medium
			10X	High	High
		Zone 34 (100 ft/day)	0.1X	High	Low
			10X	High	Medium
		Zone 35 (100 ft/day)	0.1X	High	Medium
			10X	High	High
		Zone 36 (100 ft/day)	0.1X	High	Low
			10X	High	Low
		Zone 37 (100 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 38 (100 ft/day)	0.1X	Medium	Low
			10X	Low	Low
		Zone 39 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 31 (1 ft/day)	0.1X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

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Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 6	Zone 31 (1 ft/day)	10X	Low	Low
		0.1X	Low	Low
	Zone 32 (1 ft/day)	10X	Low	Low
		0.1X	Low	Low
	Zone 33 (1 ft/day)	10X	Medium	Low
		0.1X	Low	Low
	Zone 34 (1 ft/day)	10X	Low	Low
		0.1X	Low	Low
	Zone 35 (1 ft/day)	10X	Low	Low
		0.1X	Medium	Low
	Zone 36 (0.1 ft/day)	10X	Low	Low
		0.1X	Low	Low
	Zone 37 (1 ft/day)	10X	Low	Low
		0.1X	Low	Low
	Zone 38 (0.01 ft/day)	10X	Low	Low
		0.1X	Low	Low
	Zone 39 (0.1 ft/day)	10X	Low	Low
Model Layer 7	Zone 31 (200 ft/day)	0.1X	Medium	Low
		10X	Medium	Low
	Zone 32 (200 ft/day)	0.1X	High	High
		10X	High	High
	Zone 33 (100 ft/day)	0.1X	High	High
		10X	High	High
	Zone 34 (100 ft/day)	0.1X	High	Low
		10X	High	Medium
	Zone 35 (50 ft/day)	0.1X	High	Medium
		10X	High	High
	Zone 36 (50 ft/day)	0.1X	Medium	Low
		10X	Medium	Low
	Zone 37 (5 ft/day)	0.1X	Low	Low
		10X	Medium	Low
	Zone 38 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (5 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 8	Zone 31 (0.01 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (0.01 ft/day)	0.1X	High	Low
		10X	Medium	Low
	Zone 33 (0.01 ft/day)	0.1X	Low	Low
		10X	High	Low
	Zone 34 (0.01 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 35 (0.01 ft/day)	0.1X	High	Low
		10X	High	Medium
	Zone 36 (0.01 ft/day)	0.1X	Low	Low
		10X	High	Low
	Zone 37 (0.01 ft/day)	0.1X	Low	Low
		10X	Medium	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 9	Zone 38 (0.01 ft/day)	0.1X	Low	Low
		10X	Medium	Low
	Zone 39 (0.01 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 31 (100 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (100 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 33 (100 ft/day)	0.1X	High	Low
		10X	High	Medium
	Zone 34 (100 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 35 (50 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 36 (50 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (5 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 38 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (5 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 10	Zone 32 (100 ft/day)	0.1X	High	Medium
		10X	High	Medium
	Zone 33 (100 ft/day)	0.1X	High	Medium
		10X	High	Medium
	Zone 34 (100 ft/day)	0.1X	Low	Low
		10X	Medium	Low
	Zone 35 (50 ft/day)	0.1X	Low	Low
		10X	Medium	Low
	Zone 36 (50 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (1 ft/day)	0.1X	Low	Low
		10X	Medium	Low
	Zone 38 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (1 ft/day)	0.1X	Low	Low
		10X	Low	Low
Vertical Hydraulic Conductivity		**Multiplier**	**Calibration Residual Sensitivity**	**Flow Budget Sensitivity**
Model Layer 1	Zone 31 (120 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (120 Ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 33 (60 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 34 (20 Ft/day)	0.1X	Low	Low
		10X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 1	Zone 35 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 36 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (1 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 2	Zone 31 (0.01 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (0.01 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 33 (0.01 ft/day)	0.1X	Medium	Low
		10X	High	Low
	Zone 34 (0.01 ft/day)	0.1X	Medium	Low
		10X	Medium	Low
	Zone 35 (0.01 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 36 (0.01 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (10ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (1 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 3	Zone 26 (60 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 31 (120 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (120 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 33 (40 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 34 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 35 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 36 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 38 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (1 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 26 (40 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 31 (100 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (100 ft/day)	0.1X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

	Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Vertical Hydraulic Conductivity	Model Layer 4	Zone 32 (100 ft/day)	10X	Low	Low
			0.1X	Low	Low
		Zone 33 (20 ft/day)	10X	Low	Low
			0.1X	Low	Low
		Zone 34 (10 ft/day)	10X	Low	Low
			0.1X	Low	Low
		Zone 35 (0.1 ft/day)	10X	High	Low
			0.1X	Low	Low
		Zone 36 (0.1 ft/day)	10X	Low	Low
			0.1X	Low	Low
		Zone 37 (10 ft/day)	10X	Low	Low
			0.1X	Low	Low
		Zone 38 (0.1 ft/day)	10X	Low	Low
			0.1X	Low	Low
		Zone 39 (1 ft/day)	10X	Low	Low
	Model Layer 5	Zone 26 (40 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 31 (100 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 32 (100 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 33 (20 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 34 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 35 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 36 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 37 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 38 (10 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 39 (1 ft/day)	0.1X	Low	Low
			10X	Low	Low
	Model Layer 6	Zone 31 (0.1 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 32 (0.1 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 33 (0.1 ft/day)	0.1X	Medium	Low
			10X	Low	Low
		Zone 34 (0.1 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 35 (0.1 ft/day)	0.1X	Low	Low
			10X	Low	Low
		Zone 36 (0.01 ft/day)	0.1X	Low	Low
			10X	Medium	Low
		Zone 37 (0.1 ft/day)	0.1X	Low	Low
			10X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

	Parameters	Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
	Zone 38 (0.001 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (0.01 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 7	Zone 31 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (20 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 33 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 34 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 35 (5 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 36 (5 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (0.5 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 38 (2 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (0.5 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 8	Zone 31 (0.001 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (0.001 ft/day)	0.1X	Medium	Low
		10X	High	Low
	Zone 33 (0.001 ft/day)	0.1X	High	Low
		10X	Low	Low
	Zone 34 (0.001 ft/day)	0.1X	High	Low
		10X	High	Low
	Zone 35 (0.001 ft/day)	0.1X	High	Medium
		10X	High	Low
	Zone 36 (0.001 ft/day)	0.1X	High	Low
		10X	Low	Low
	Zone 37 (0.001 ft/day)	0.1X	Medium	Low
		10X	Low	Low
	Zone 38 (0.001 ft/day)	0.1X	Medium	Low
		10X	Low	Low
	Zone 39 (0.001 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 9	Zone 31 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 32 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 33 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 34 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 35 (5 ft/day)	0.1X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 9	Zone 35 (5 ft/day)	10X	Low	Low
	Zone 36 (5 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (0.5 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 38 (2 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (0.5 ft/day)	0.1X	Low	Low
		10X	Low	Low
Model Layer 10	Zone 32 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 33 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 34 (10 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 35 (5 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 36 (5 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 37 (0.1 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 38 (2 ft/day)	0.1X	Low	Low
		10X	Low	Low
	Zone 39 (0.1 ft/day)	0.1X	Low	Low
		10X	Low	Low

Storage Coefficient		**Multiplier**	**Calibration Residual Sensitivity**	**Flow Budget Sensitivity**
Model Layer 1 (storage coefficient = 0.001)	Zone 31	0.1X	Low	Low
		10X	Low	Low
	Zone 32	0.1X	Low	Low
		10X	Low	Low
	Zone 33	0.1X	Low	Low
		10X	Low	Low
	Zone 34	0.1X	Low	Low
		10X	Low	Low
	Zone 35	0.1X	Low	Low
		10X	Low	Low
	Zone 36	0.1X	Low	Low
		10X	Low	Low
	Zone 37	0.1X	Low	Low
		10X	Low	Low
	Zone 39	0.1X	Low	Low
		10X	Low	Low
Model Layer 2 (storage coefficient = 0.001)	Zone 31	0.1X	Low	Low
		10X	Low	Low
	Zone 32	0.1X	Low	Low
		10X	Low	Low
	Zone 33	0.1X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 2 (storage coefficient = 0.001)	Zone 33	10X	Low	Low
	Zone 34	0.1X	Low	Low
		10X	Low	Low
	Zone 35	0.1X	Low	Low
		10X	Low	Low
	Zone 36	0.1X	Low	Low
		10X	Low	Low
	Zone 37	0.1X	Low	Low
		10X	Low	Low
	Zone 39	0.1X	Low	Low
		10X	Low	Low
Model Layer 3 (storage coefficient = 0.001)	Zone 26	0.1X	Low	Low
		10X	Low	Low
	Zone 31	0.1X	Low	Low
		10X	Low	Low
	Zone 32	0.1X	Low	Low
		10X	Low	Low
	Zone 33	0.1X	Low	Low
		10X	Low	Low
	Zone 34	0.1X	Low	Low
		10X	Low	Low
	Zone 35	0.1X	Low	Low
		10X	Low	Low
	Zone 36	0.1X	Low	Low
		10X	Low	Low
	Zone 37	0.1X	Low	Low
		10X	Low	Low
	Zone 38	0.1X	Low	Low
		10X	Low	Low
	Zone 39	0.1X	Low	Low
		10X	Low	Low
Model Layer 4 (storage coefficient = 0.001)	Zone 26	0.1X	Low	Low
		10X	Low	Low
	Zone 31	0.1X	Low	Low
		10X	Low	Low
	Zone 32	0.1X	Low	Low
		10X	Low	Low
	Zone 33	0.1X	Low	Low
		10X	Low	Low
	Zone 34	0.1X	Low	Low
		10X	Low	Low
	Zone 35	0.1X	Low	Low
		10X	Low	Low
	Zone 36	0.1X	Low	Low
		10X	Low	Low
	Zone 37	0.1X	Low	Low
		10X	Low	Low
	Zone 38	0.1X	Low	Low
		10X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

	Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Storage Coefficient	Model Layer 5 (storage coefficient = 0.001)	Zone 39	0.1X	Low	Low
			10X	Low	Low
		Zone 26	0.1X	Low	Low
			10X	Low	Low
		Zone 31	0.1X	Low	Low
			10X	Low	Low
		Zone 32	0.1X	Low	Low
			10X	Low	Low
		Zone 33	0.1X	Low	Low
			10X	Low	Low
		Zone 34	0.1X	Low	Low
			10X	Low	Low
		Zone 35	0.1X	Low	Low
			10X	Low	Low
		Zone 36	0.1X	Low	Low
			10X	Low	Low
		Zone 37	0.1X	Low	Low
			10X	Low	Low
		Zone 38	0.1X	Low	Low
			10X	Low	Low
		Zone 39	0.1X	Low	Low
			10X	Low	Low
	Model Layer 6 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	Low
			10X	Low	Low
		Zone 32	0.1X	Low	Low
			10X	Low	Low
		Zone 33	0.1X	Low	Low
			10X	Low	Low
		Zone 34	0.1X	Low	Low
			10X	Low	Low
		Zone 35	0.1X	Low	Low
			10X	Low	Low
		Zone 36	0.1X	Low	Low
			10X	Low	Low
		Zone 37	0.1X	Low	Low
			10X	Low	Low
		Zone 38	0.1X	Low	Low
			10X	Low	Low
		Zone 39	0.1X	Low	Low
			10X	Low	Low
	Model Layer 7 (storage coefficient	Zone 31	0.1X	Low	Low
			10X	Low	Low
		Zone 32	0.1X	Low	Low
			10X	Low	Low
		Zone 33	0.1X	Low	Low
			10X	Low	Low
		Zone 34	0.1X	Low	Low
			10X	Low	Low
		Zone 35	0.1X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
(storage coefficient = 0.0005)	Zone 35	10X	Low	Low
		0.1X	Low	Low
	Zone 36	10X	Low	Low
		0.1X	Low	Low
	Zone 37	10X	Low	Low
		0.1X	Low	Low
	Zone 38	10X	Low	Low
		0.1X	Low	Low
	Zone 39	10X	Low	Low
Model Layer 8 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	Low
		10X	Low	Low
	Zone 32	0.1X	Low	Low
		10X	Low	Low
	Zone 33	0.1X	Low	Low
		10X	Low	Low
	Zone 34	0.1X	Low	Low
		10X	Low	Low
	Zone 35	0.1X	Low	Low
		10X	Low	Low
	Zone 36	0.1X	Low	Low
		10X	Low	Low
	Zone 37	0.1X	Low	Low
		10X	Low	Low
	Zone 38	0.1X	Low	Low
		10X	Low	Low
	Zone 39	0.1X	Low	Low
		10X	Low	Low
Model Layer 9 (storage coefficient = 0.0005)	Zone 31	0.1X	Low	Low
		10X	Low	Low
	Zone 32	0.1X	Low	Low
		10X	Low	Low
	Zone 33	0.1X	Low	Low
		10X	Low	Low
	Zone 34	0.1X	Low	Low
		10X	Low	Low
	Zone 35	0.1X	Low	Low
		10X	Low	Low
	Zone 36	0.1X	Low	Low
		10X	Low	Low
	Zone 37	0.1X	Low	Low
		10X	Low	Low
	Zone 38	0.1X	Low	Low
		10X	Low	Low
	Zone 39	0.1X	Low	Low
		10X	Low	Low
	Zone 32	0.1X	Low	Low
		10X	Low	Low
	Zone 33	0.1X	Low	Low
		10X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 10 (storage coefficient = 0.0005)	Zone 34	0.1X	Low	Low
		10X	Low	Low
	Zone 35	0.1X	Low	Low
		10X	Low	Low
	Zone 36	0.1X	Low	Low
		10X	Low	Low
	Zone 37	0.1X	Low	Low
		10X	Low	Low
	Zone 38	0.1X	Low	Low
		10X	Low	Low
	Zone 39	0.1X	Low	Low
		10X	Low	Low
Specific Yield		**Multiplier**	**Calibration Residual Sensitivity**	**Flow Budget Sensitivity**
Model Layer 1 (S.Y. = 0.15)	Zone 31	0.5X	Low	Low
		2X	Low	Low
	Zone 32	0.5X	Low	Low
		2X	Low	Low
	Zone 33	0.5X	Low	Low
		2X	Low	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low
		2X	Low	Low
	Zone 36	0.5X	Low	Low
		2X	Low	Low
	Zone 37	0.5X	Low	Low
		2X	Low	Low
	Zone 39	0.5X	Low	Low
		2X	Low	Low
Model Layer 2 (S.Y. = 0.15)	Zone 31	0.5X	Low	Low
		2X	Low	Low
	Zone 32	0.5X	Low	Low
		2X	Low	Low
	Zone 33	0.5X	Low	Low
		2X	Low	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low
		2X	Low	Low
	Zone 36	0.5X	Low	Low
		2X	Low	Low
	Zone 37	0.5X	Low	Low
		2X	Low	Low
	Zone 39	0.5X	Low	Low
		2X	Low	Low
	Zone 26	0.5X	Low	Low
		2X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 3 (S.Y. = 0.15)	Zone 31	0.5X	Medium	Low
		2X	High	Low
	Zone 32	0.5X	High	Low
		2X	High	Low
	Zone 33	0.5X	Low	Low
		2X	Medium	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low
		2X	Low	Low
	Zone 36	0.5X	Low	Low
		2X	Low	Low
	Zone 37	0.5X	Low	Low
		2X	Low	Low
	Zone 38	0.5X	Low	Low
		2X	Low	Low
	Zone 39	0.5X	Low	Low
		2X	Low	Low
Model Layer 4 (S.Y. = 0.05)	Zone 26	0.5X	Low	Low
		2X	Low	Low
	Zone 31	0.5X	Low	Low
		2X	Low	Low
	Zone 32	0.5X	Low	Low
		2X	Low	Low
	Zone 33	0.5X	Low	Low
		2X	Low	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low
		2X	Low	Low
	Zone 36	0.5X	Low	Low
		2X	Low	Low
	Zone 37	0.5X	Low	Low
		2X	Low	Low
	Zone 38	0.5X	Low	Low
		2X	Low	Low
	Zone 39	0.5X	Low	Low
		2X	Low	Low
Model Layer 5 (S.Y. = 0.15)	Zone 26	0.5X	Low	Low
		2X	Low	Low
	Zone 31	0.5X	Low	Low
		2X	Low	Low
	Zone 32	0.5X	Low	Low
		2X	Medium	Low
	Zone 33	0.5X	Low	Low
		2X	Low	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

	Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Specific Yield	Model Layer 6 (S.Y. = 0.05)	Zone 35	2X	Low	Low
			0.5X	Low	Low
		Zone 36	2X	Low	Low
			0.5X	Low	Low
		Zone 37	2X	Low	Low
			0.5X	Low	Low
		Zone 38	2X	Low	Low
			0.5X	Low	Low
		Zone 39	2X	Low	Low
	Model Layer 7 (S.Y. = 0.1)	Zone 31	0.5X	Low	Low
			2X	Low	Low
		Zone 32	0.5X	Low	Low
			2X	Low	Low
		Zone 33	0.5X	Low	Low
			2X	Low	Low
		Zone 34	0.5X	Low	Low
			2X	Low	Low
		Zone 35	0.5X	Low	Low
			2X	Low	Low
		Zone 36	0.5X	Low	Low
			2X	Low	Low
		Zone 37	0.5X	Low	Low
			2X	Low	Low
		Zone 38	0.5X	Low	Low
			2X	Low	Low
		Zone 39	0.5X	Low	Low
			2X	Low	Low
	Model Layer 8 (S.Y. = 0.2)	Zone 31	0.5X	Low	Low
			2X	Low	Low
		Zone 32	0.5X	Low	Low
			2X	Low	Low

Table 5-3. Sensitivity Analysis -- Sensitivity Levels

Parameters		Multiplier	Calibration Residual Sensitivity	Flow Budget Sensitivity
Model Layer 8 (S.Y. = 0.05)	Zone 33	0.5X	Low	Low
		2X	Low	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low
		2X	Low	Low
	Zone 36	0.5X	Low	Low
		2X	Low	Low
	Zone 37	0.5X	Low	Low
		2X	Low	Low
	Zone 38	0.5X	Low	Low
		2X	Low	Low
	Zone 39	0.5X	Low	Low
		2X	Low	Low
Model Layer 9 (S.Y. = 0.1)	Zone 31	0.5X	Low	Low
		2X	Low	Low
	Zone 32	0.5X	Low	Low
		2X	Low	Low
	Zone 33	0.5X	Low	Low
		2X	Low	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low
		2X	Low	Low
	Zone 36	0.5X	Low	Low
		2X	Low	Low
	Zone 37	0.5X	Low	Low
		2X	Low	Low
	Zone 38	0.5X	Low	Low
		2X	Low	Low
	Zone 39	0.5X	Low	Low
		2X	Low	Low
Model Layer 10 (S.Y. = 0.1 except Zone 38)	Zone 32	0.5X	Low	Low
		2X	Low	Low
	Zone 33	0.5X	Low	Low
		2X	Low	Low
	Zone 34	0.5X	Low	Low
		2X	Low	Low
	Zone 35	0.5X	Low	Low
		2X	Low	Low
	Zone 36	0.5X	Low	Low
		2X	Low	Low
	Zone 37	0.5X	Low	Low
		2X	Low	Low
	Zone 38 (S.Y.=0.05)	0.5X	Low	Low
		2X	Low	Low
	Zone 39	0.5X	Low	Low
		2X	Low	Low

FIGURES

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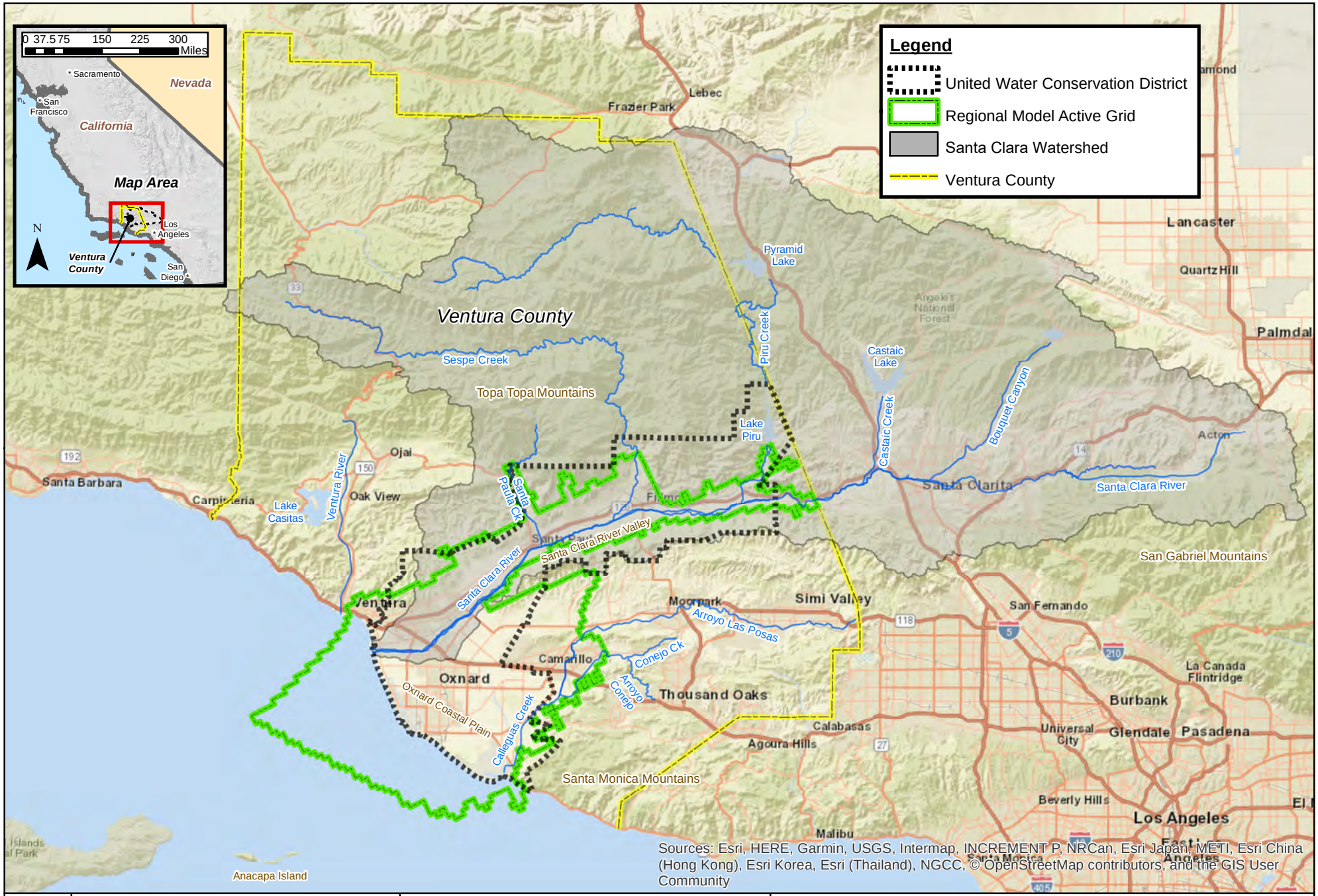

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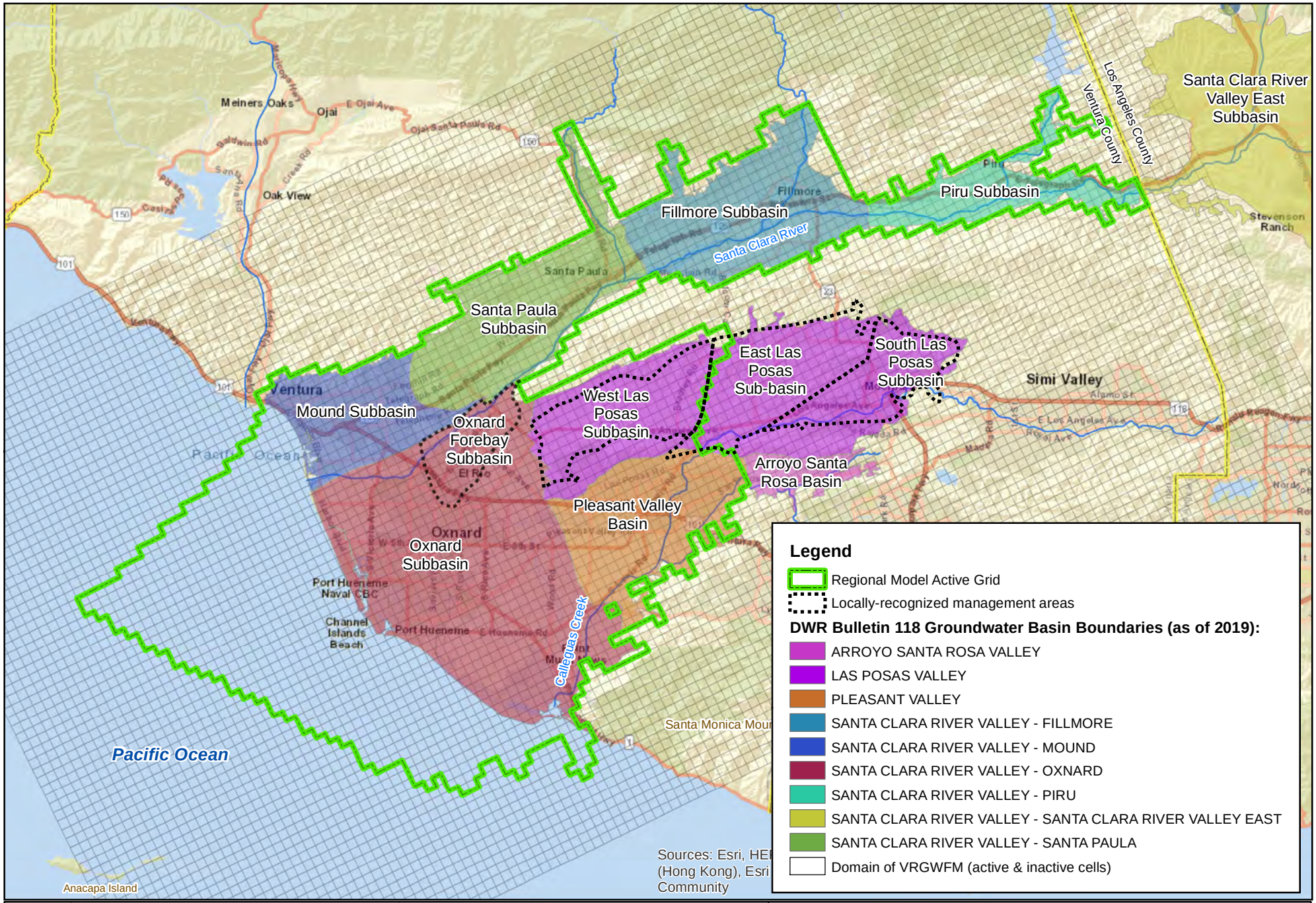
Figure 1-1.
Location Map



N

0 1 2 4 6 8 10 Miles

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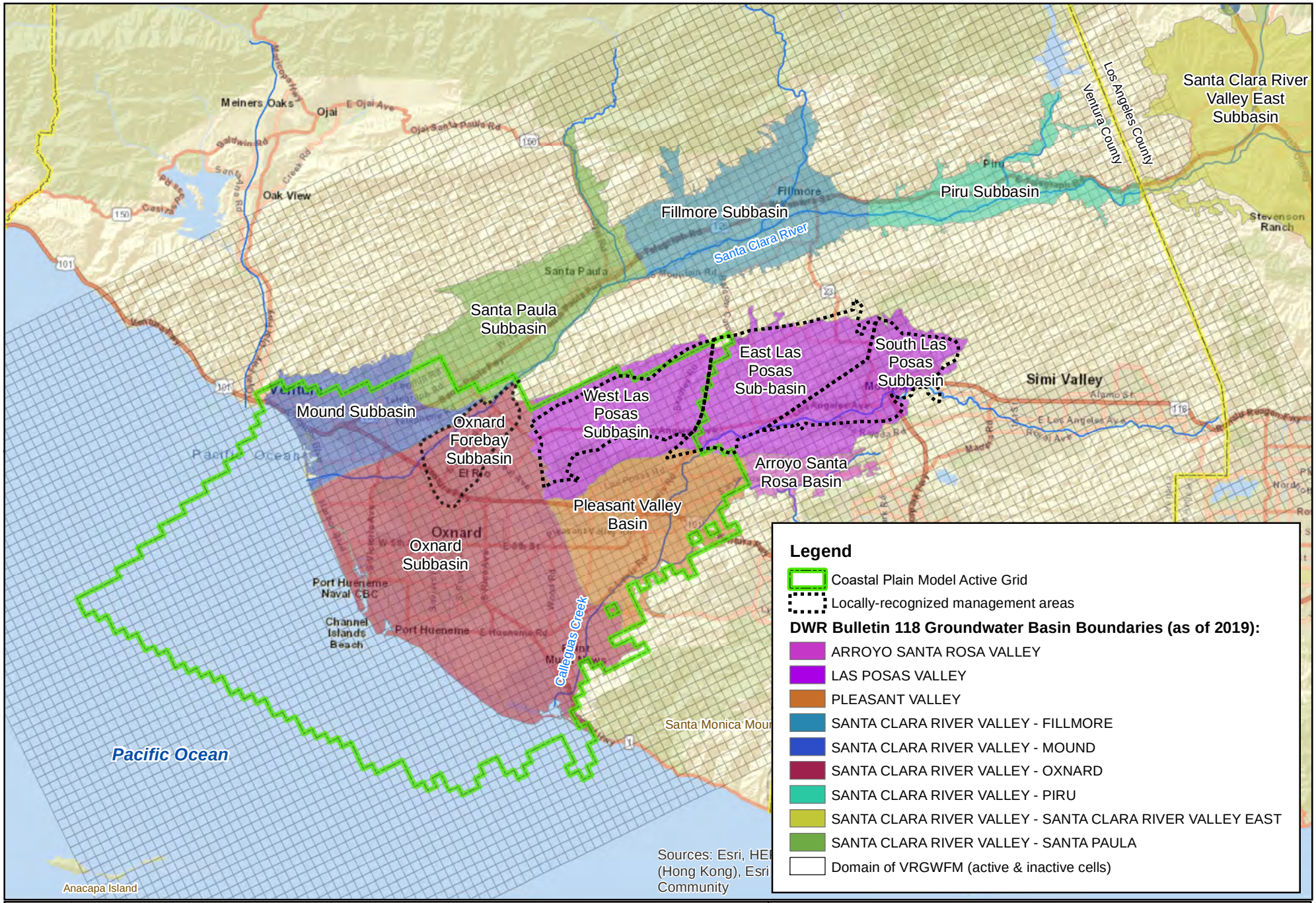
Figure 1-2.
Regional Model Domain



N

0 1 2 4 6 8 10 Miles

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Figure 1-3.
Coastal Plain Model Domain

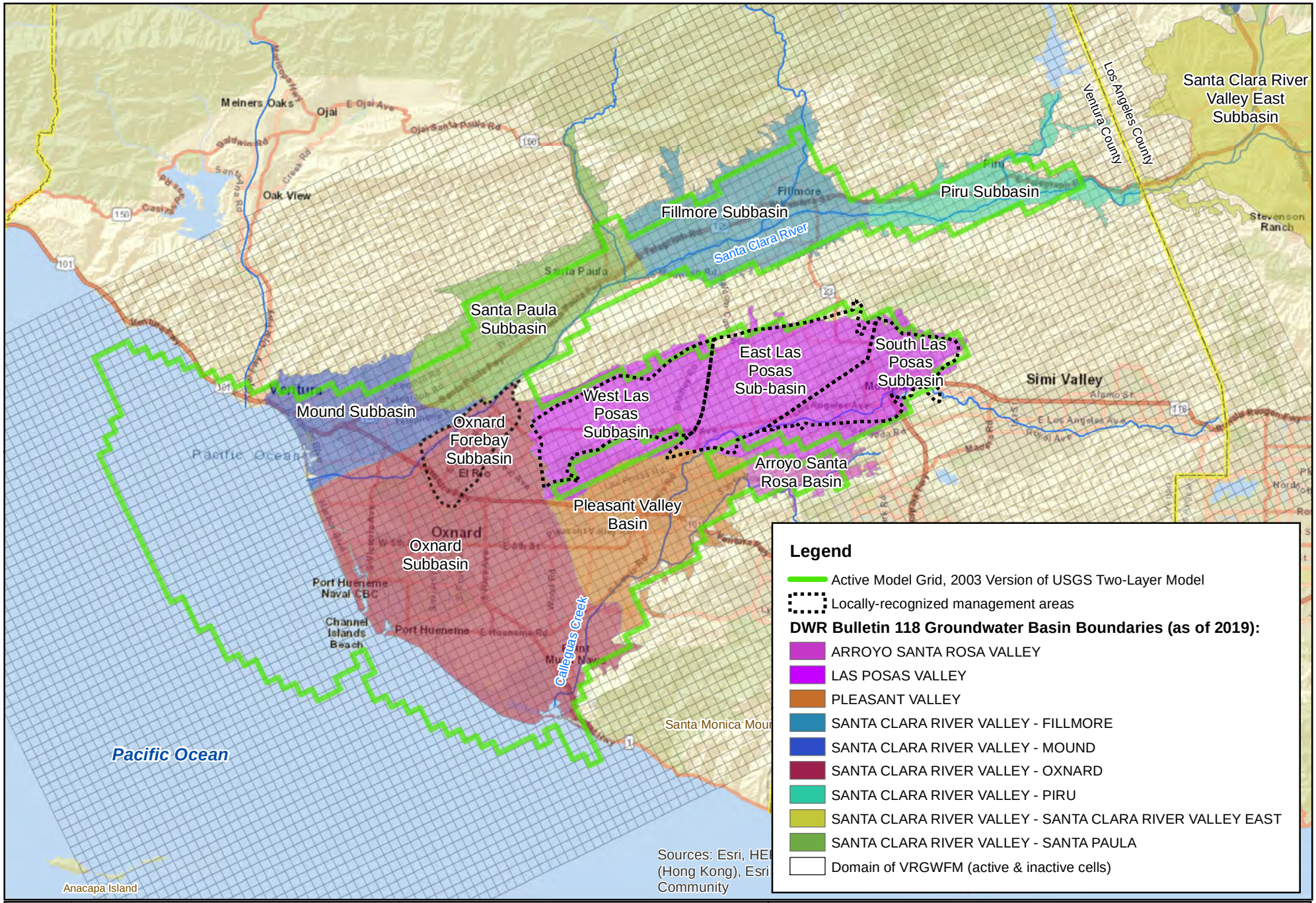

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Figure 1-4.
USGS (2003) Model Domain

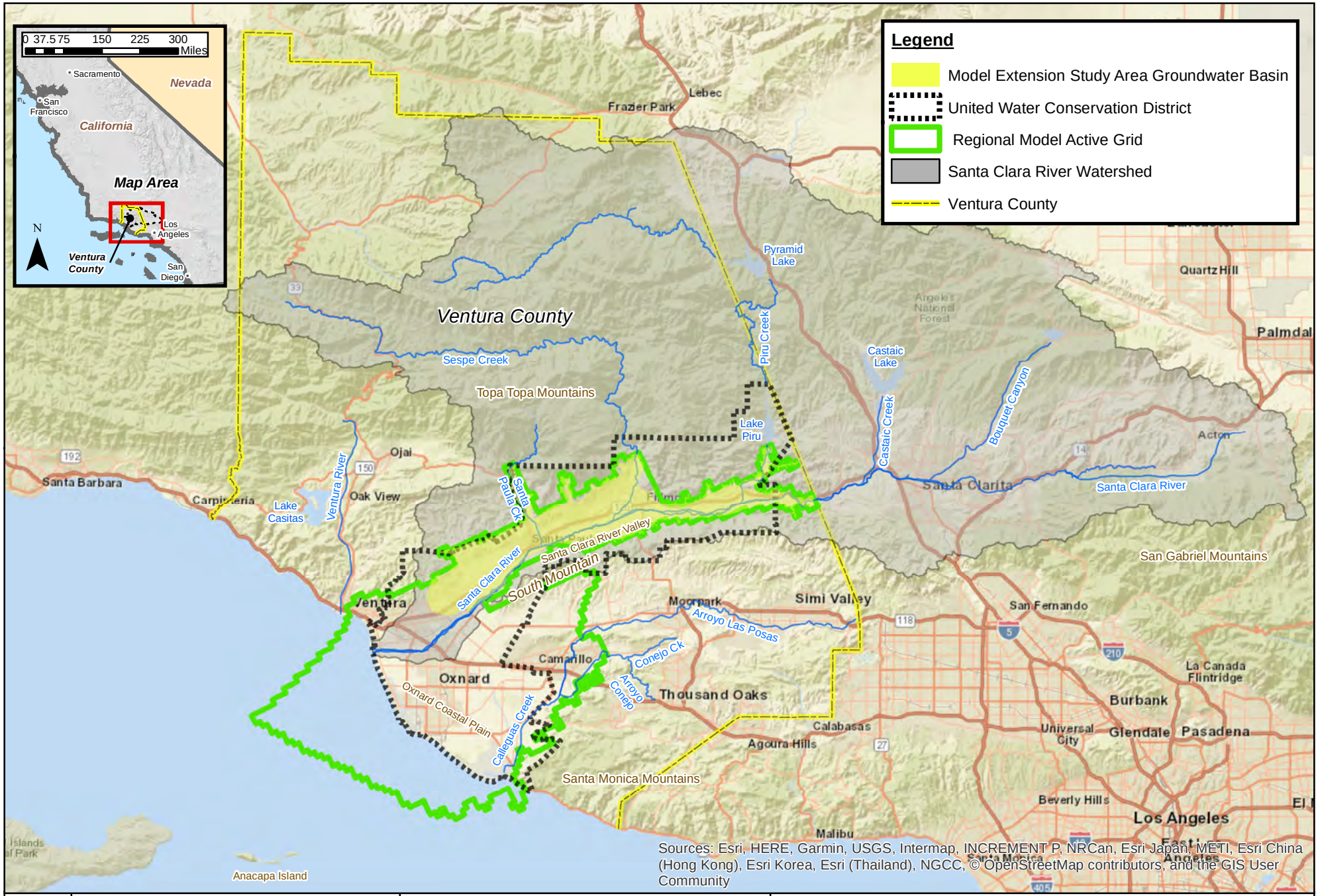

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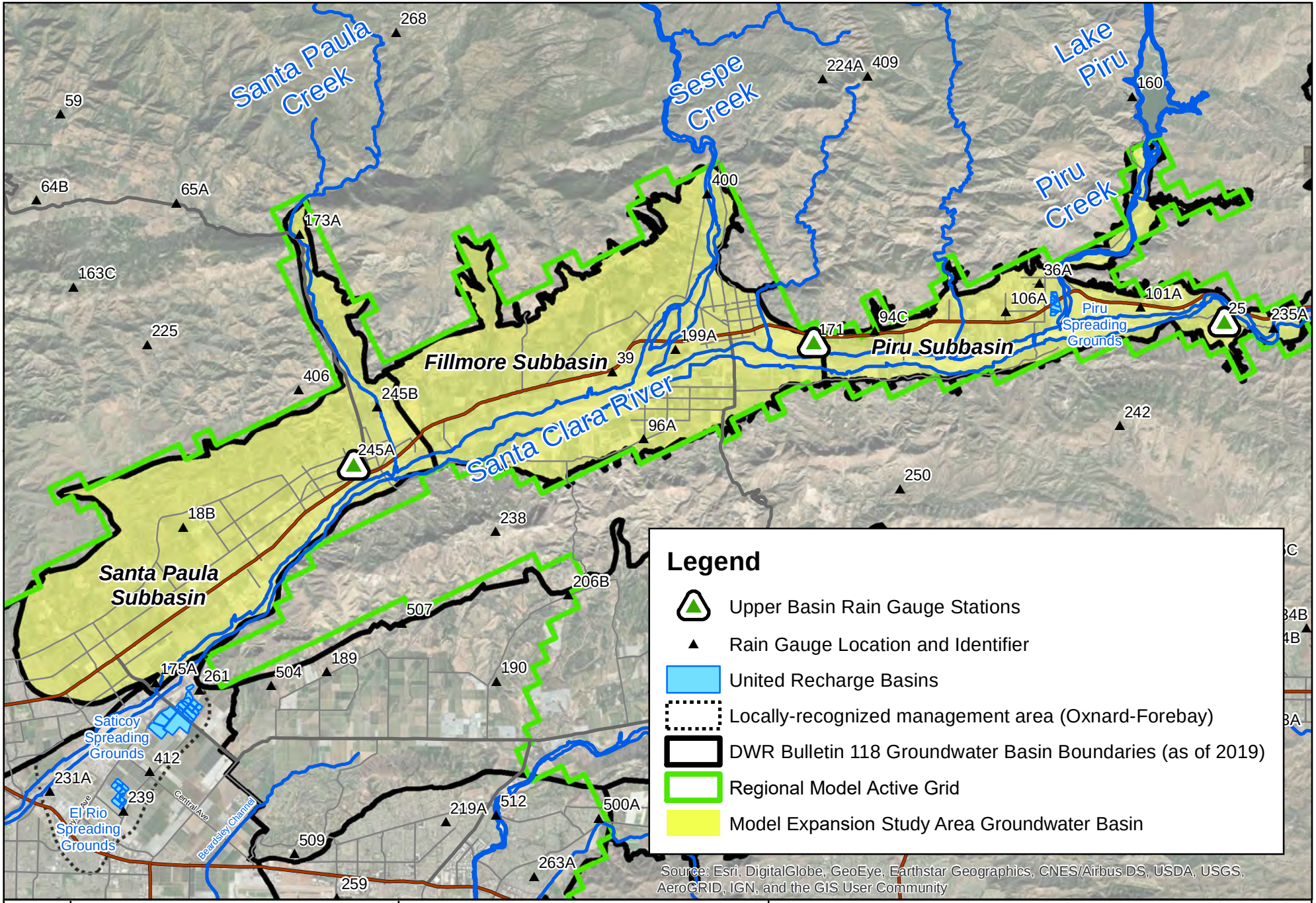
Figure 2-1.
Location Map with Regional Model Expansion Basins



N

0 1 2 4 6 Miles

(At original document size of 11x8.5)

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Figure 2-2.
Regional Model Expansion Basins

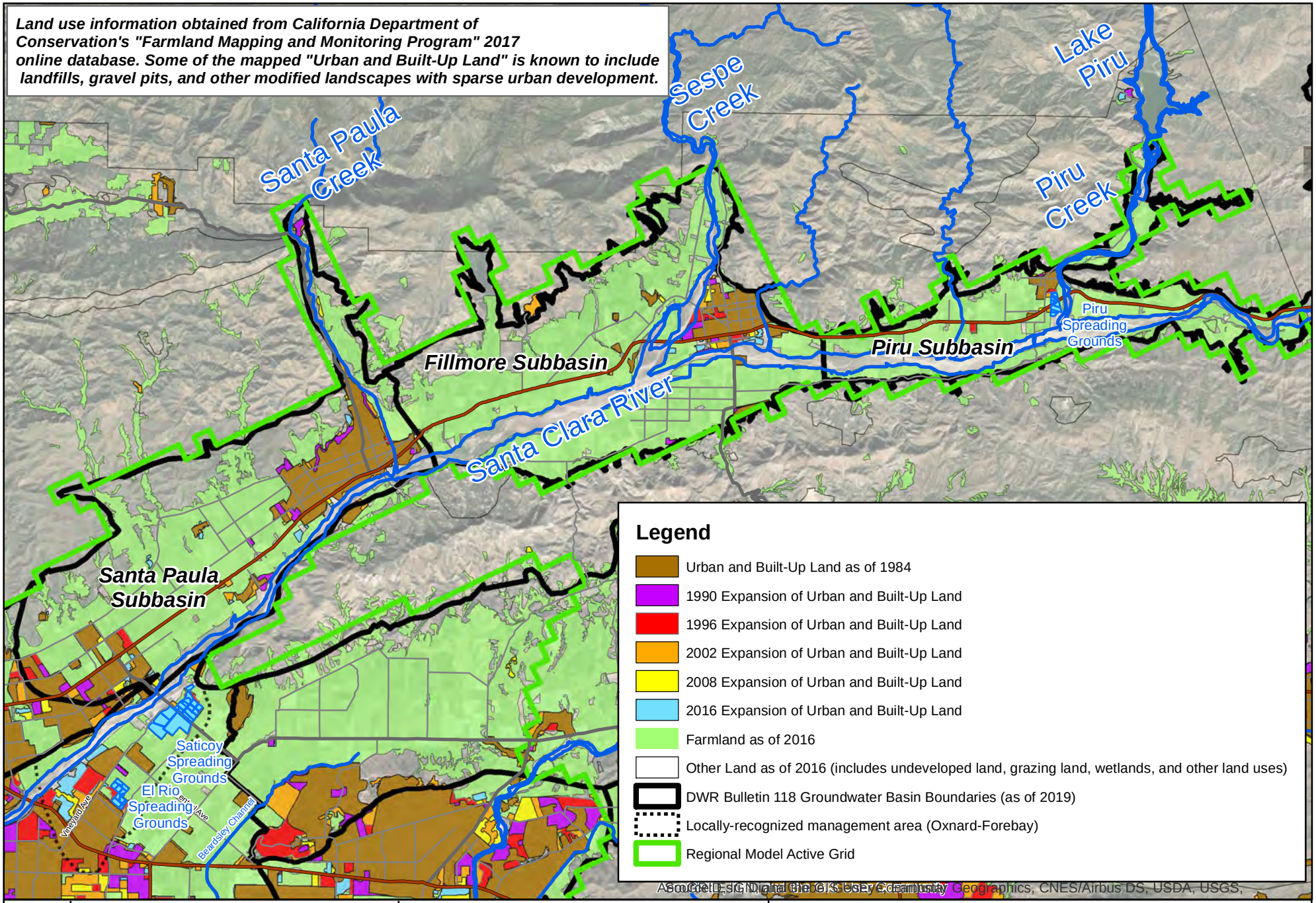

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Figure 2-3.
Land Use in Model Expansion Basins

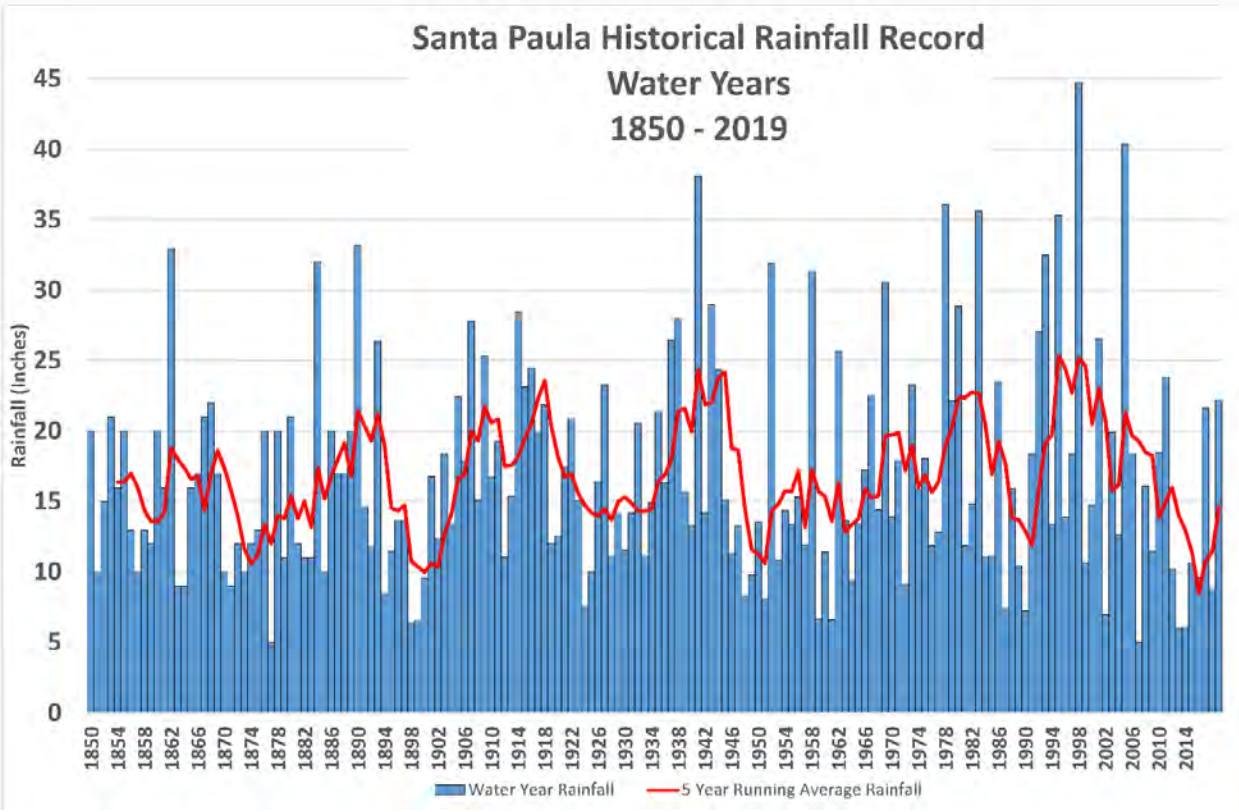

Figure 2-4. Santa Paula Annual Water Year (WY) Precipitation Totals (blue) and 5-year Moving Average (Red) from WY 1850 to 2019.

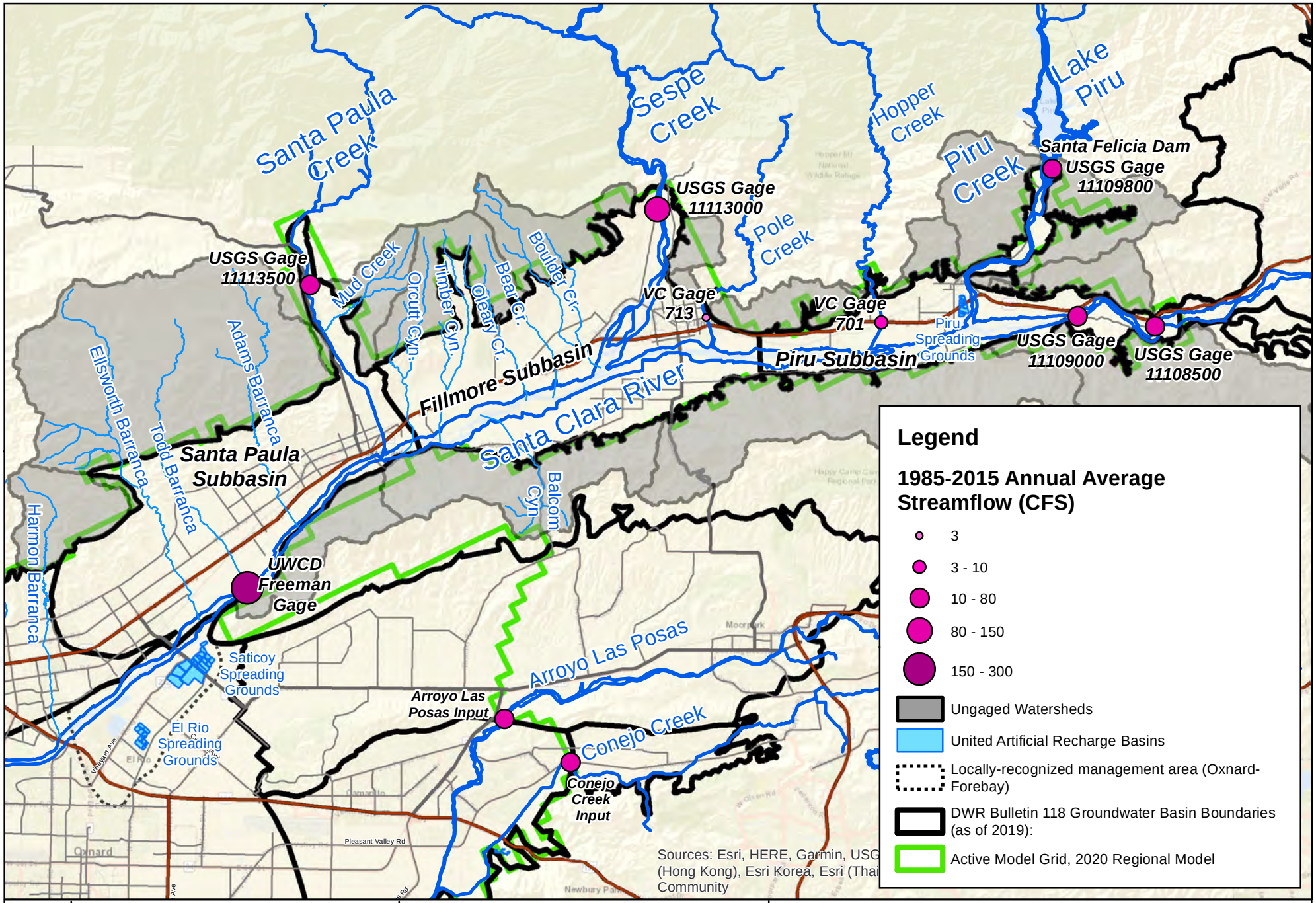

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Figure 2-5.
Surface Water Features -- Streamflow in Model Expansion Basins

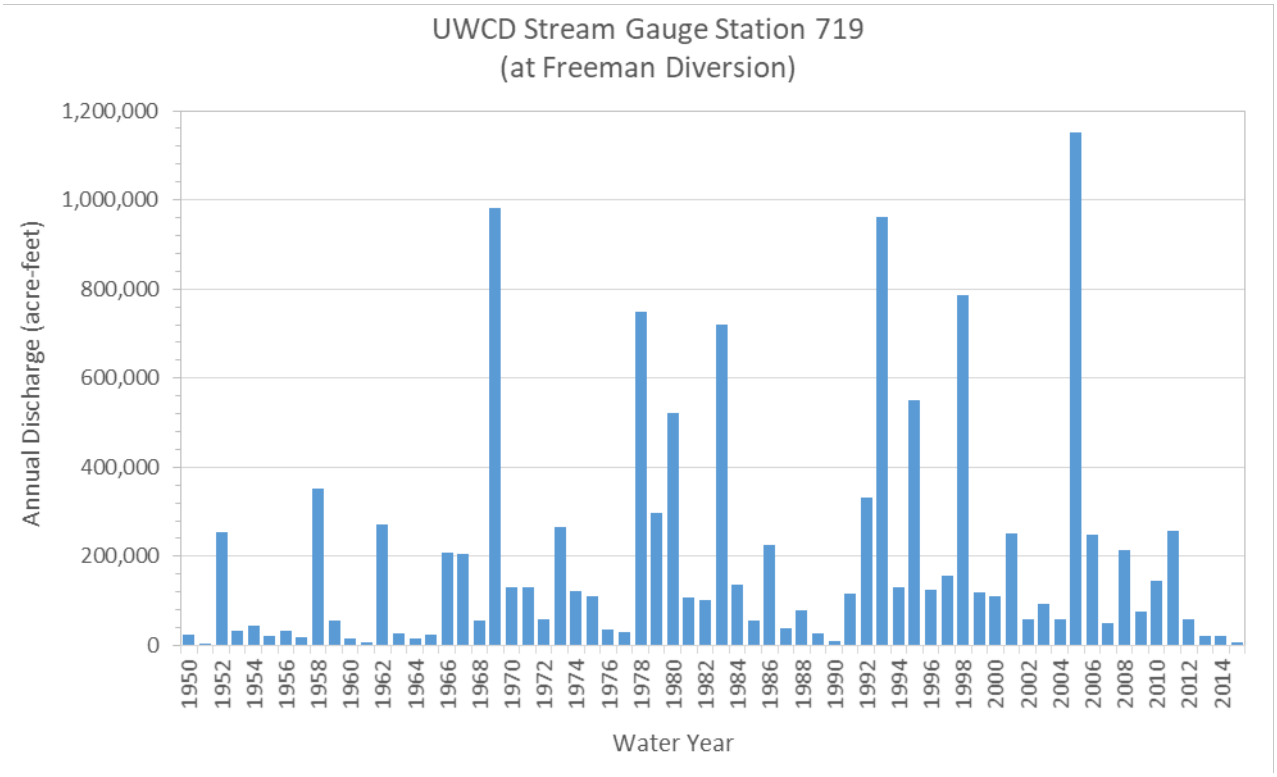

Figure 2-6. Annual Discharge in Santa Clara River at Freeman Diversion Water Years 1950-2015

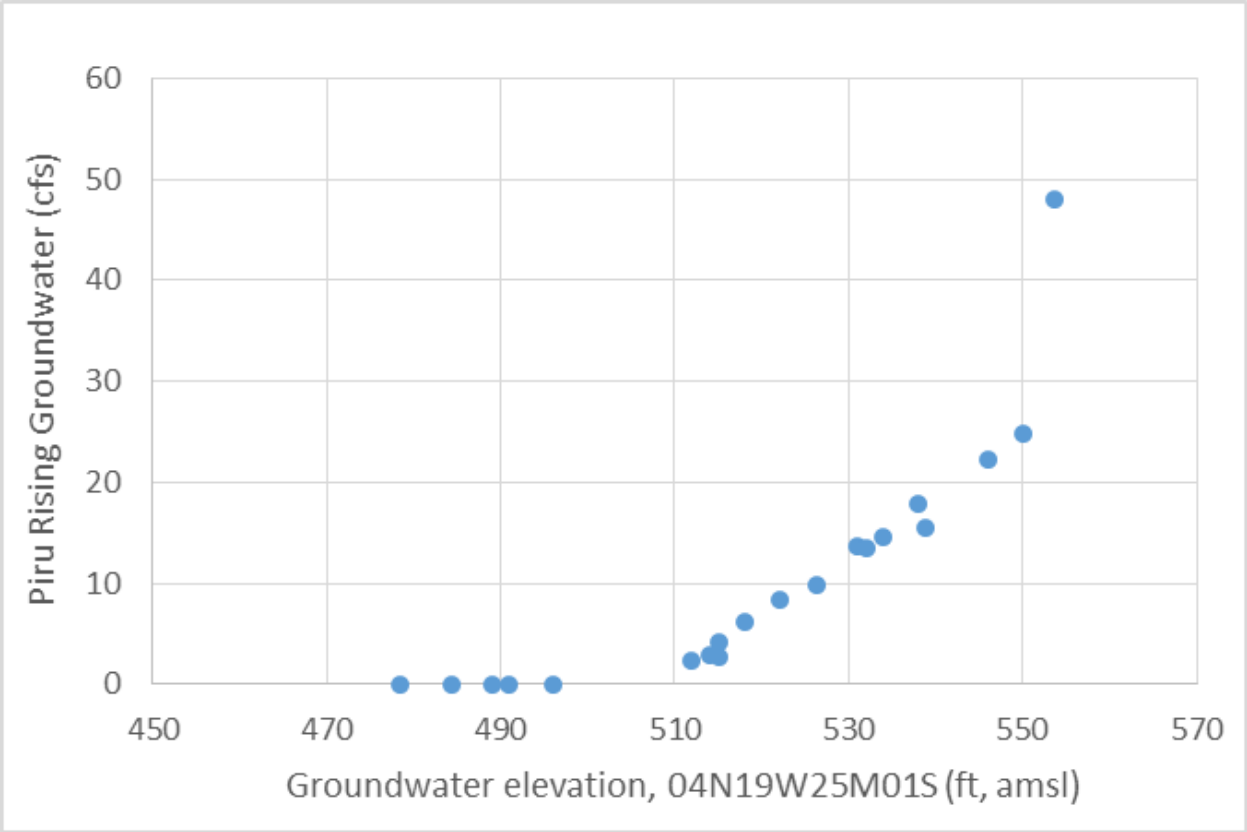

Figure 2-7. Observed Relationship Between Rising Groundwater at the Piru-Fillmore Basin Boundary and Groundwater Elevation in Piru Basin Well 04N19W25M01.

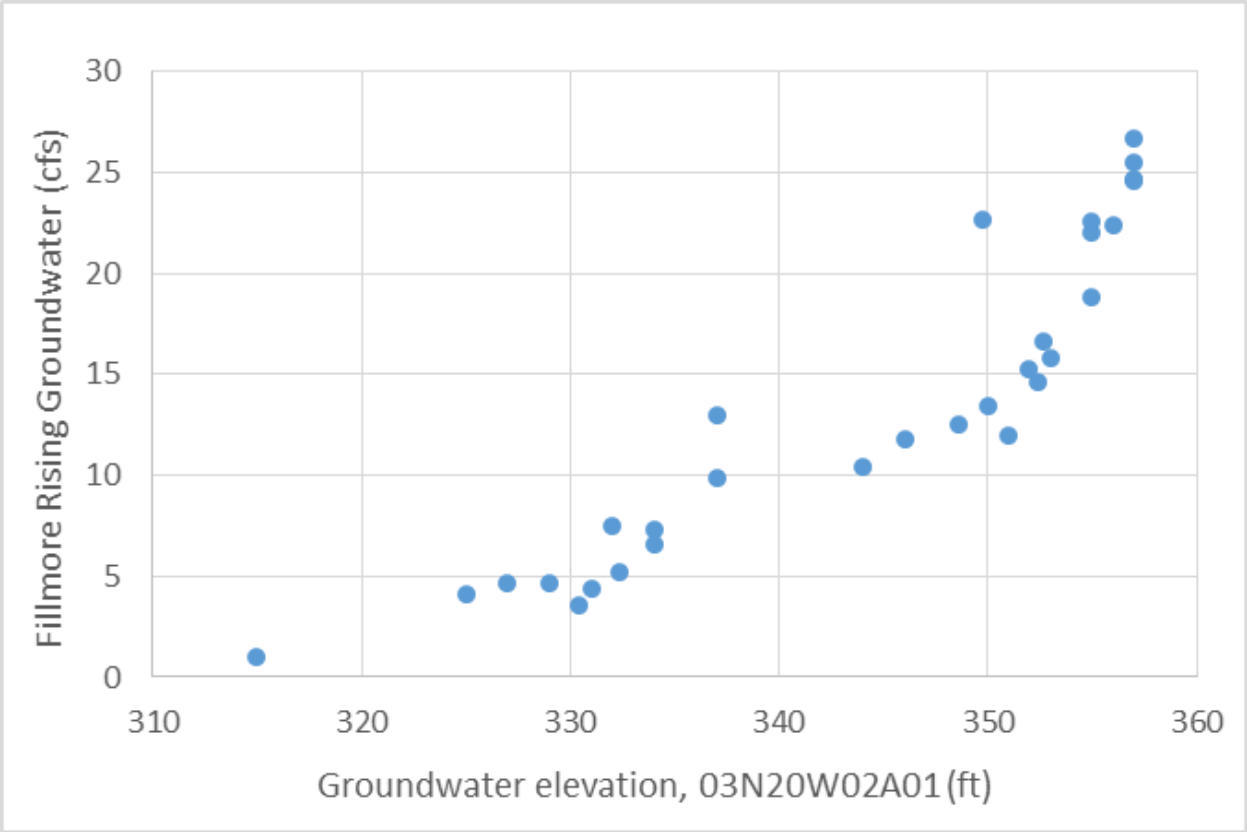

Figure 2-8. Observed Relationship Between Rising Groundwater at the Fillmore-Santa Paula Basin Boundary and Groundwater Elevation in Fillmore Basin Well 03N20W02A01.

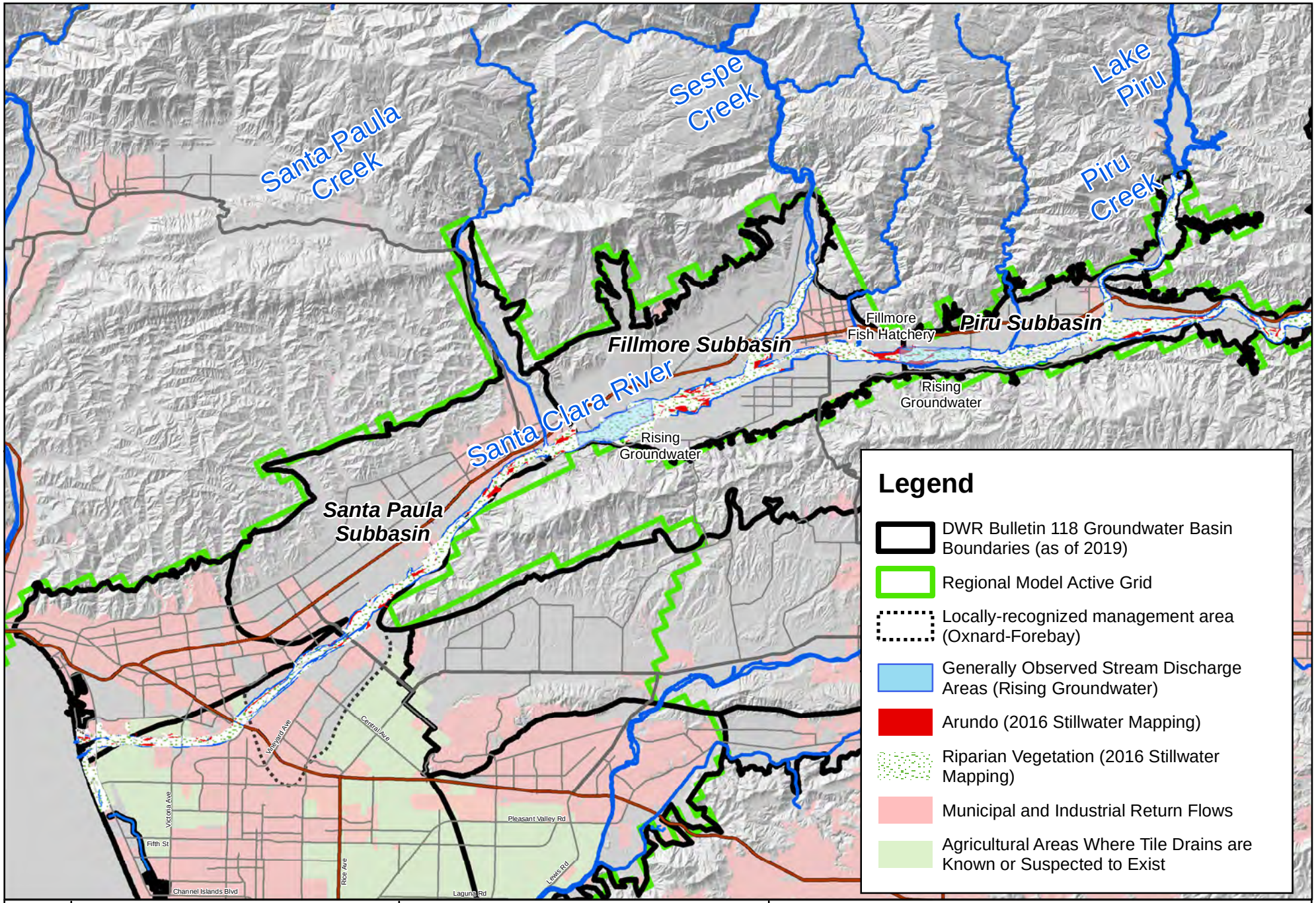

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Figure 2-9.
Areas of Groundwater Discharge in Model Expansion Basins

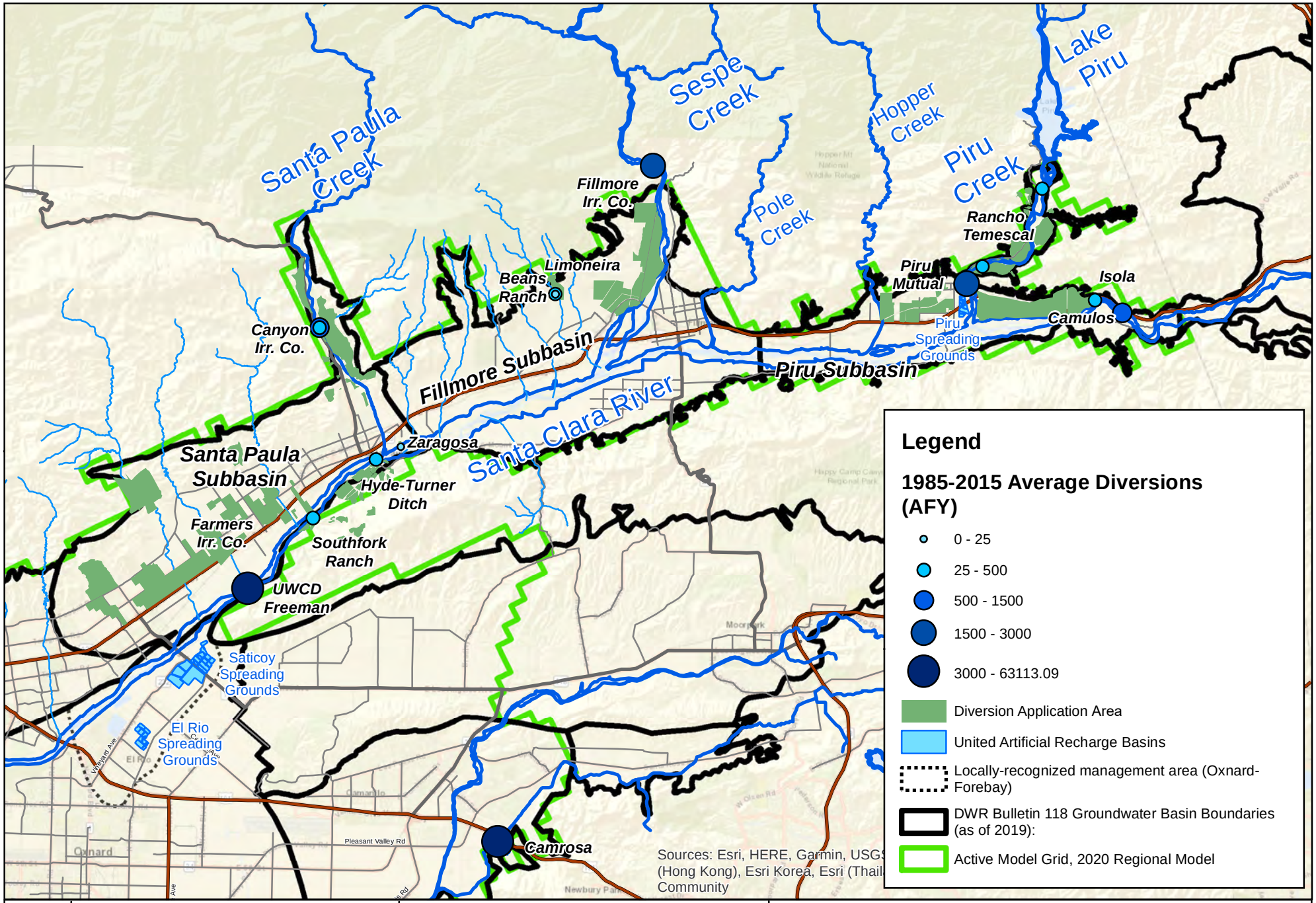

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Figure 2-10.
Surface Water Features -- Diversions in Model Expansion Basins

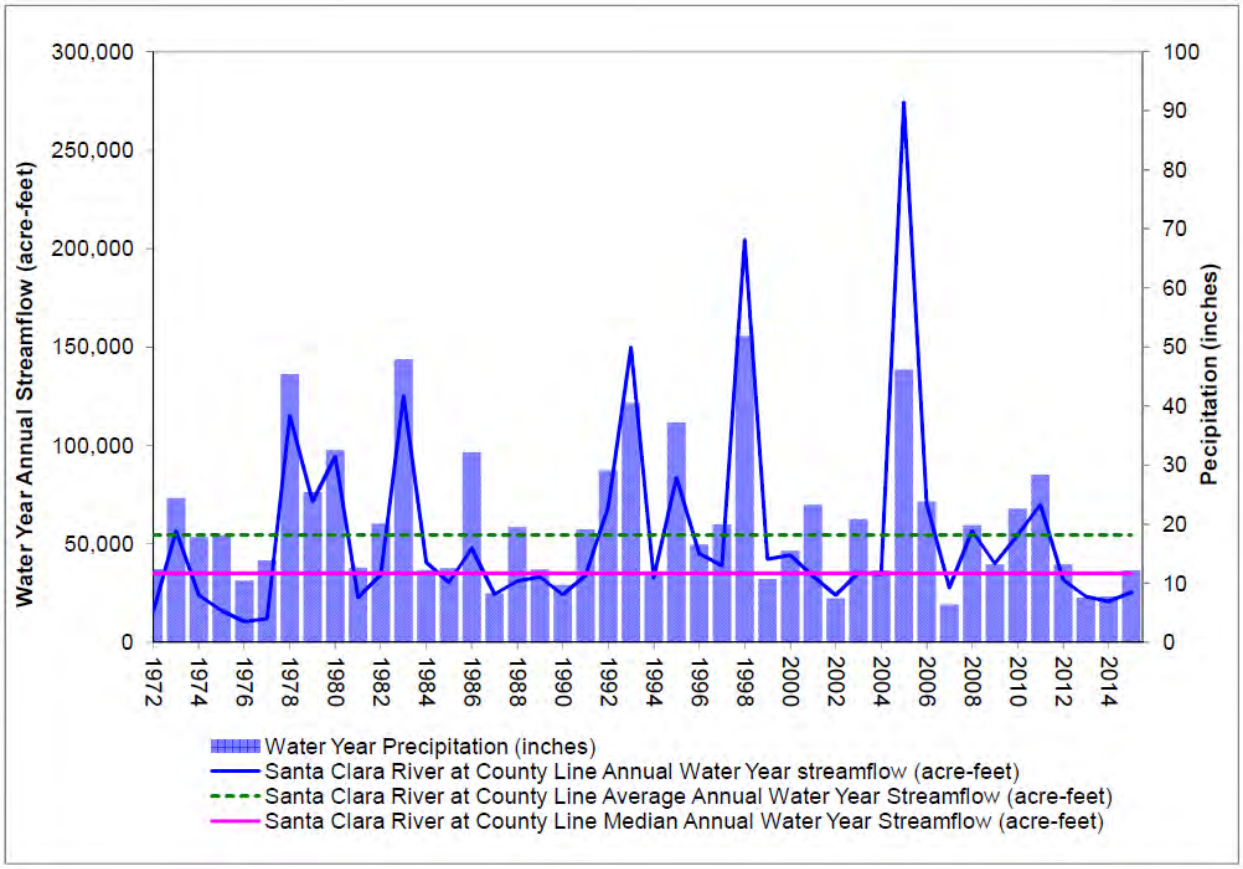

Figure 2-11. Santa Clara River Historical Annual Streamflow Near Ventura/L.A. Count Line and Piru Groundwater Basin Precipitation (streamflow data from USGS) (UWCD, 2016; Figure 10)

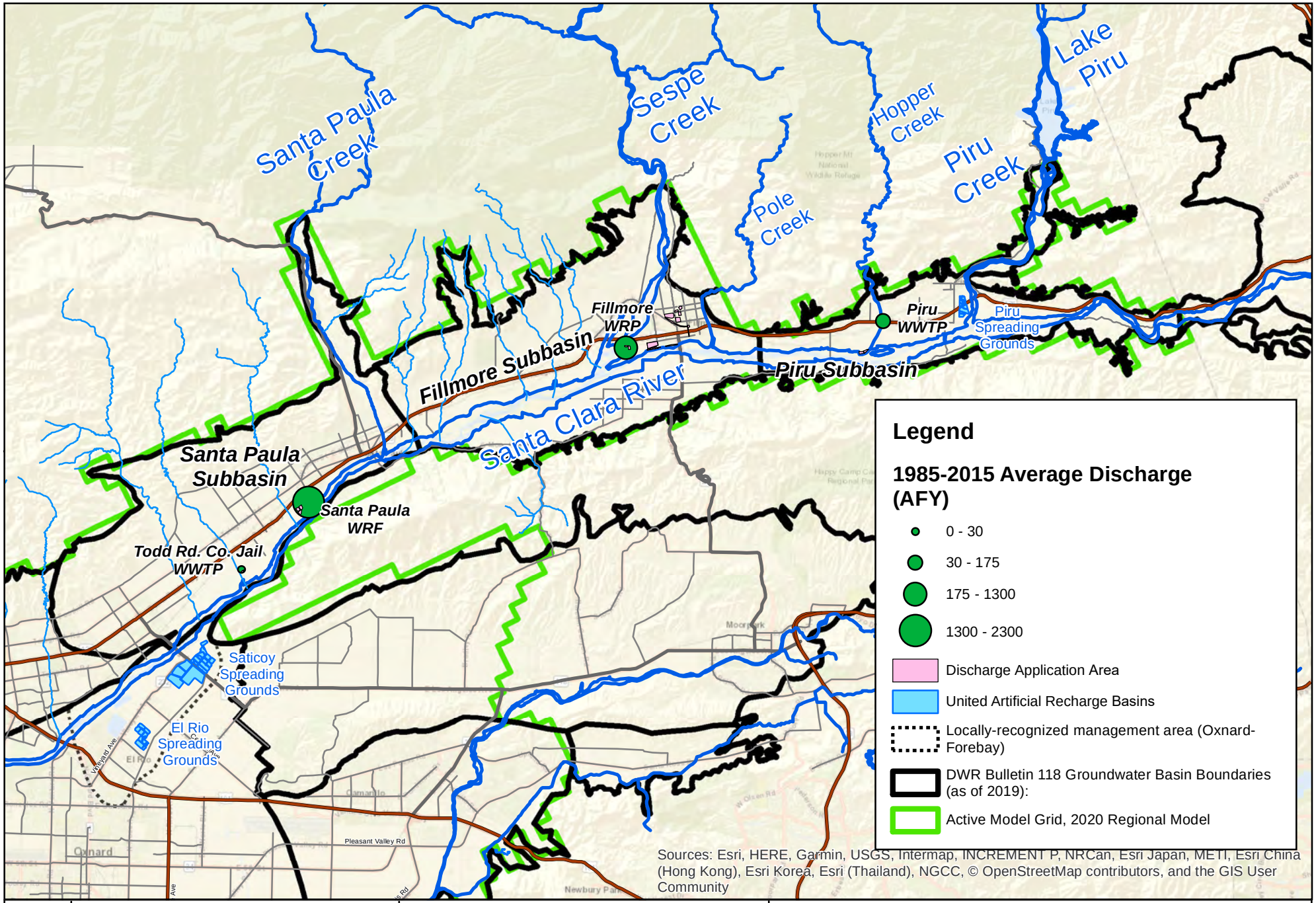

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Figure 2-12.
Surface Water Features -- Wastewater in Model Expansion Basins

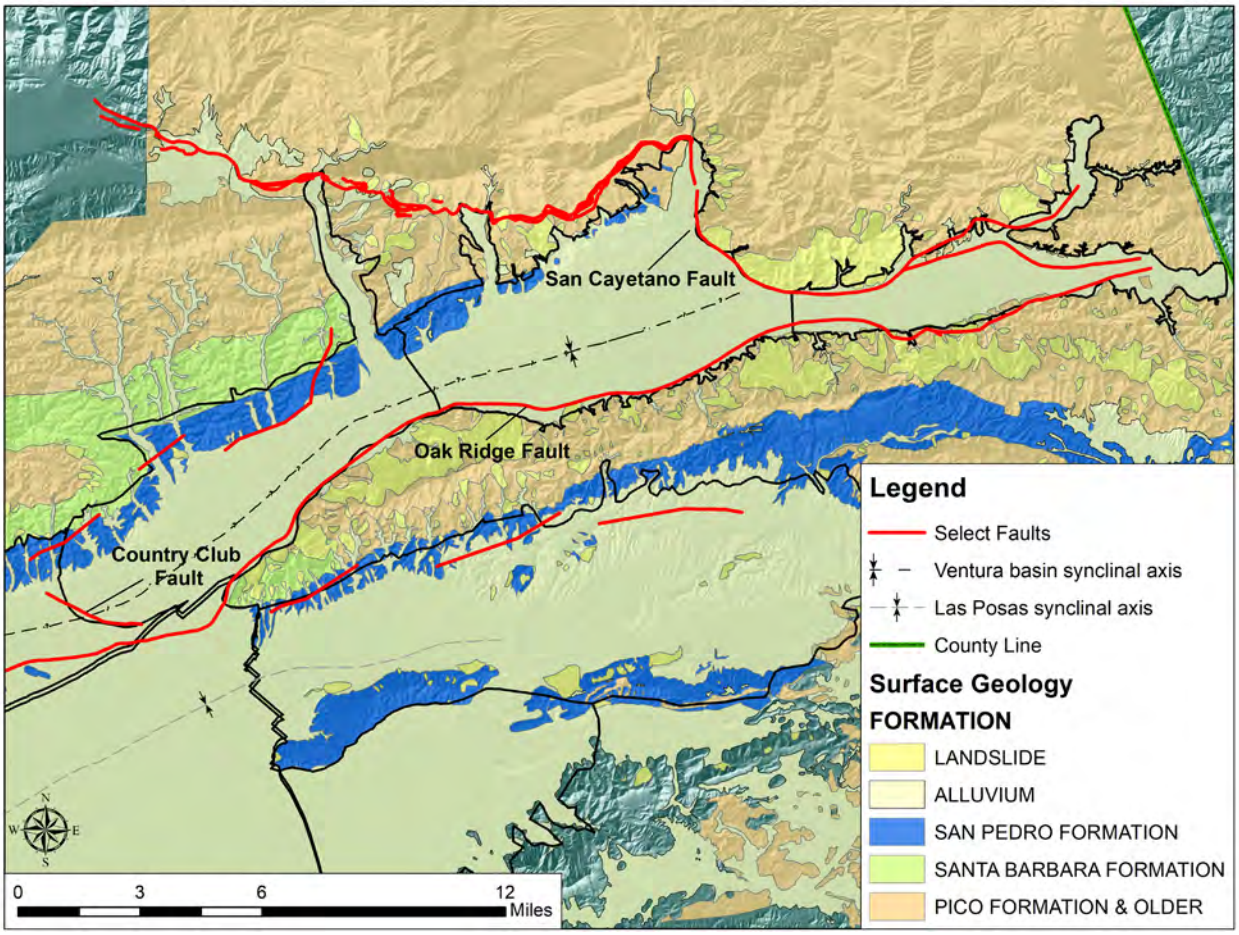

Figure 2-13. Model Expansion Basins Surface Geology Map with Select Faults and Synclinal Axis; Fault locations may be concealed or inferred.

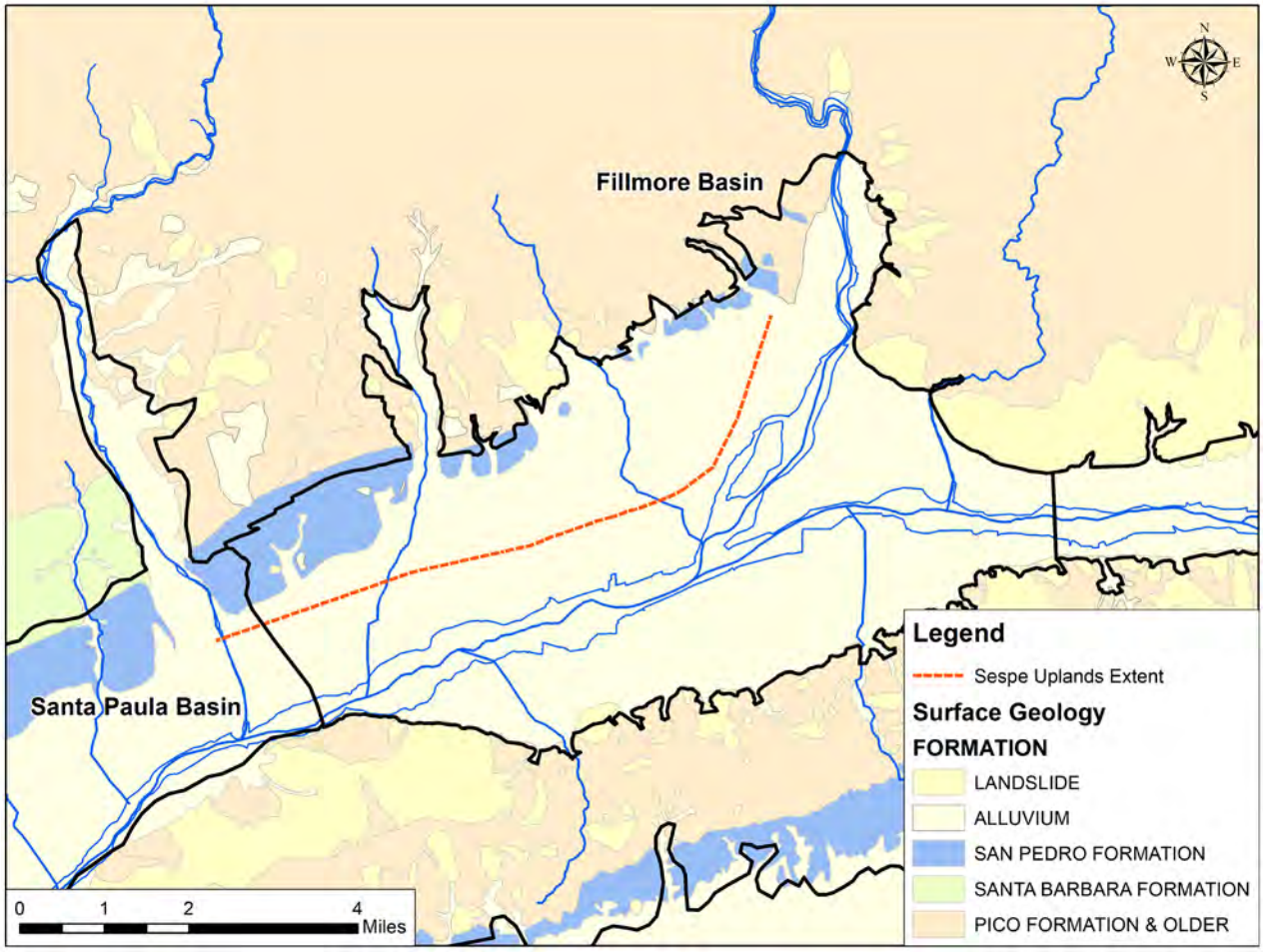

Figure 2-14. Approximate Extent of Sespe Upland .

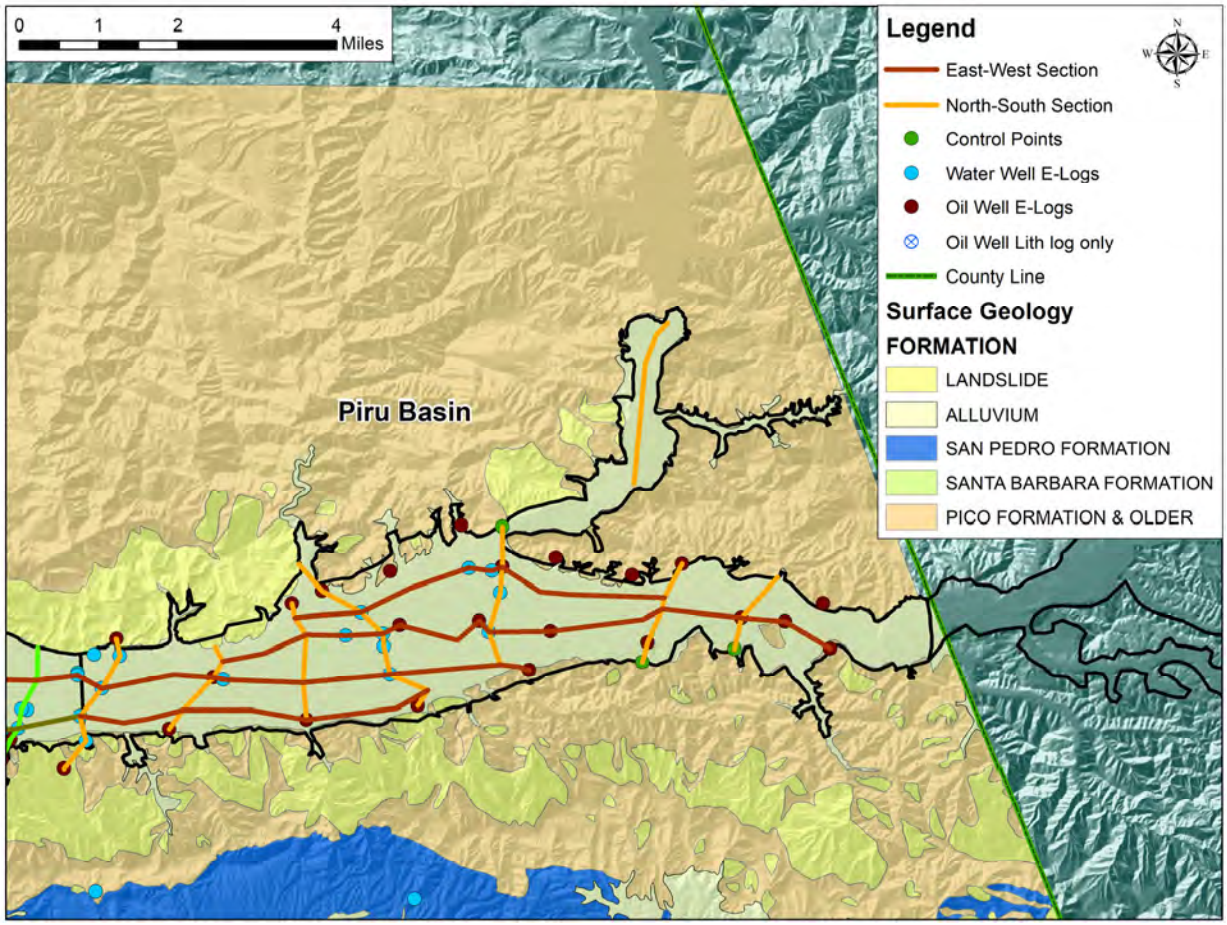

Figure 2-15. Piru Basin Stratigraphic Section Locations.

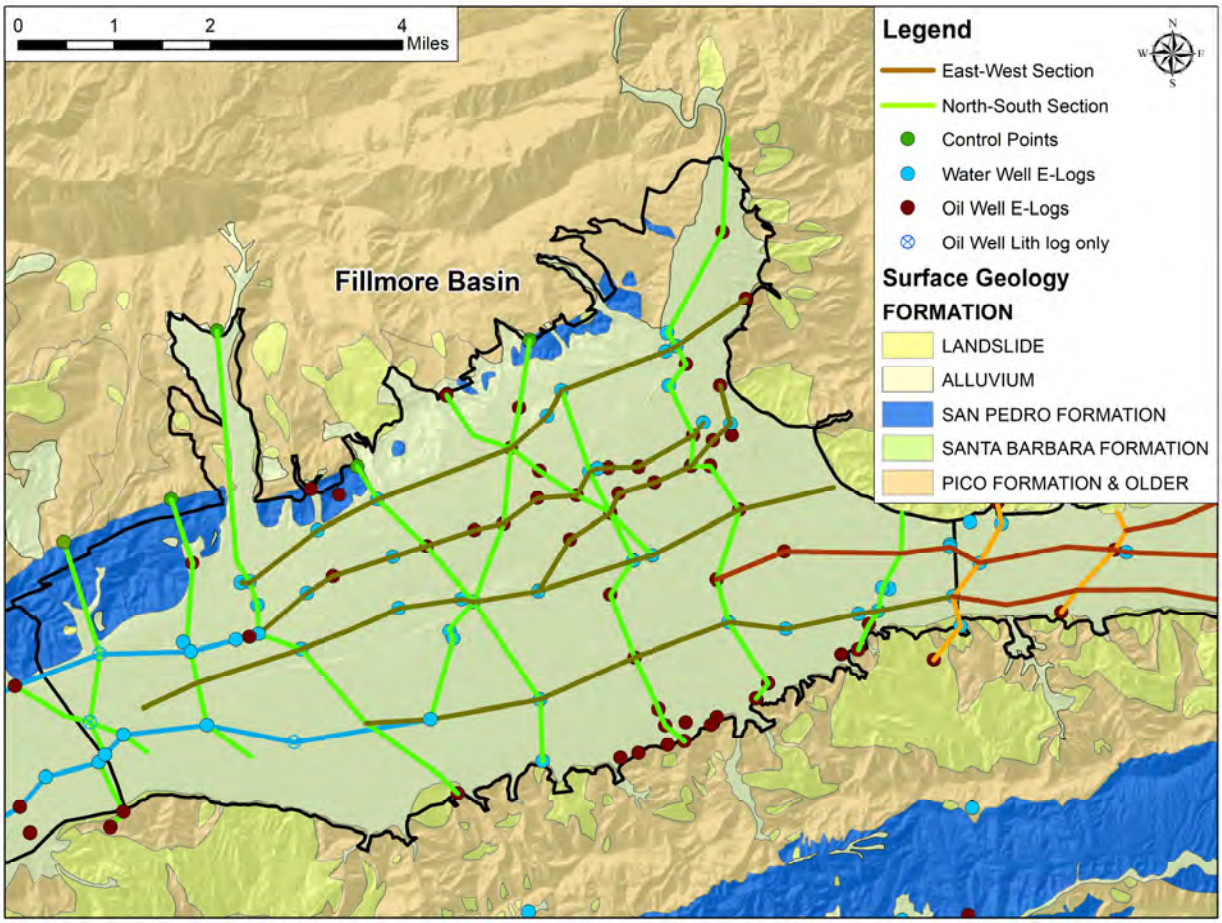

Figure 2-16. Fillmore Basin Stratigraphic Section Locations.

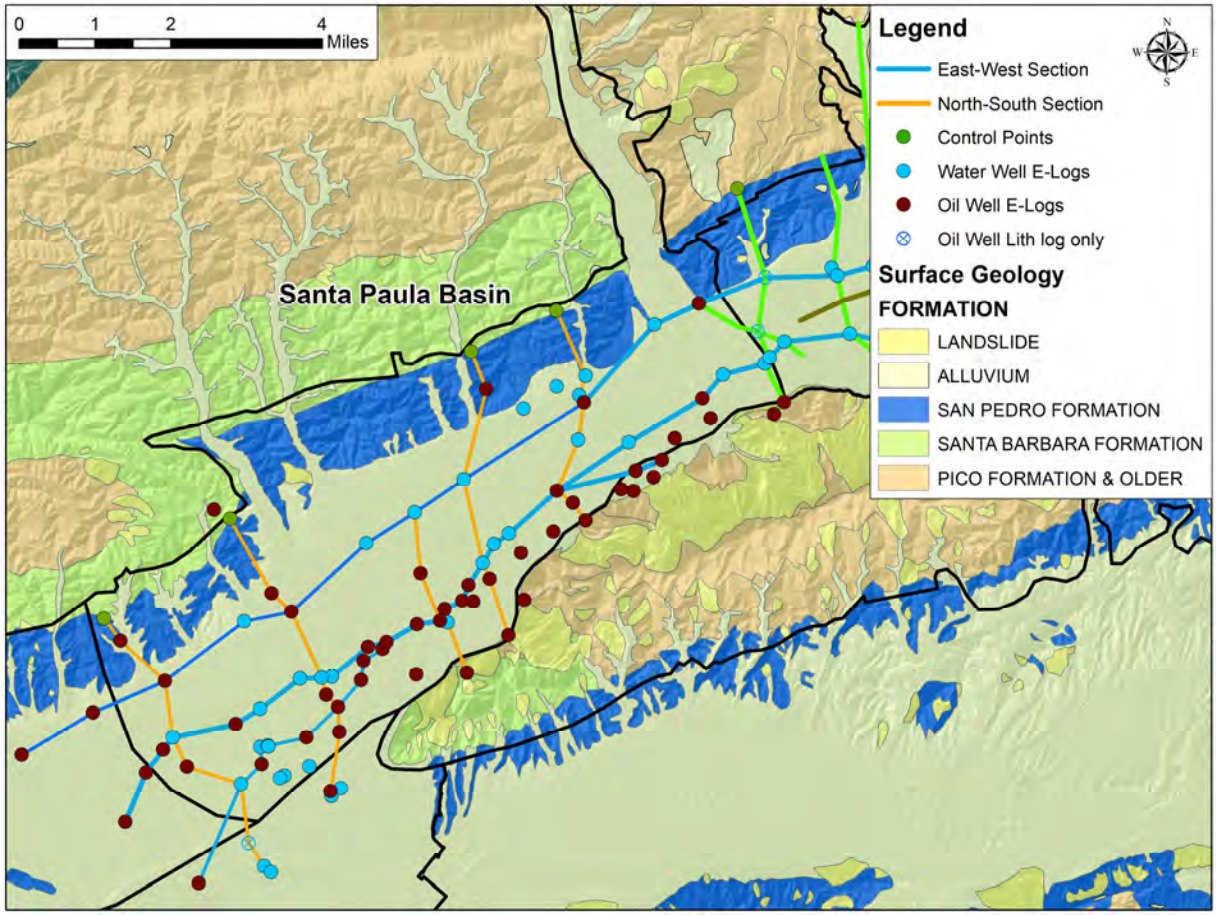

Figure 2-17. Santa Paula Stratigraphic Section Locations.

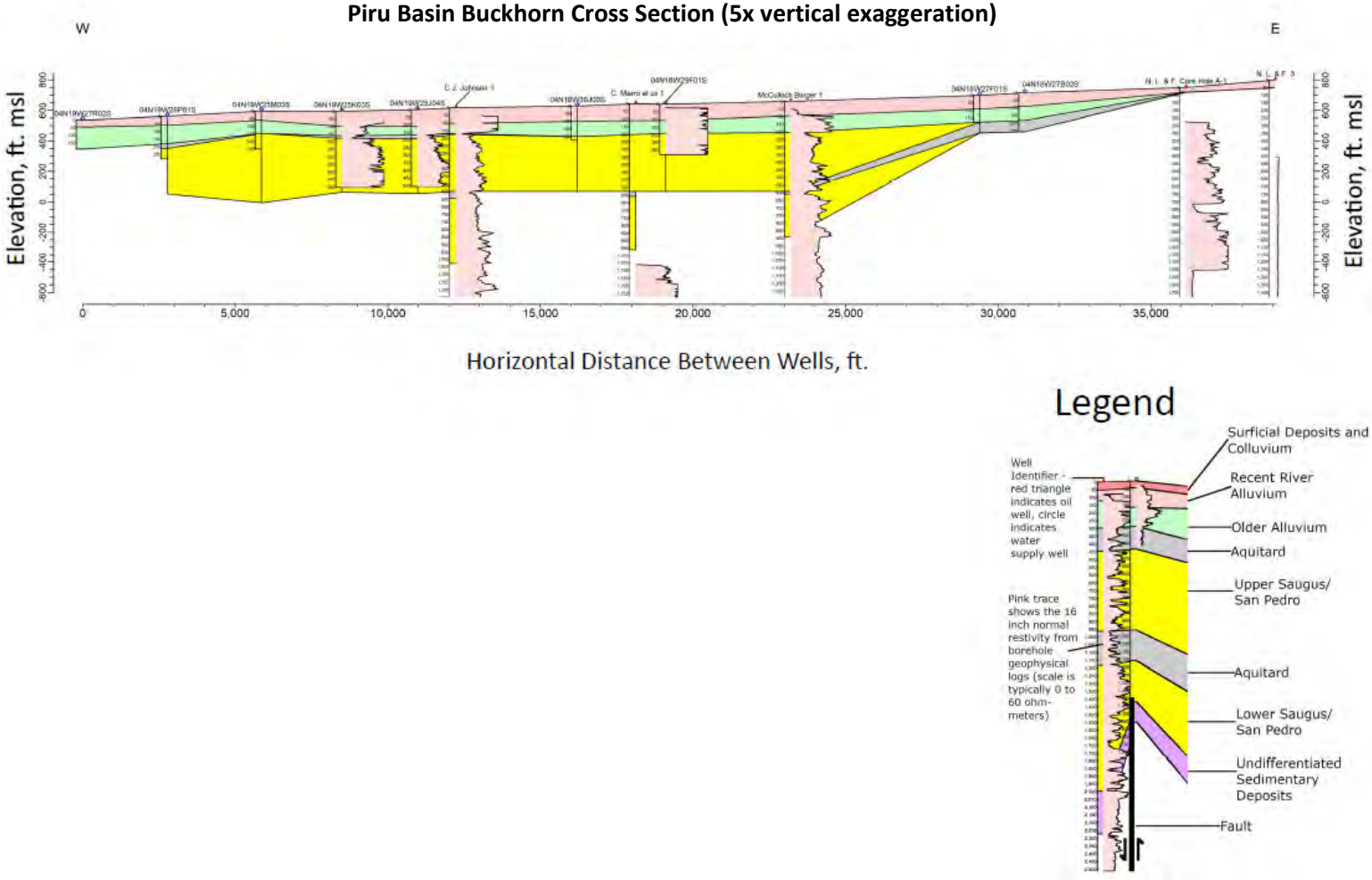

Figure 2-18. Piru Basin East-West Section.

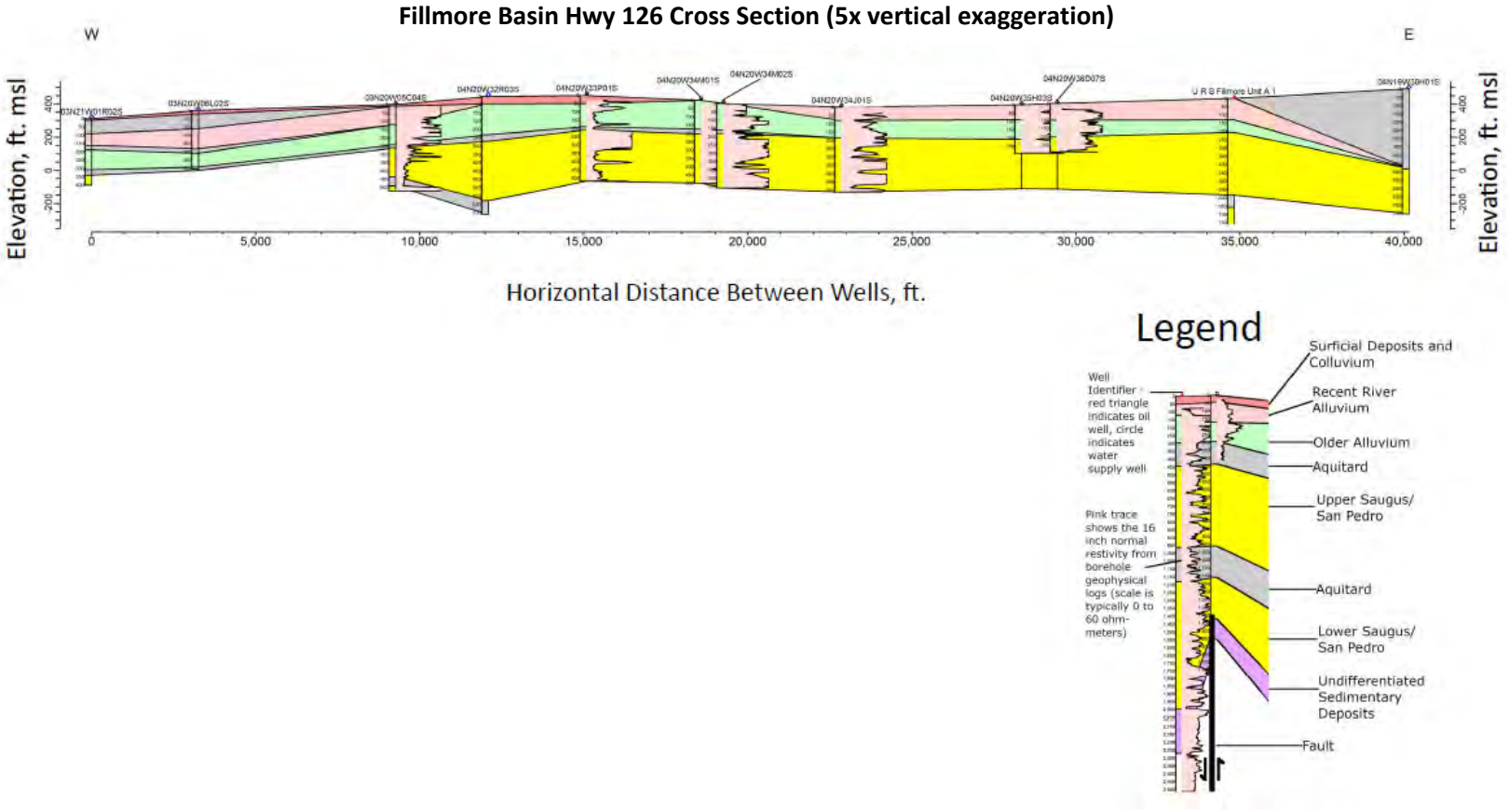

Figure 2-19. Fillmore Basin East-West Section.

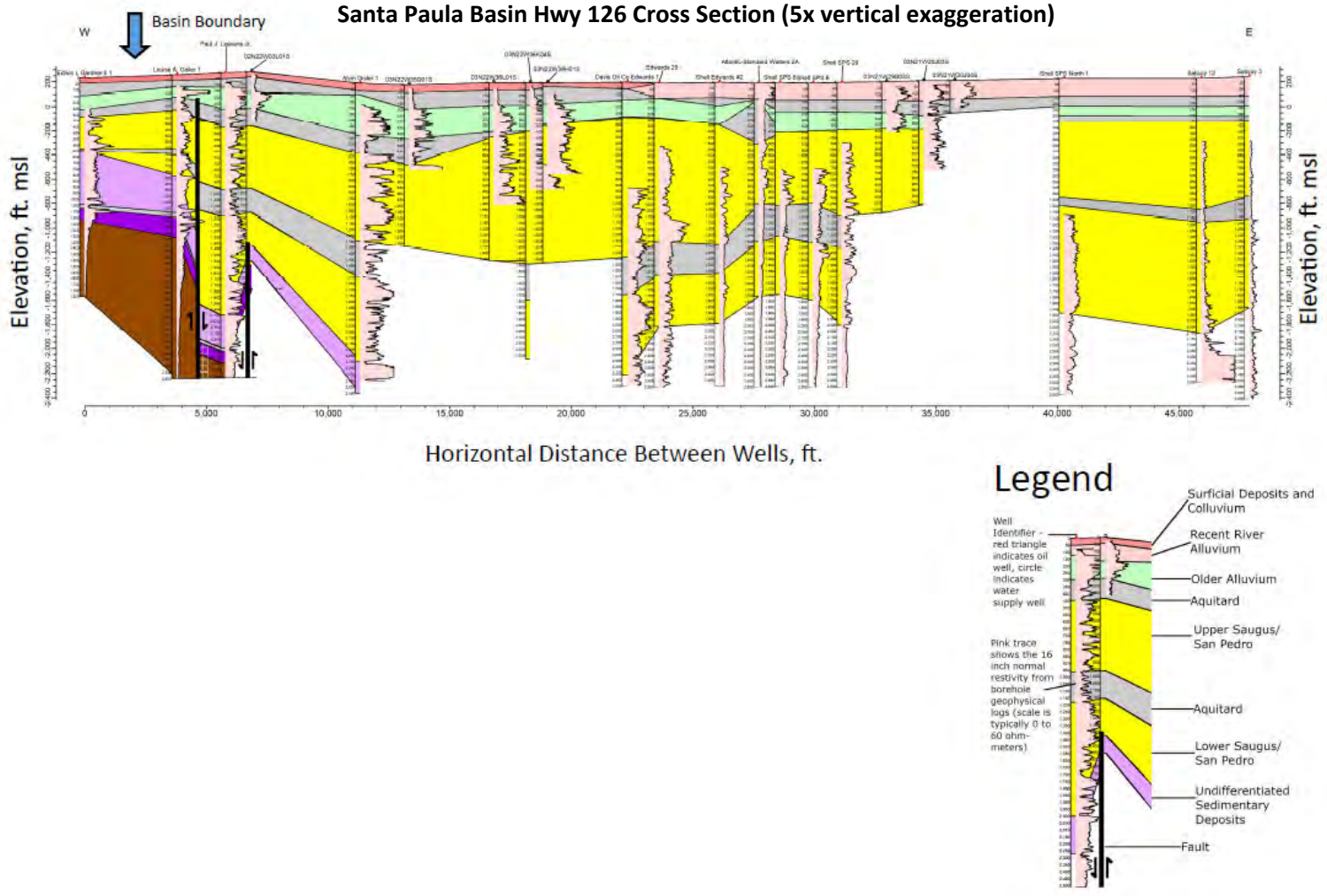

Figure 2-20. Santa Paula Basin East-West Section Showing Approximate Fault Locations and Offset.

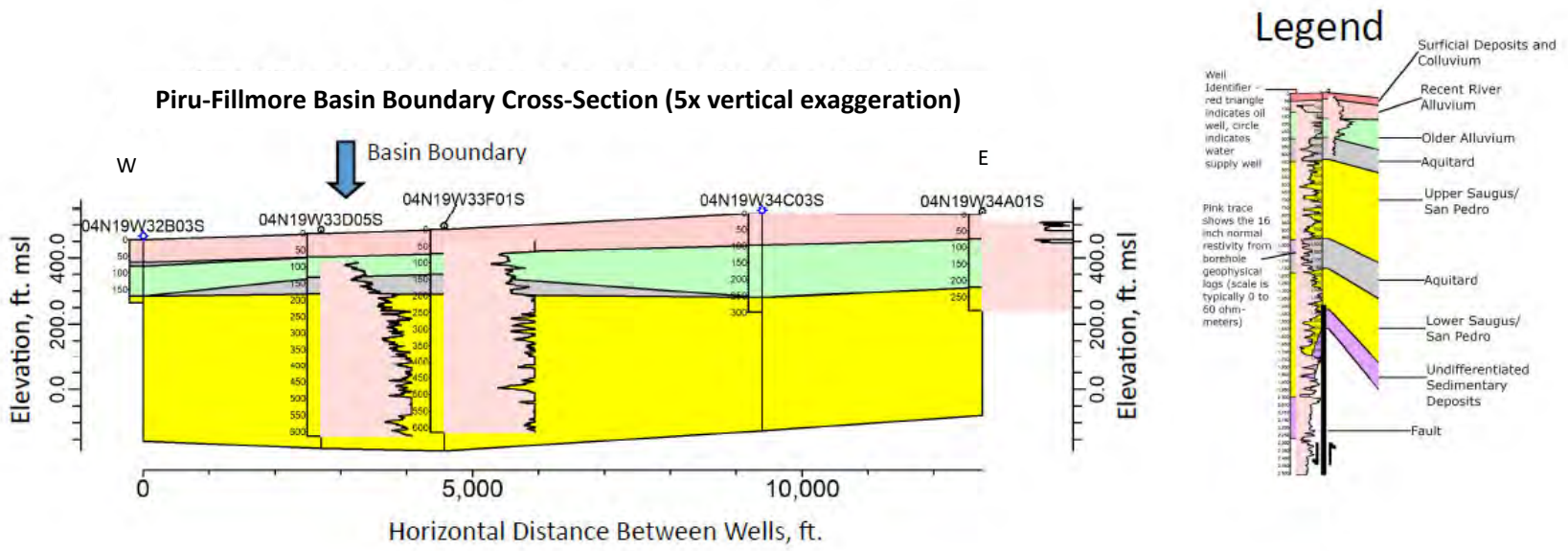

Figure 2-21. Piru-Fillmore Basin Boundary Area of Rising Groundwater.

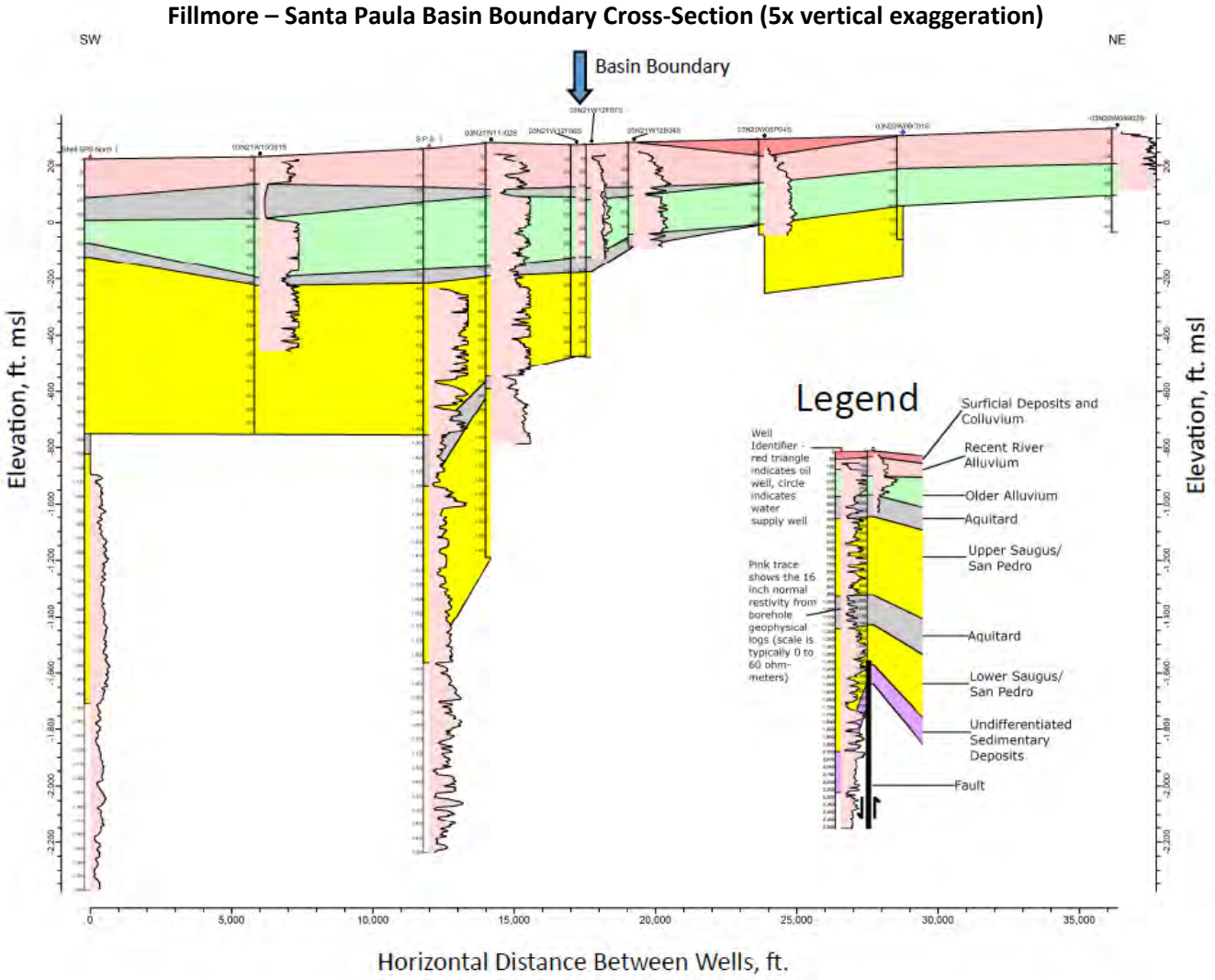

Figure 2-22. Fillmore-Santa Paula Basin Boundary Area of Rising Groundwater.

Piru, Fillmore, and Santa Paula Basins (Model Expansion Basins)

Aquifer System	Hydrostratigraphic Unit	Model Layer
A	Surficial Deposits and Colluvium	1
	Aquitard	2
	Recent (younger) Alluvium	3
B	Aquitard	4
	Older Alluvium	5
	Aquitard	6
	Upper Saugus/San Pedro	7
C	Aquitard	8
	Lower Saugus/San Pedro	9
	Undifferentiated Sedimentary Deposits	10

Mound Basin

Aquifer System	Hydrostratigraphic Unit	Model Layer
Shallow	Ground Surface to the bottom of Semi-Perched Aquifer	1
UAS	Aquitard	2
		3
		4
	Mugu Aquifer	5
LAS	Mugu-Hueneme Aquitard	6
	Hueneme Aquifer	7
	Hueneme-Fox Canyon Aquitard	8
	Fox Canyon Aquifer - upper	9
	Fox Canyon upper - basal Aquitard	10
	Fox Canyon Aquifer - basal	11

Oxnard, Pleasant Valley, West Las Posas*

Aquifer System	Hydrostratigraphic Unit	Model Layer
Shallow	Ground Surface to the bottom of Semi-Perched Aquifer	1
UAS	Semi Perched-Oxnard Aquitard	2
	Oxnard Aquifer	3
	Oxnard-Mugu Aquitard	4
	Mugu Aquifer	5
LAS	Mugu-Hueneme Aquitard	6
	Hueneme Aquifer	7
	Hueneme-Fox Canyon Aquitard	8
	Fox Canyon Aquifer - upper	9
	Fox Canyon upper - basal Aquitard	10
	Fox Canyon Aquifer - basal	11
	Santa Barbara and/or other Formation - upper	12
	Grimes Canyon Aquifer	13

*Shallow and UAS combined in West Las Posas

Figure 2-23. Conceptual Diagrams Illustrating Relationships Between Model Layers and Hydrostratigraphic Units.

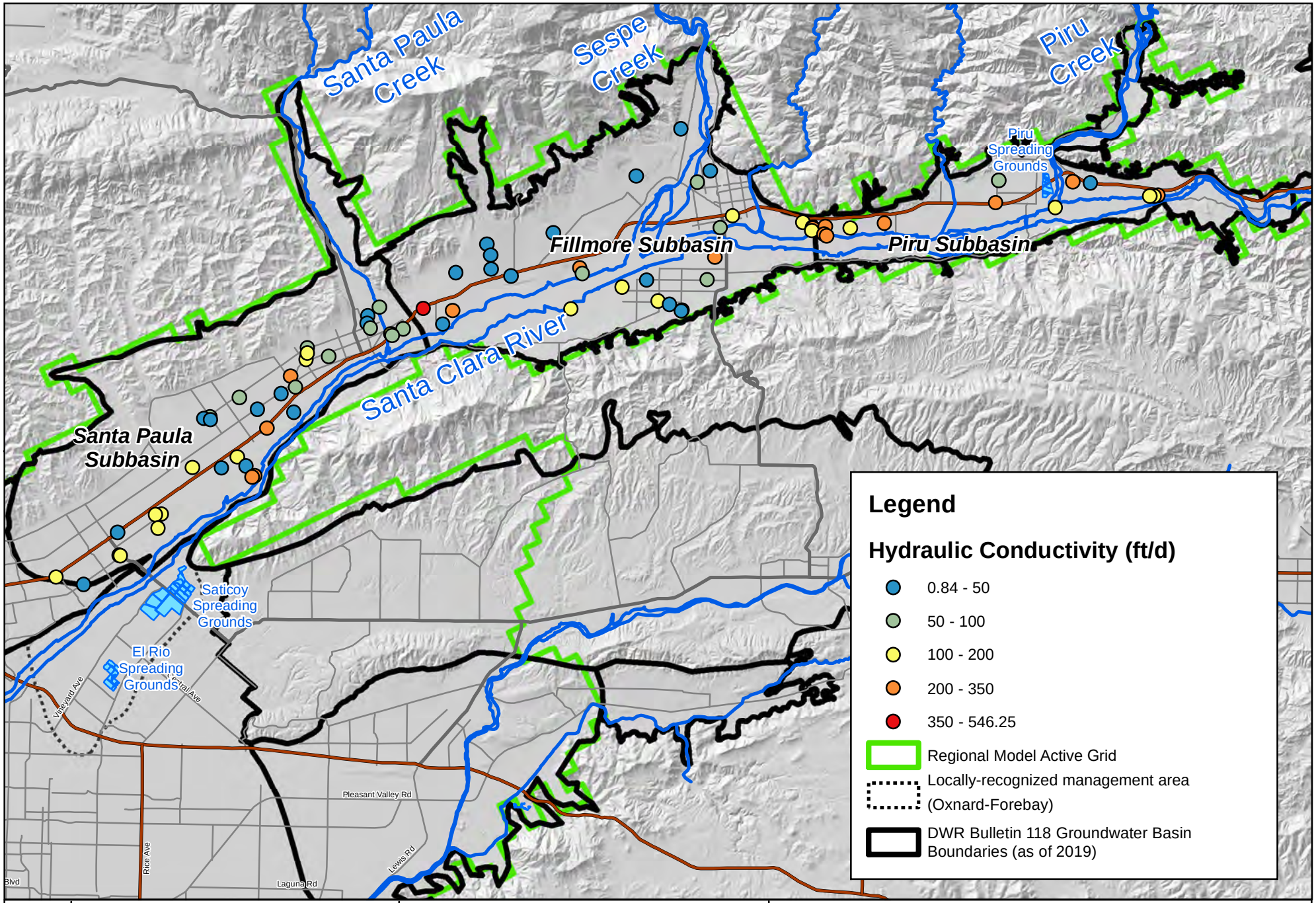

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Figure 2-24.
Horizontal Hydraulic Conductivity Estimates from Specific Capacity Data

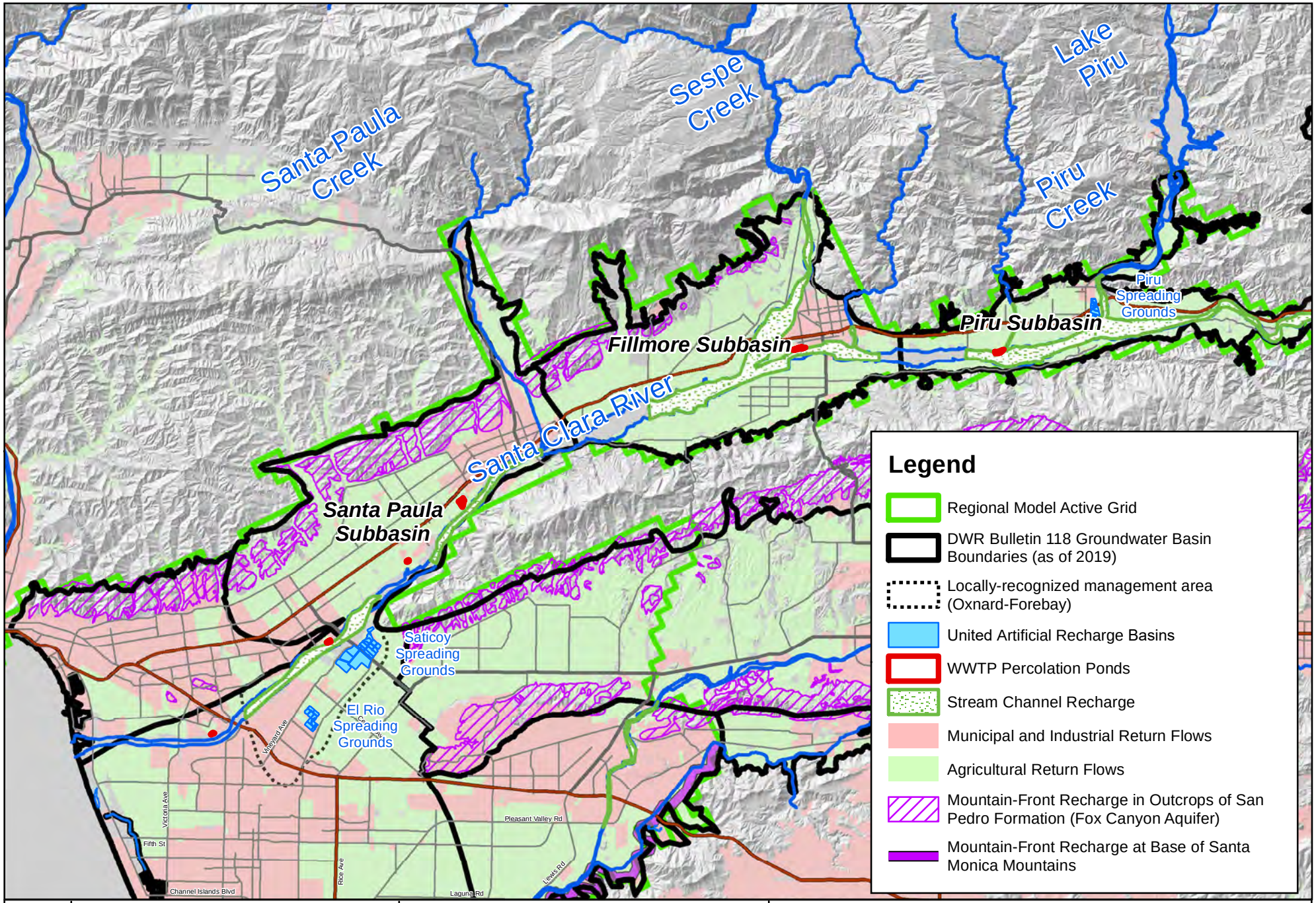

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Figure 2-25.
Areas of Groundwater Recharge in Model Expansion Basins

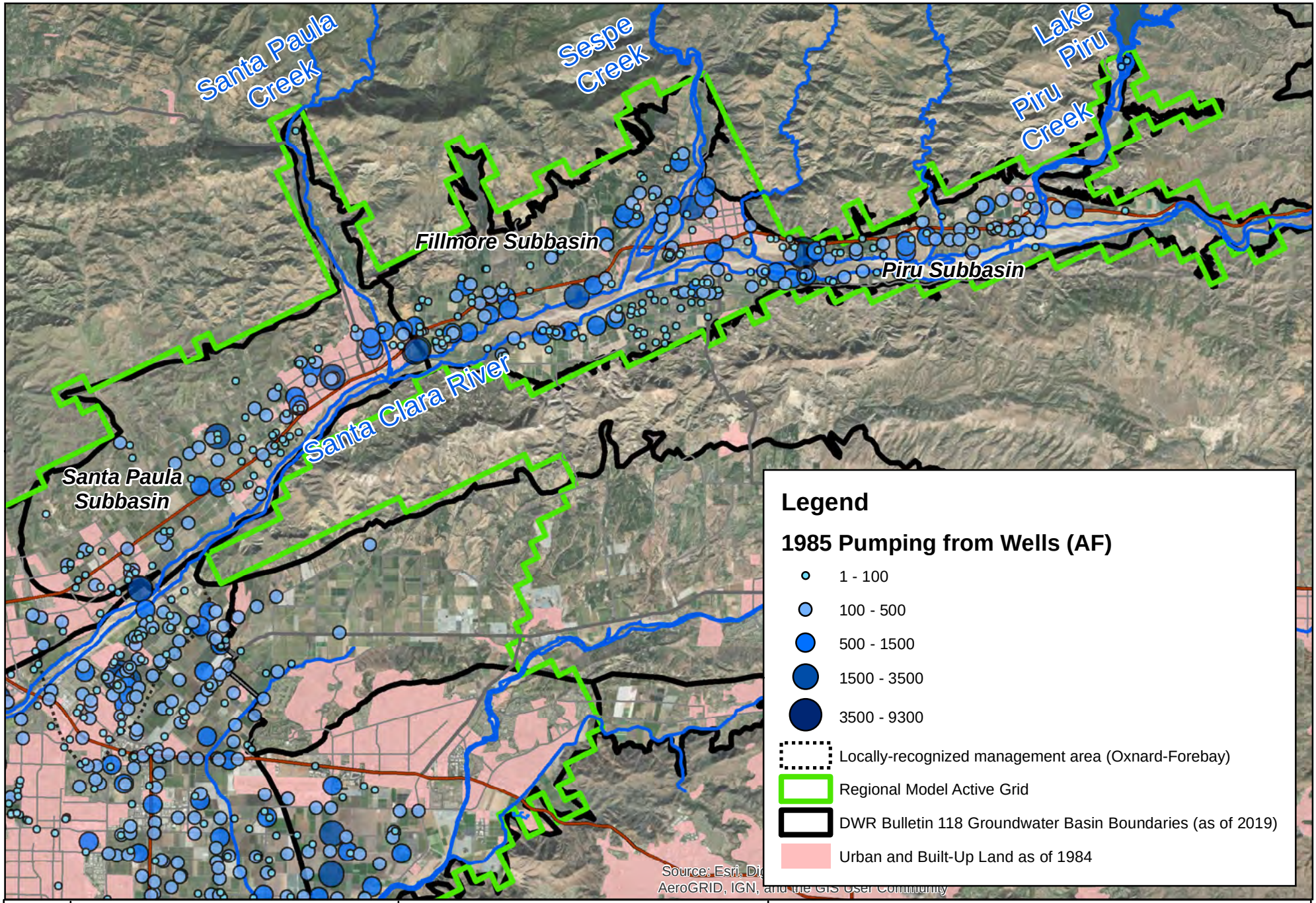

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Figure 2-26.
Locations of Groundwater Extractions
Calendar Year 1985

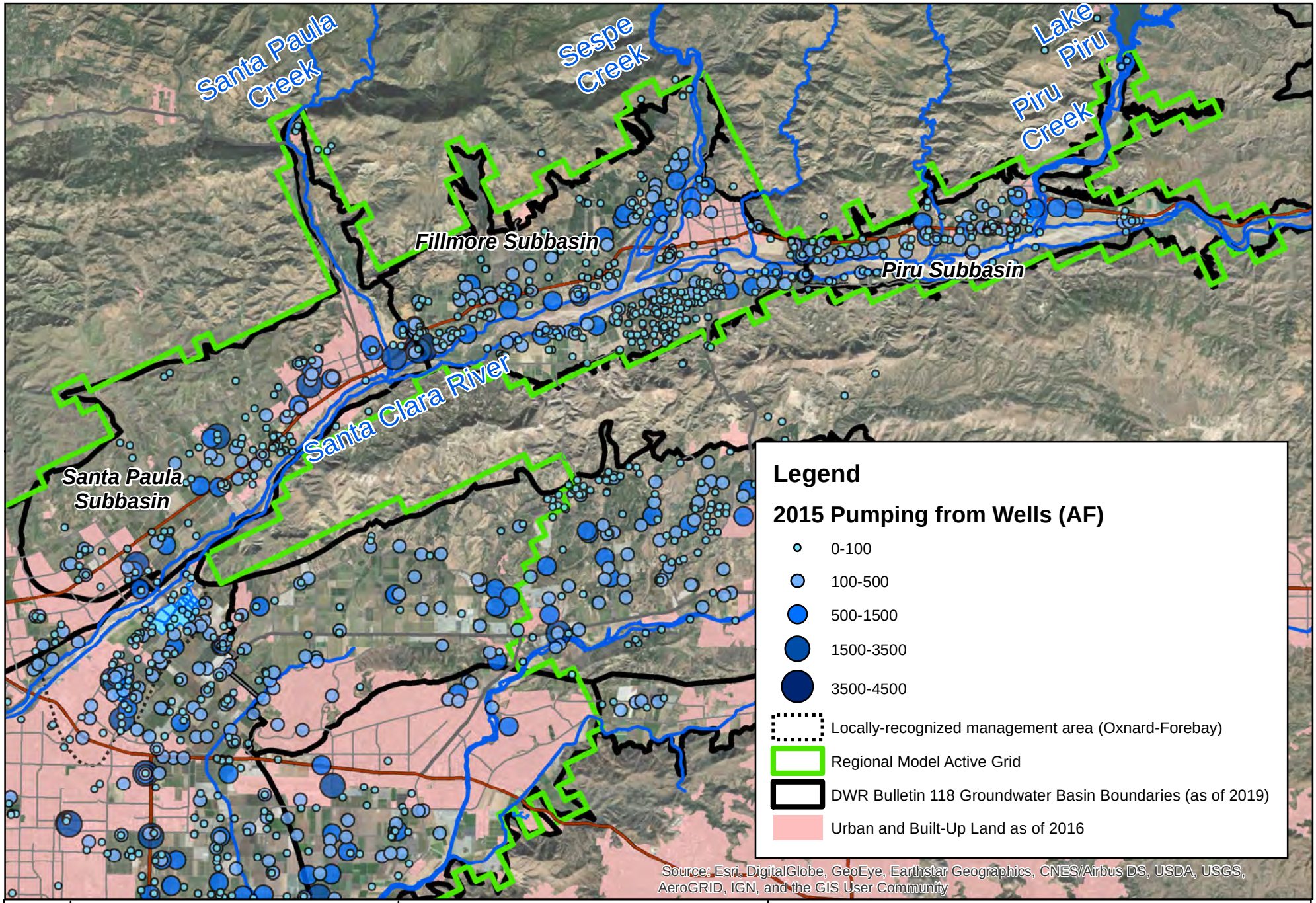

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Figure 2-27.
Locations of Groundwater Extractions
Calendar Year 2015

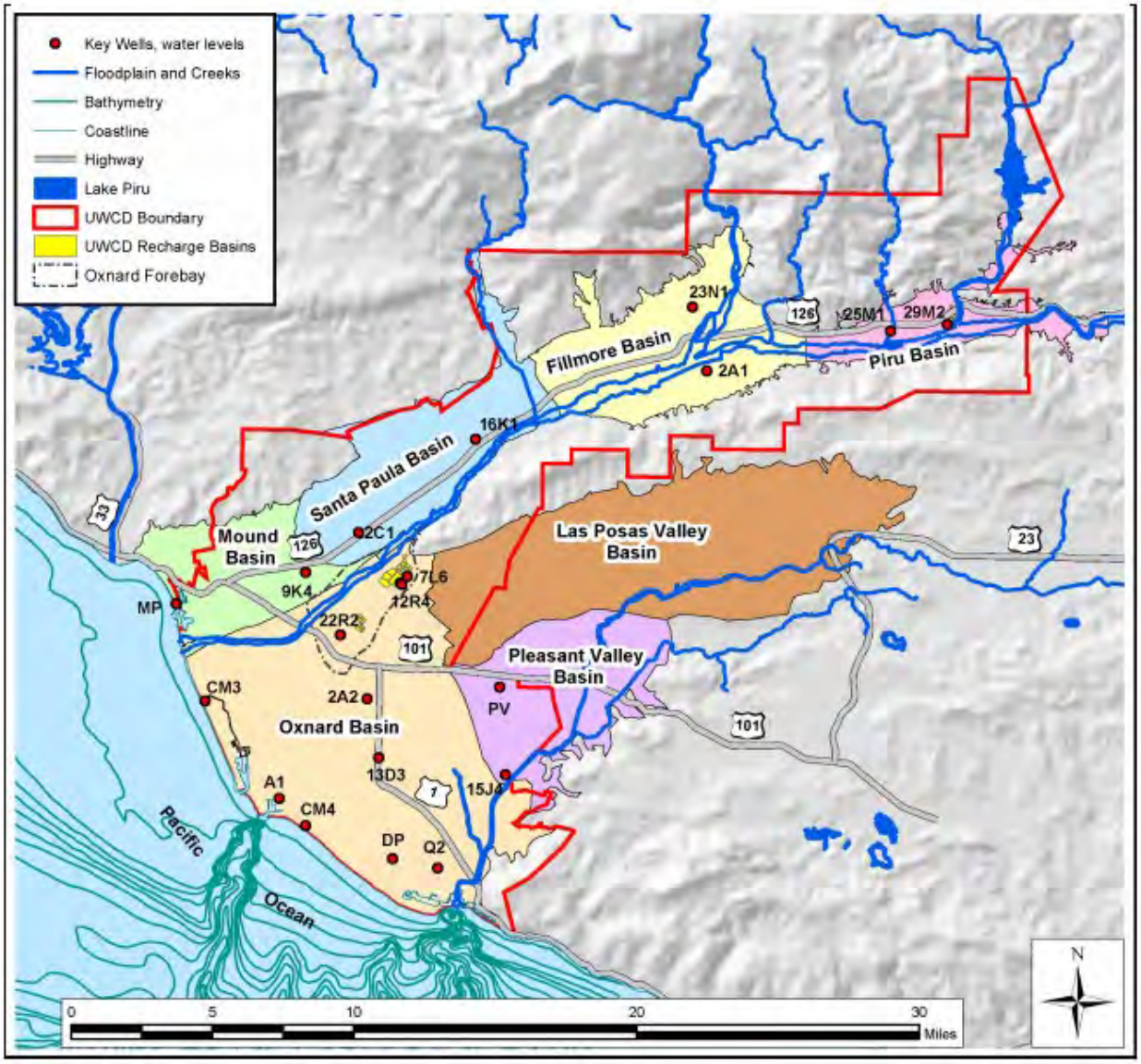

Figure 2-28. Location of Key Groundwater Monitoring Wells.

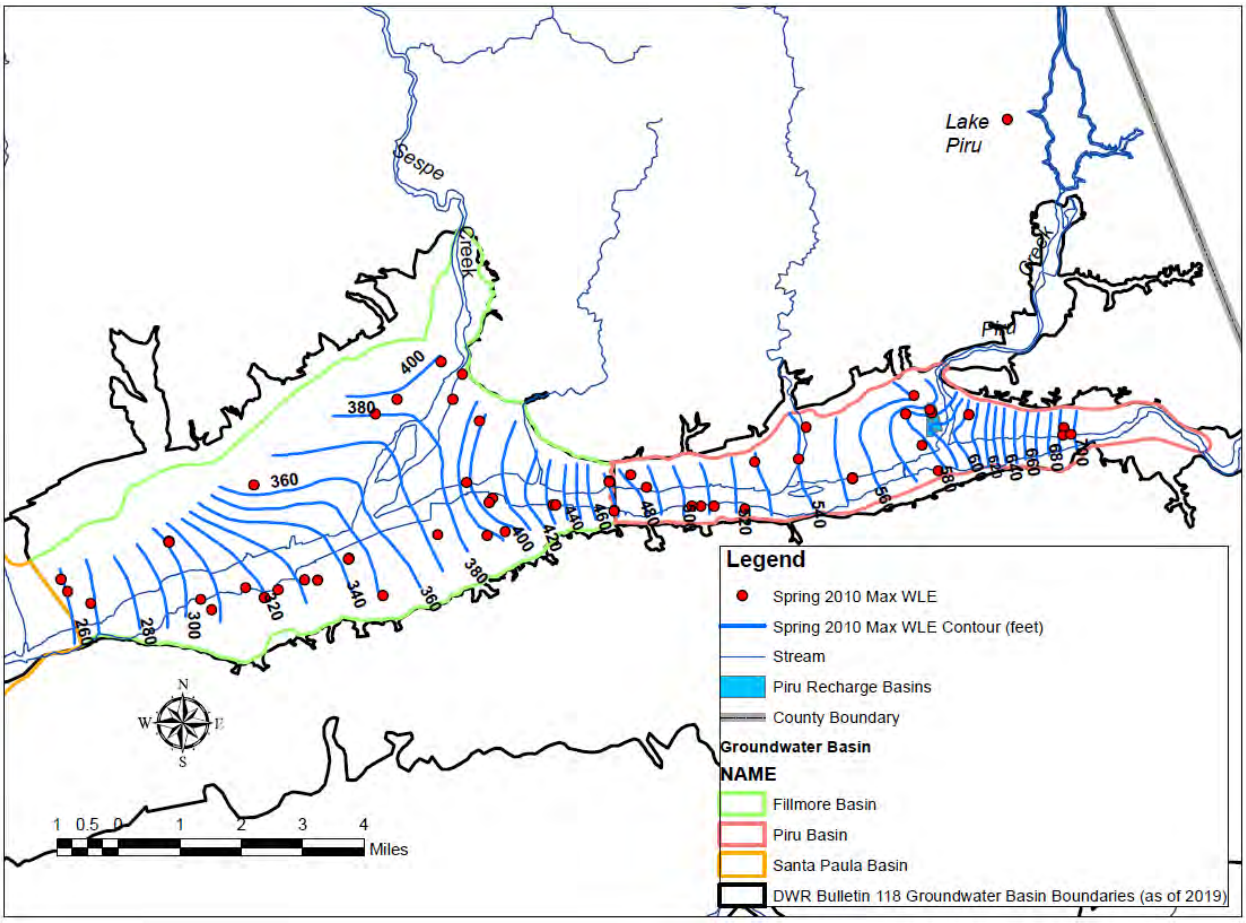

Figure 2-29. Spring 2010 Groundwater Elevation Contours for Piru and Fillmore Basins (United, 2013; Figure 20) Note: Historical GW basin boundaries that were representative in source report are included in addition to the updated DWR (2019) basin boundaries.

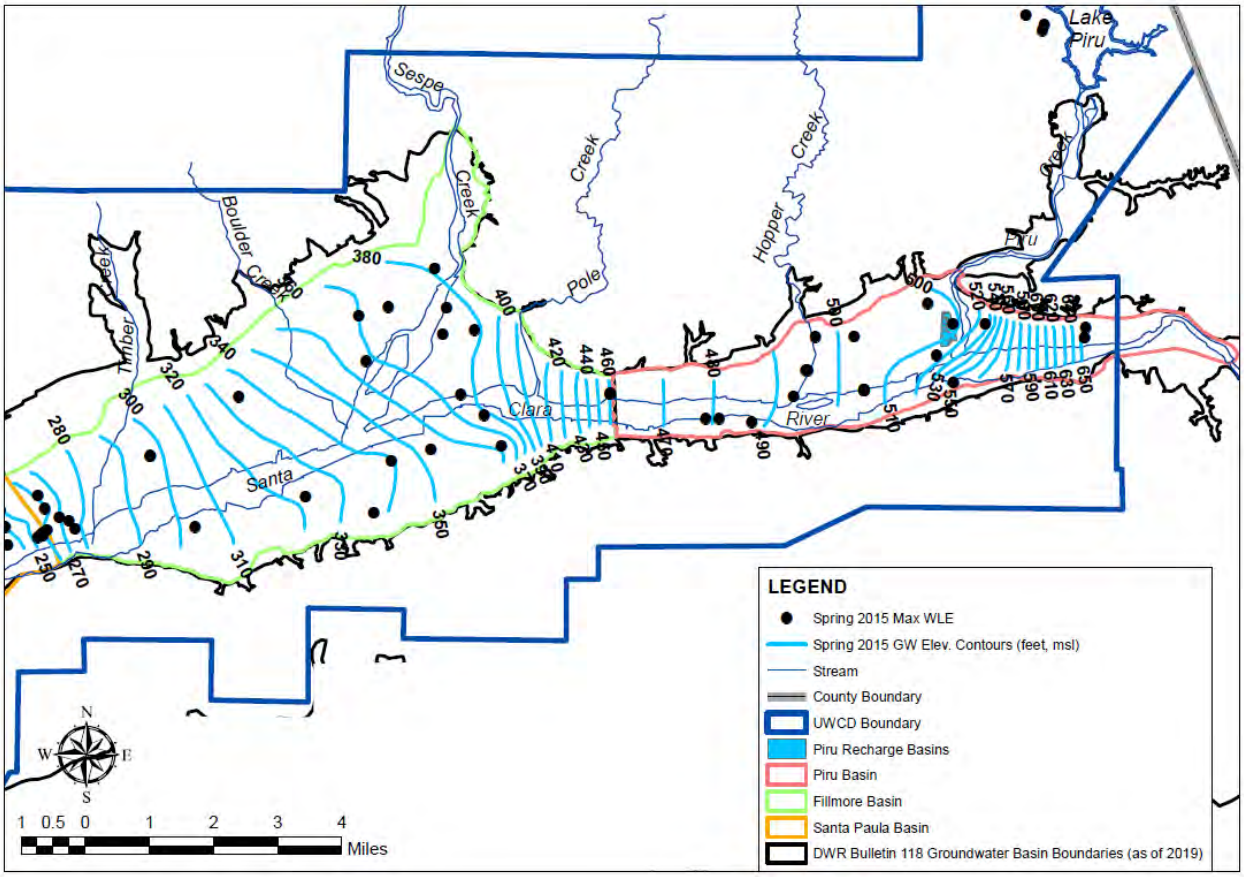

Figure 2-30. Spring 2015 Groundwater Elevation Contours for Piru and Fillmore Basins (United, 2016; Figure 5) Note: Historical GW basin boundaries that were representative in source report are included in addition to the updated DWR (2019) basin boundaries.

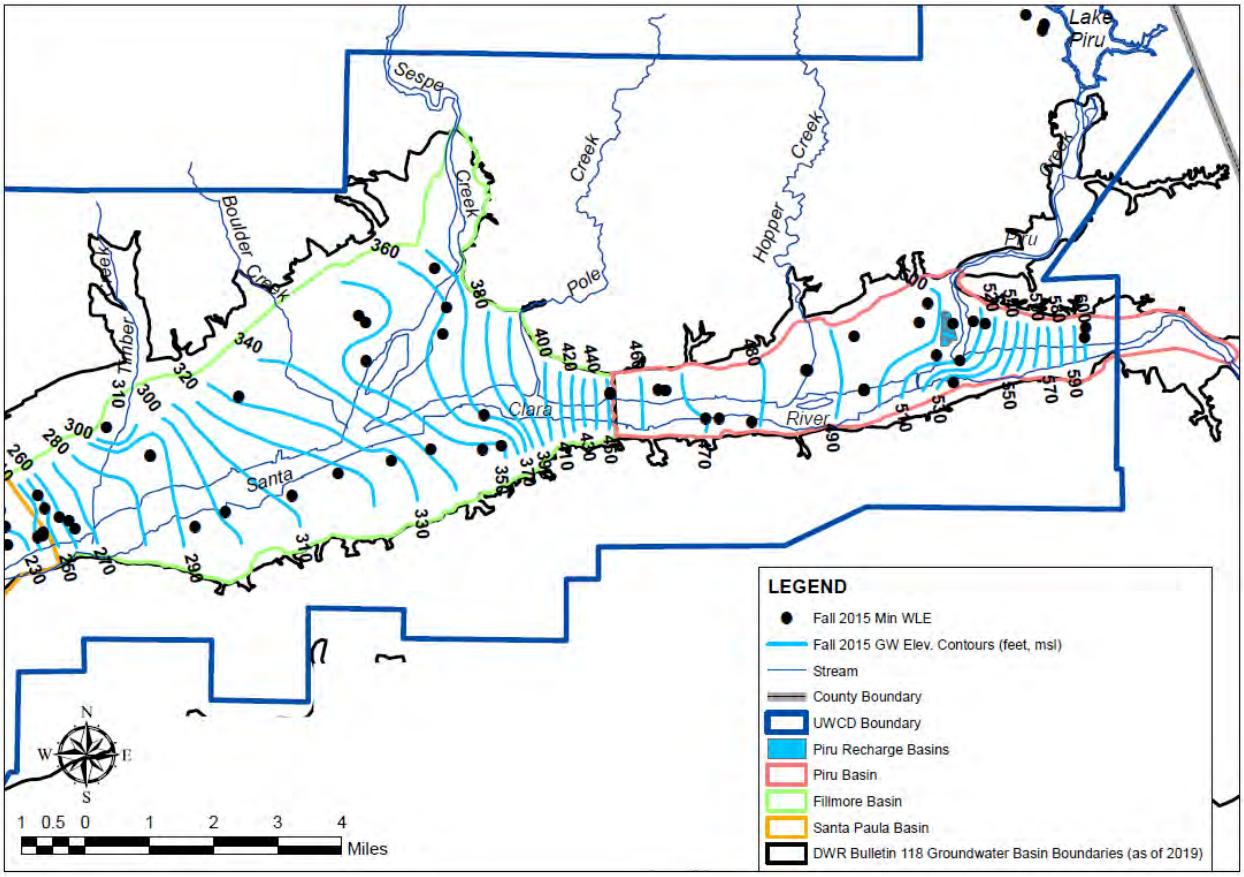

Figure 2-31. Fall 2015 Groundwater Elevation Contours for Piru and Fillmore Basins (United, 2016; Figure 6). Note: Historical GW basin boundaries that were representative in source report are included in addition to the updated DWR (2019) basin boundaries.

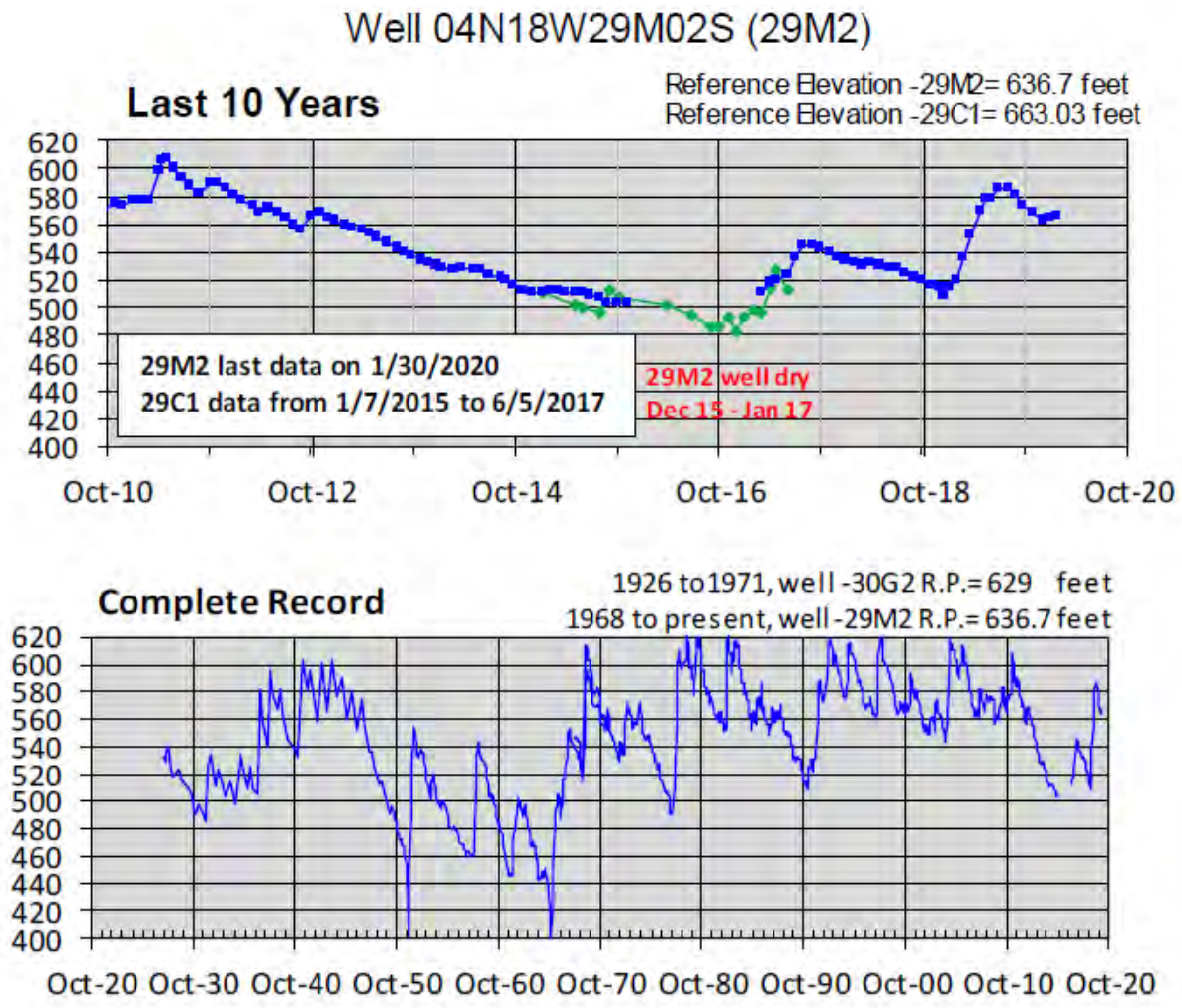

Figure 2-32. Piru Basin Key Well 29M2 (04N18W29M02S) Time-Series for the Last 10 Years and for the Complete Record (United, 2020; Page 4)

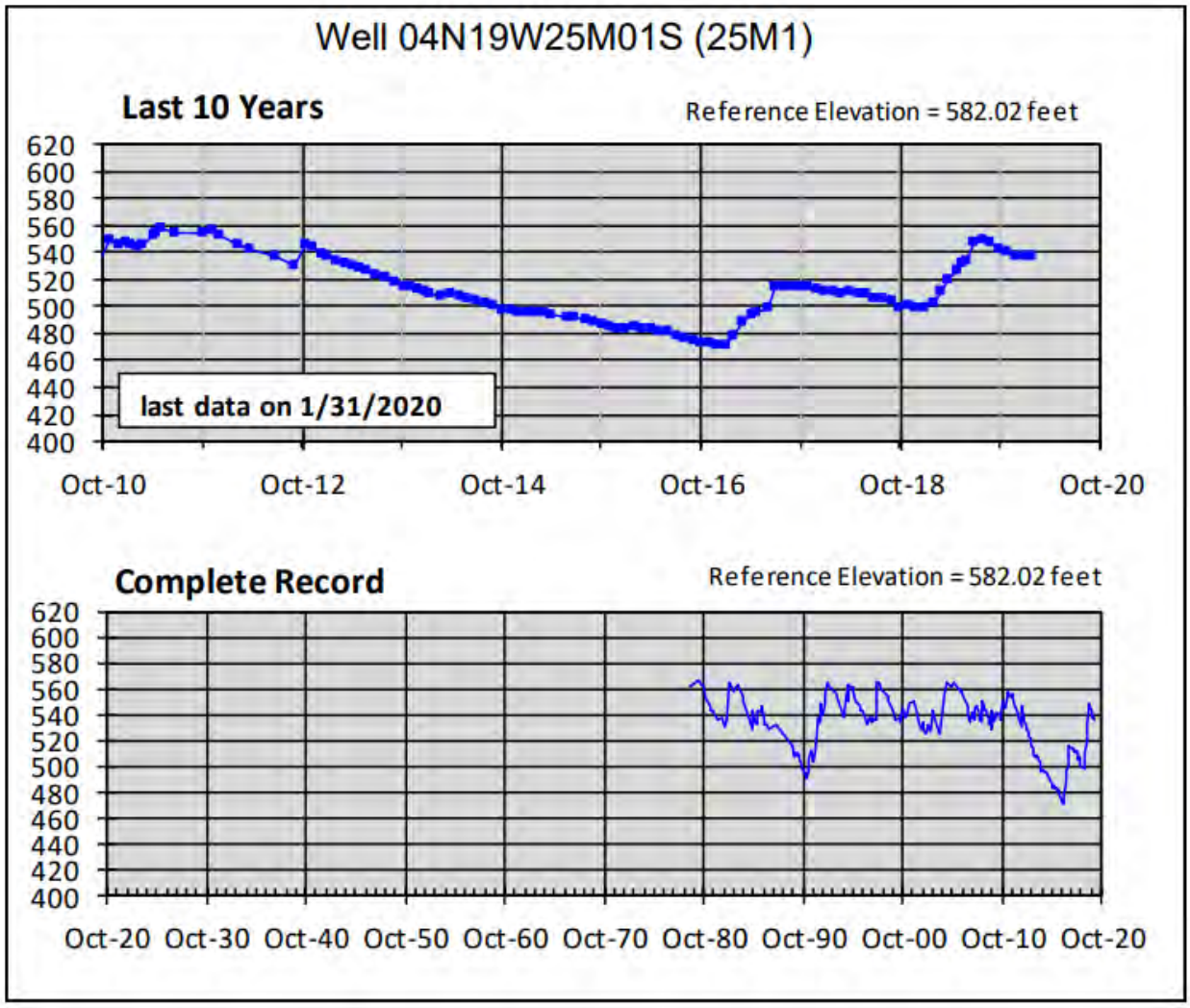

Figure 2-33. Piru Basin Key Well 25M1 (04N19W25M01S) Time-Series for the Last 10 Years and for the Complete Record (United, 2020; Page 4)

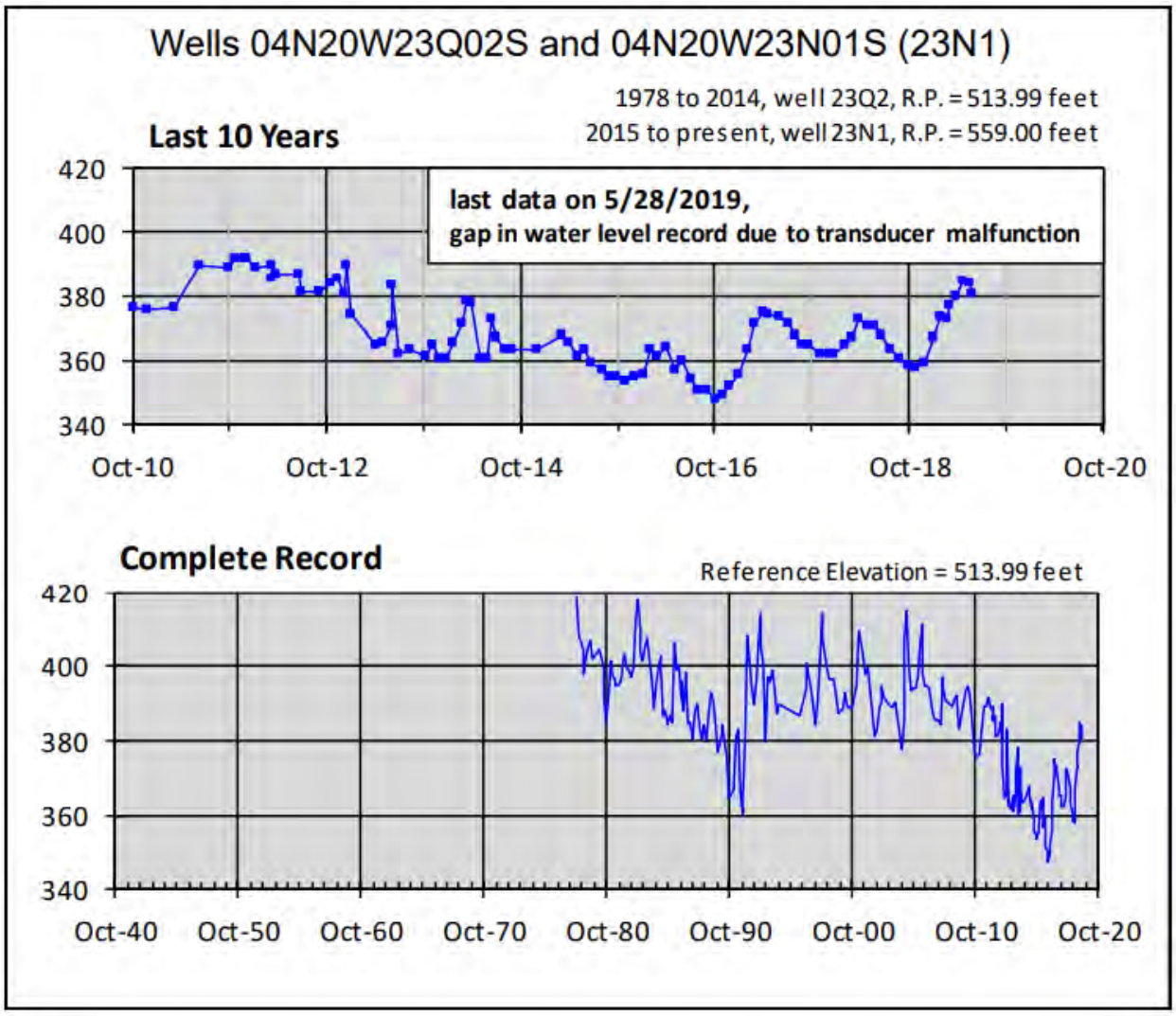

Figure 2-34. Fillmore Basin Key Well 23N1 (04N20W23Q02S and 04N20W23N01S) Time-Series for the Last 10 Years and for the Complete Record (United, 2020; Page 5)

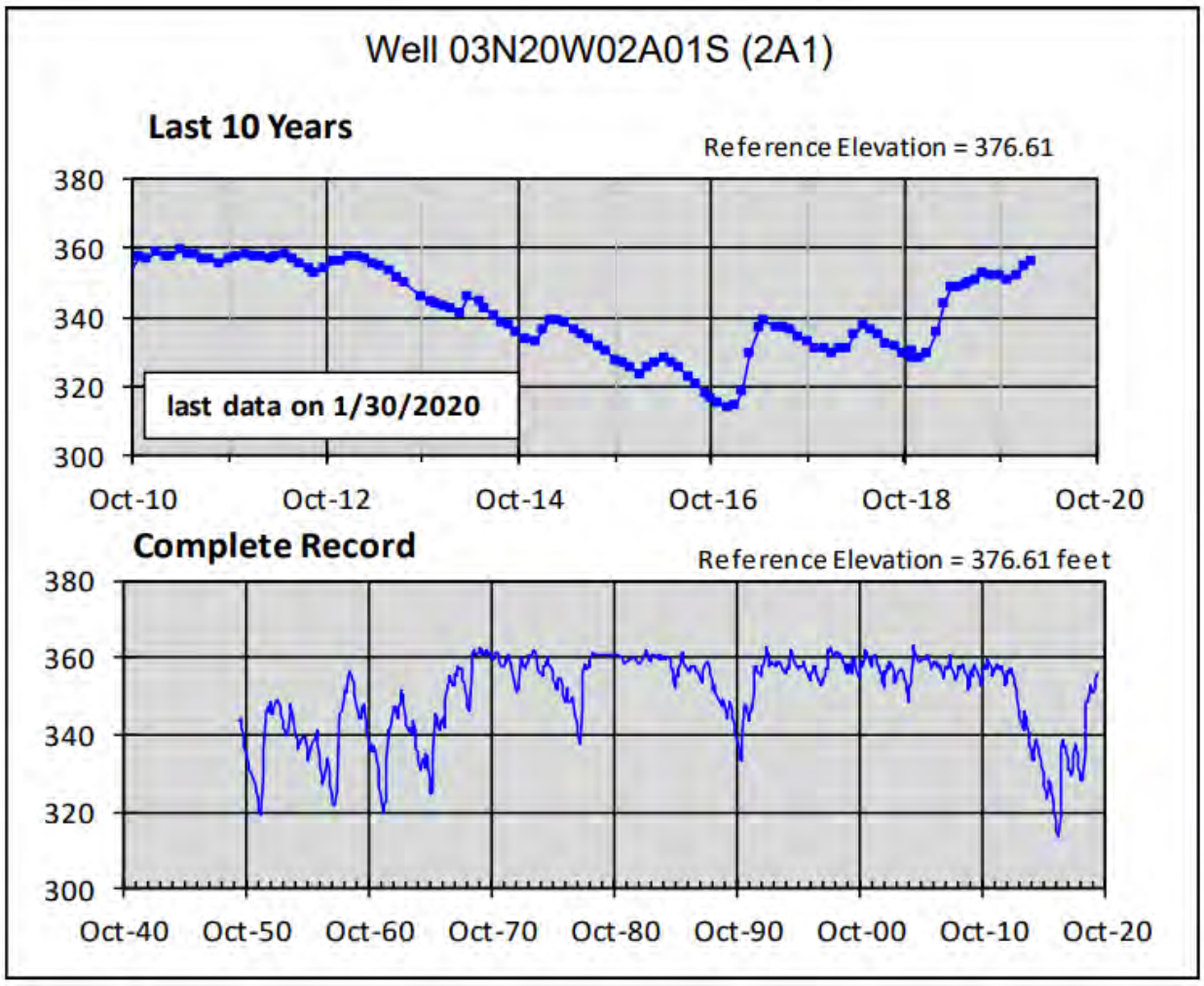

Figure 2-35. Fillmore Basin Key Well 2A1 (03N20W02A01S) Time-Series for the last 10 years and for the Complete Record (United, 2020; Page 5)

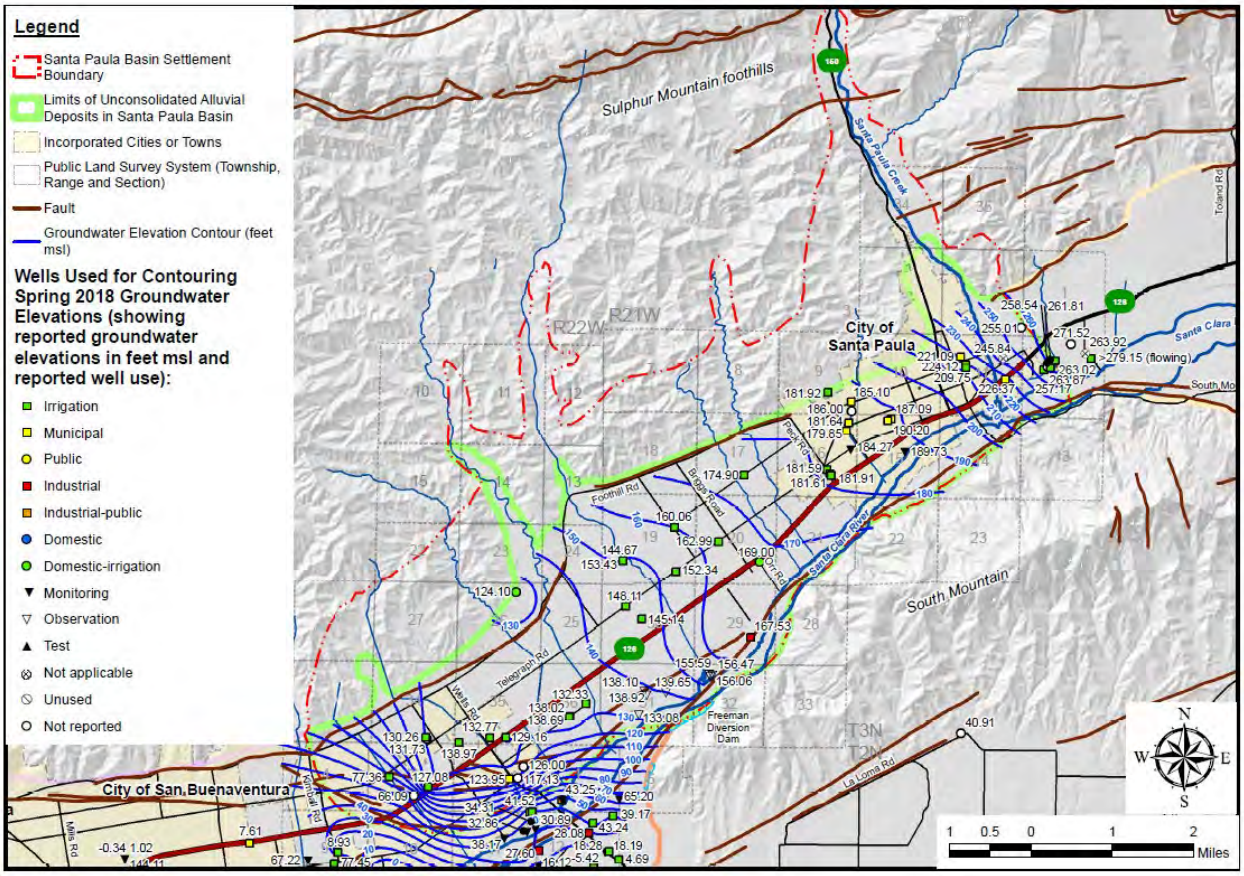

Figure 2-36. Spring 2018 groundwater elevation contours for Santa Paula basin (United, 2020; Figure 14). Generally representative for contouring over 1985-2015 simulation period

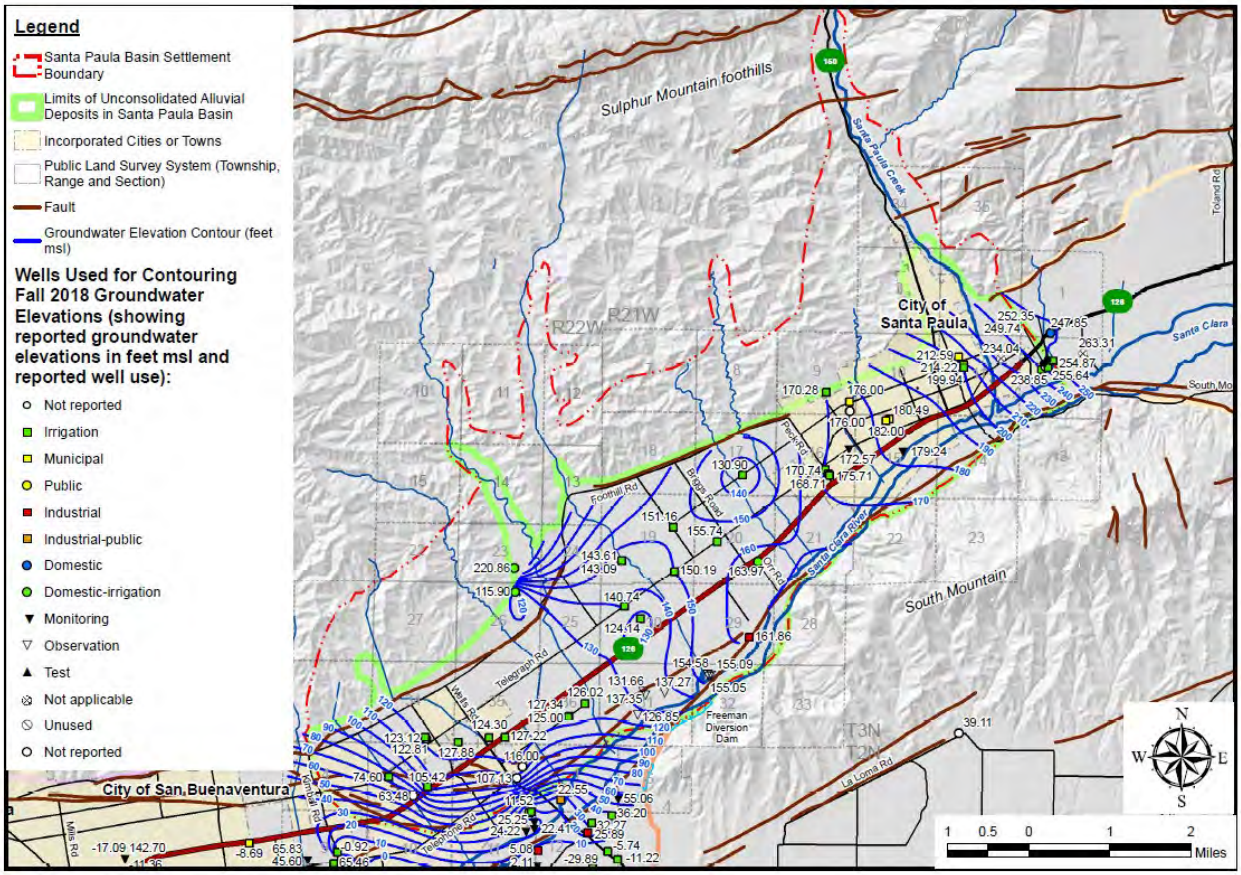

Figure 2-37. Fall 2018 Groundwater Elevation Contours for Santa Paula Basin (United, 2020; Figure 15). Generally representative for contouring over 1985-2015 simulation period

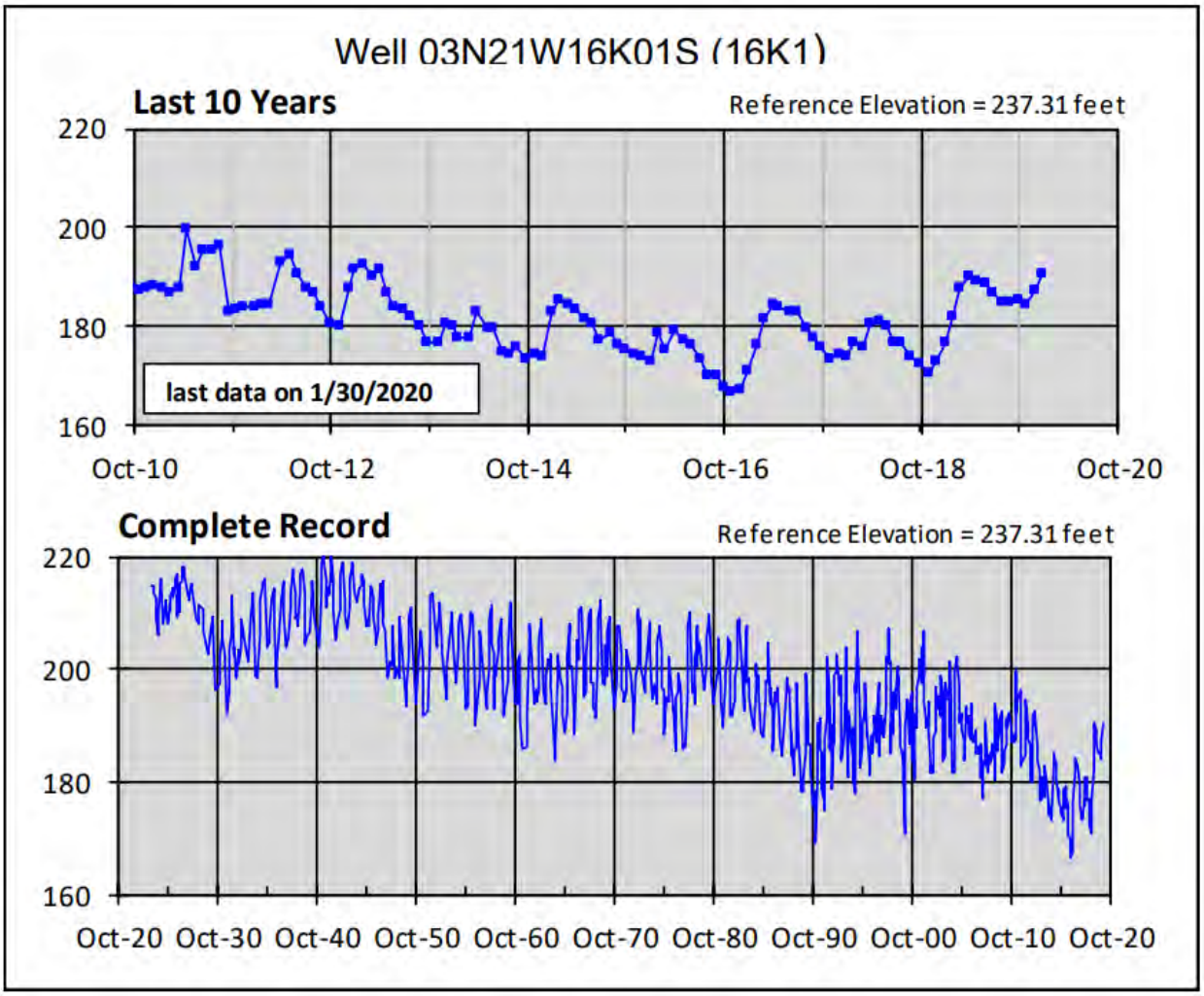

Figure 2-38. Santa Paula Basin Key Well 16K1 Time-Series for the Last 10 years and for the Complete Record (United, 2020; Page 5)

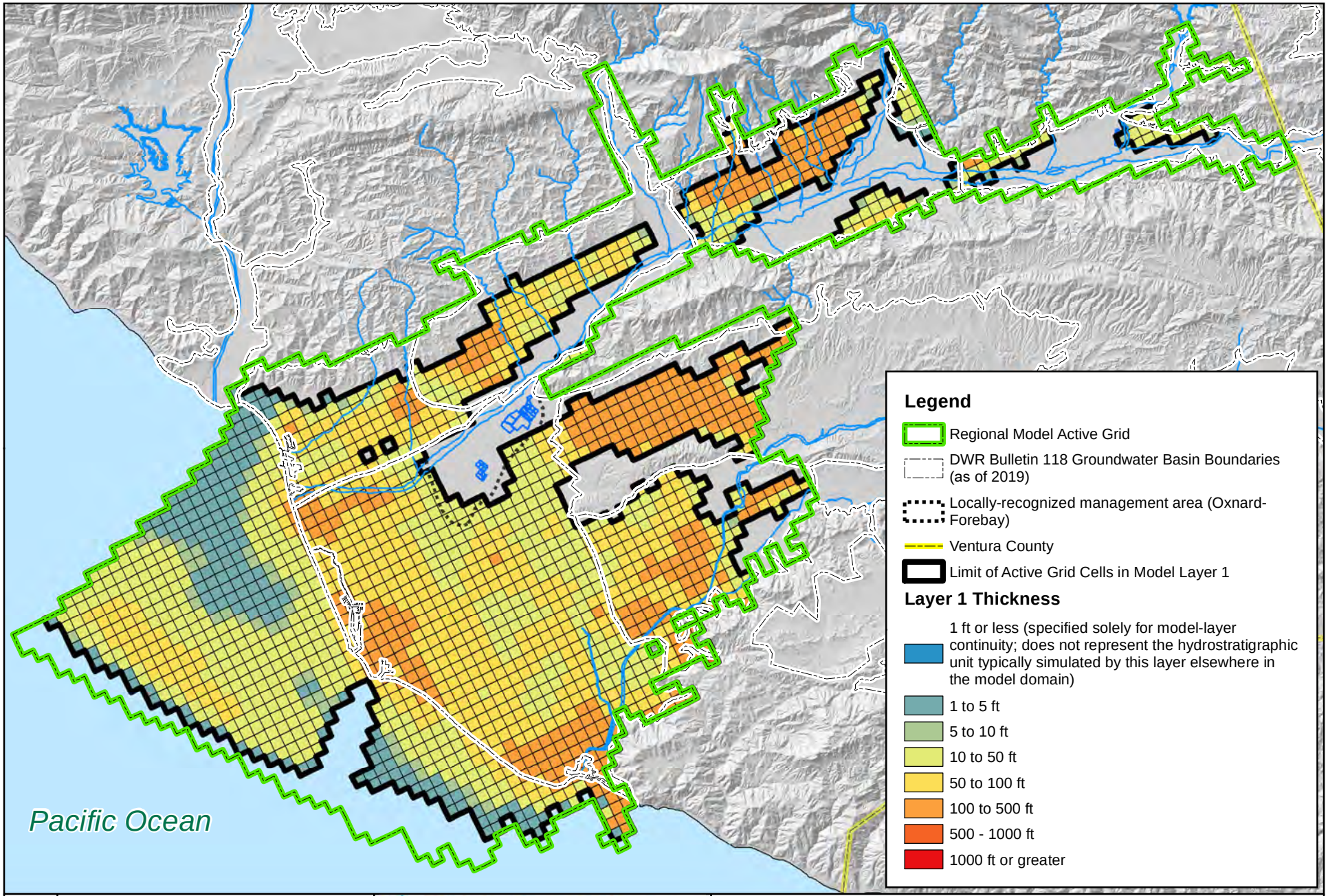

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Figure 3-1.
Thickness and Extent of Model Layer 1

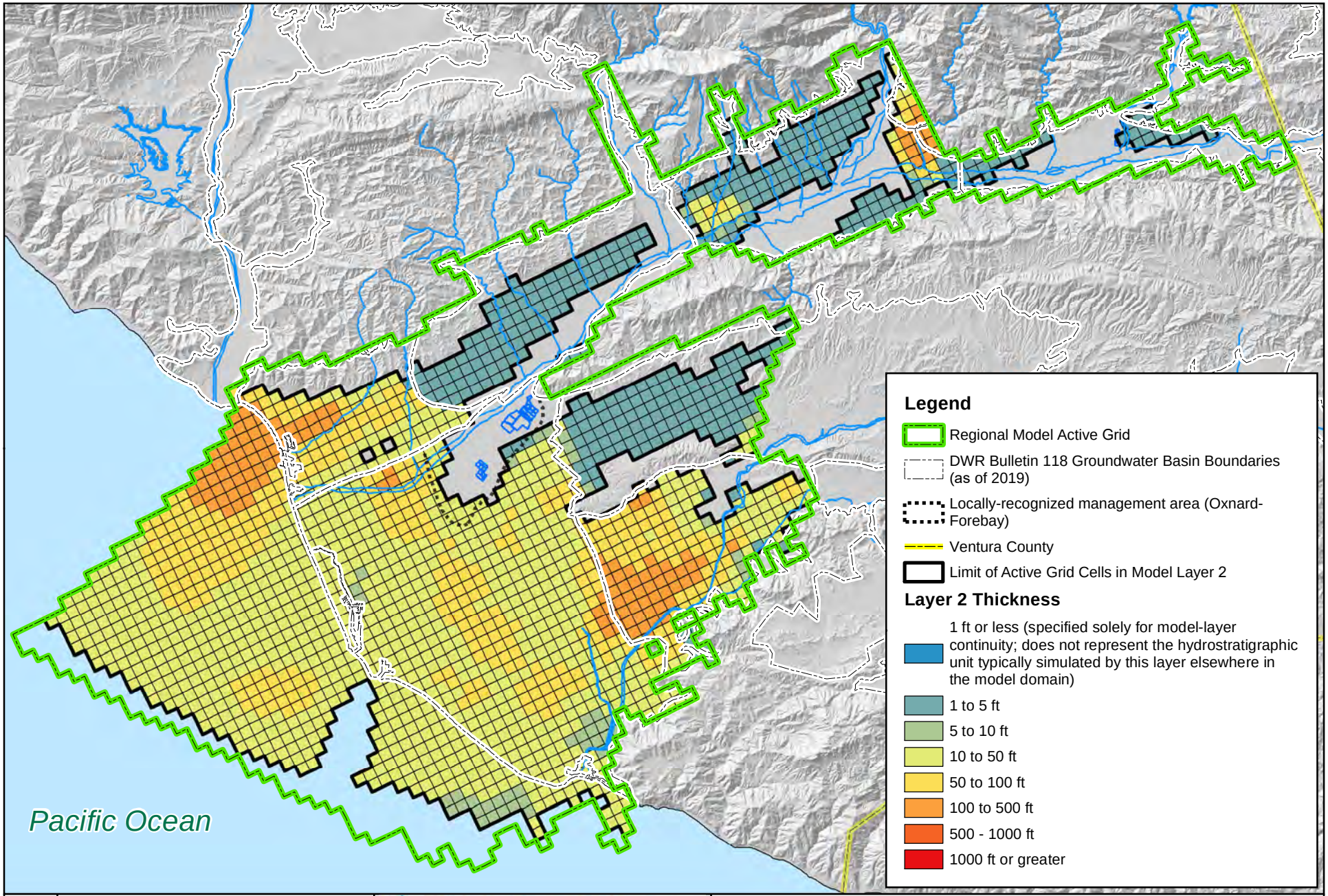

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Figure 3-2.
Thickness and Extent of Model Layer 2

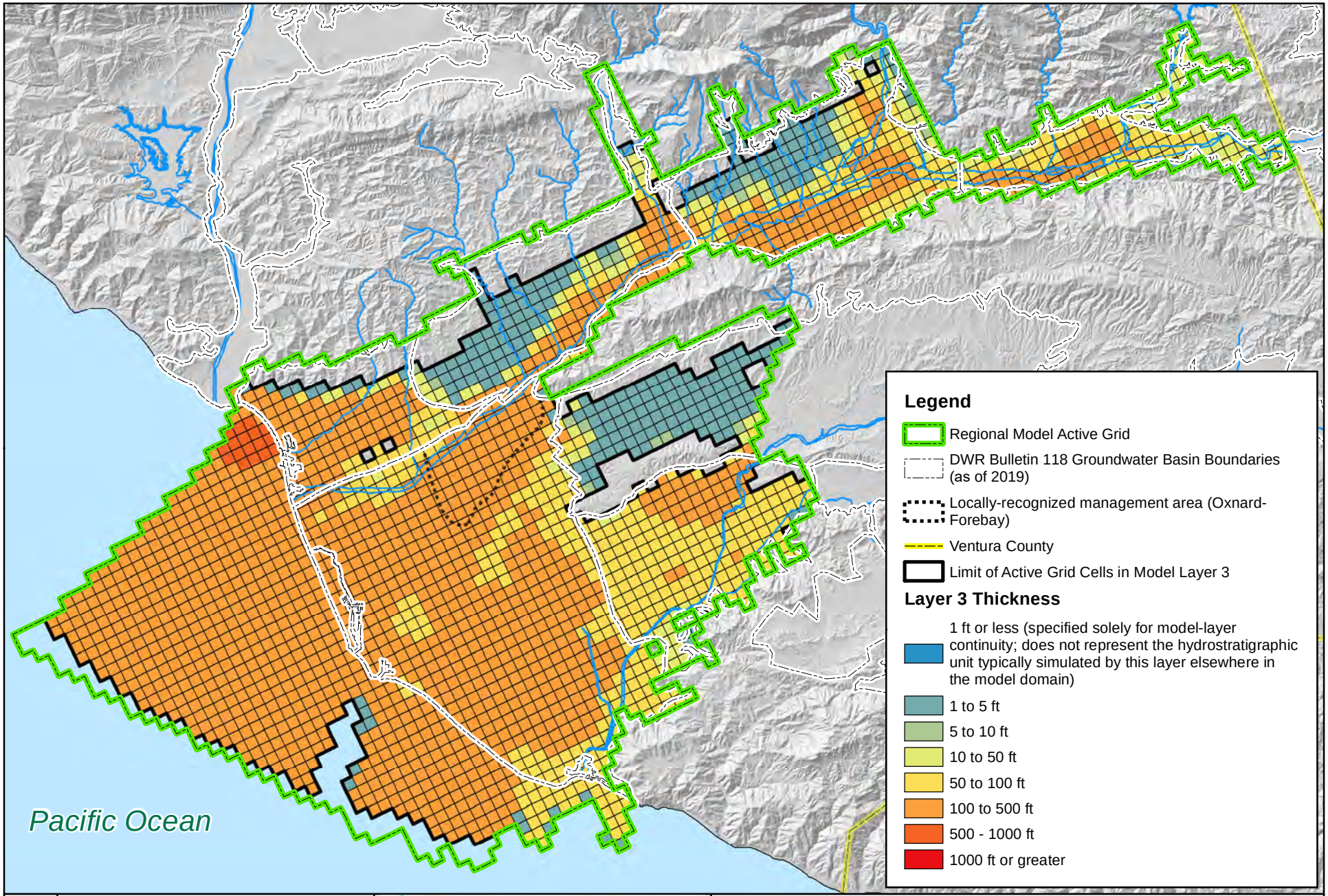

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Figure 3-3.
Thickness and Extent of Model Layer 3

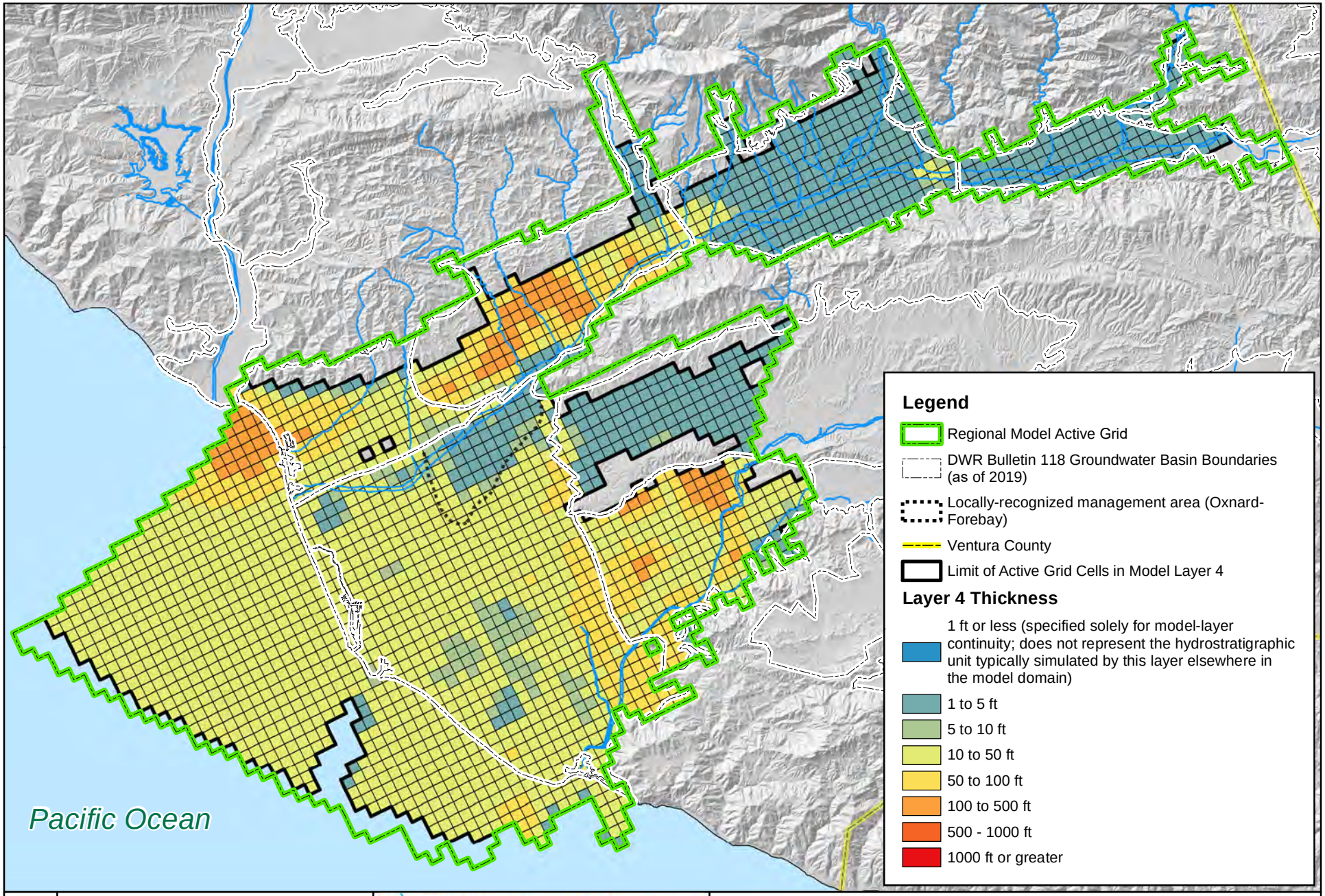

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Figure 3-4.
Thickness and Extent of Model Layer 4

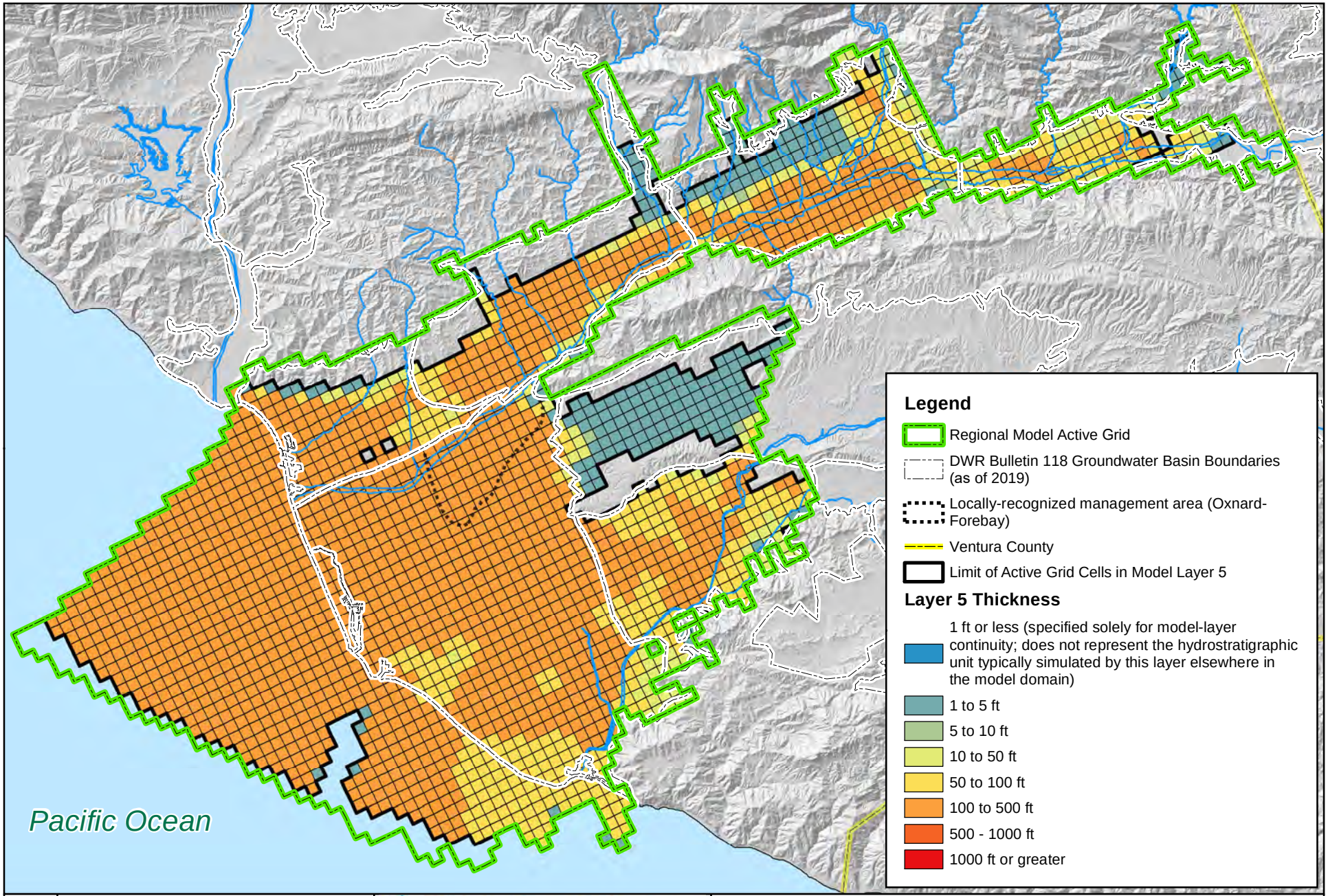

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Figure 3-5.
Thickness and Extent of Model Layer 5

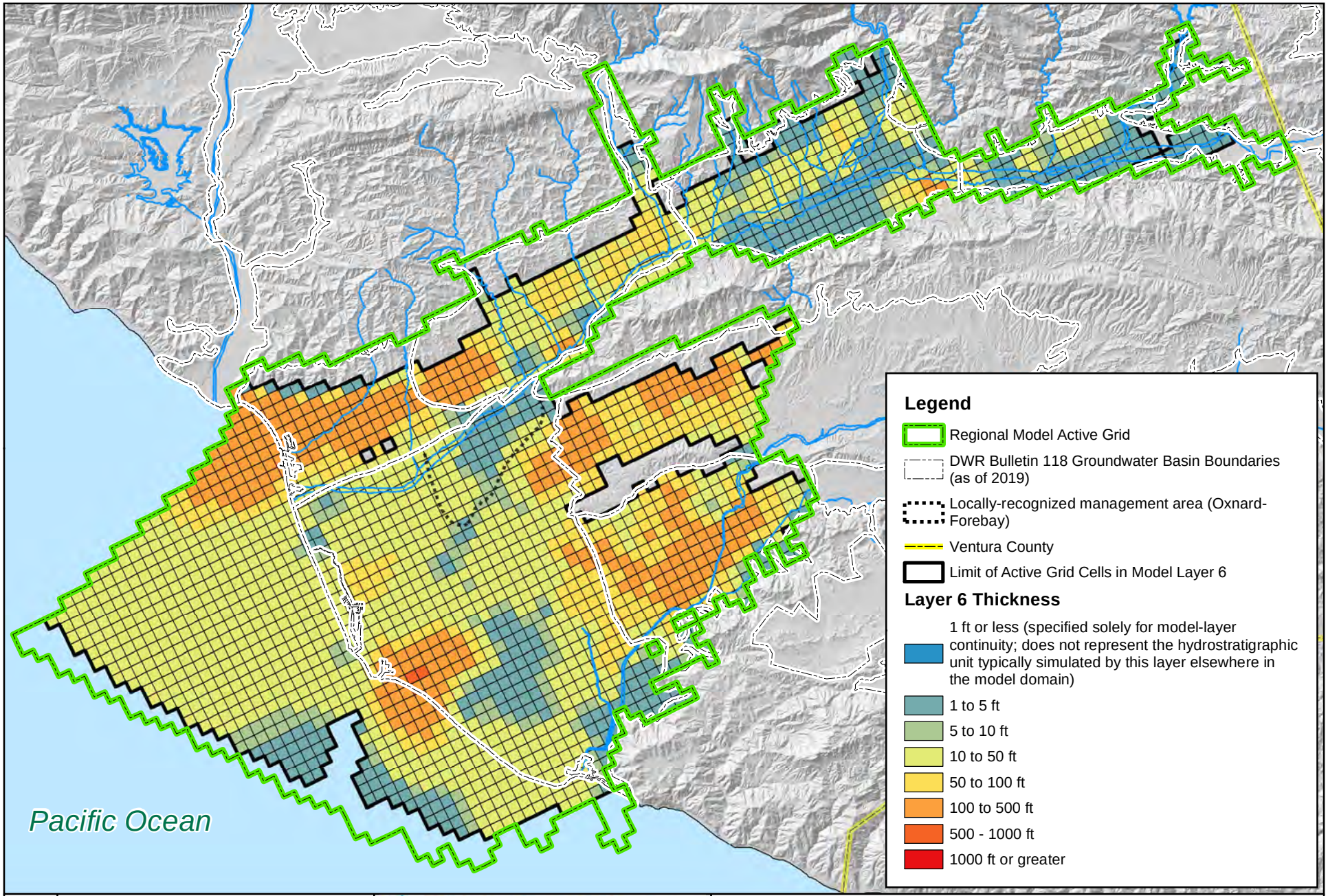

Figure 3-6.
Thickness and Extent of Model Layer 6

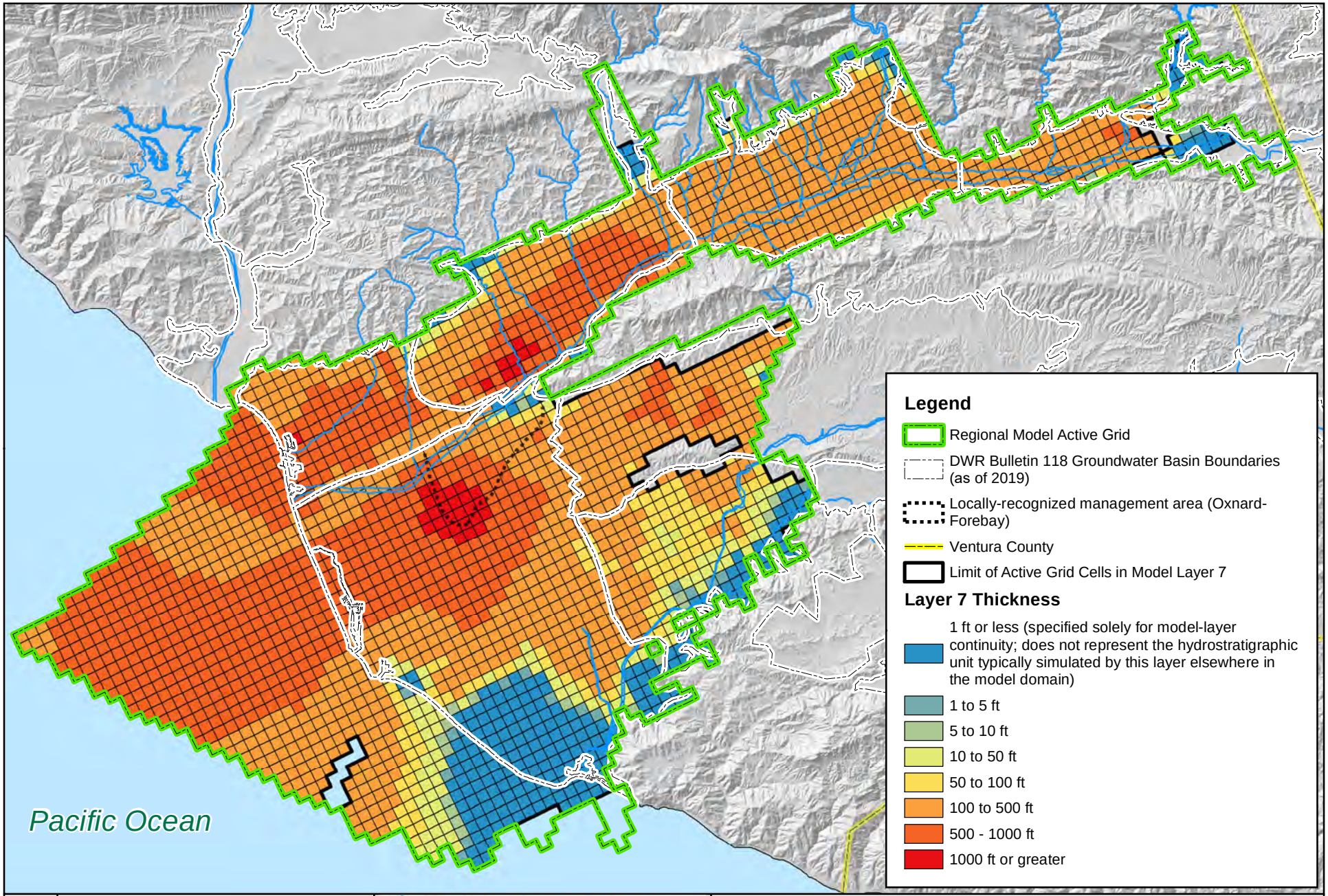

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Figure 3-7.
Thickness and Extent of Model Layer 7

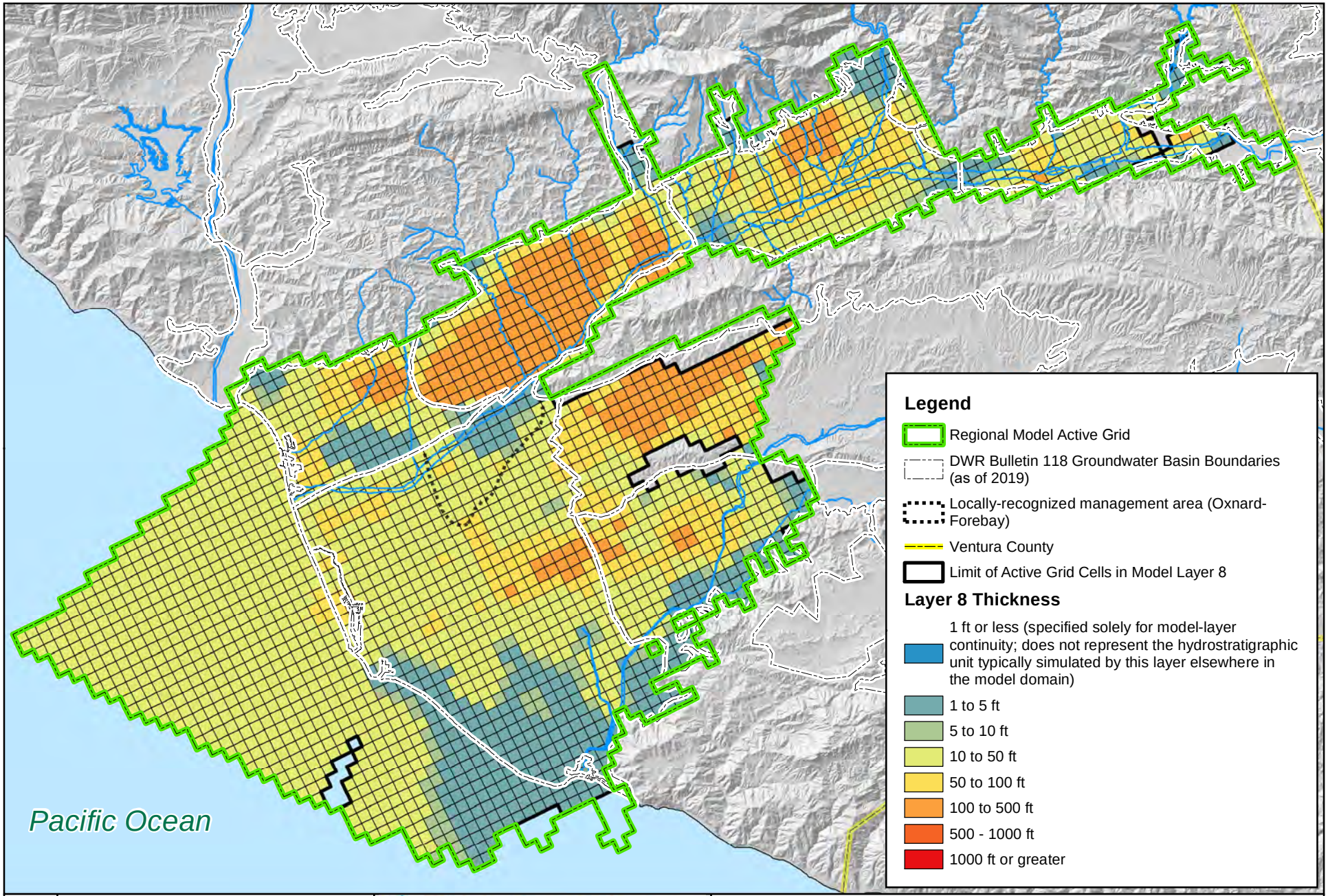

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Figure 3-8.
Thickness and Extent of Model Layer 8

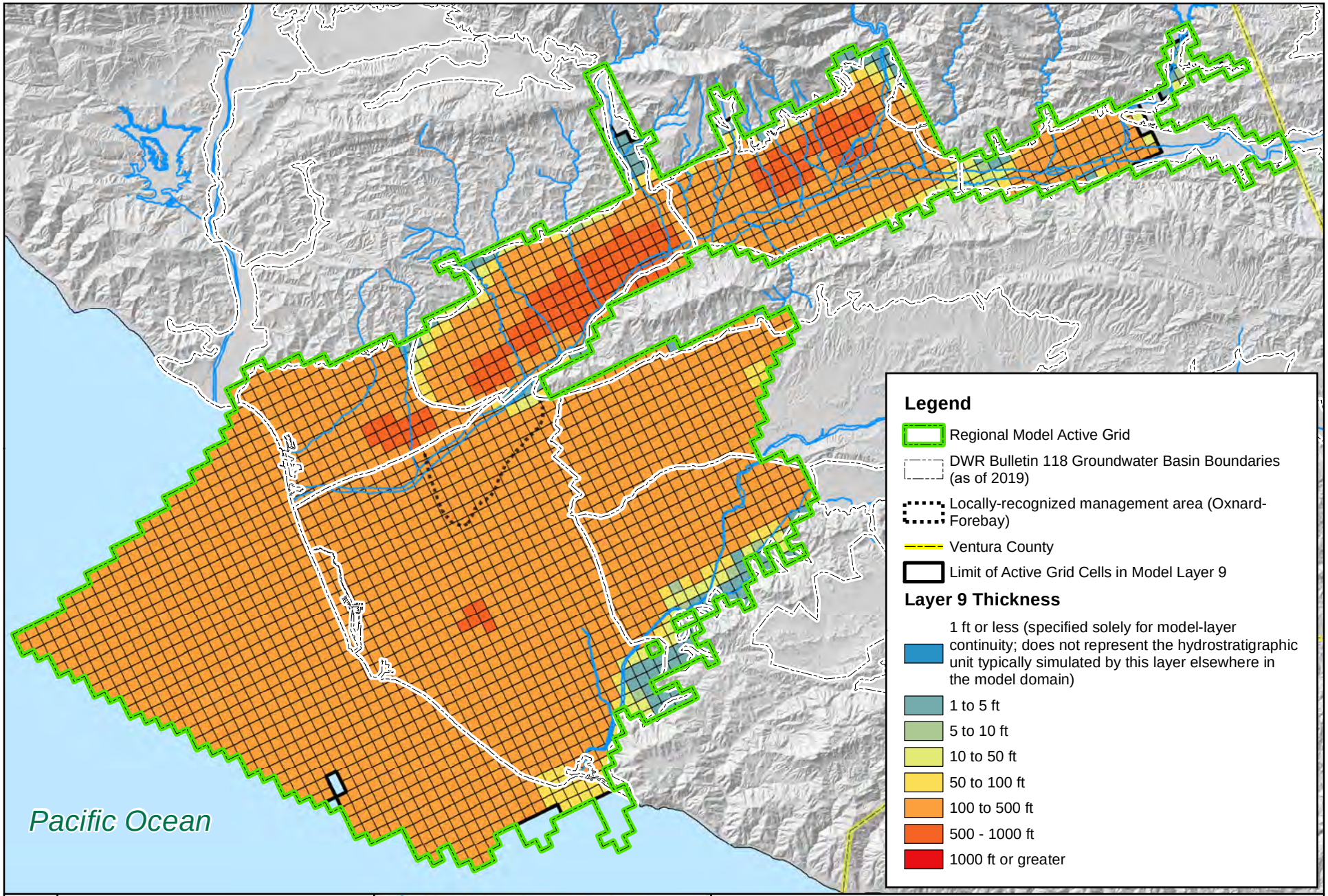

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Figure 3-9.
Thickness and Extent of Model Layer 9

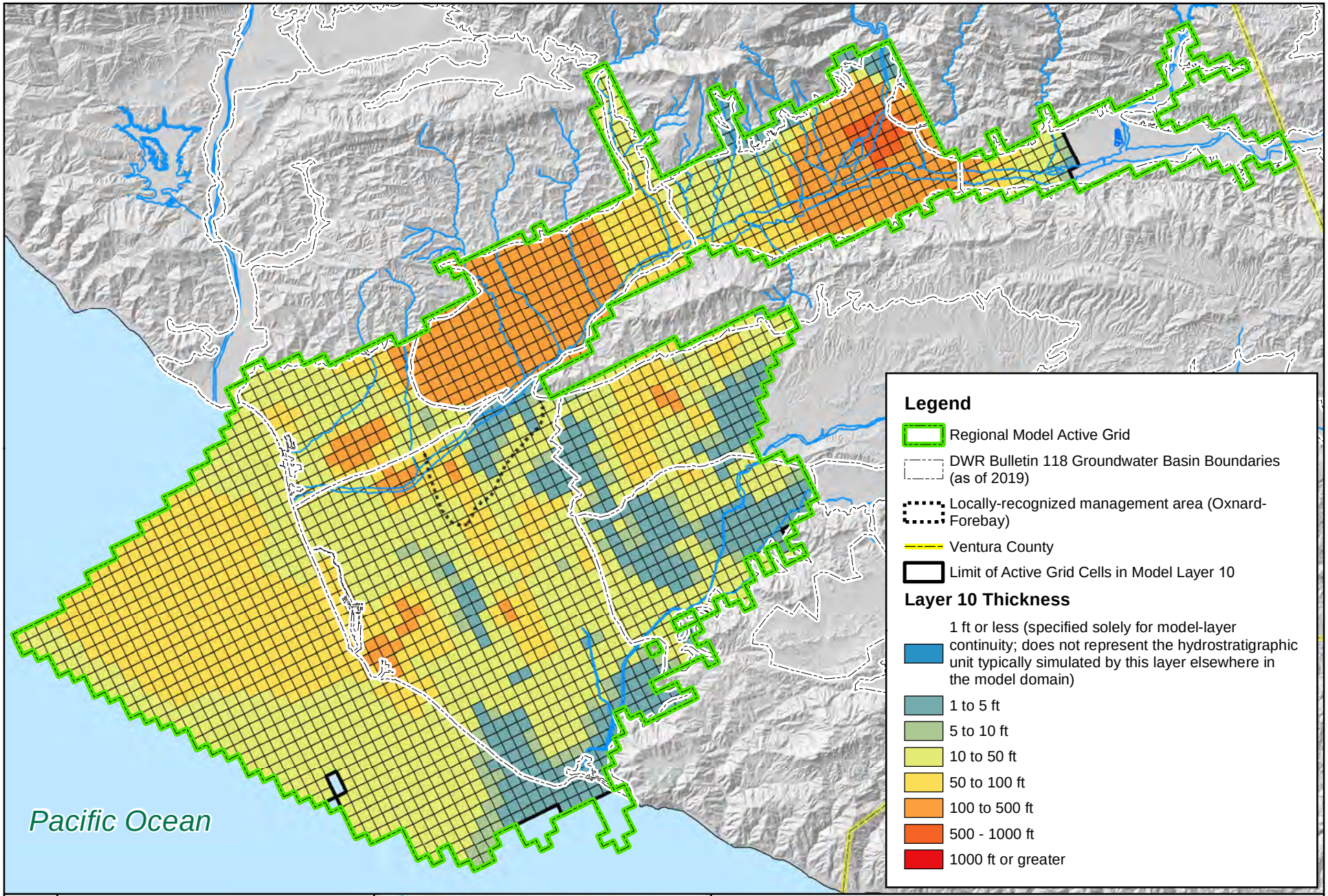

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Figure 3-10.
Thickness and Extent of Model Layer 10

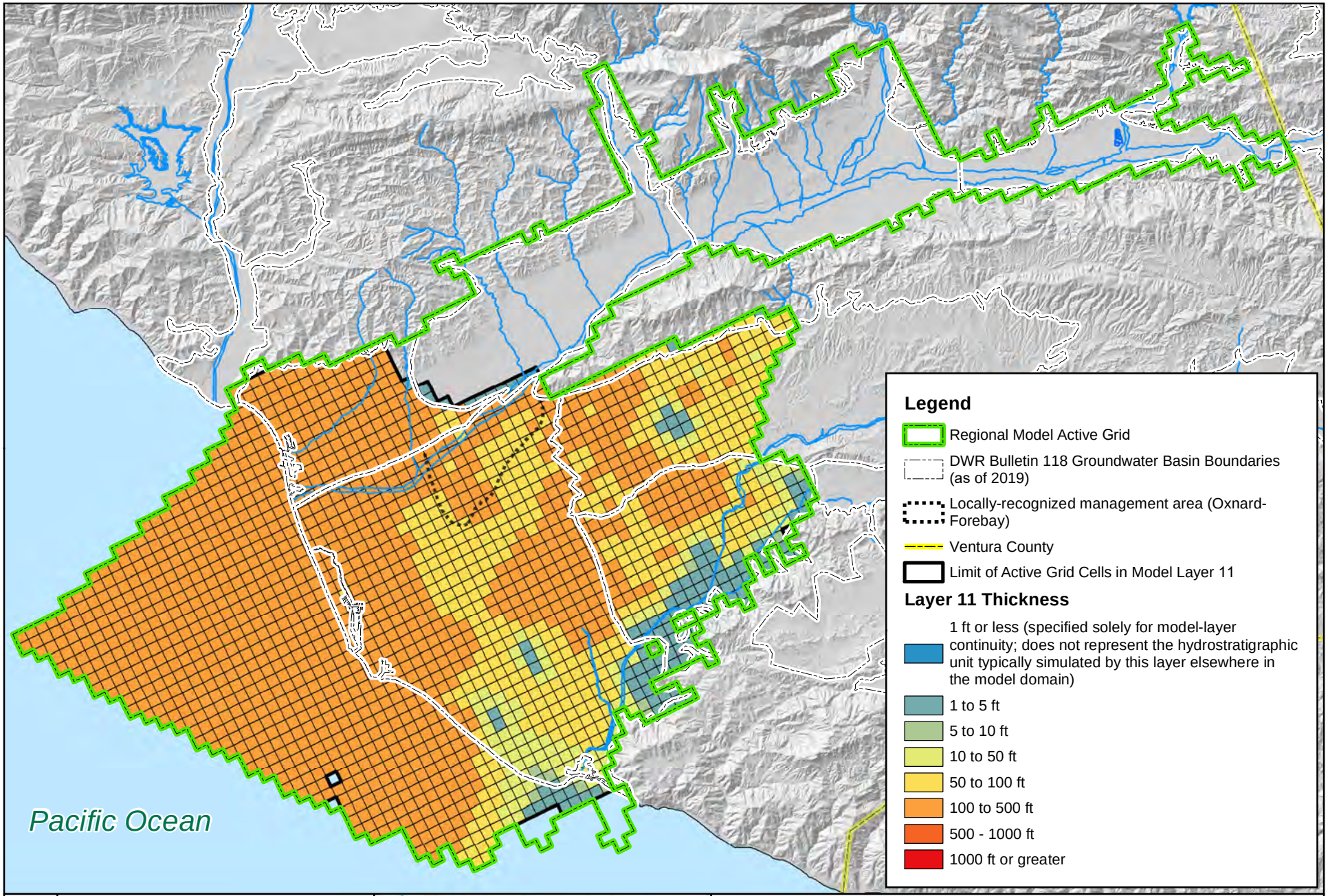

Figure 3-11.
Thickness and Extent of Model Layer 11

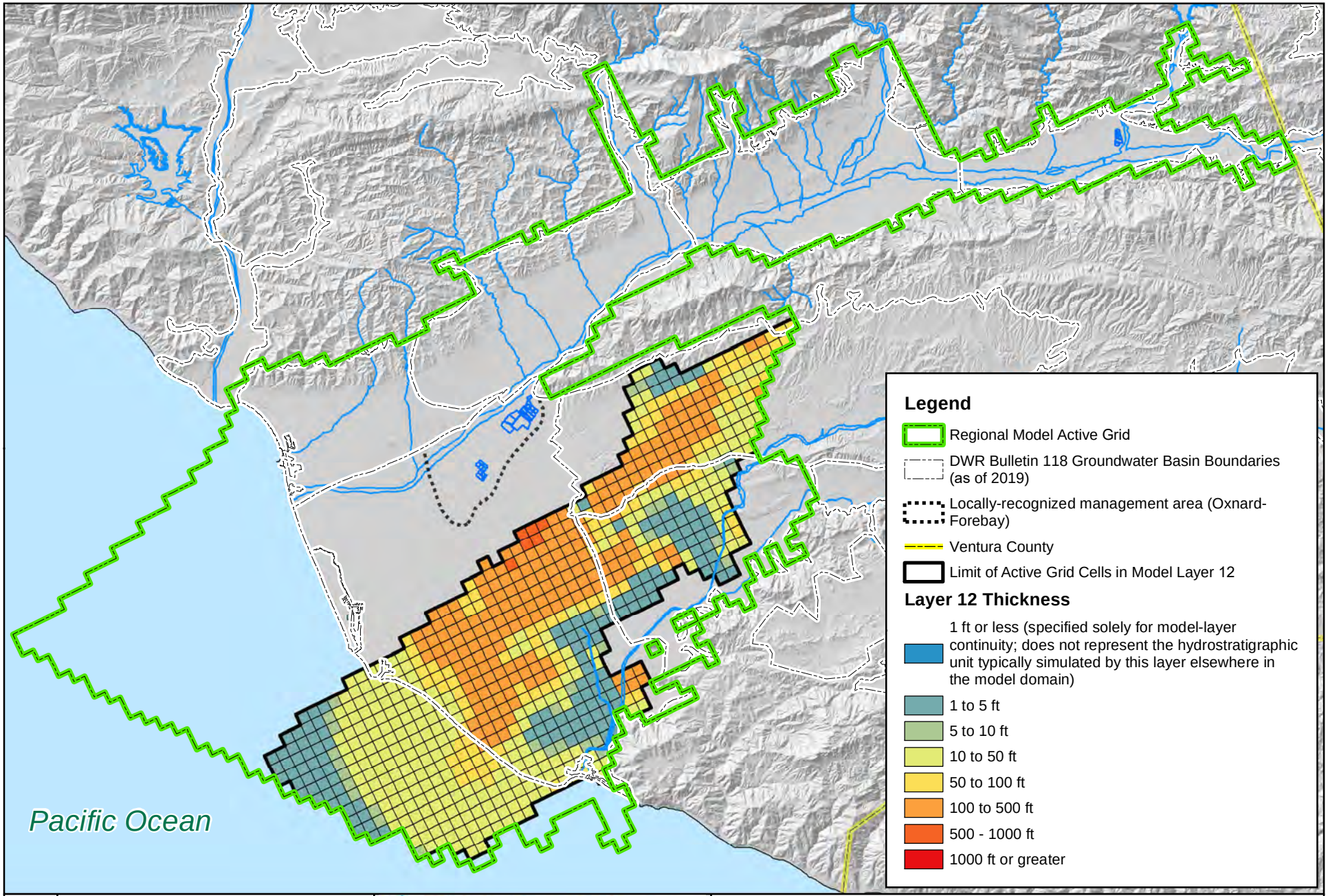

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Figure 3-12.
Thickness and Extent of Model Layer 12

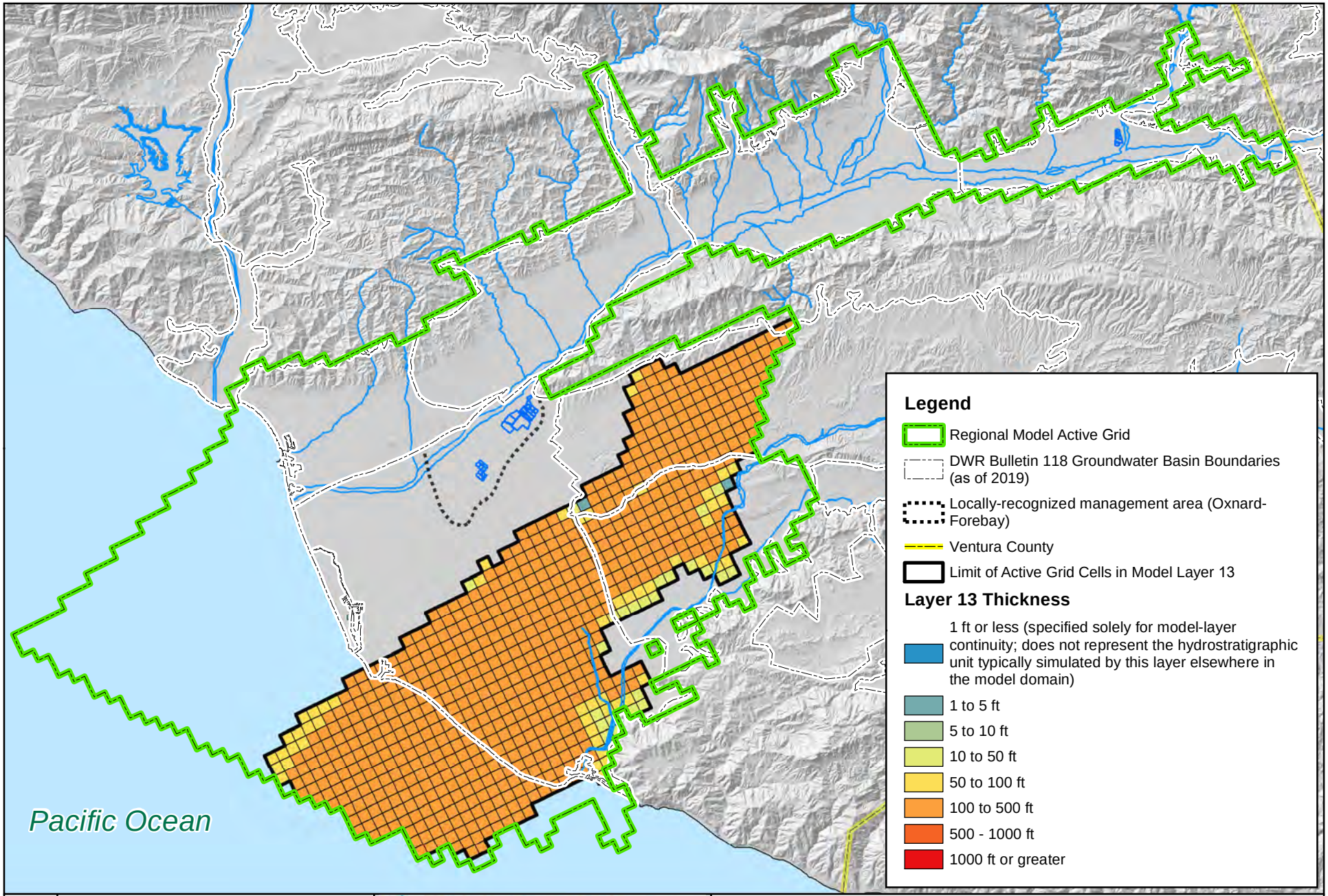

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Figure 3-13.
Thickness and Extent of Model Layer 13

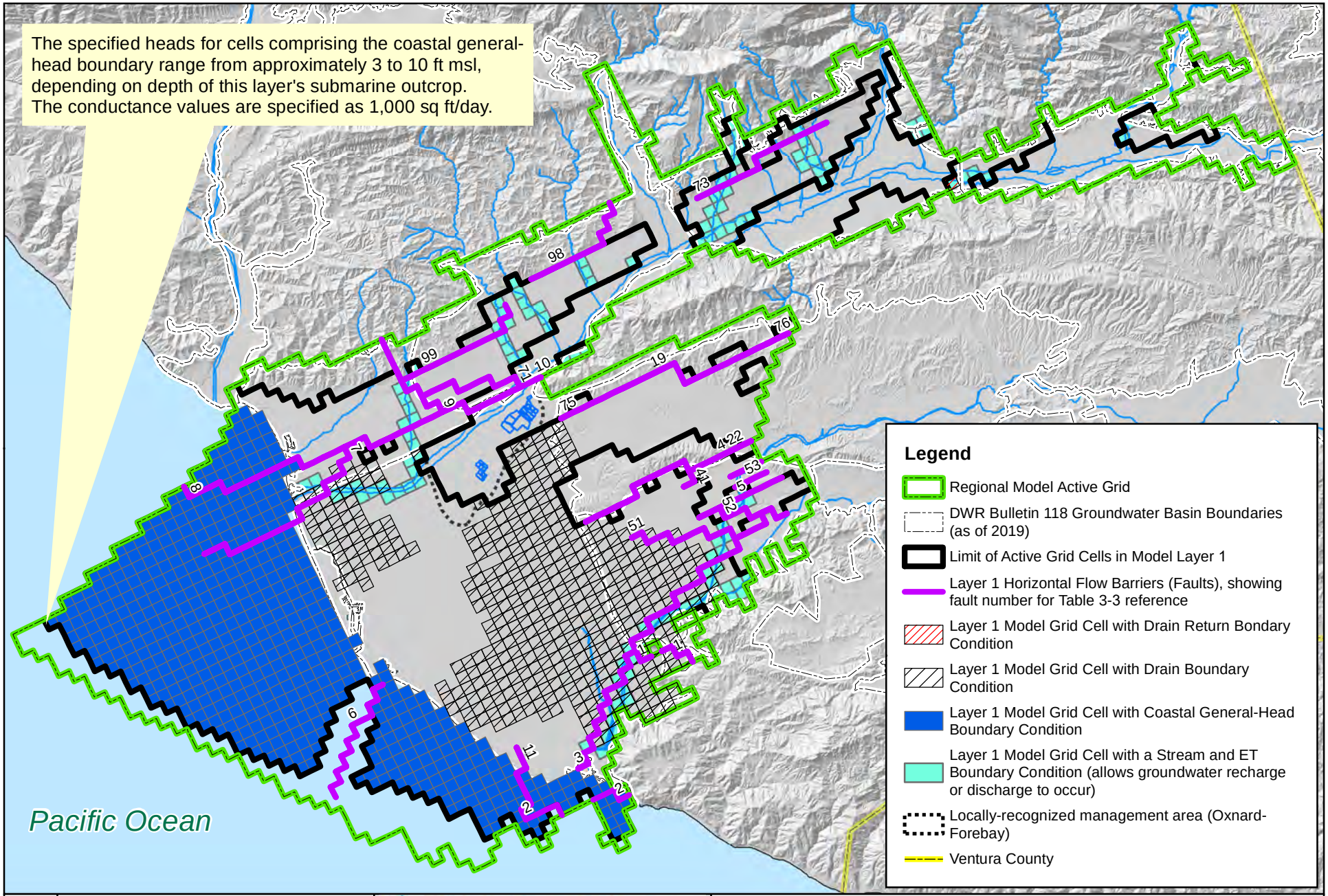

Figure 3-14.
Boundary Conditions of Model Layer 1

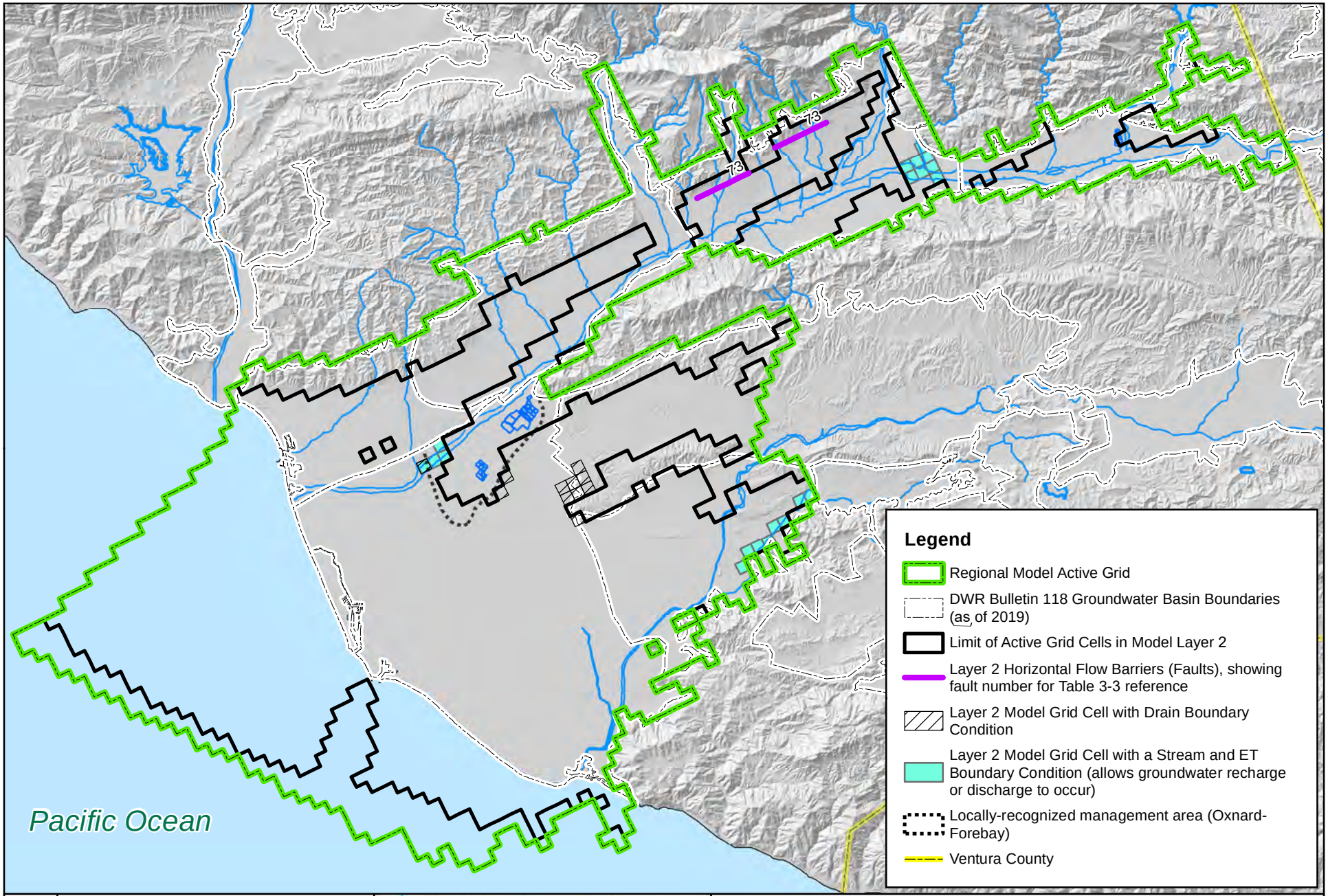

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Figure 3-15.
Boundary Conditions of Model Layer 2

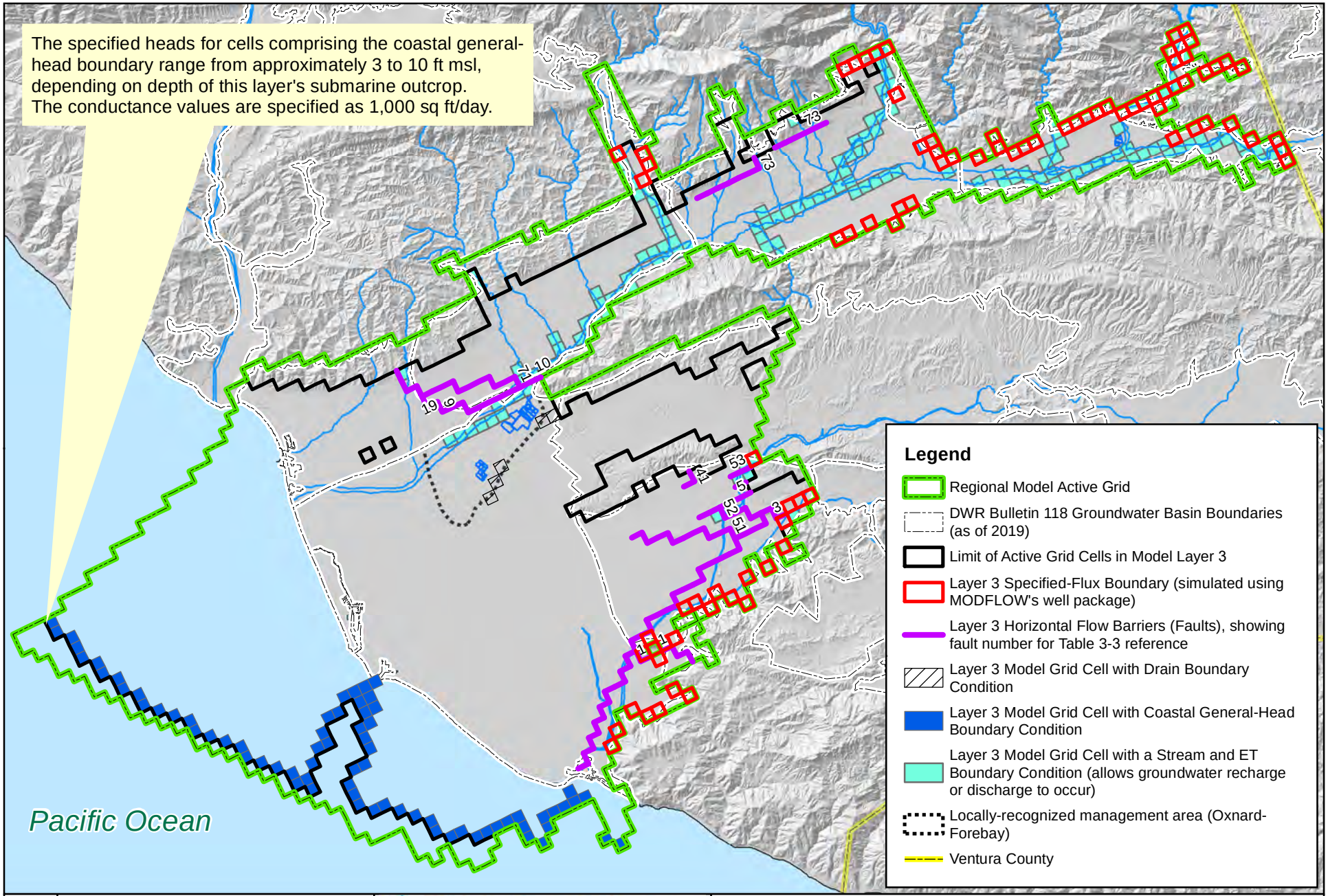

Figure 3-16.
Boundary Conditions of Model Layer 3

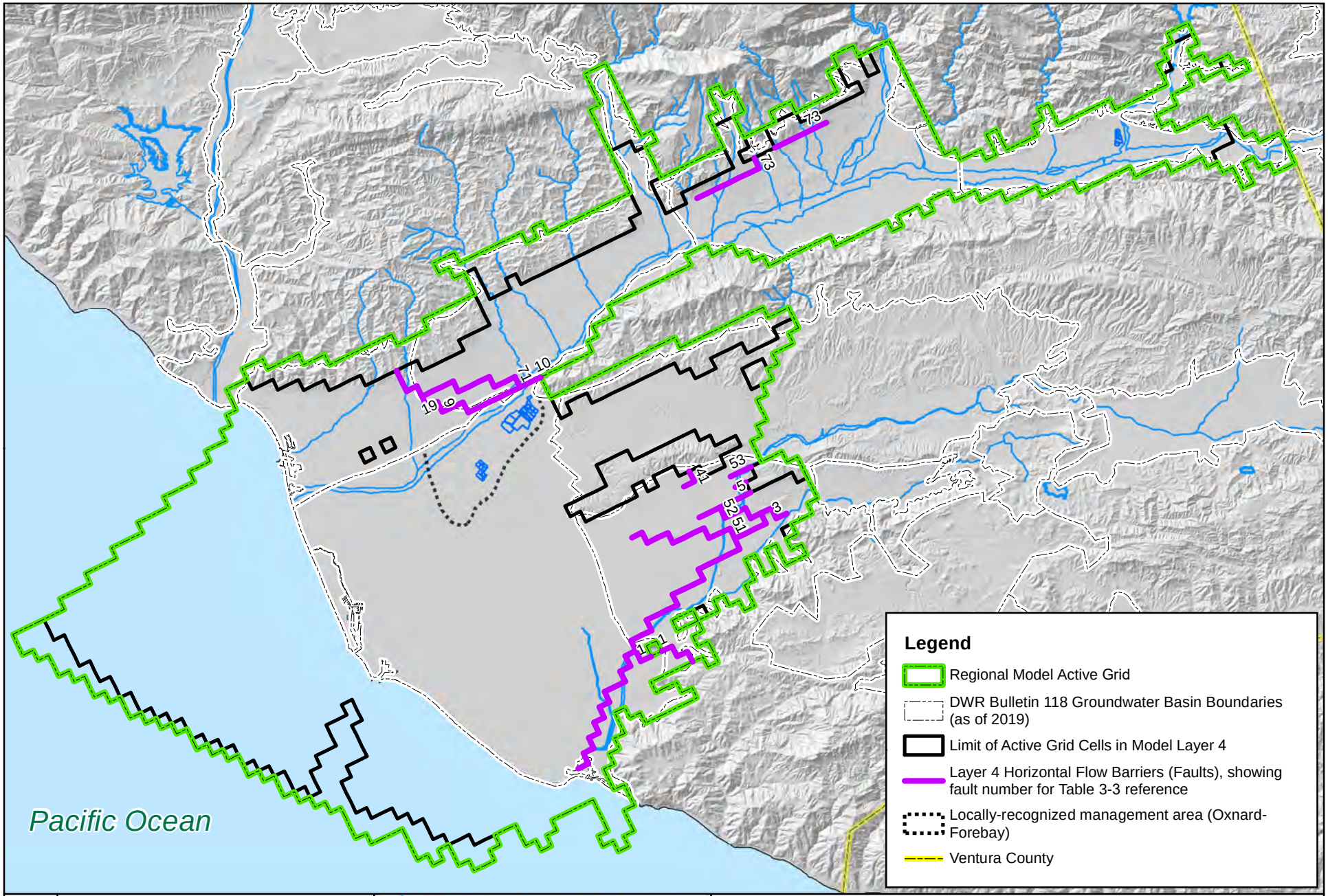

Figure 3-17.
Boundary Conditions of Model Layer 4

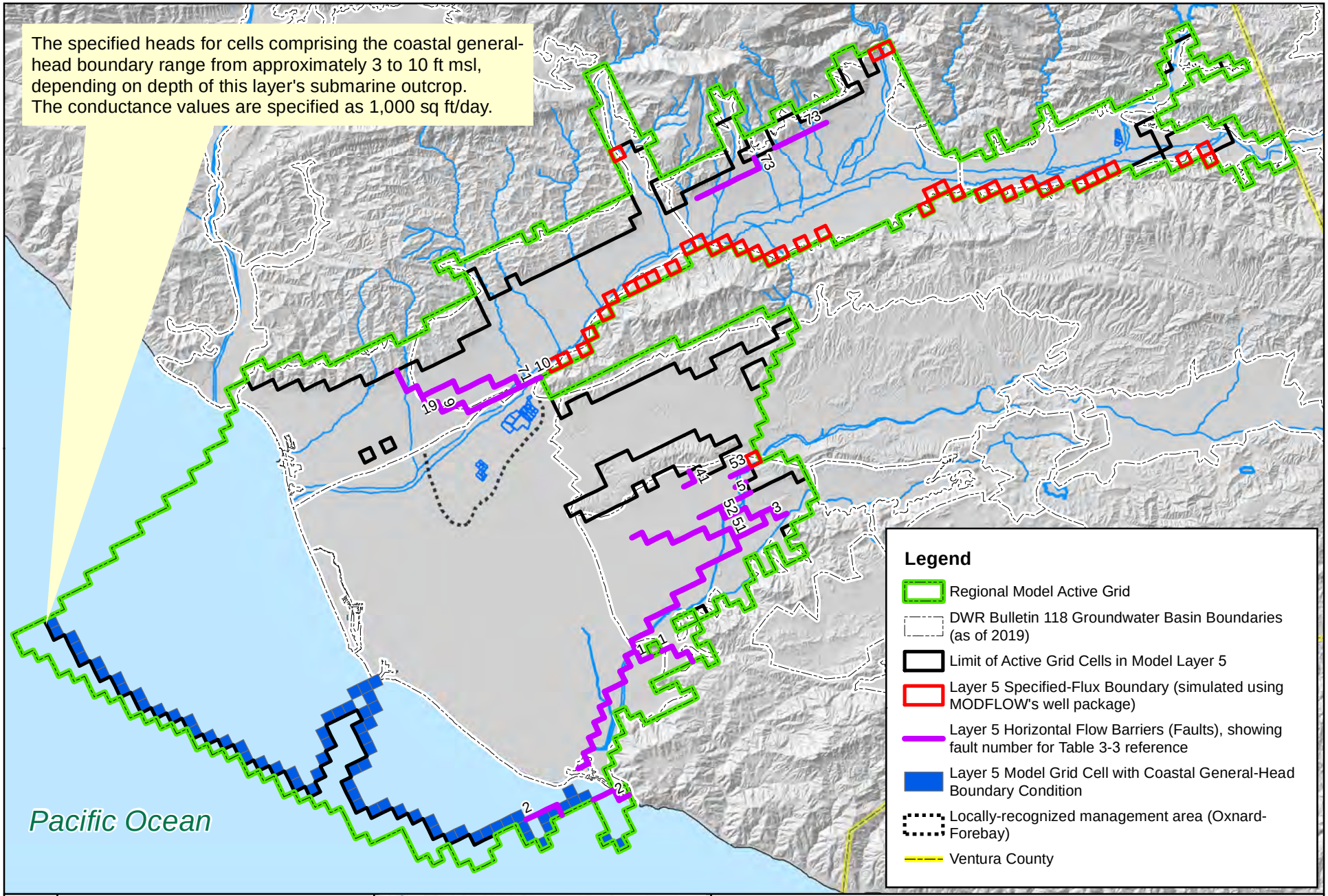

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Figure 3-18.
Boundary Conditions of Model Layer 5

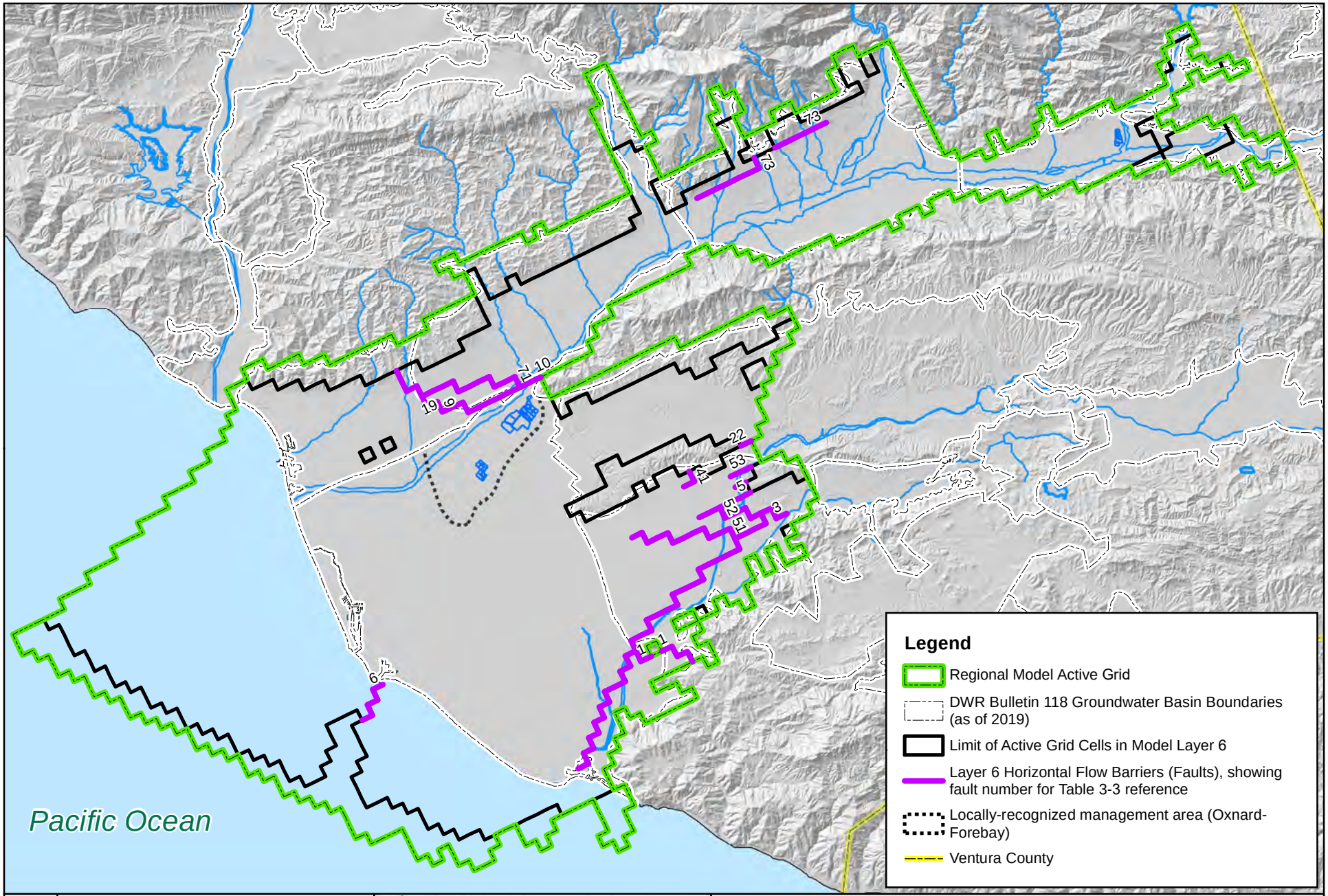

Figure 3-19.
Boundary Conditions of Model Layer 6

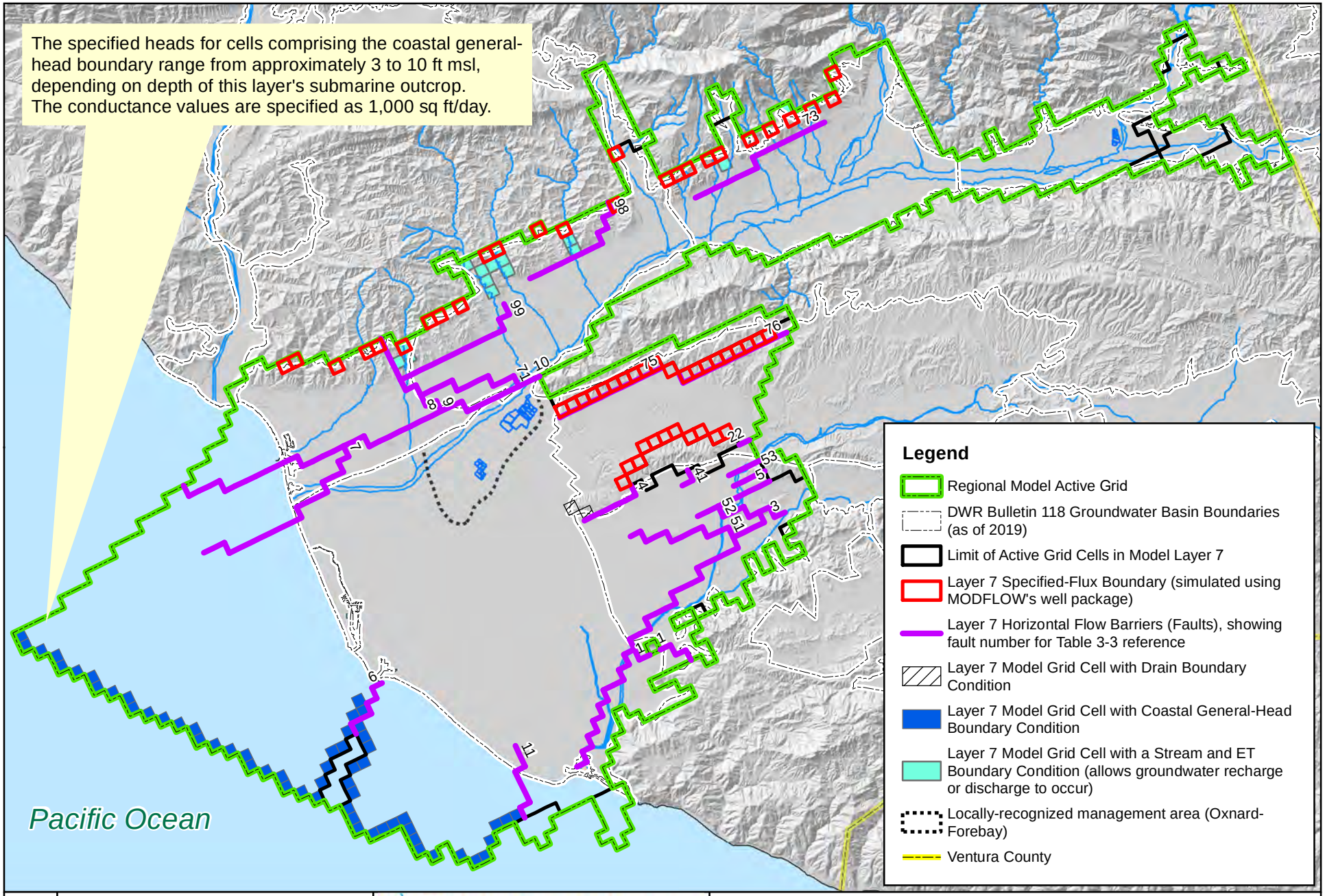

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Figure 3-20.
Boundary Conditions of Model Layer 7

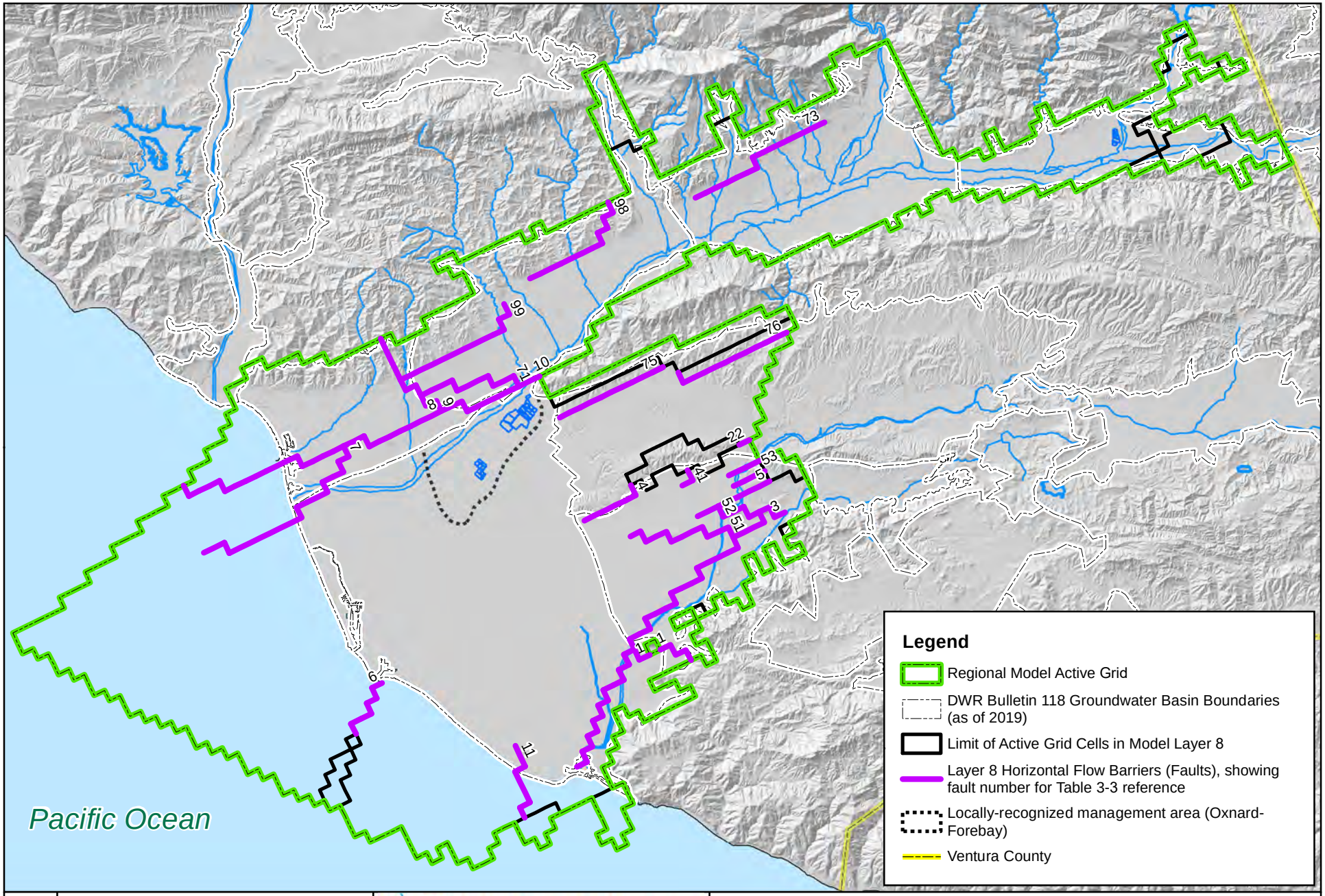

Figure 3-21.
Boundary Conditions of Model Layer 8

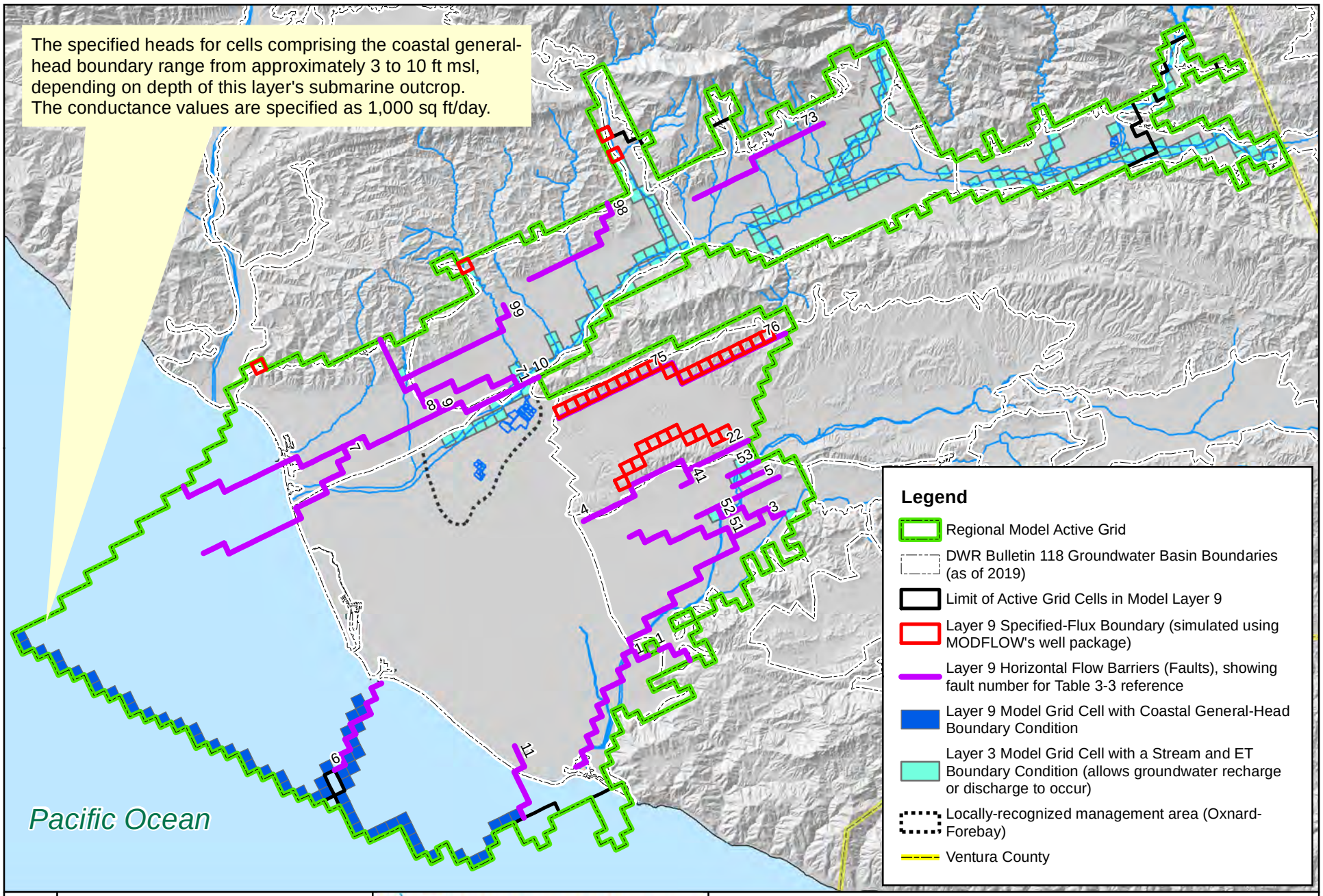

Figure 3-22.
Boundary Conditions of Model Layer 9

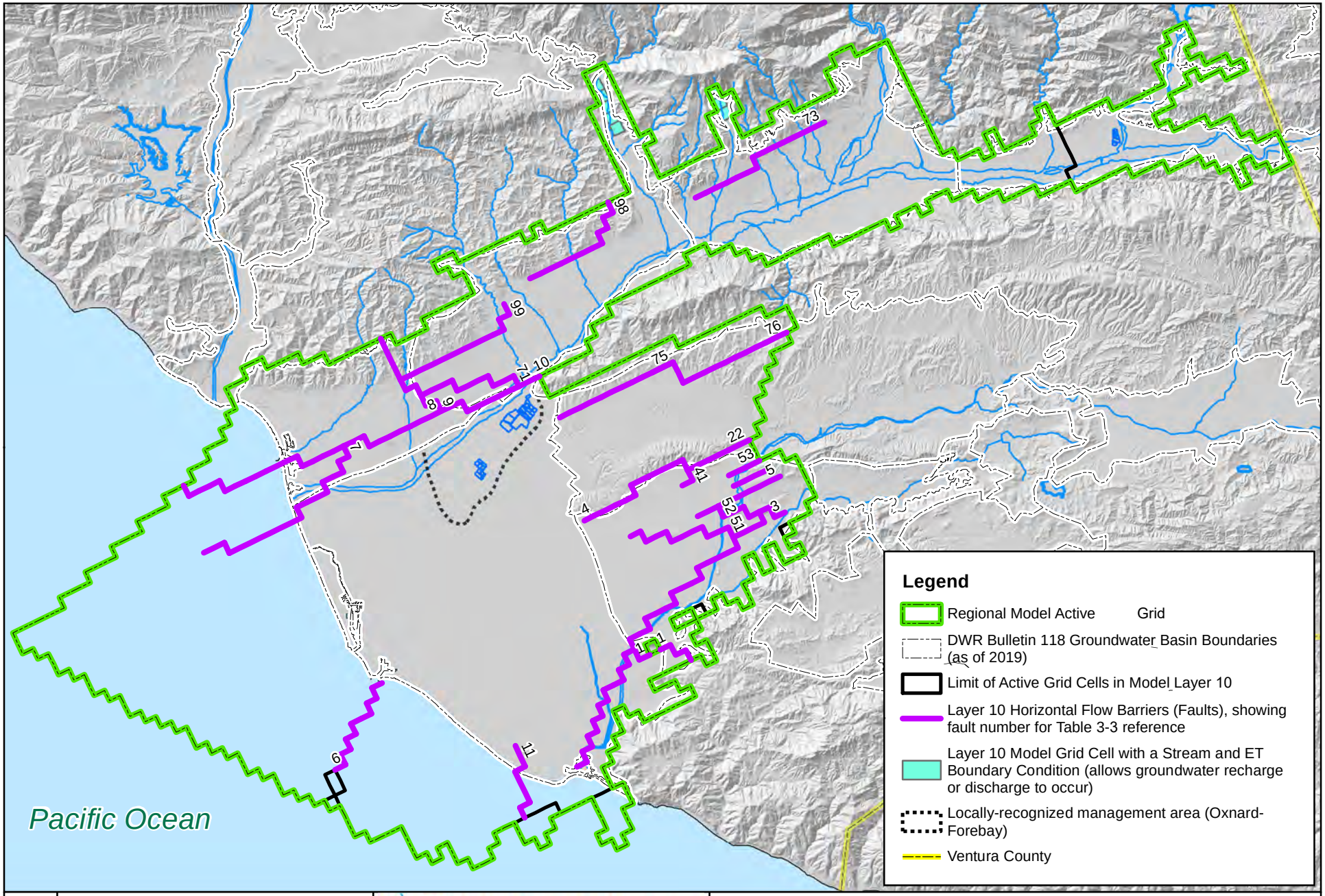

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Figure 3-23.
Boundary Conditions of Model Layer 10

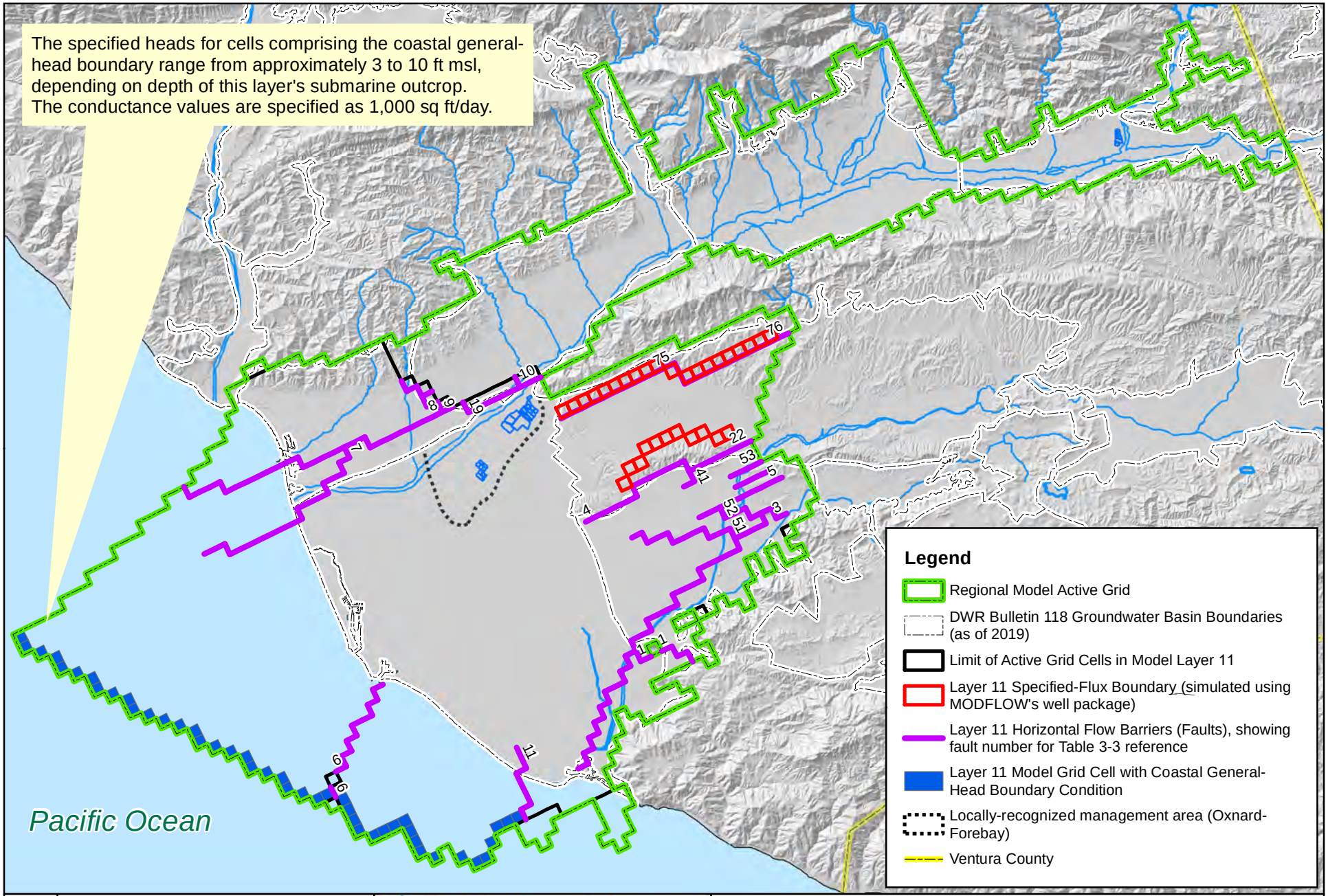

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Figure 3-24.
Boundary Conditions of Model Layer 11

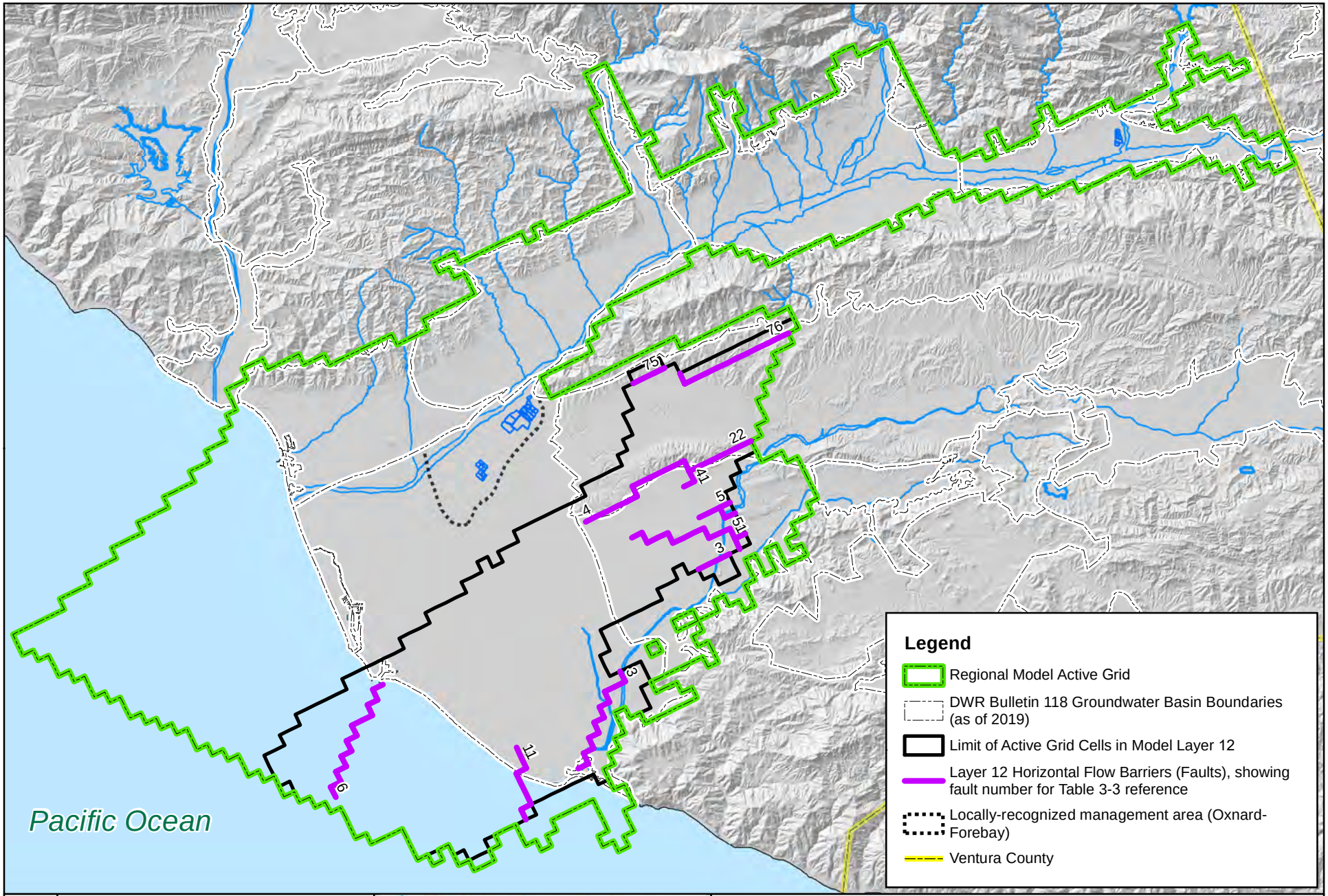

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Figure 3-25.
Boundary Conditions of Model Layer 12

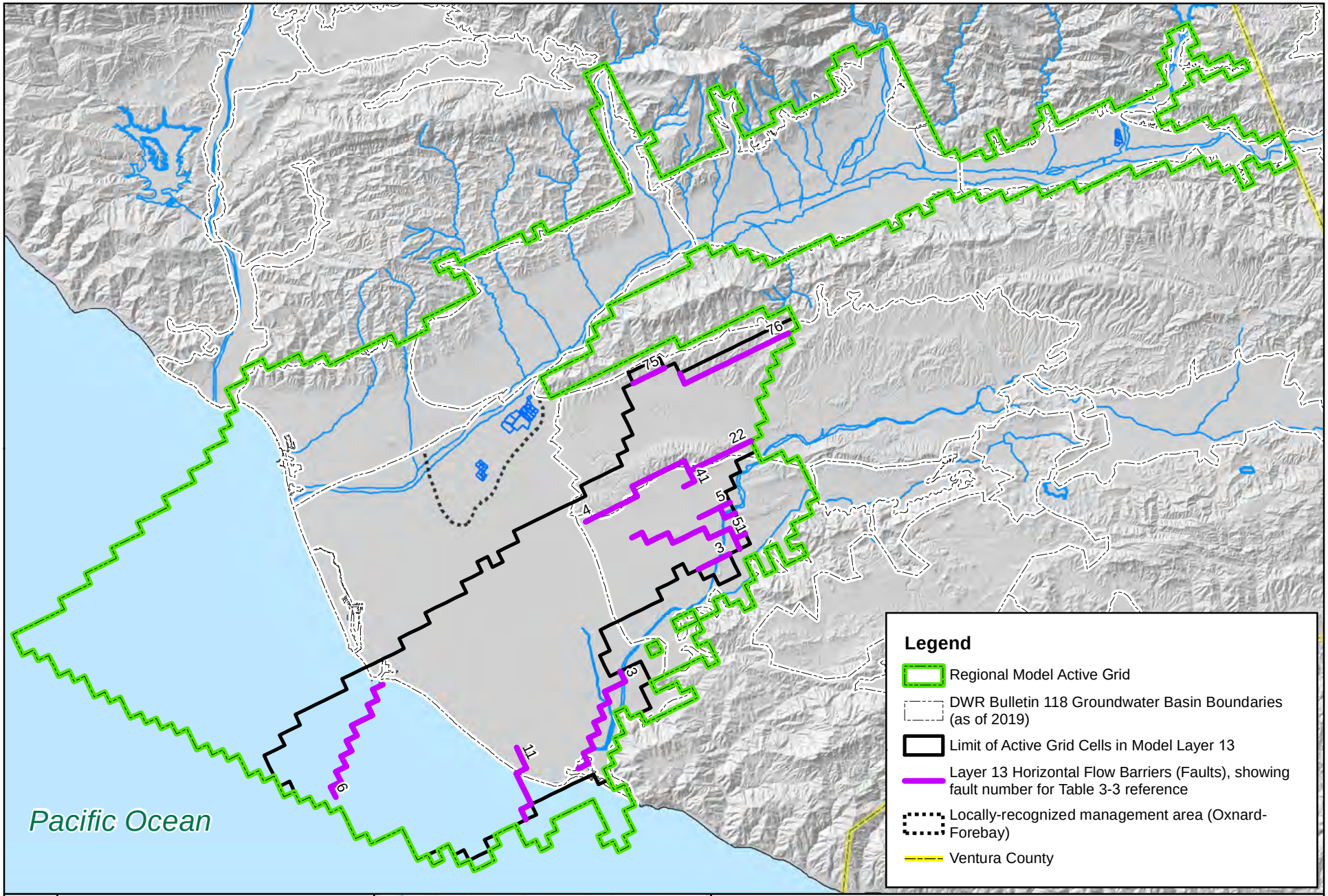

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Figure 3-26.
Boundary Conditions of Model Layer 13

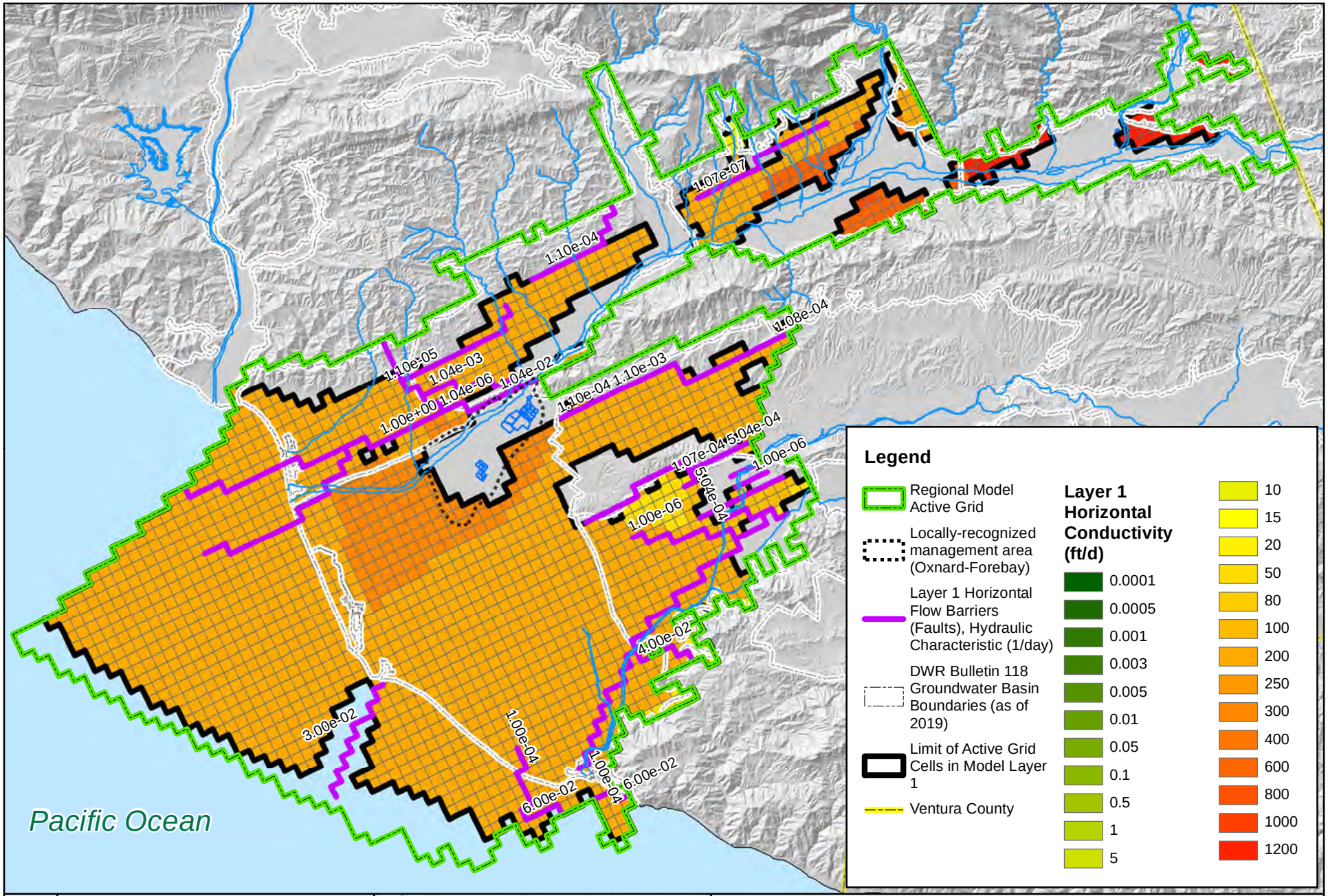

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Figure 3-27.
Horizontal Hydraulic Conductivity of Model Layer 1

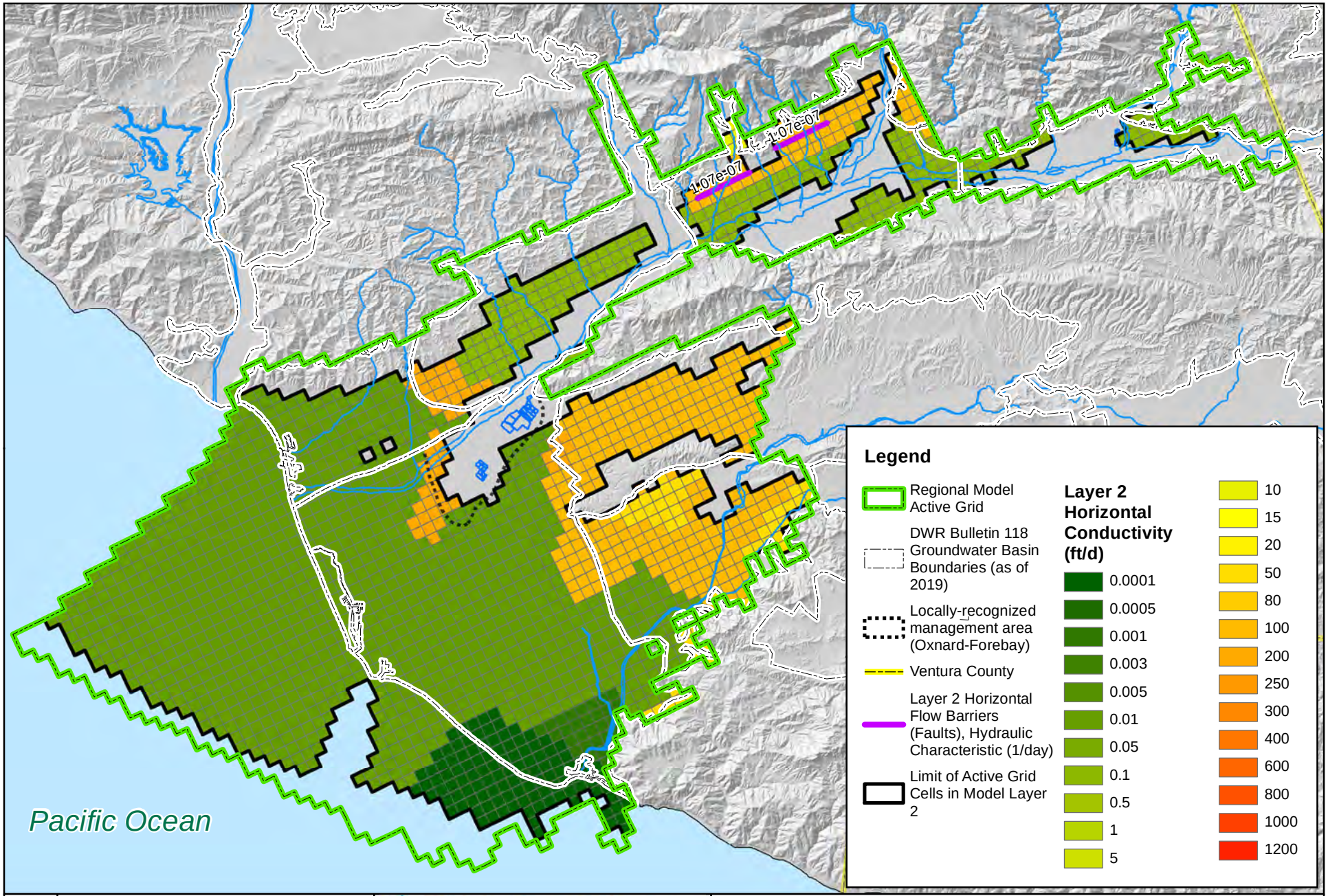

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Figure 3-28.
Horizontal Hydraulic Conductivity of Model Layer 2

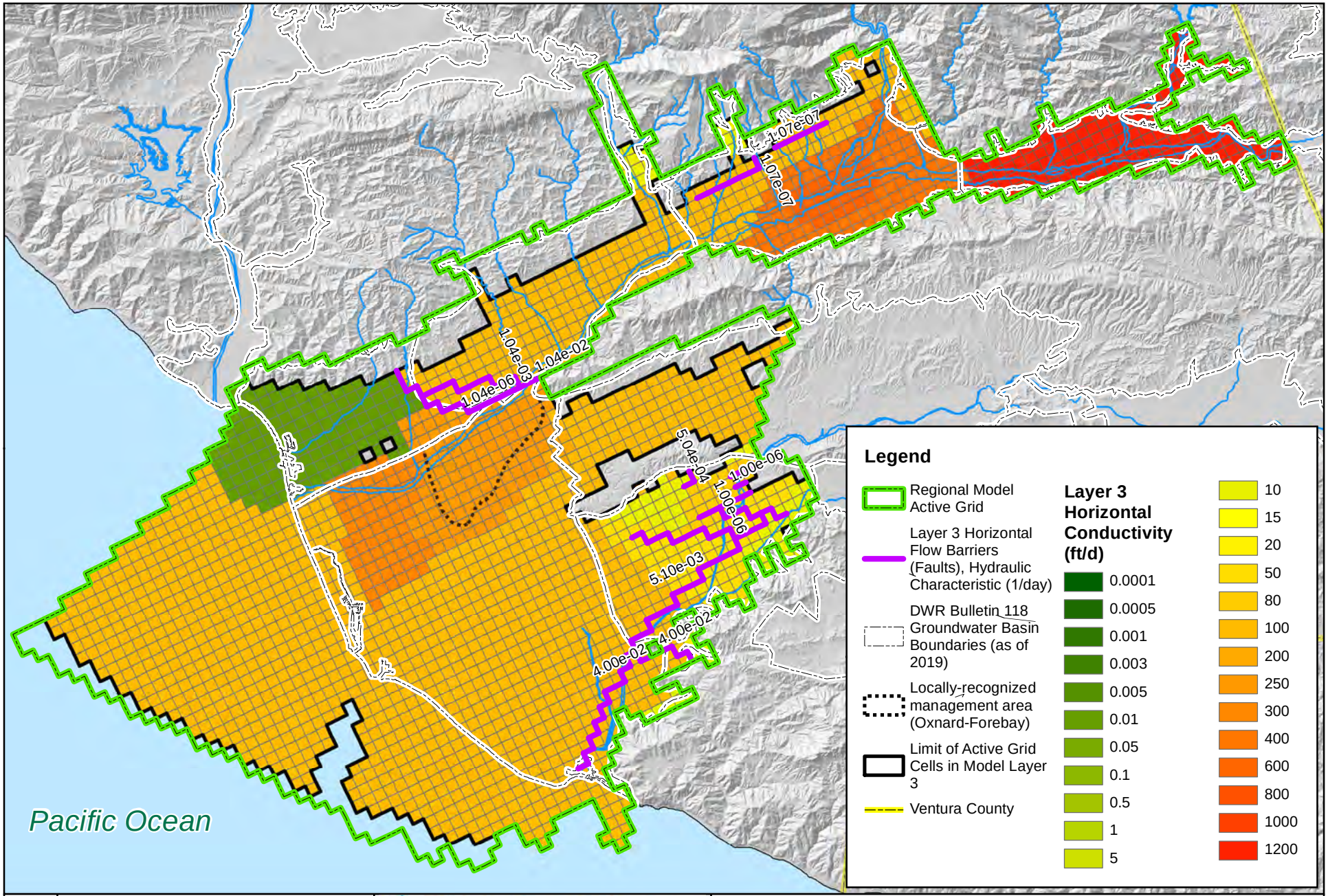

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Figure 3-29.
Horizontal Hydraulic Conductivity of Model Layer 3

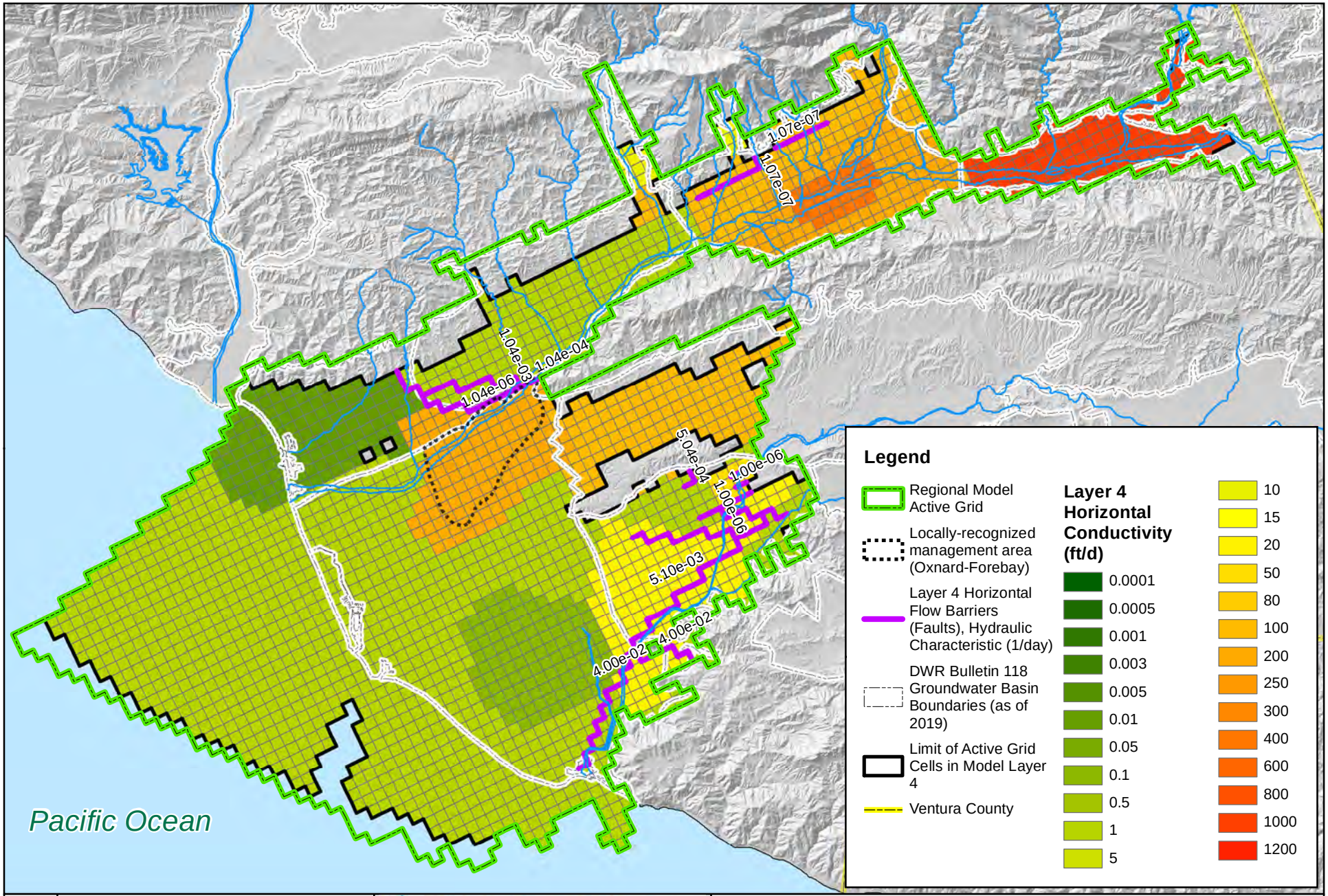

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Figure 3-30.
Horizontal Hydraulic Conductivity of Model Layer 4

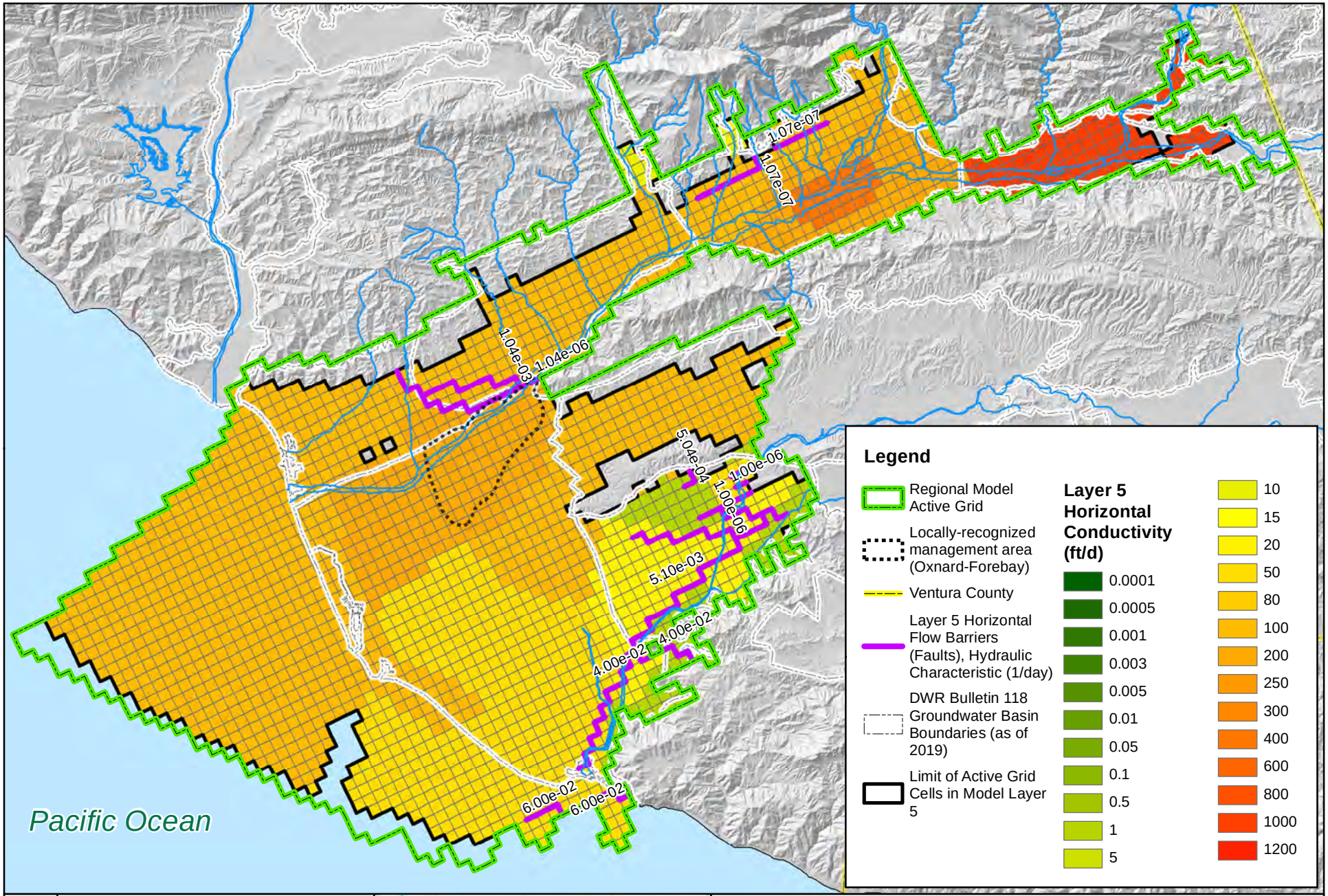

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Figure 3-31.
Horizontal Hydraulic Conductivity of Model Layer 5

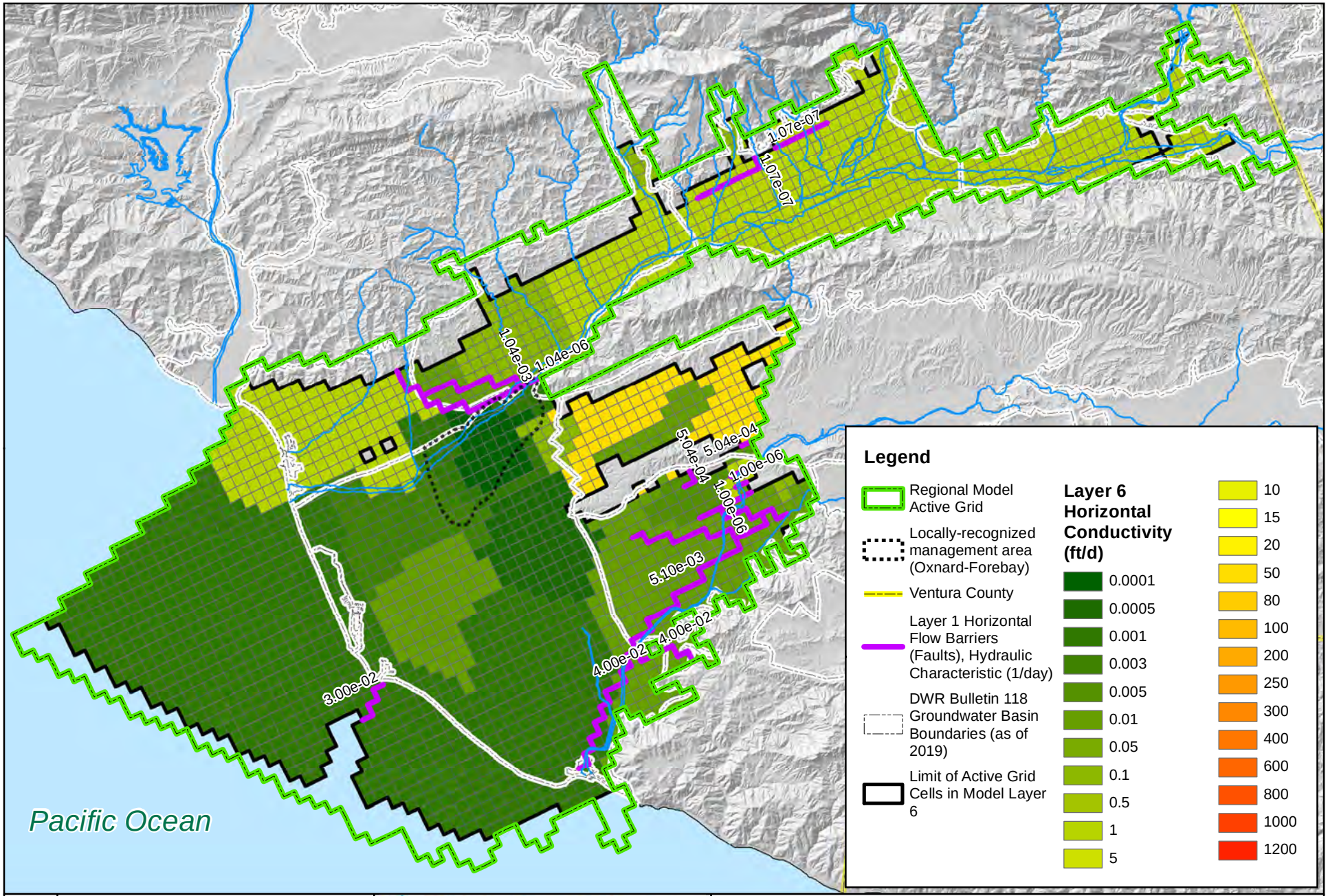

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Figure 3-32.
Horizontal Hydraulic Conductivity of Model Layer 6

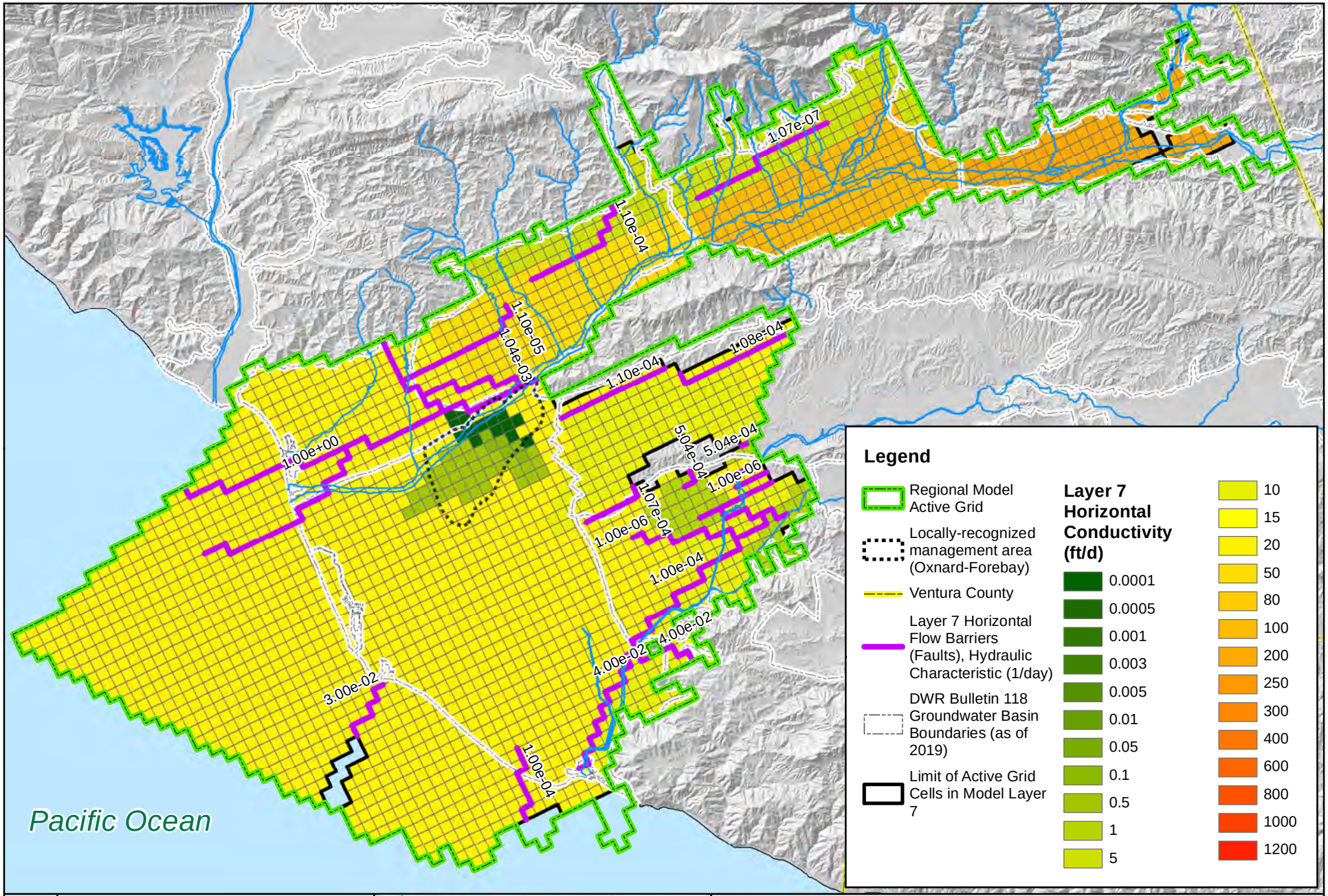

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Figure 3-33.
Horizontal Hydraulic Conductivity of Model Layer 7

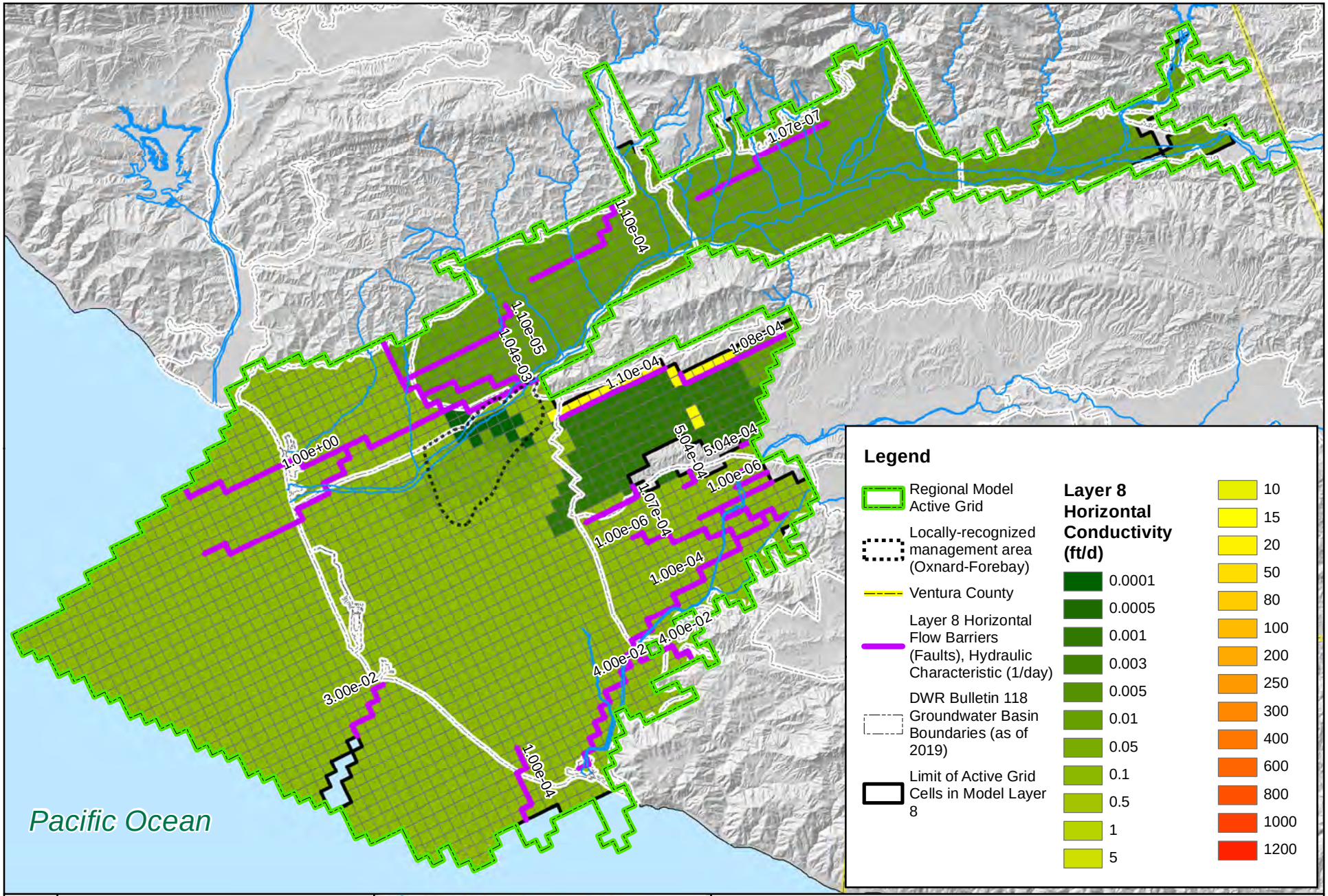

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Figure 3-34.
Horizontal Hydraulic Conductivity of Model Layer 8

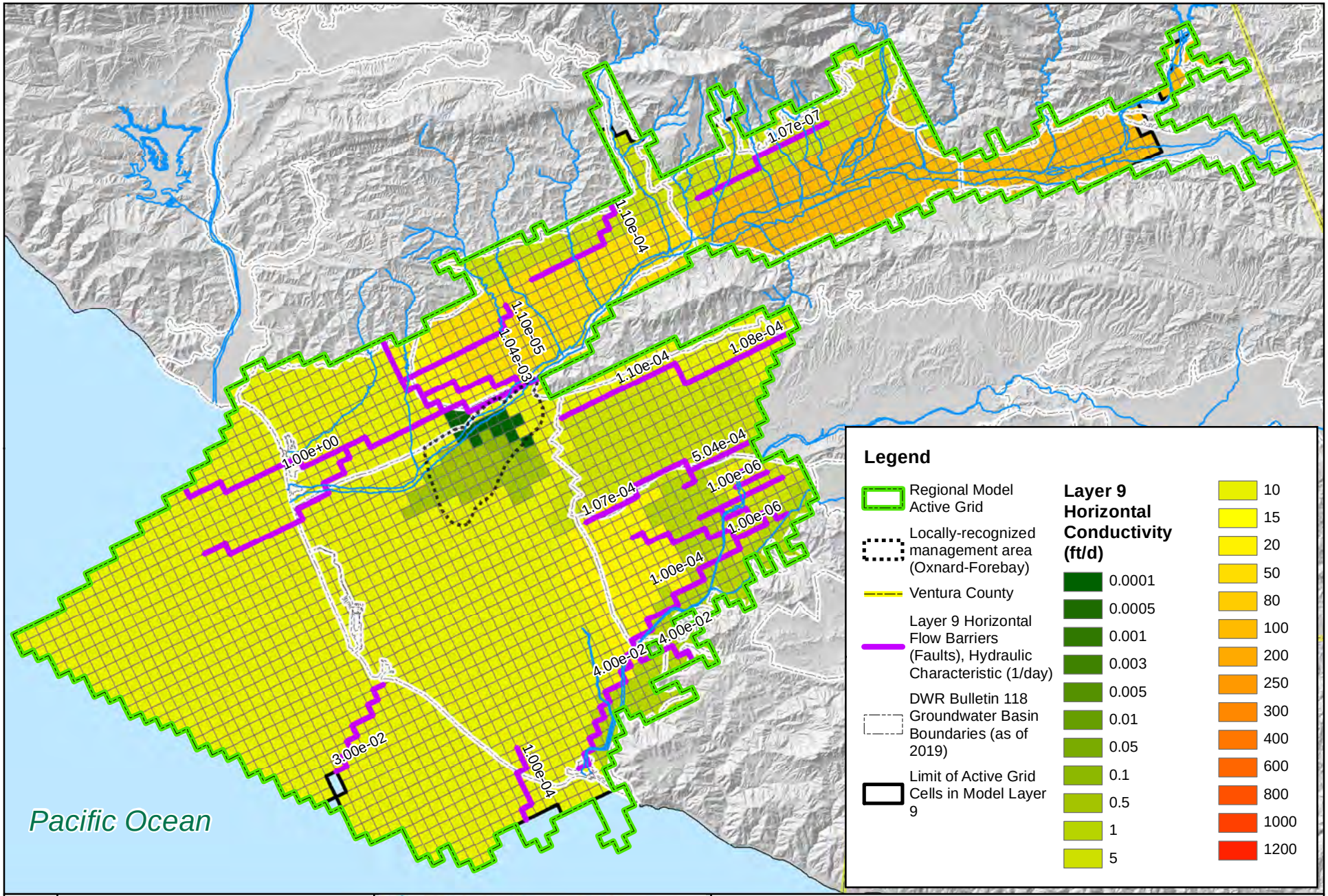

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Figure 3-35.
Horizontal Hydraulic Conductivity of Model Layer 9

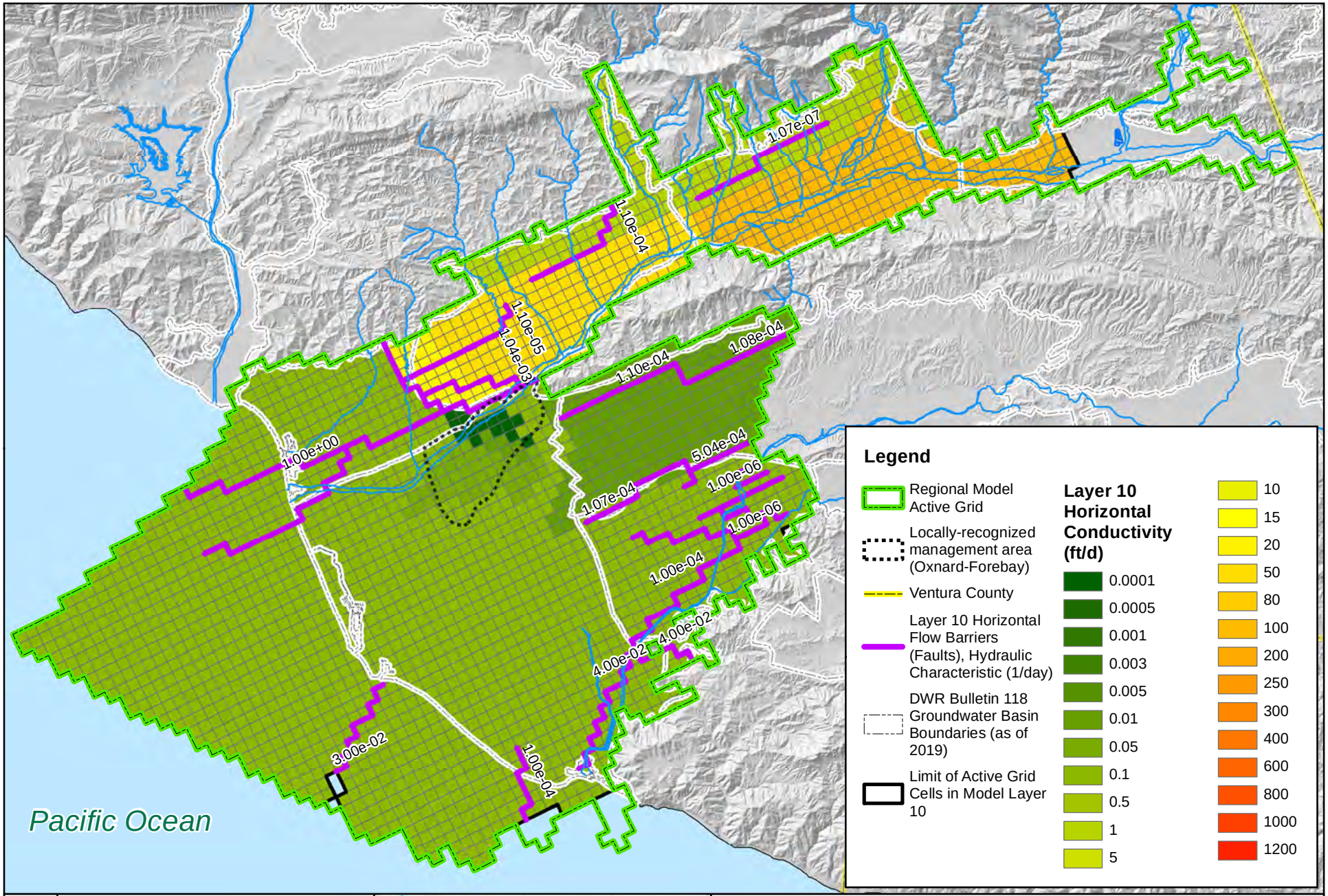

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Figure 3-36.
Horizontal Hydraulic Conductivity of Model Layer 10

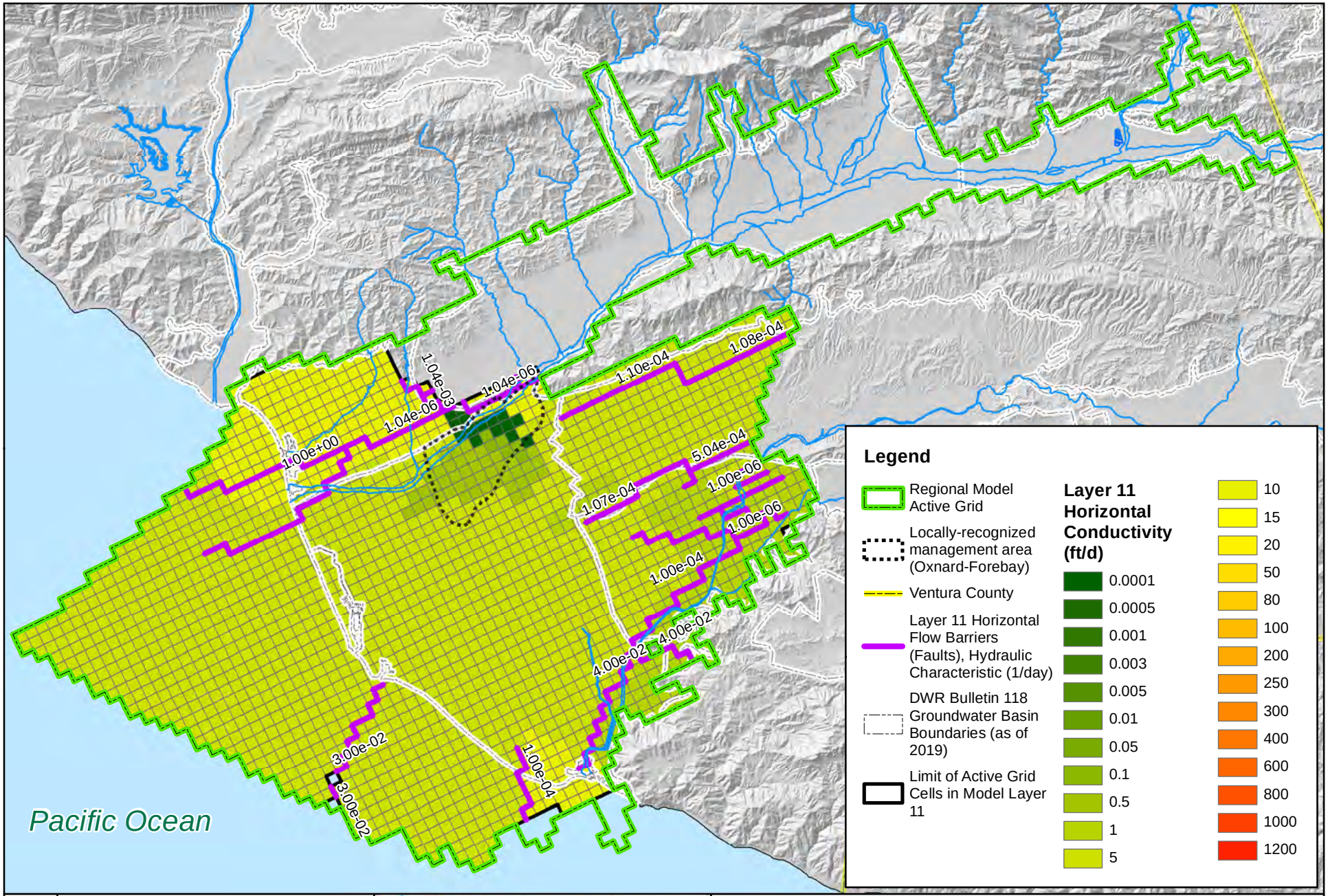

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Figure 3-37.
Horizontal Hydraulic Conductivity of Model Layer 11

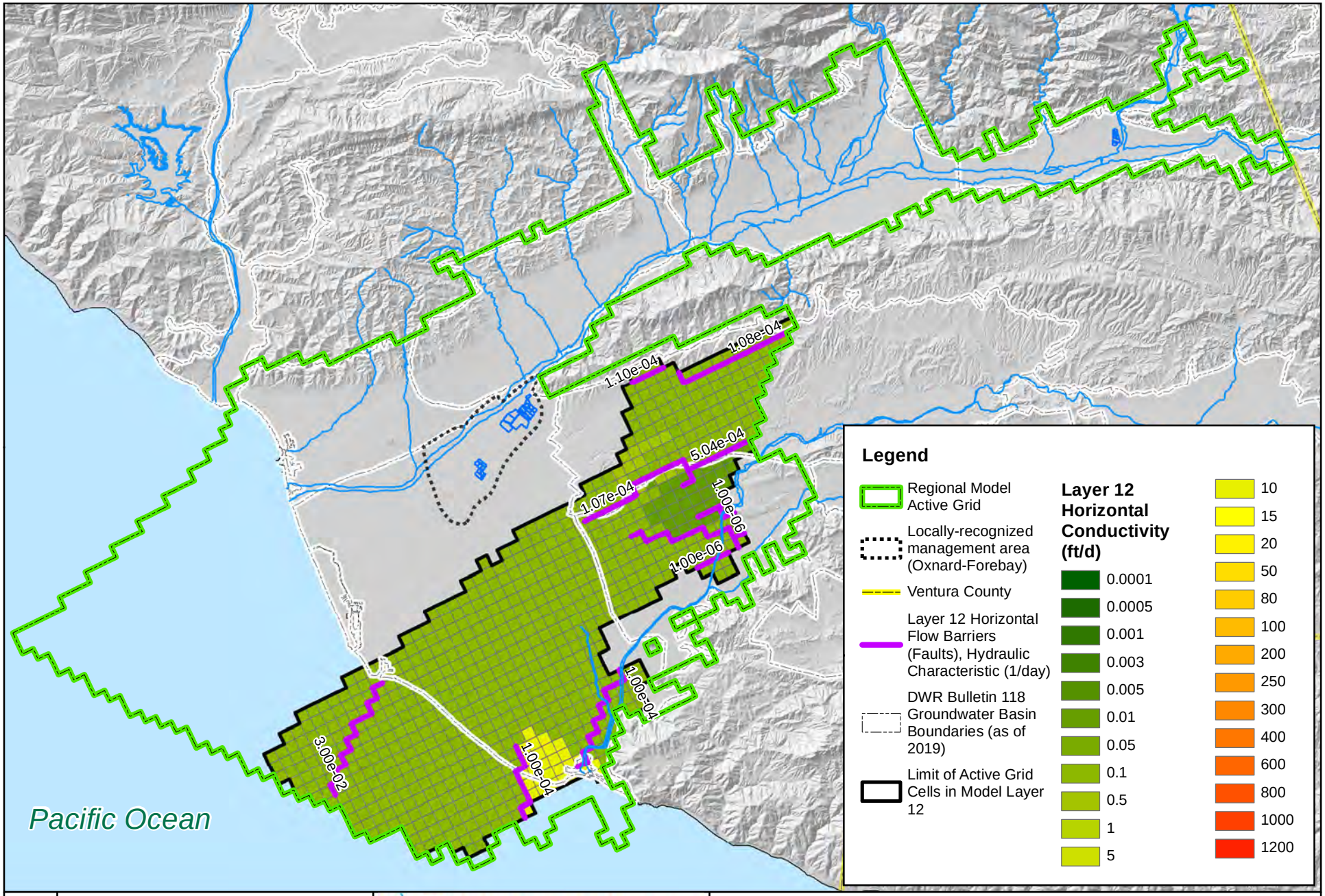

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Figure 3-38.
Horizontal Hydraulic Conductivity of Model Layer 12

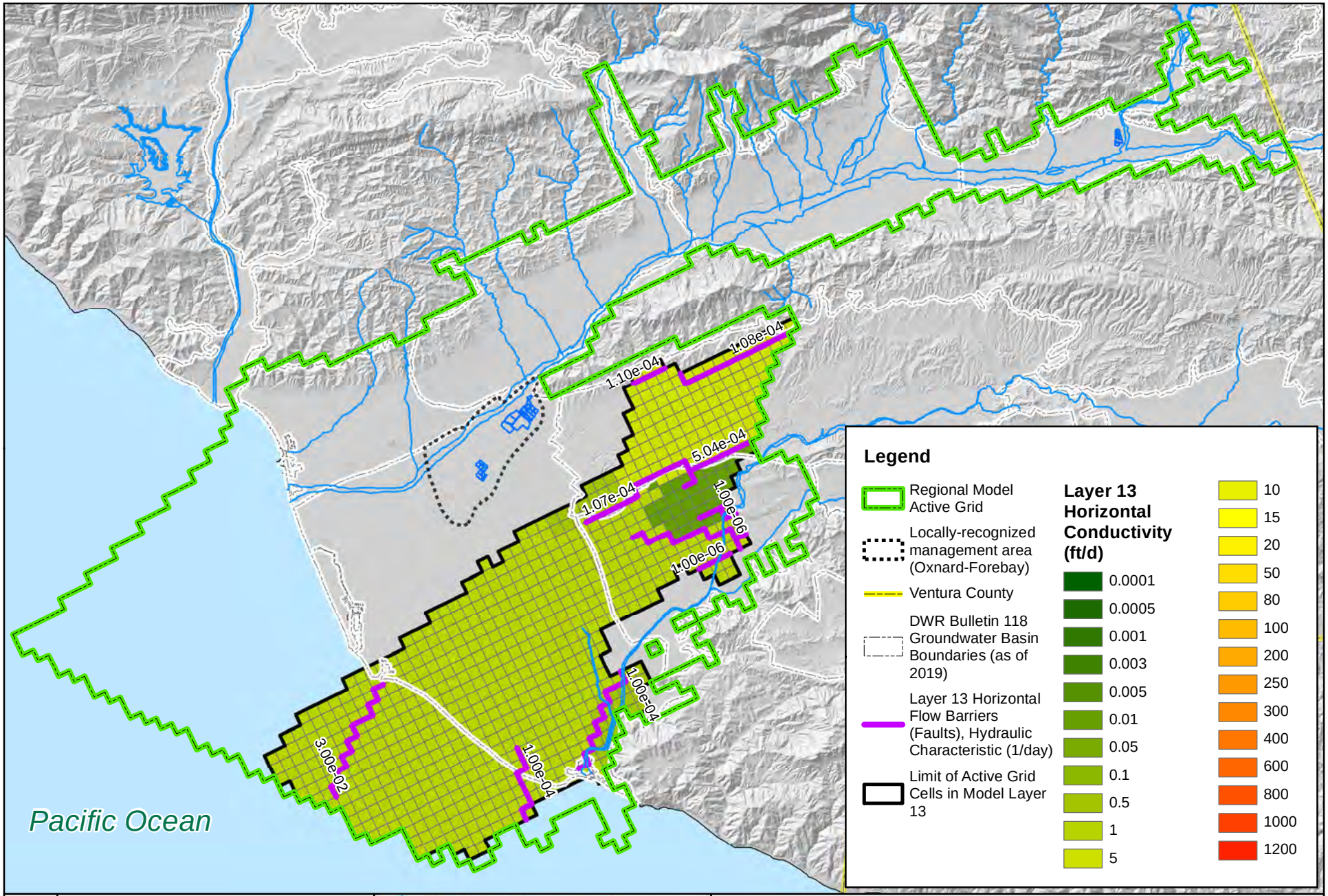

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Figure 3-39.
Horizontal Hydraulic Conductivity of Model Layer 13

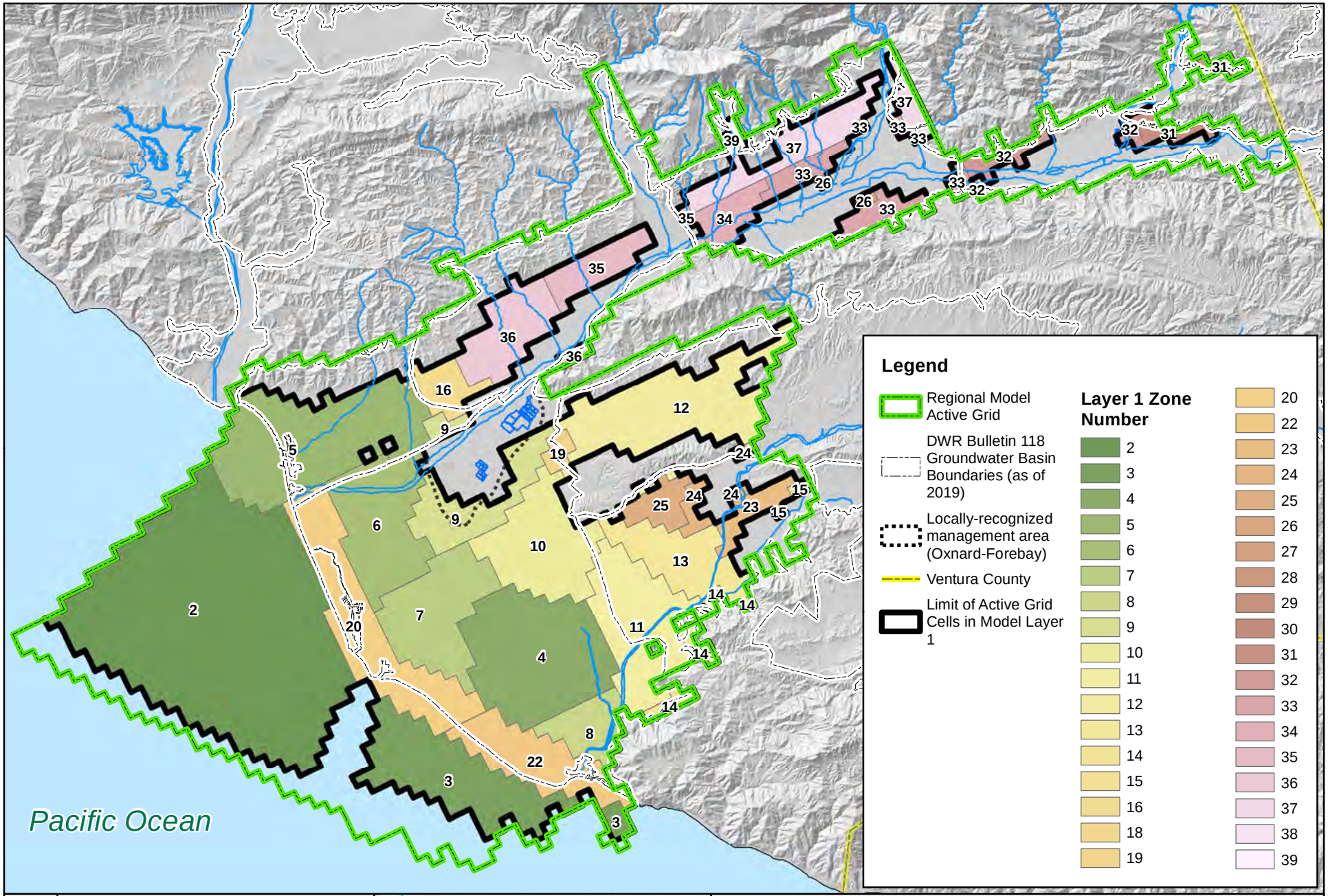

Figure 3-40.
Parameter Zone Numbers of Model Layer 1

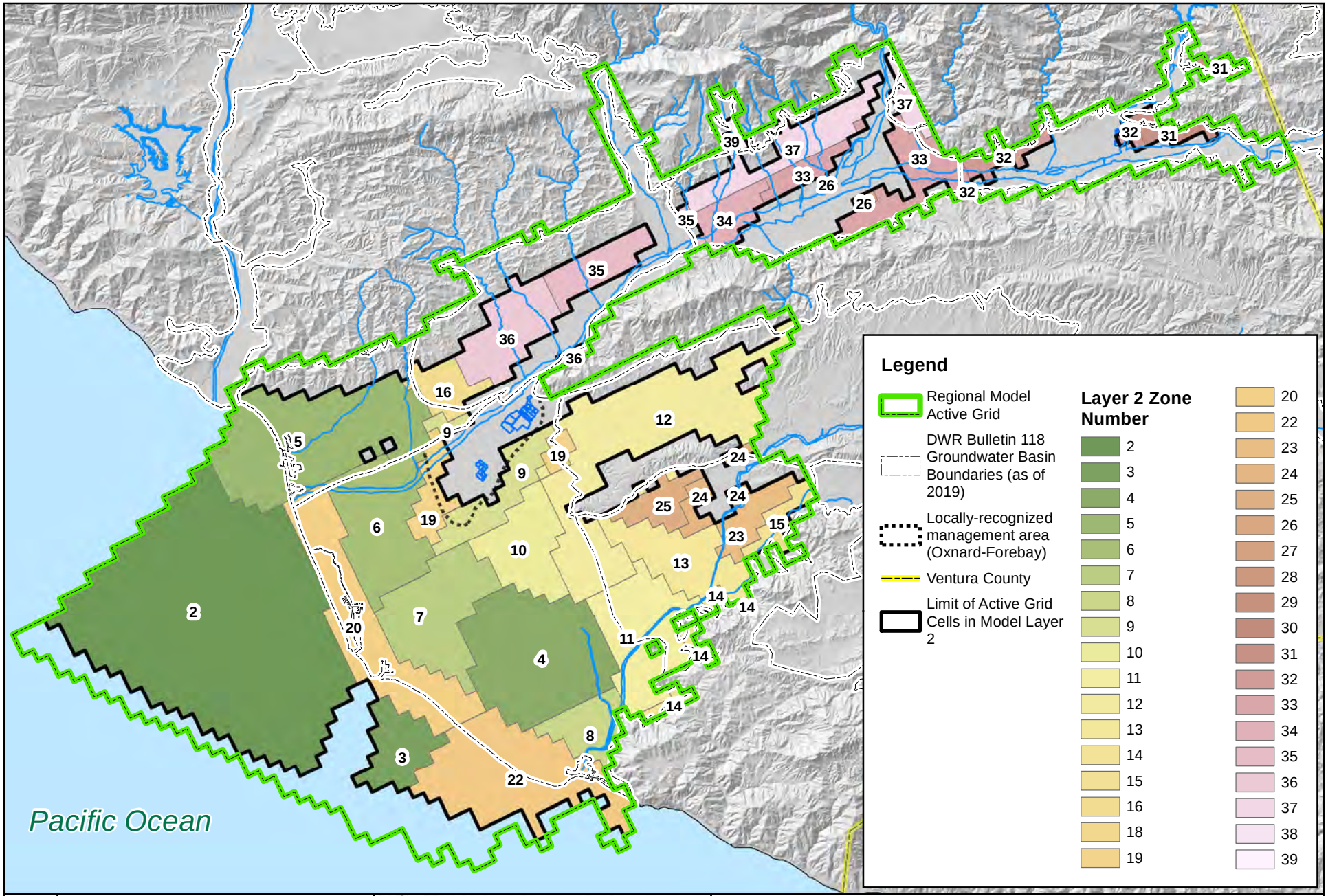

Figure 3-41.
Parameter Zone Numbers of Model Layer 2

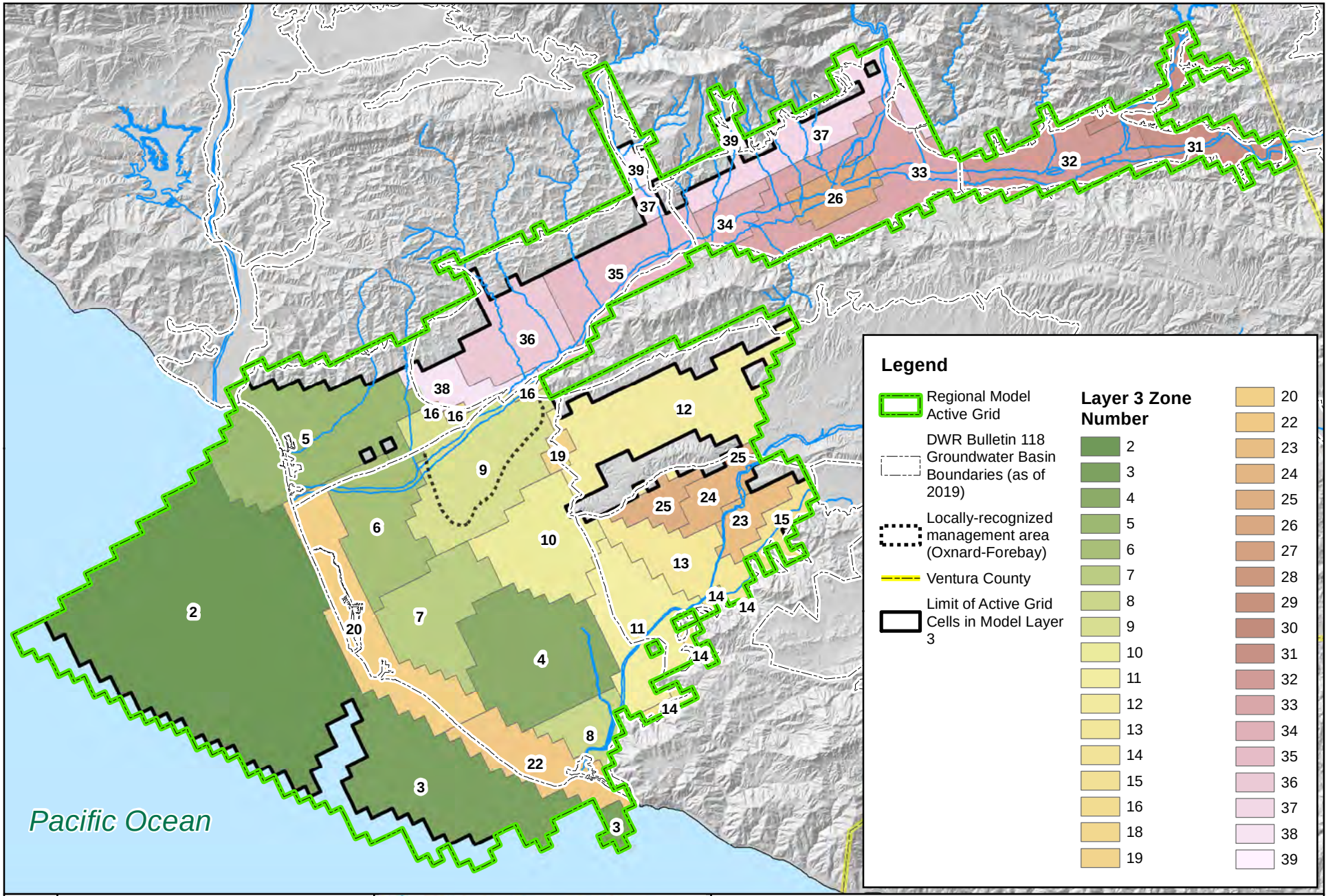

Figure 3-42.
Parameter Zone Numbers of Model Layer 3

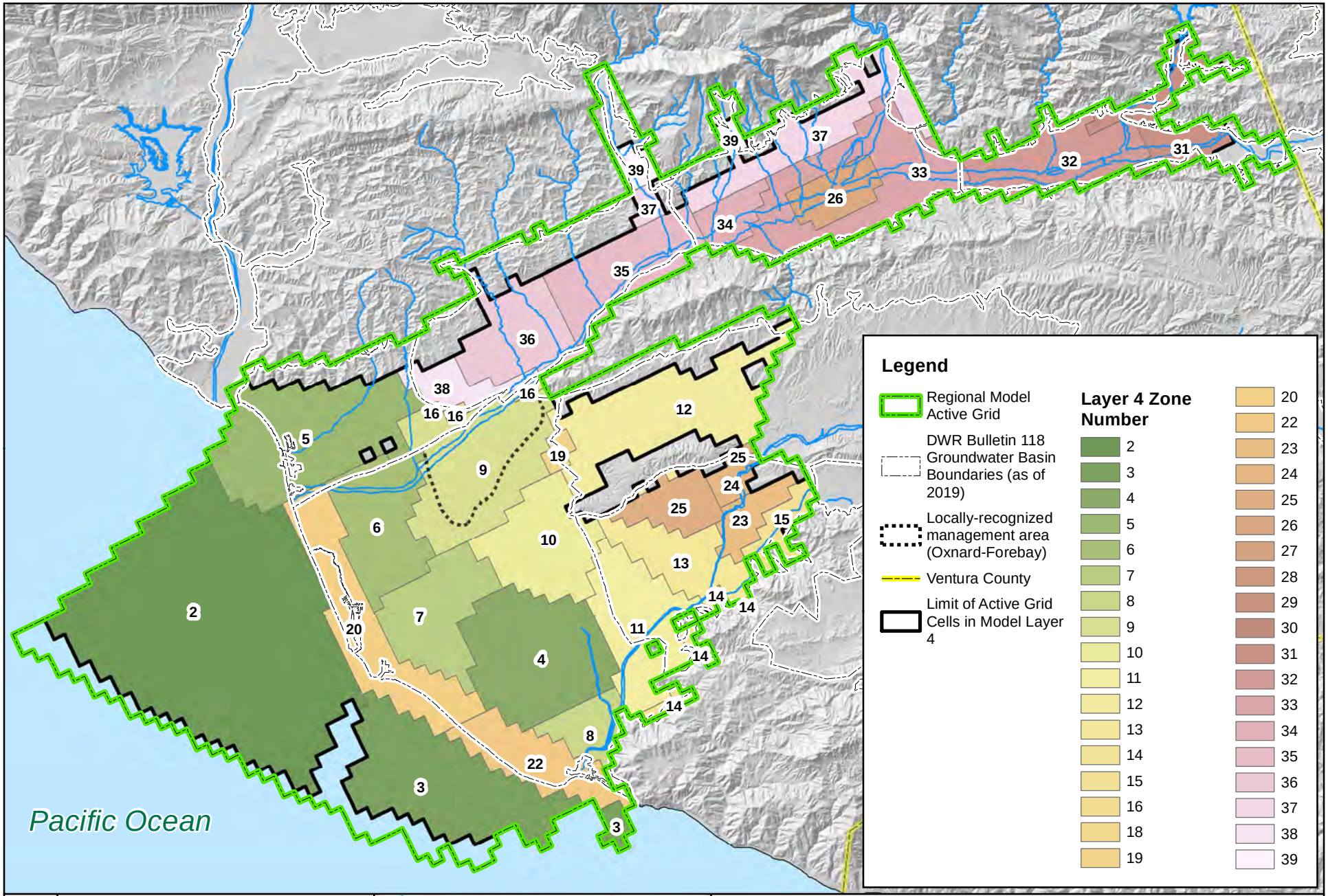

Figure 3-43.
Parameter Zone Numbers of Model Layer 4

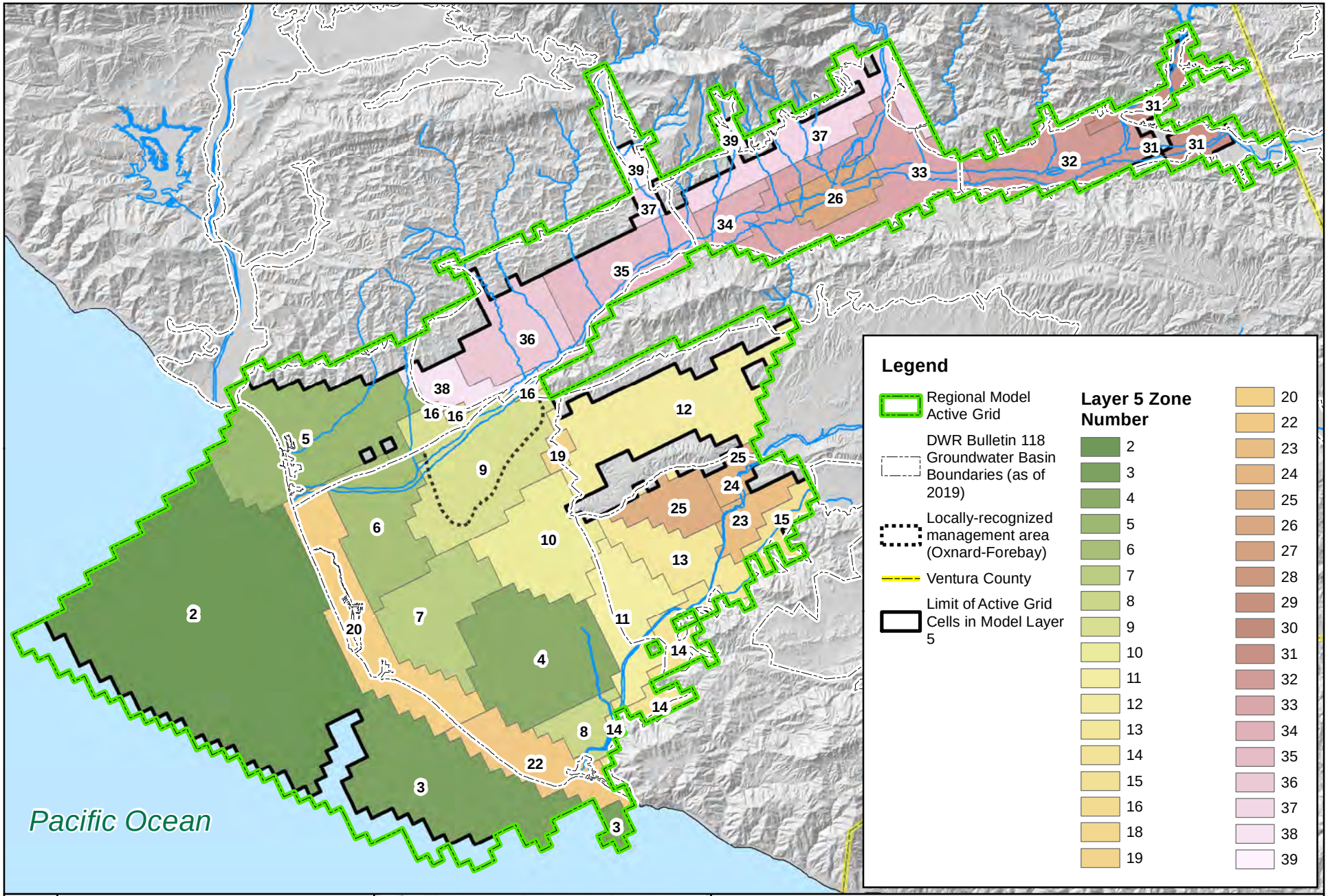

Figure 3-44.
Parameter Zone Numbers of Model Layer 5

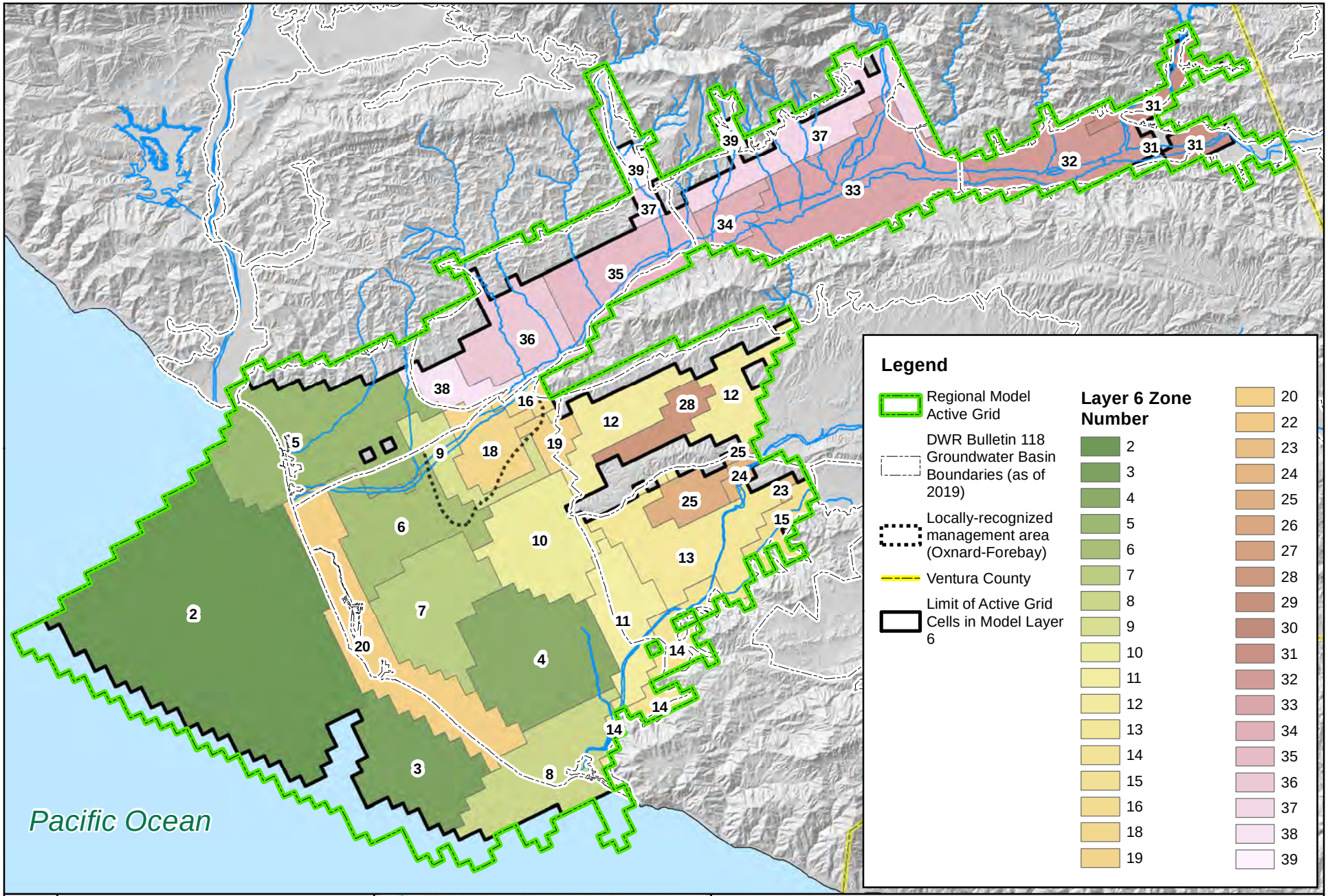

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Figure 3-45.
Parameter Zone Numbers of Model Layer 6

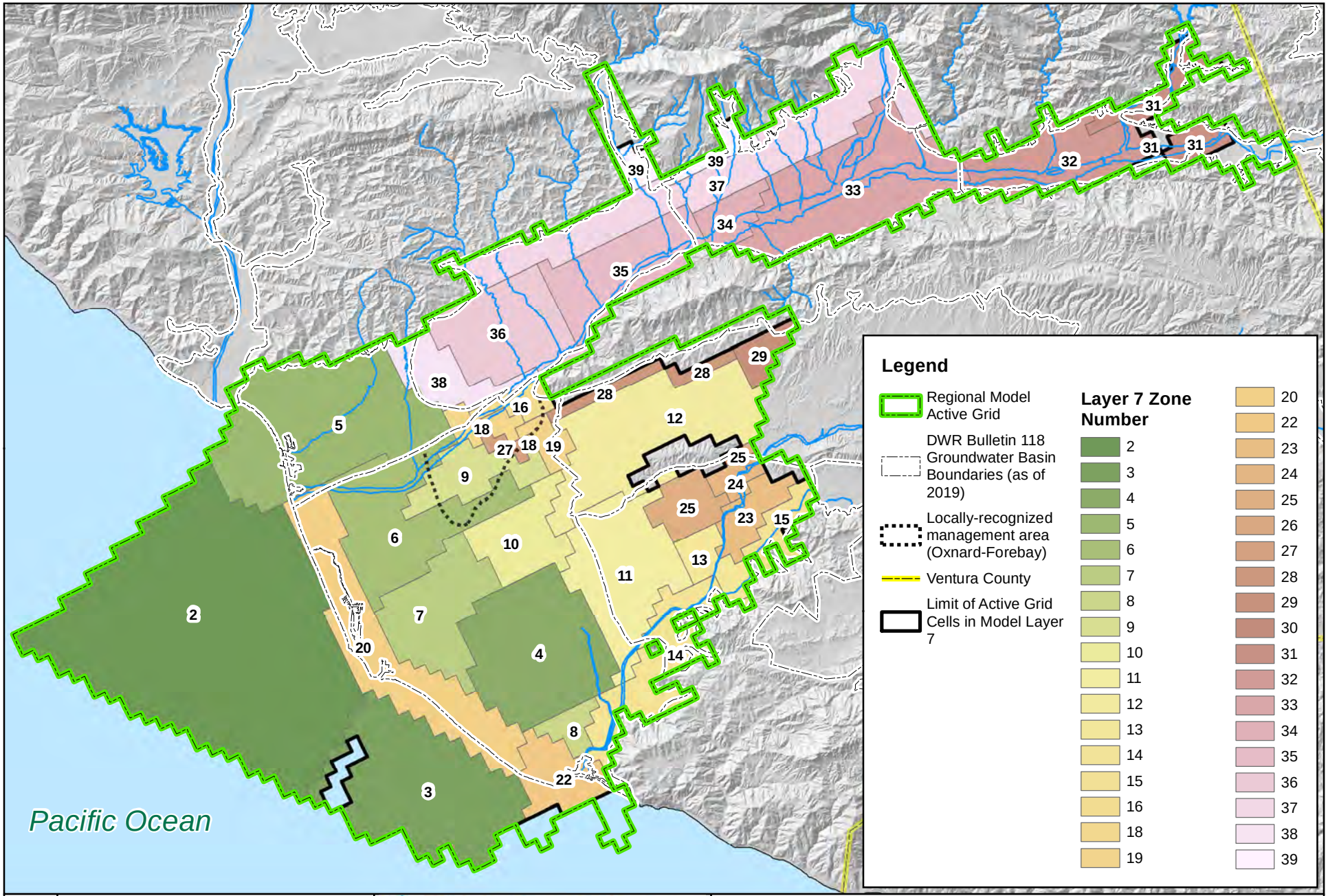

Figure 3-46.
Parameter Zone Numbers of Model Layer 7

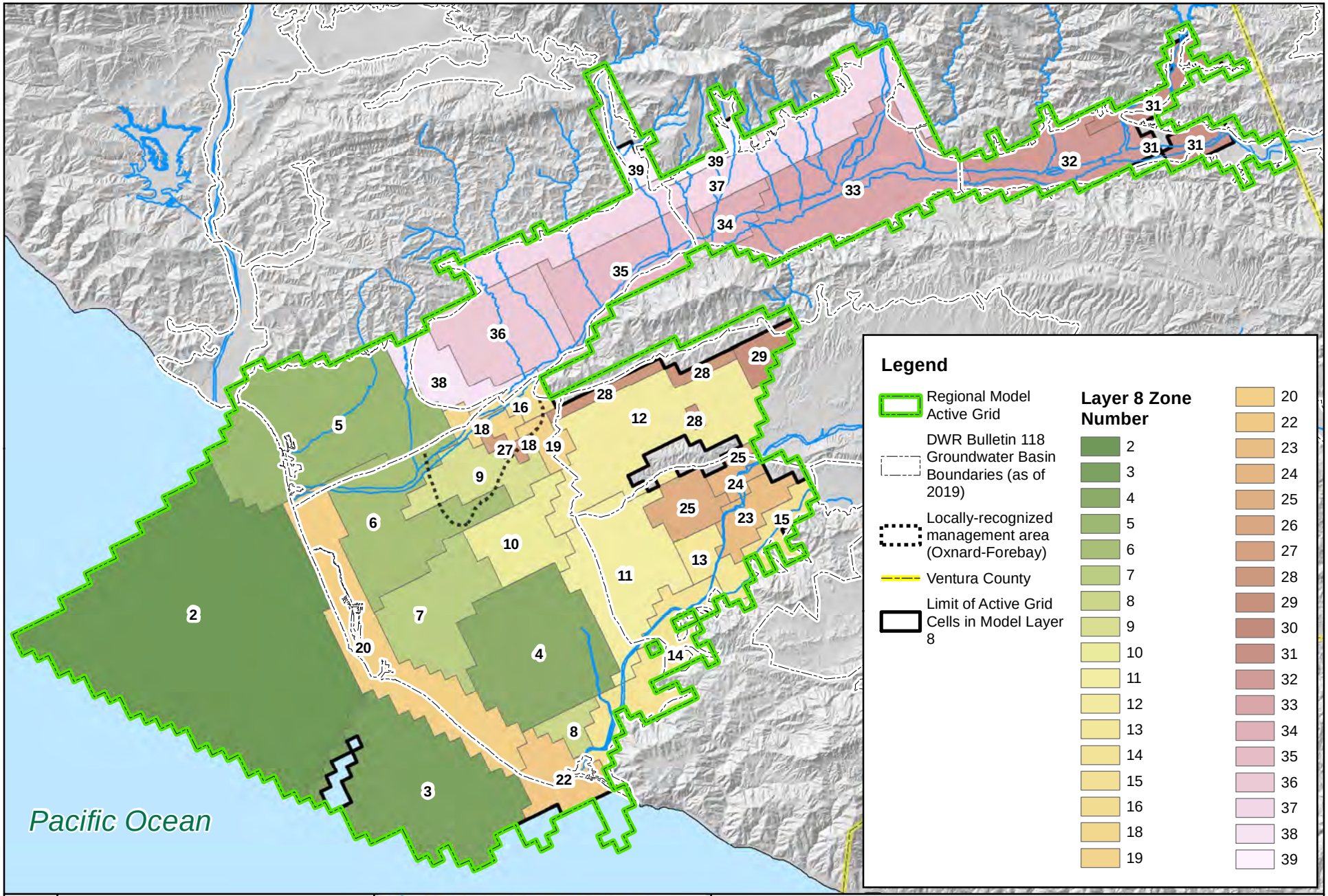

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Figure 3-47.
Parameter Zone Numbers of Model Layer 8

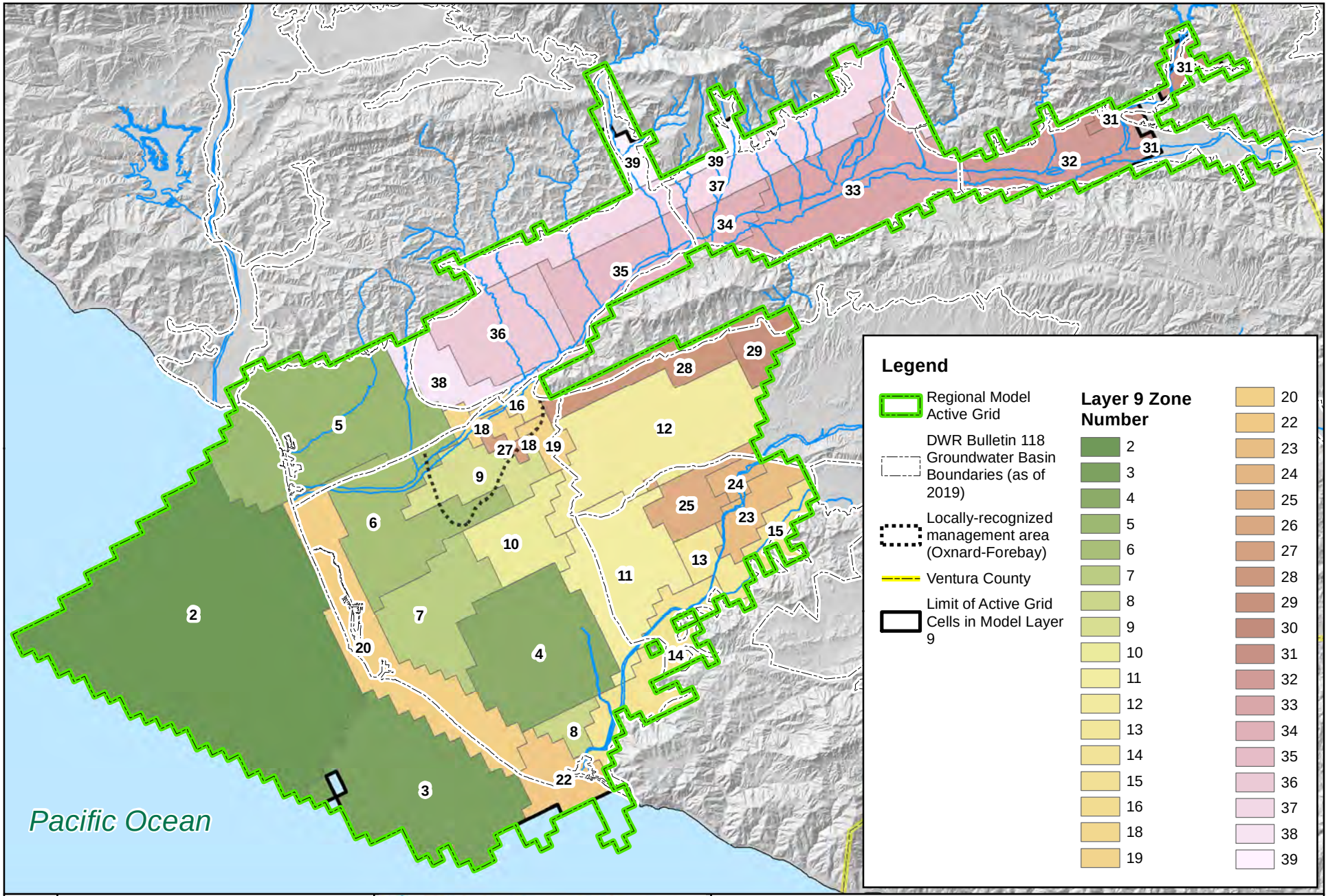

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Figure 3-48.
Parameter Zone Numbers of Model Layer 9

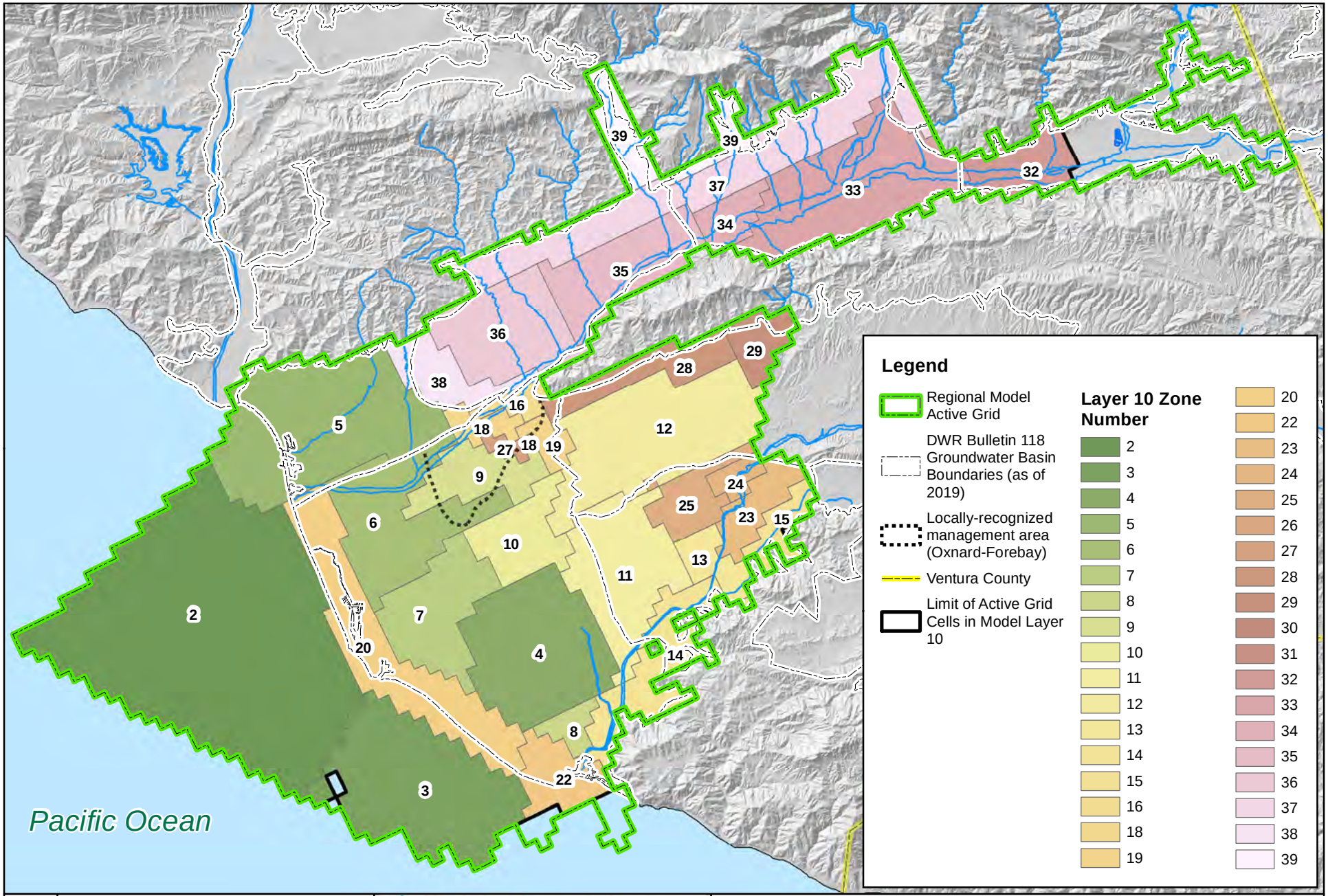

Figure 3-49.
Parameter Zone Numbers of Model Layer 10

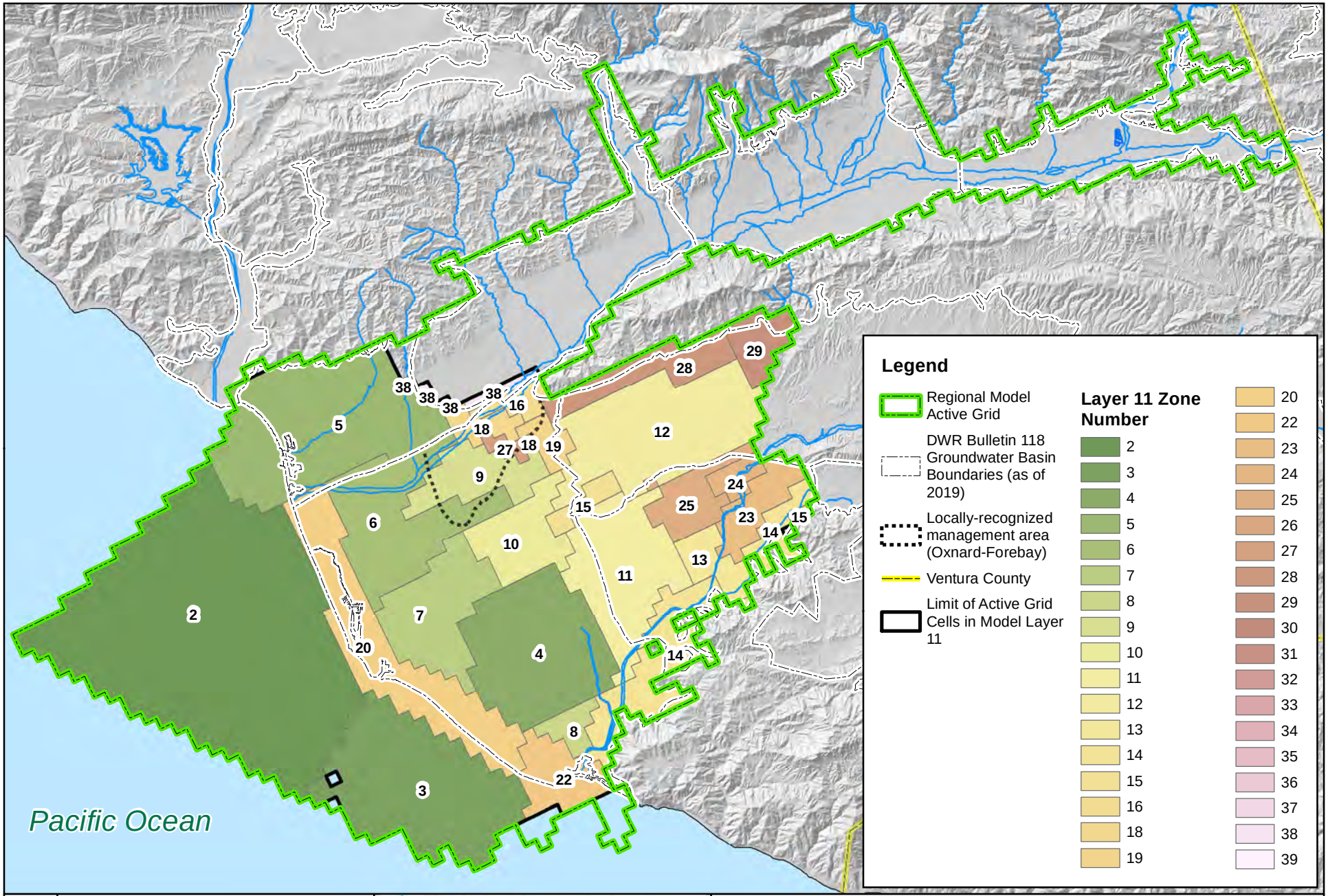

Figure 3-50.
Parameter Zone Numbers of Model Layer 11

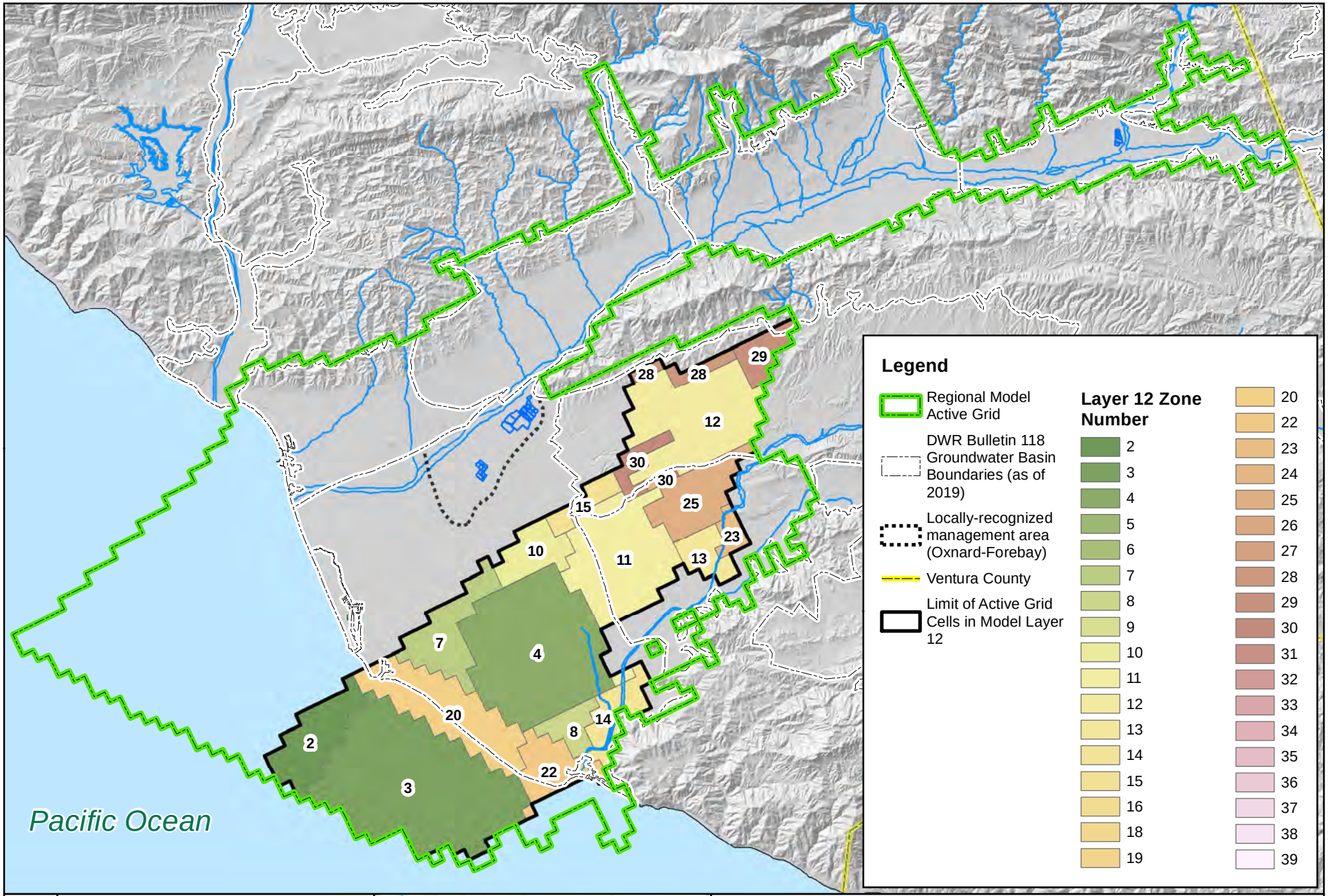

Figure 3-51.
Parameter Zone Numbers of Model Layer 12

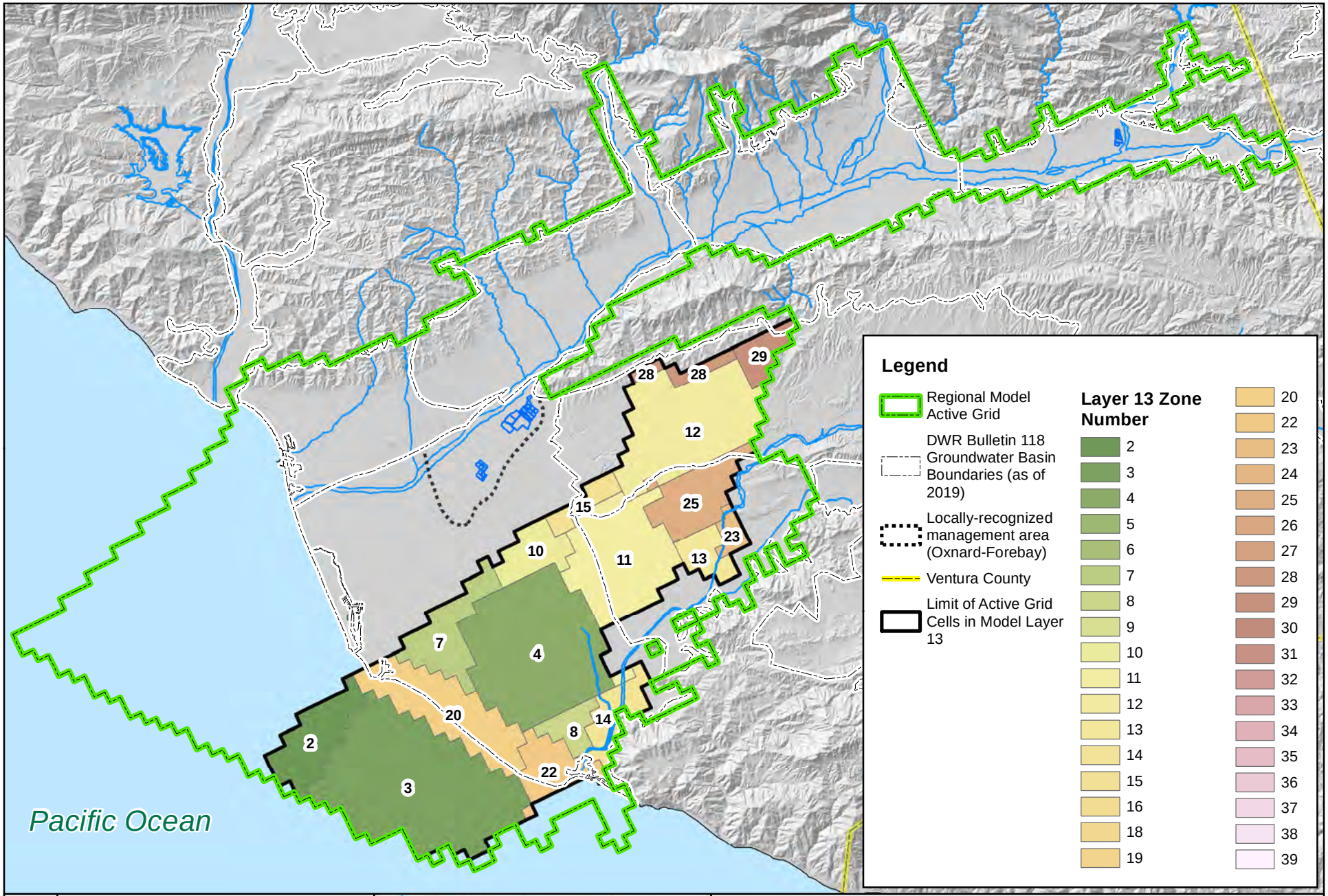

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Figure 3-52.
Parameter Zone Numbers of Model Layer 13

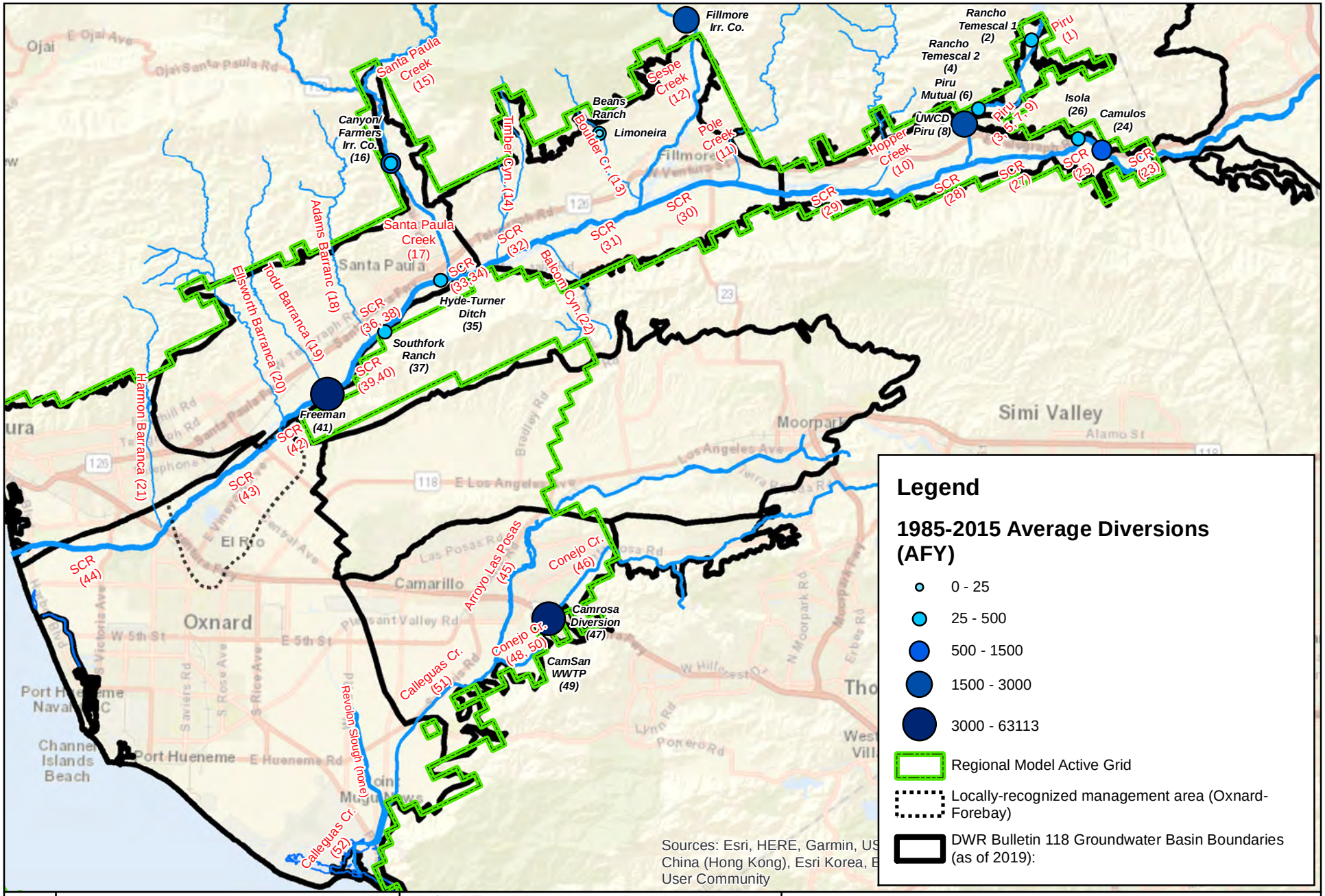

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Figure 3-53.
Simulated Stream Segments and Diversions in Regional Model

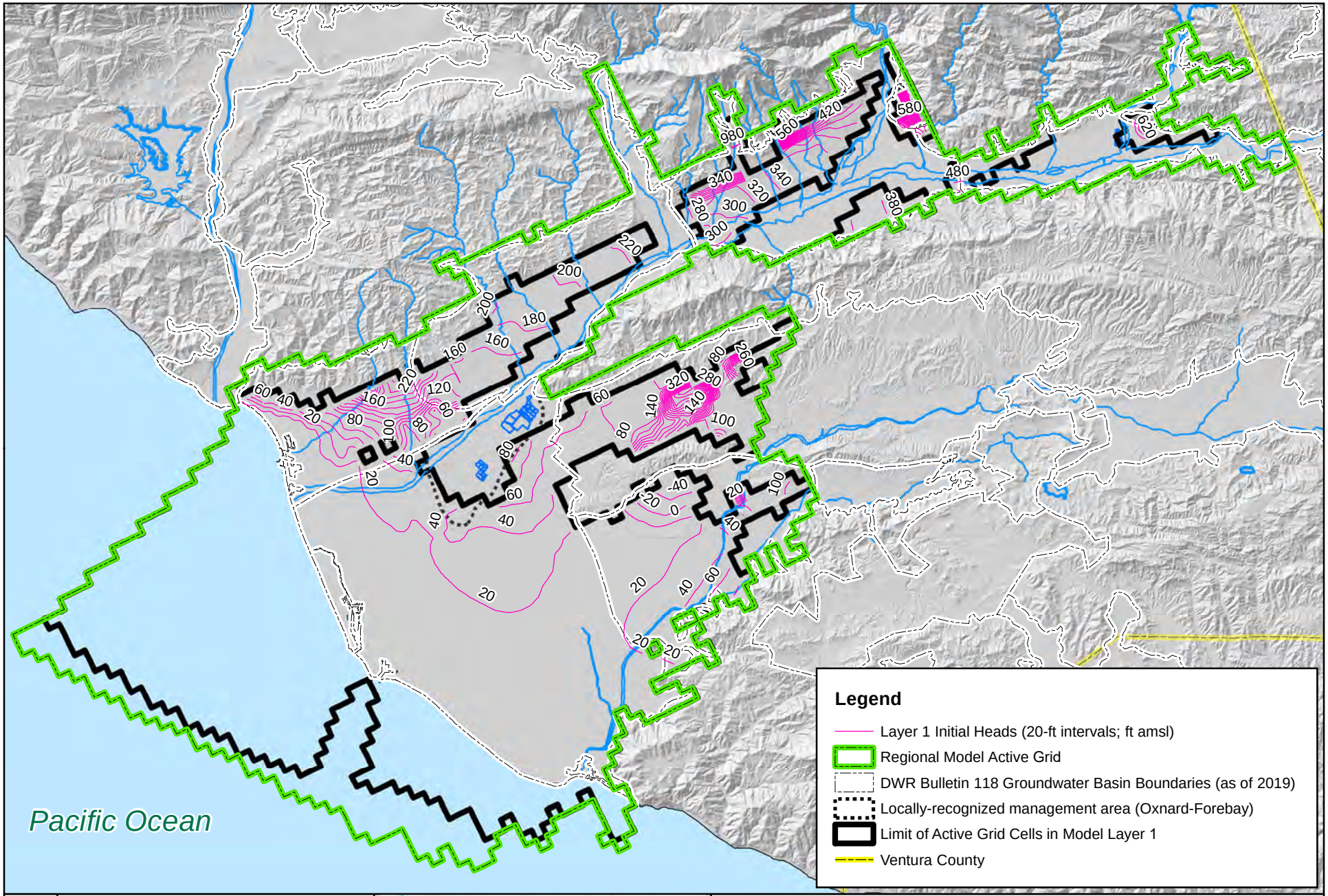

Figure 3-54.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 1

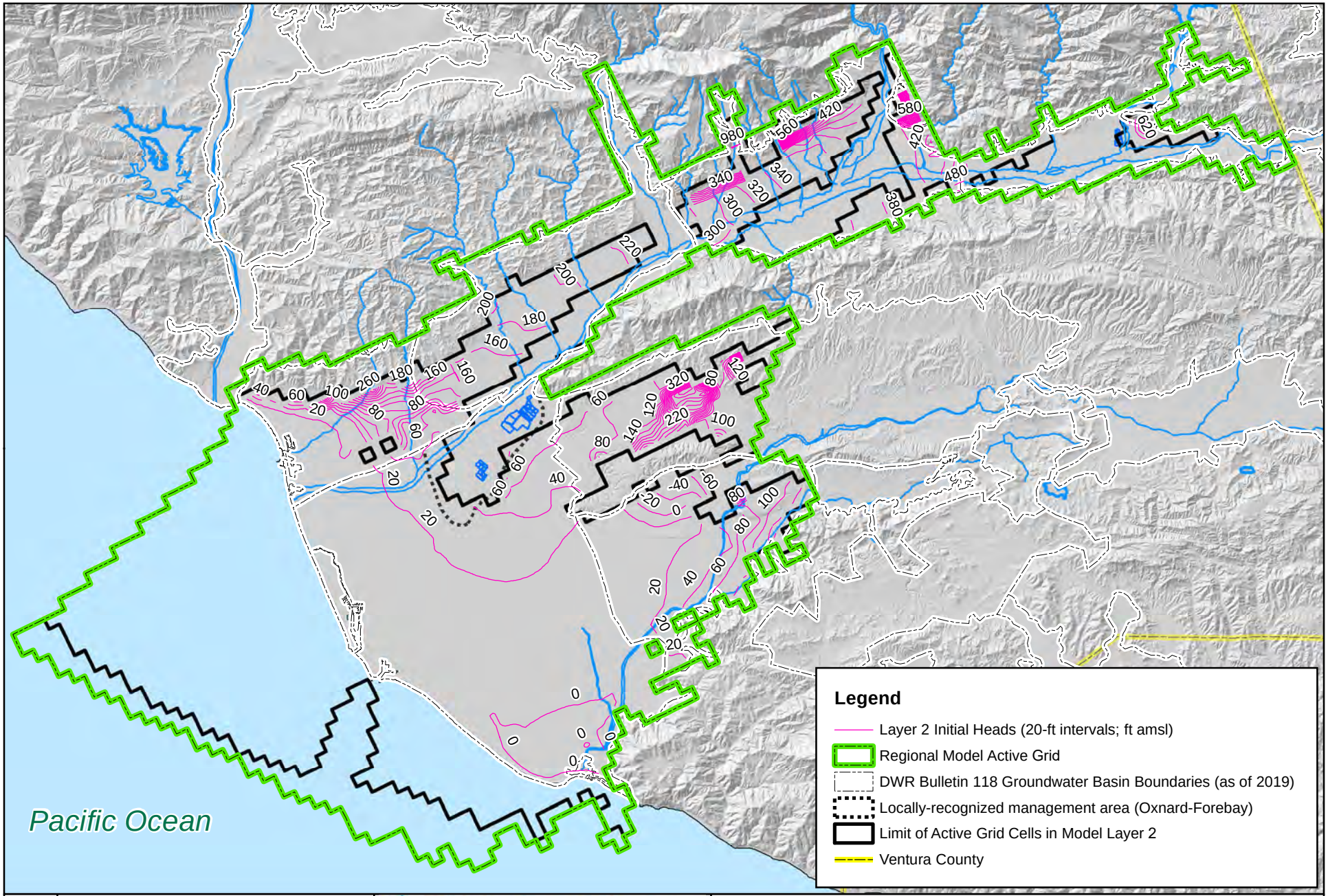

Figure 3-55.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 2

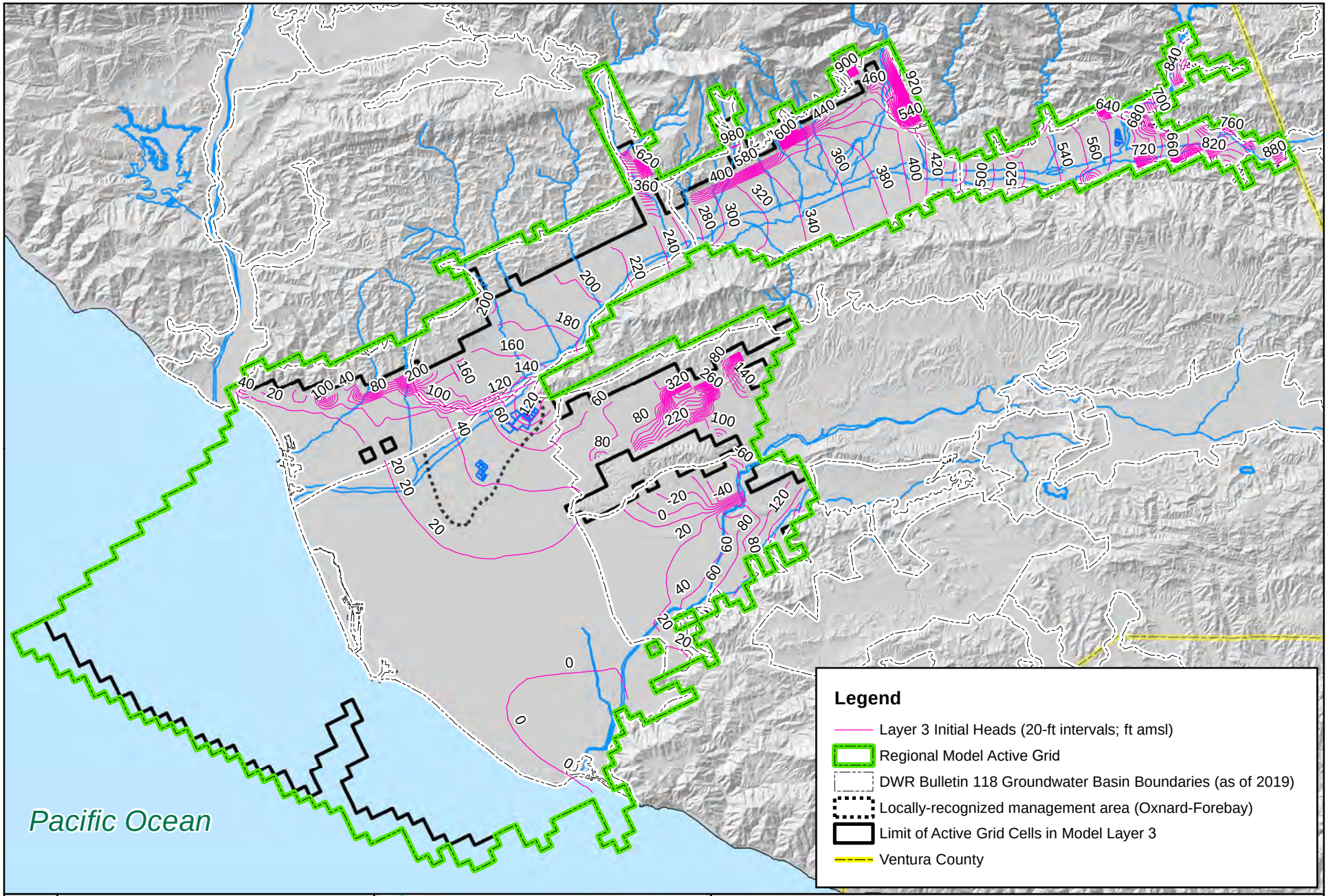

Figure 3-56.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 3

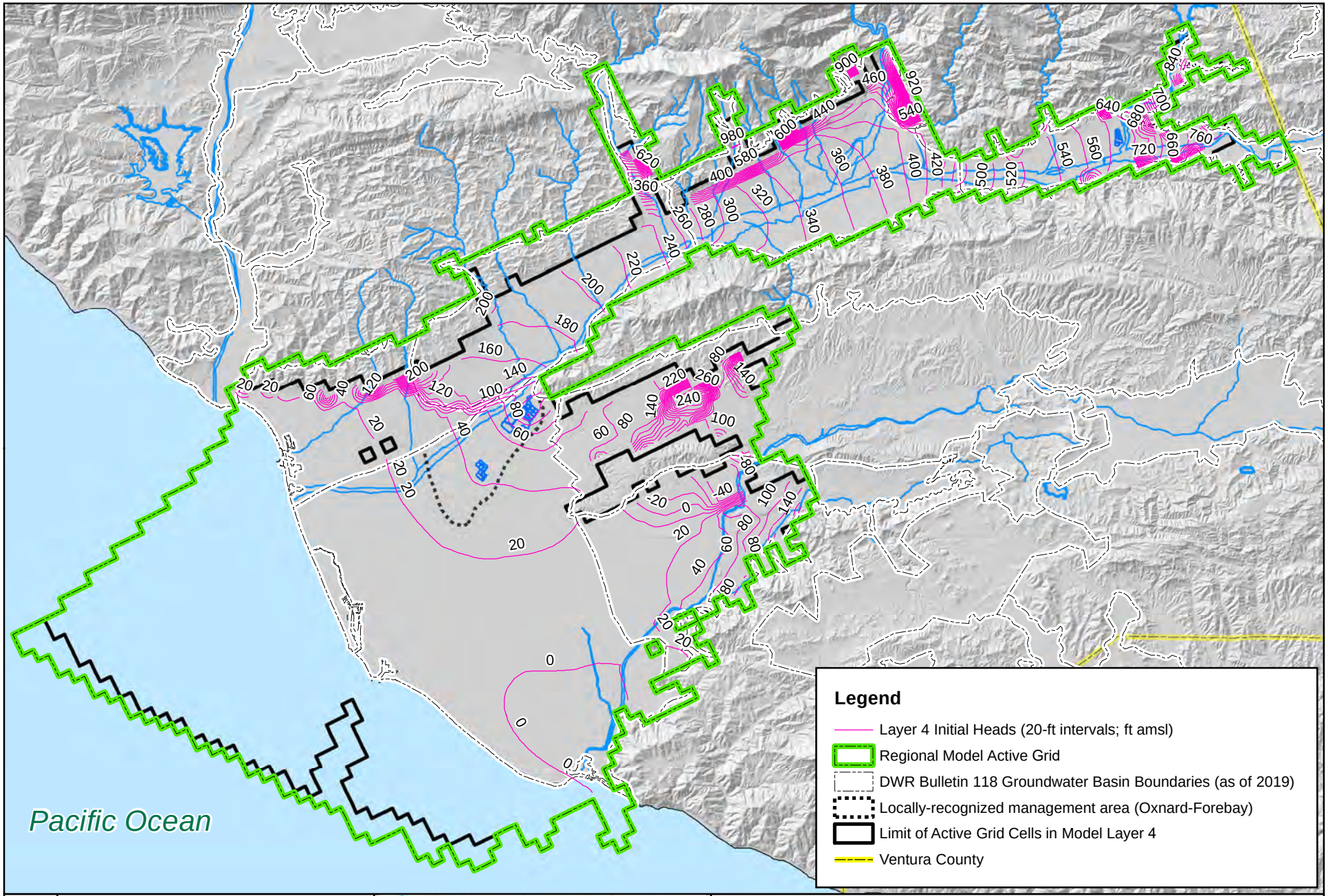

Figure 3-57.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 4

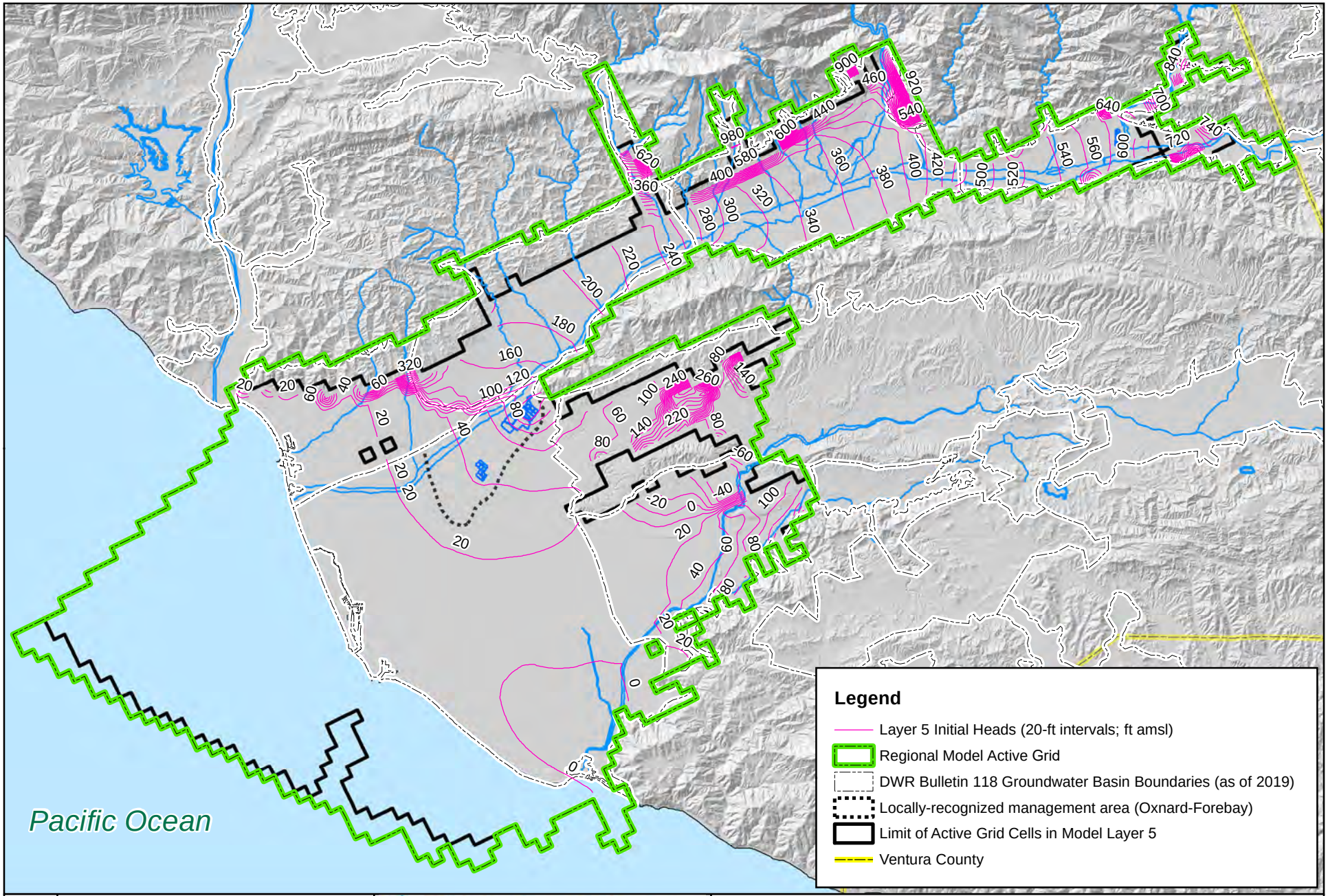

Figure 3-58.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 5

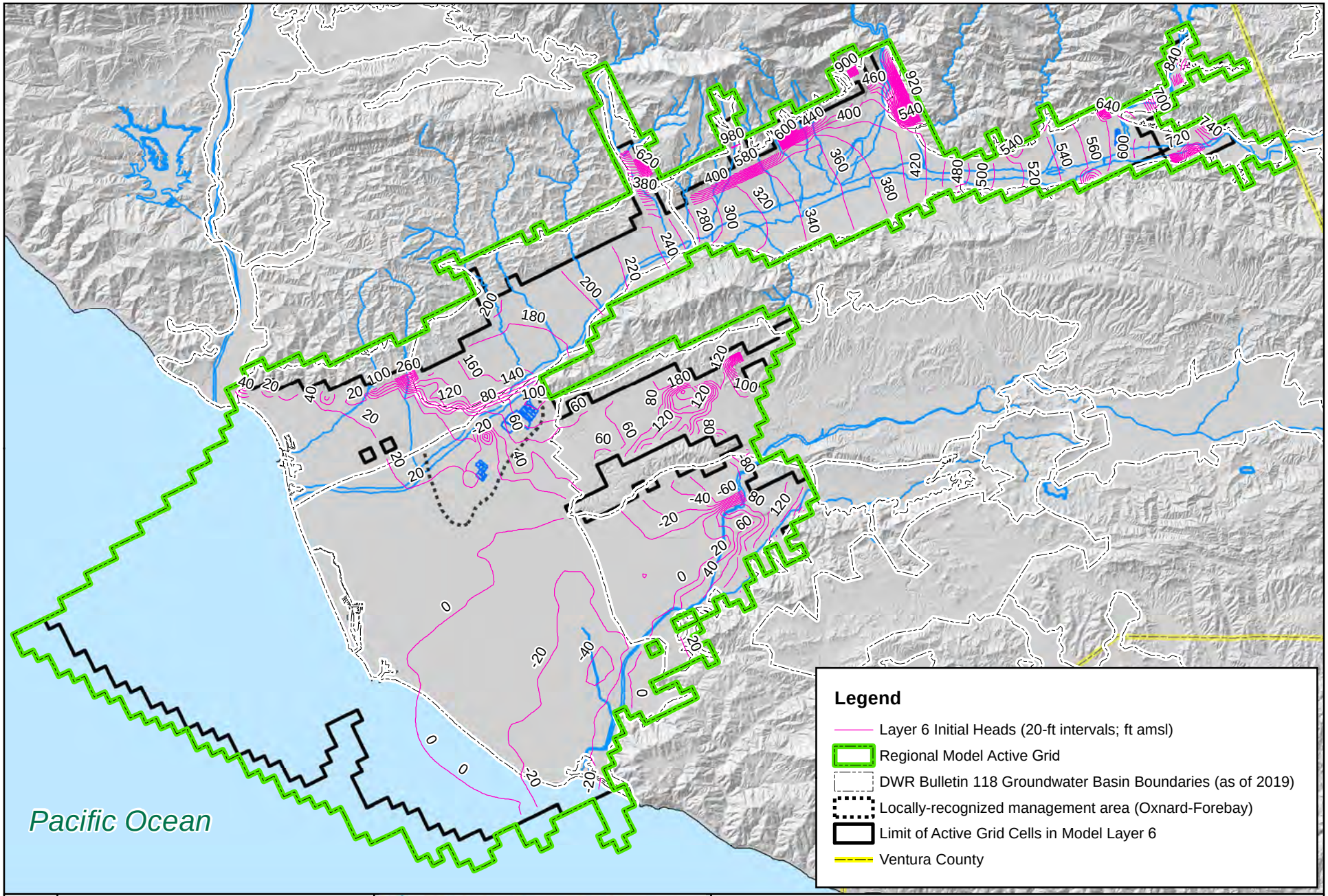

Figure 3-59.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 6

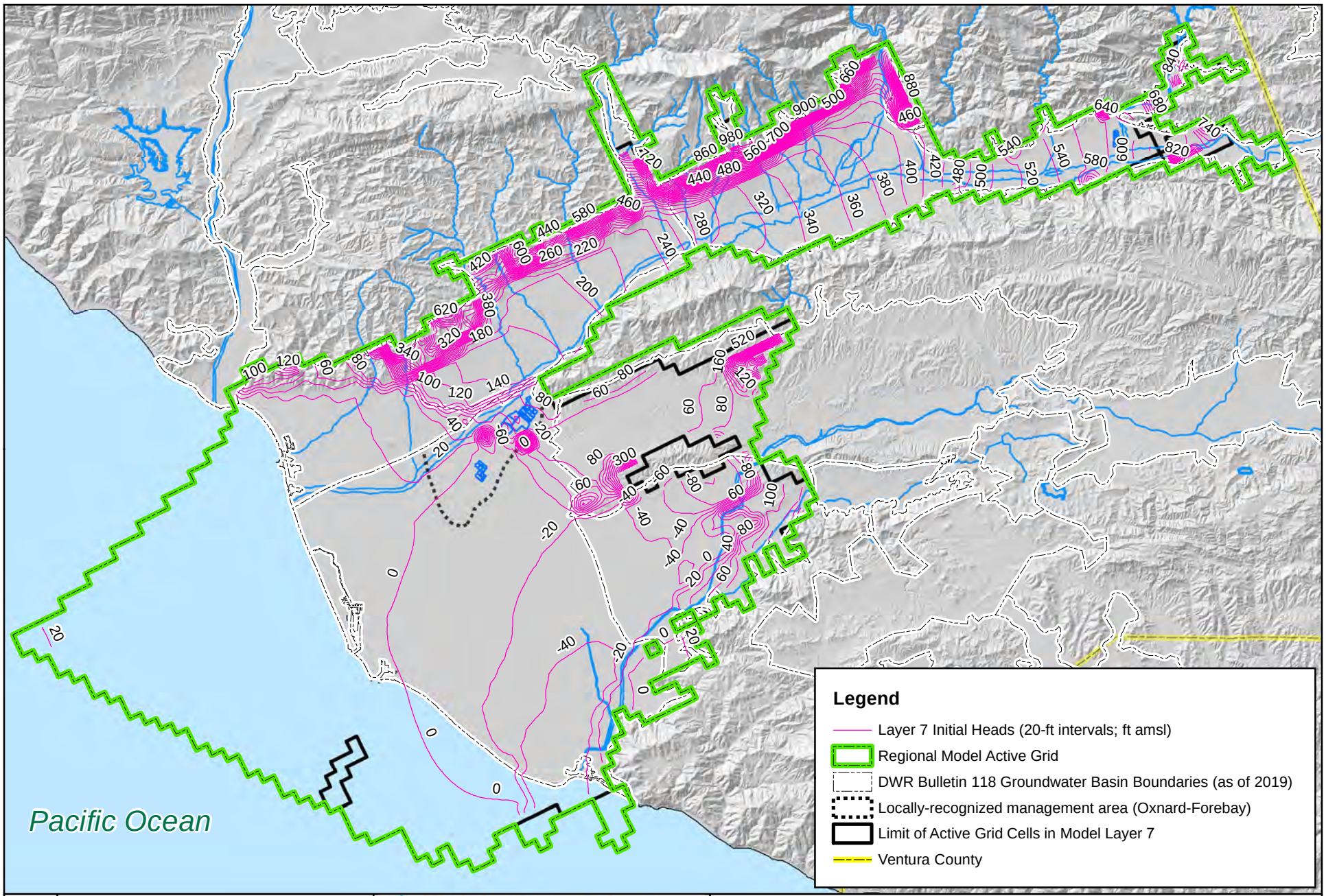

Figure 3-60.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 7

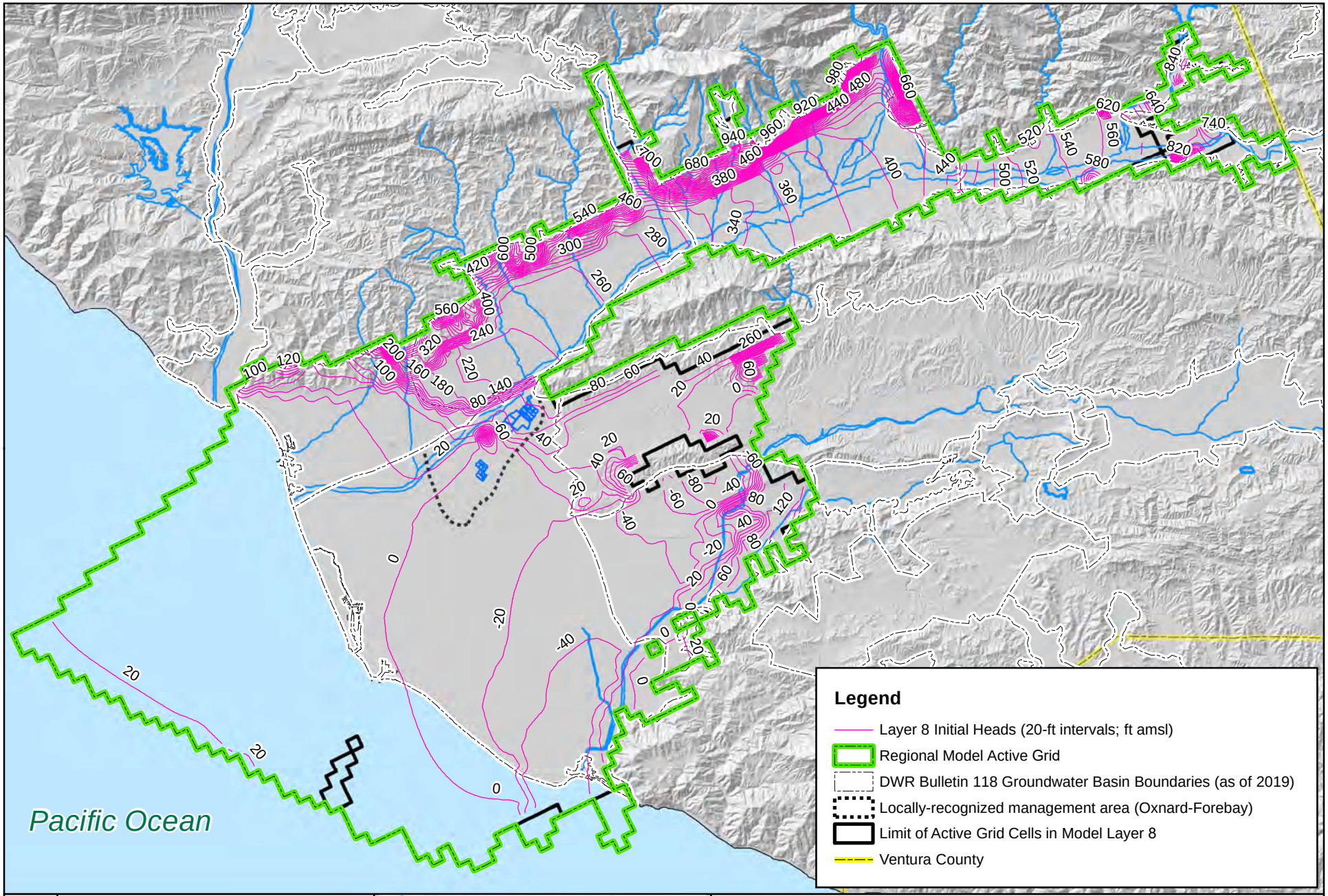

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Figure 3-61.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 8

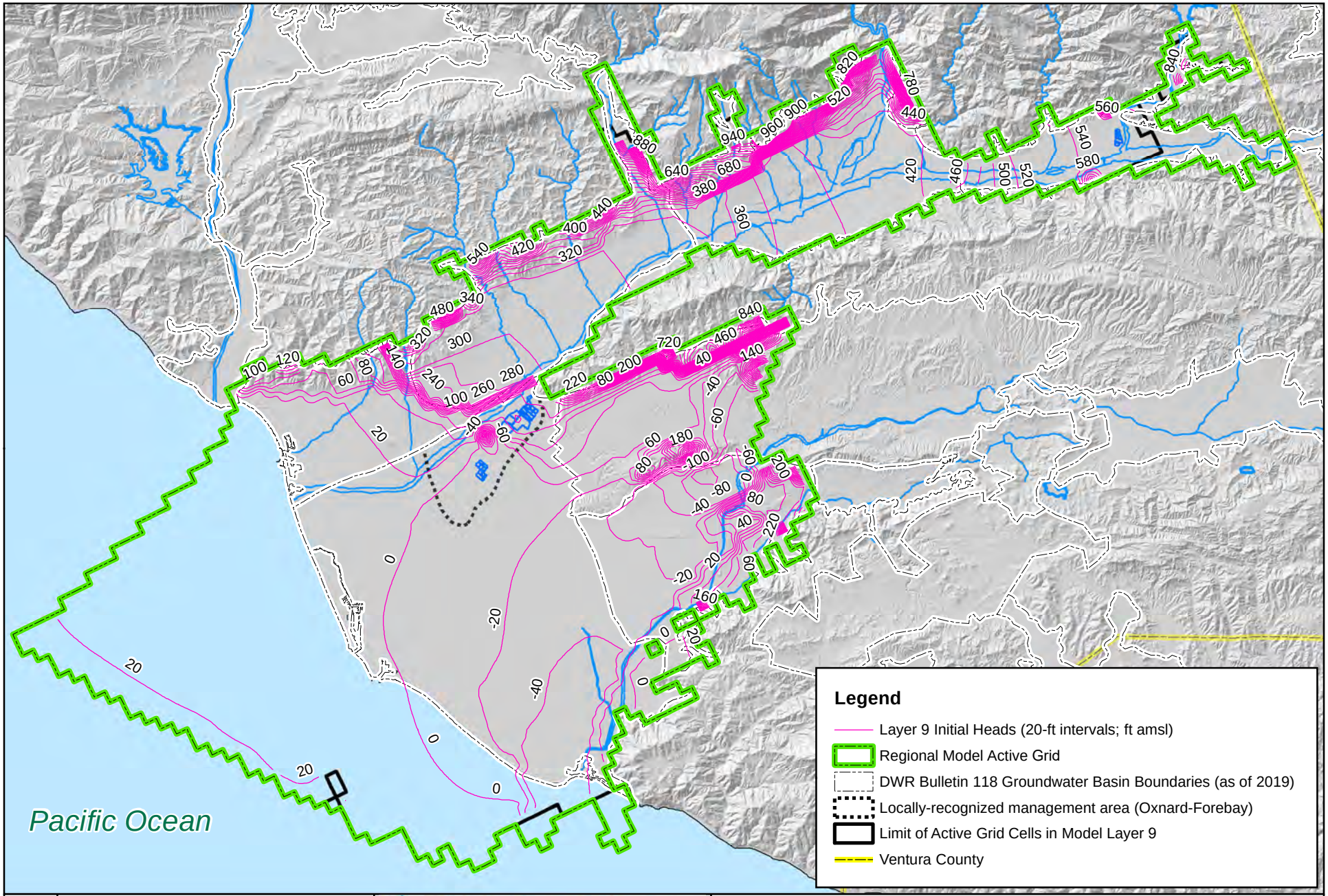

Figure 3-62.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 9

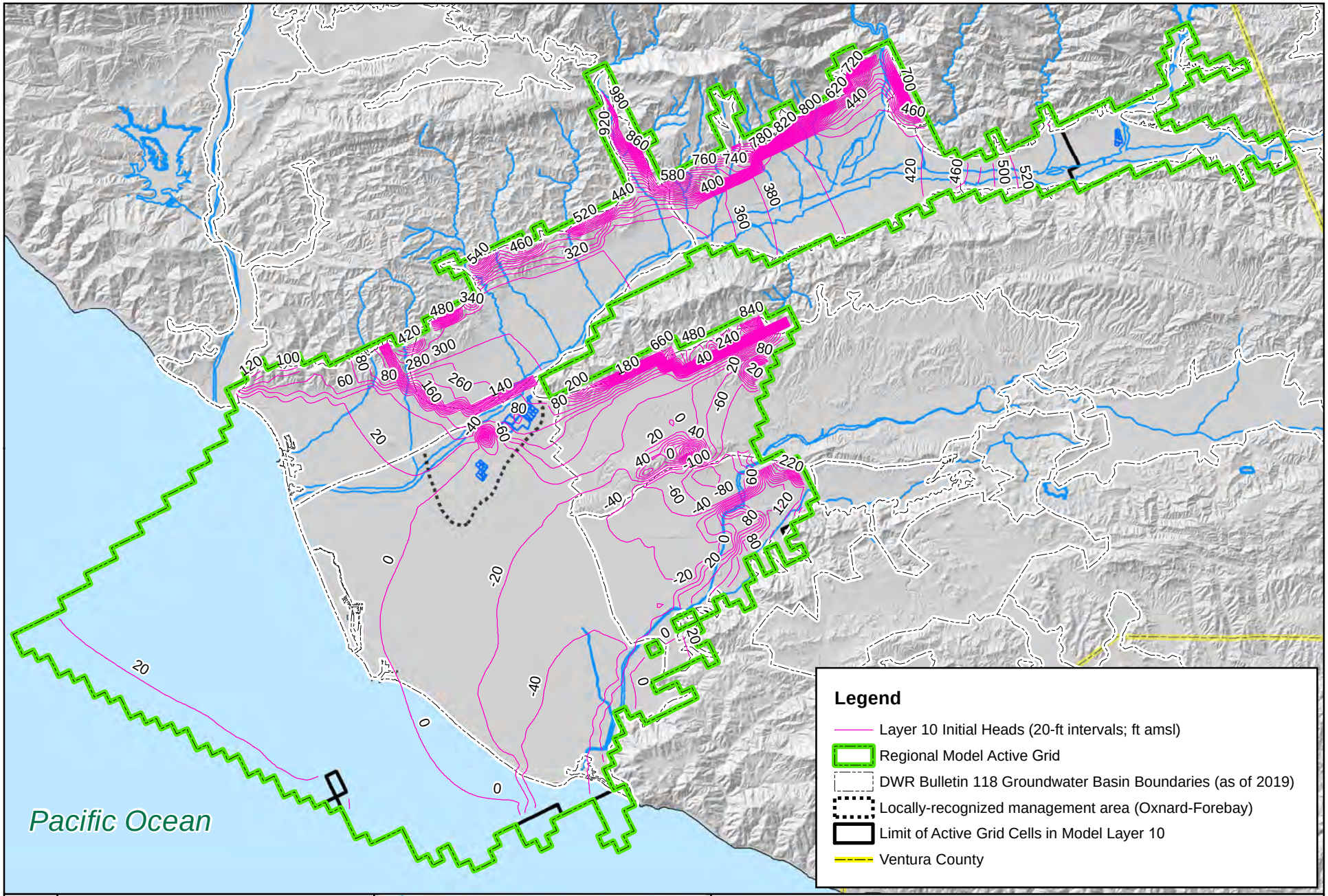

Figure 3-63.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 10

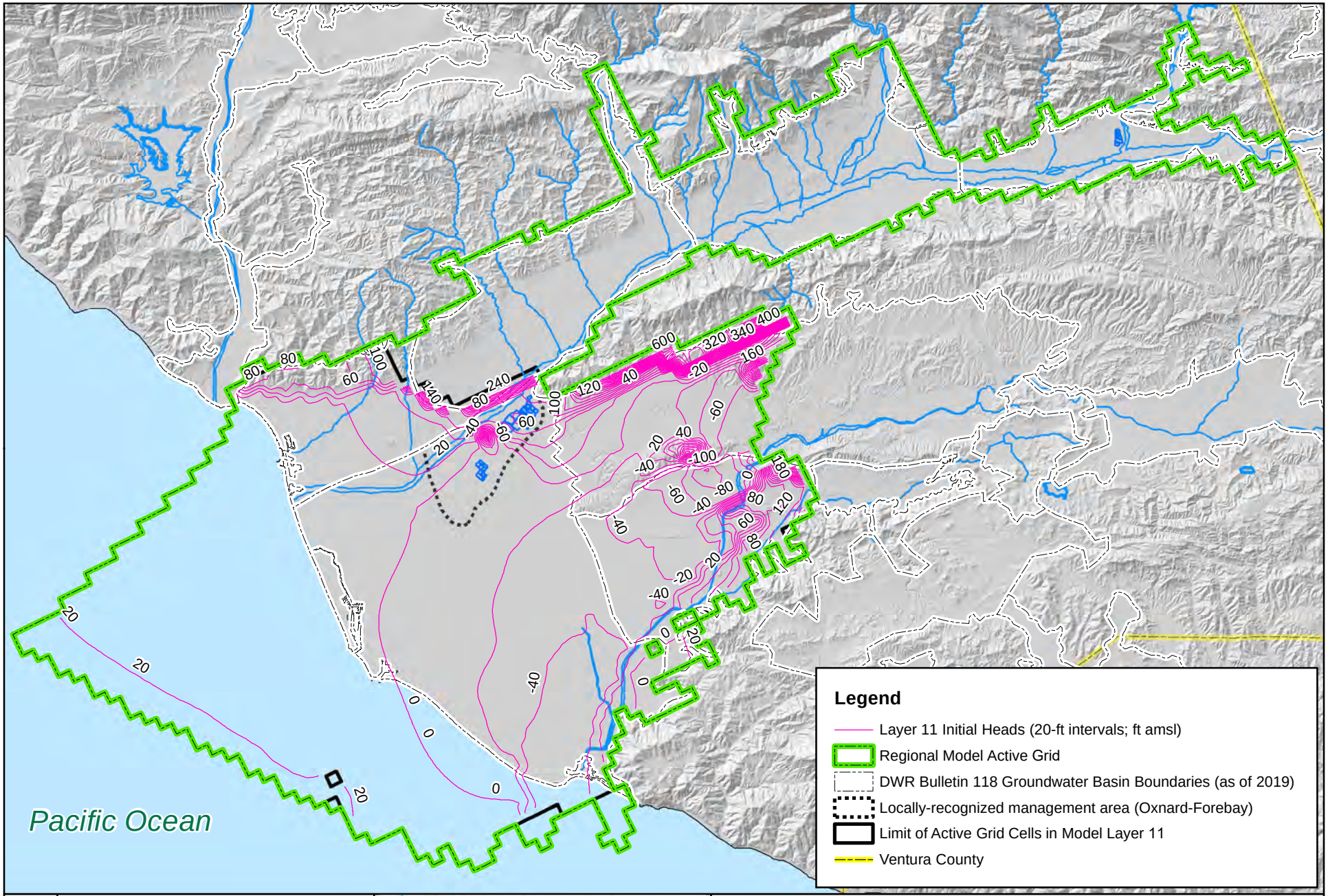

Figure 3-64.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 11

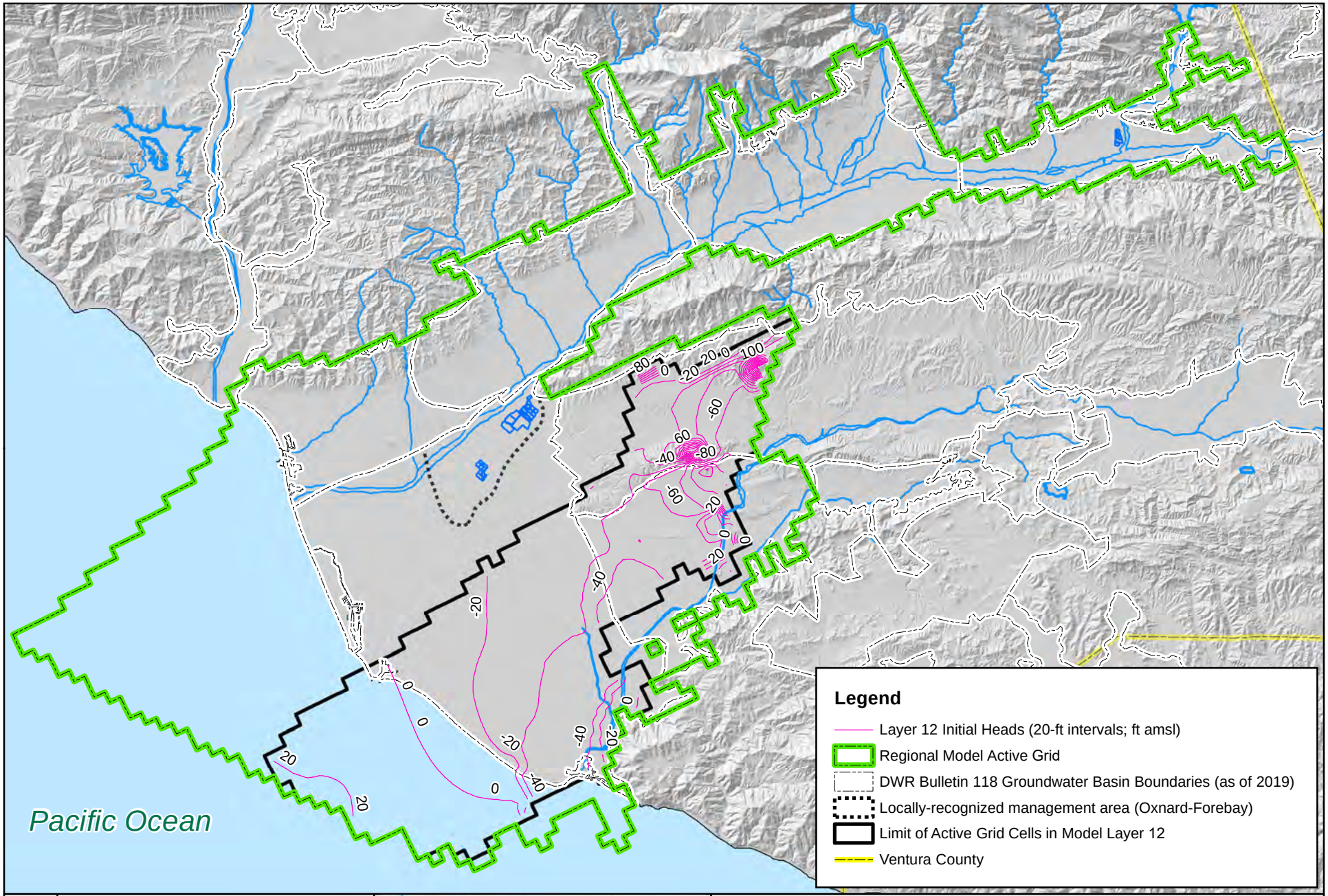

Figure 3-65.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 12

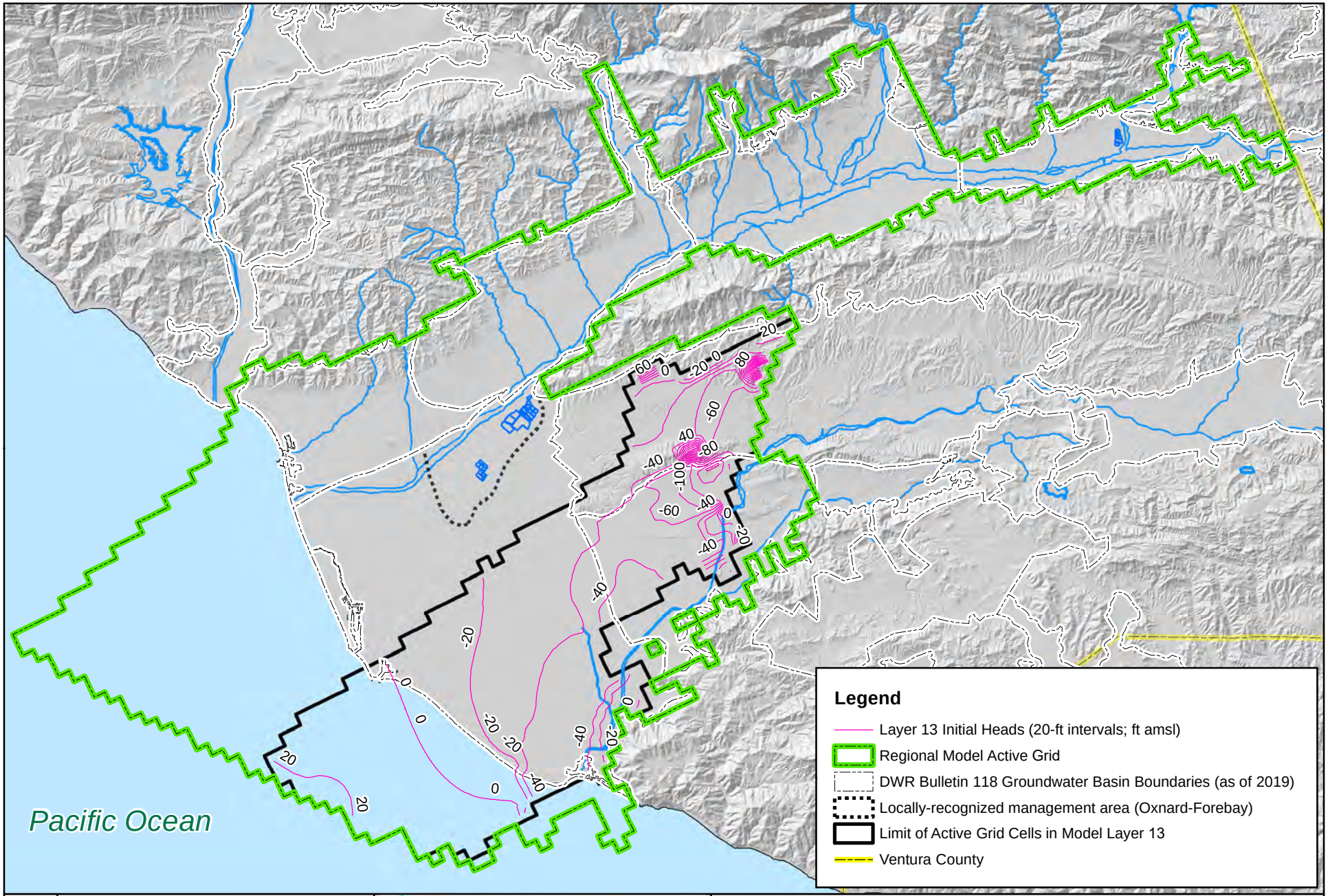

Figure 3-66.
Initial Head Contours (20ft interval, ft amsl) of Model Layer 13

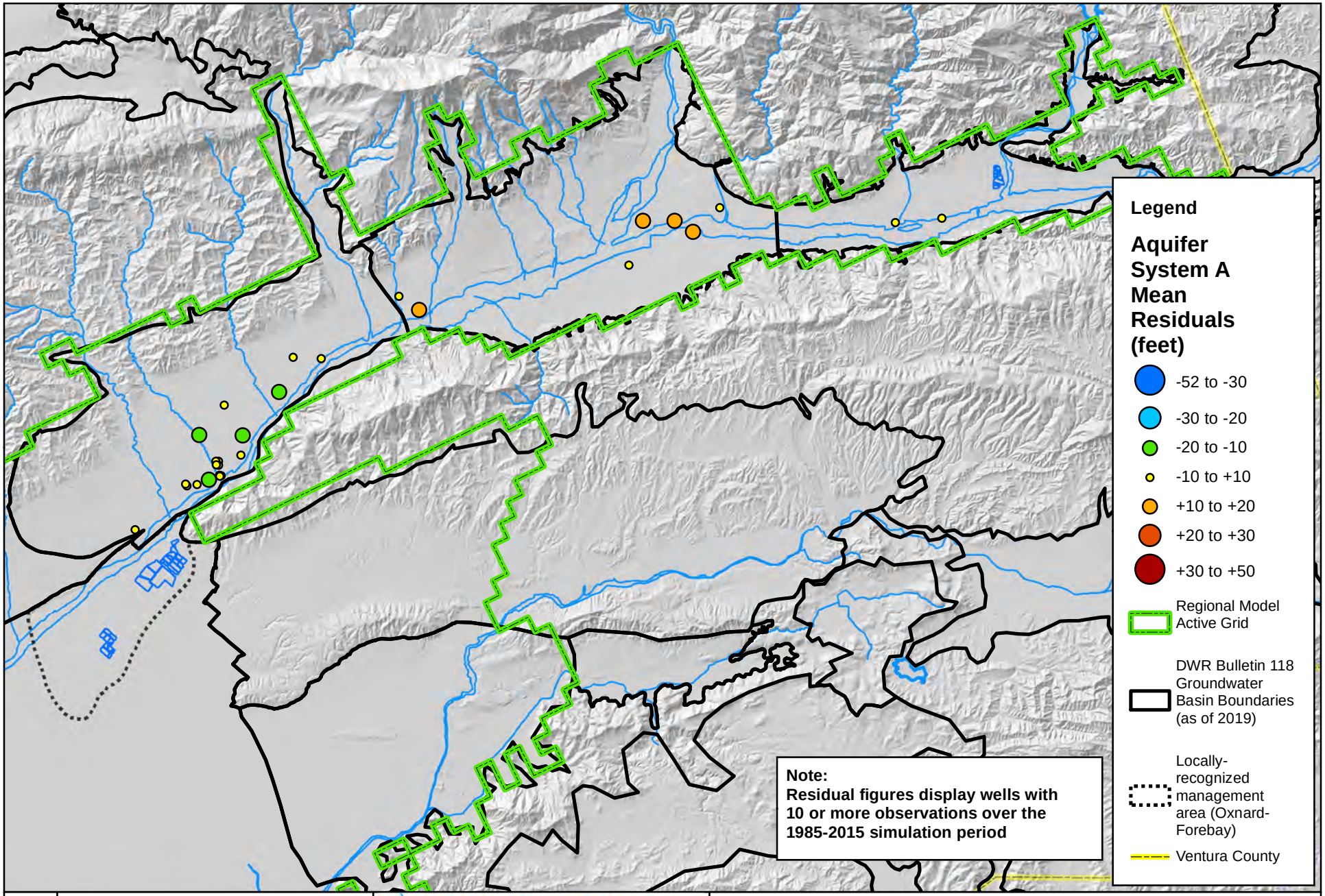

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Figure 4-1.
Mean Residuals for Groundwater Elevation in the Aquifer System A

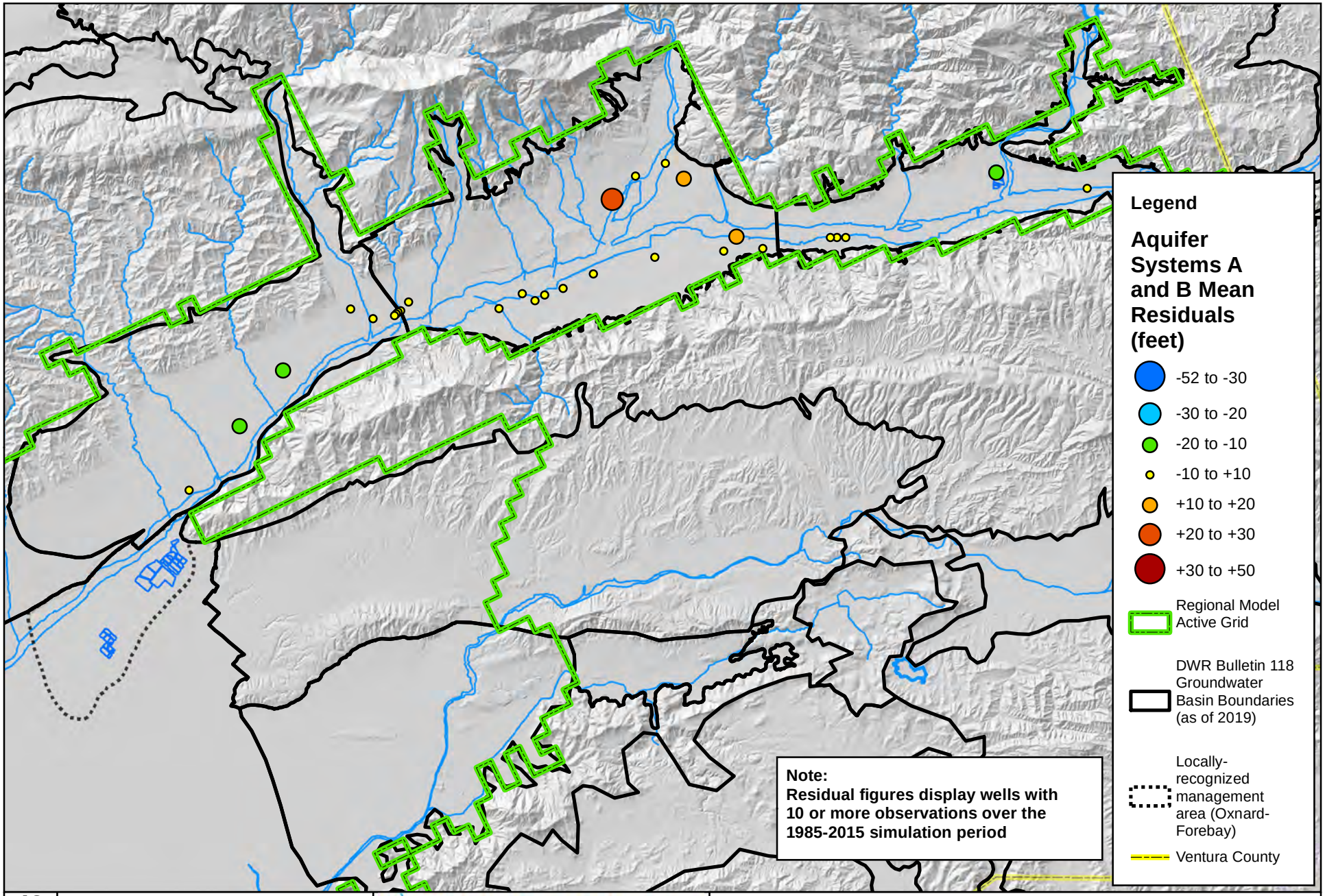

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Figure 4-2.
Mean Residuals for Groundwater Elevation for Wells Screened in A and B Aquifer Systems

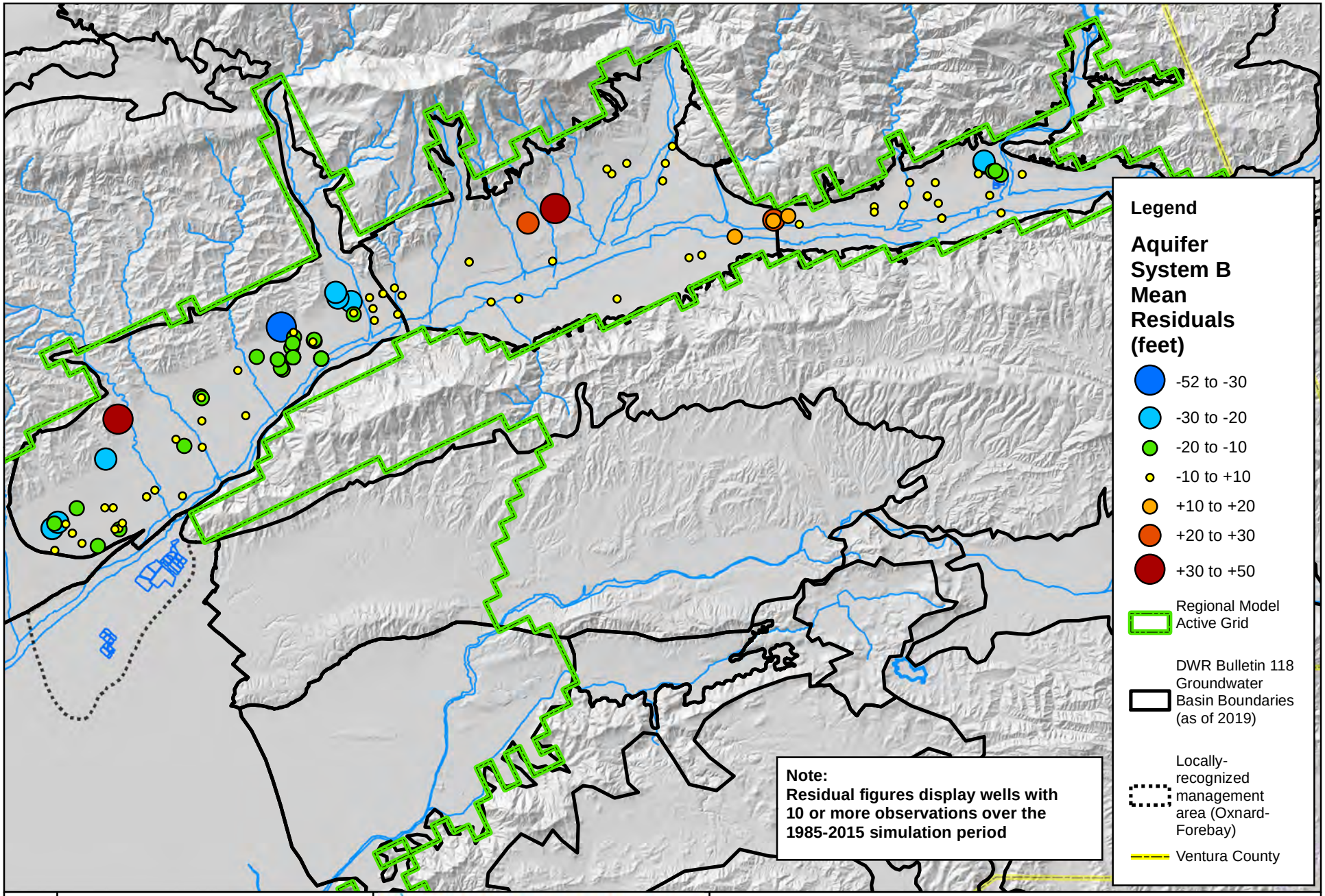

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Figure 4-3.
Mean Residuals for Groundwater Elevation in the Aquifer System B

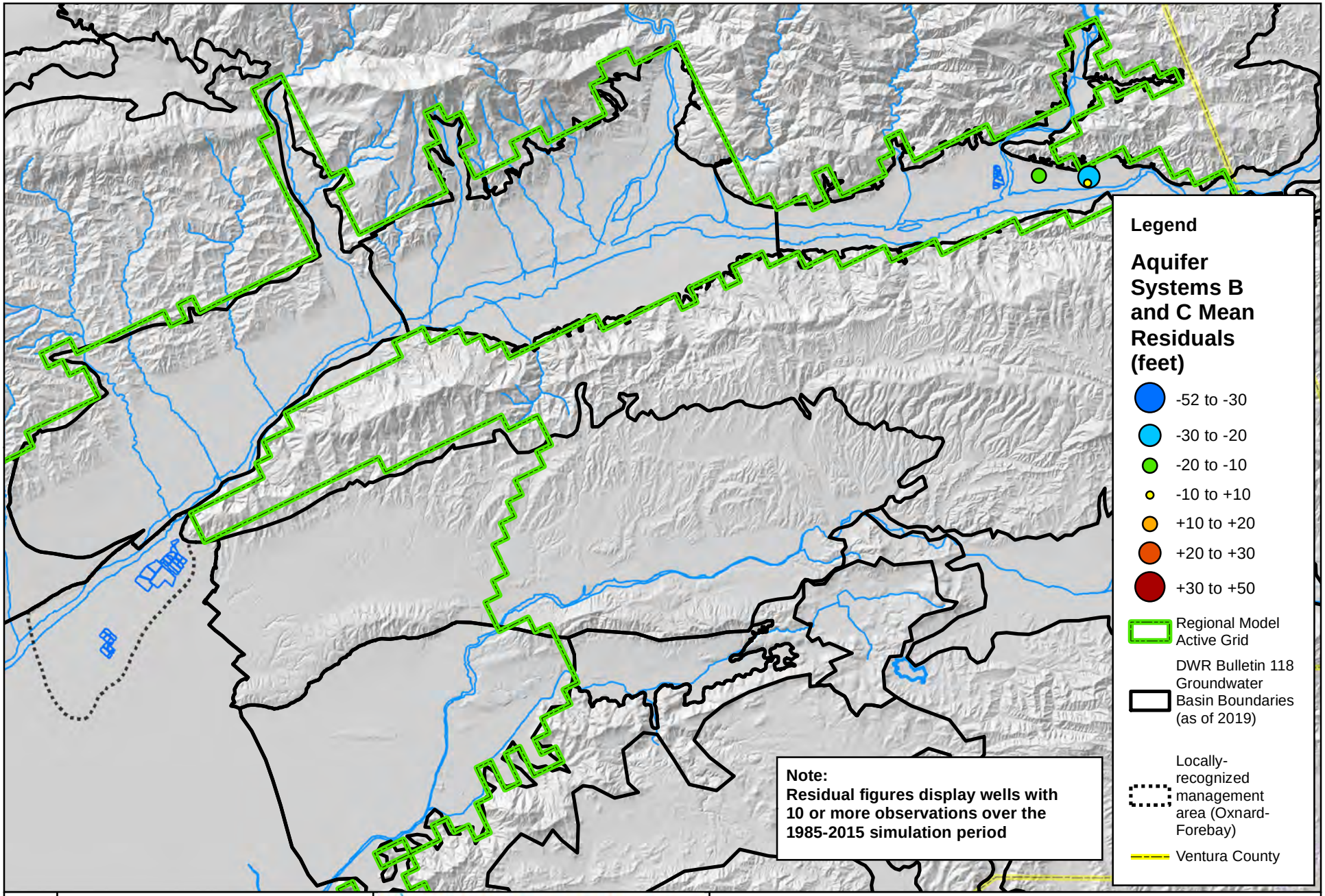

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Figure 4-4.
Mean Residuals for Groundwater Elevation for Wells Screened in B and C Aquifer Systems

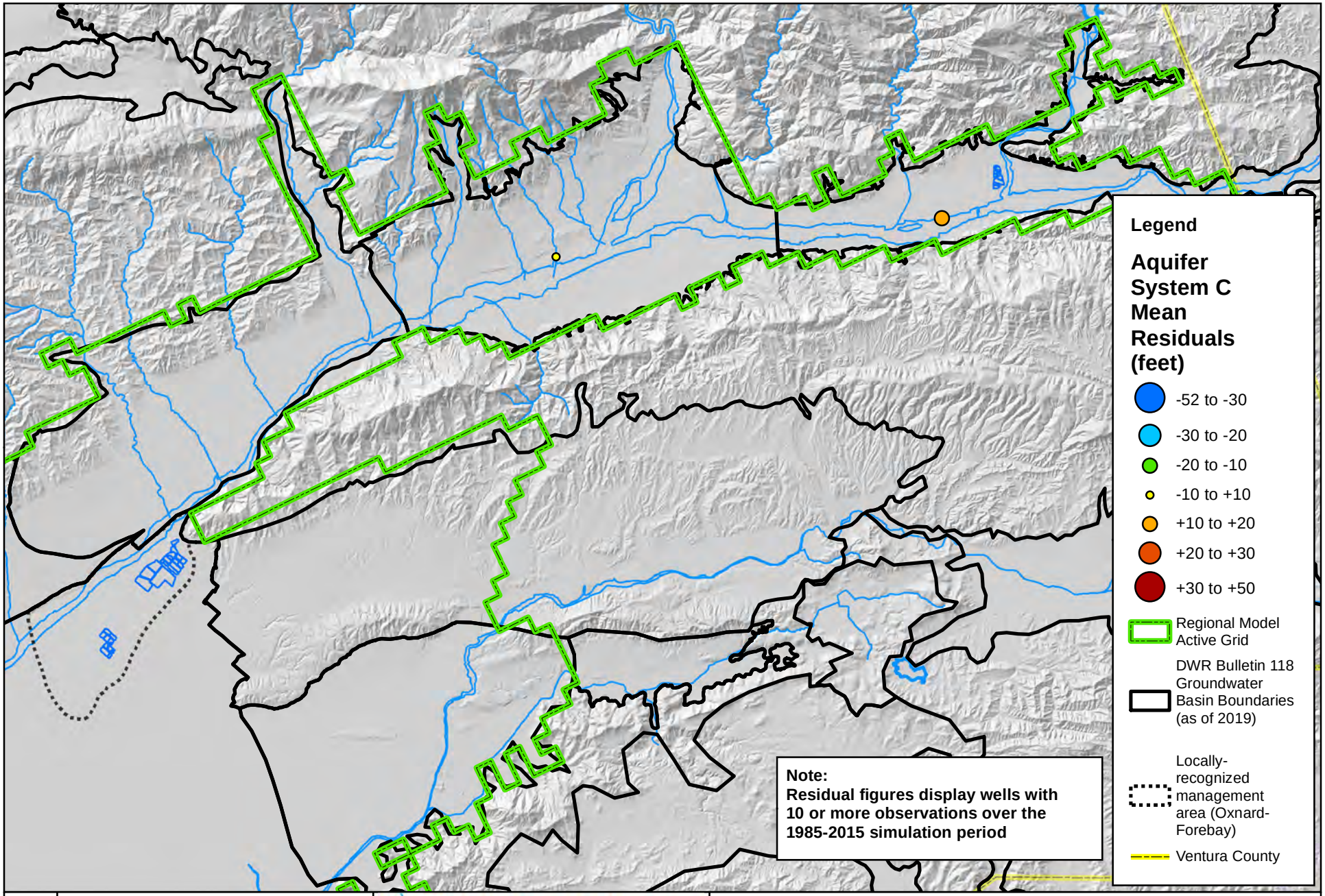

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Figure 4-5.
Mean Residuals for Groundwater Elevation in the Aquifer System C

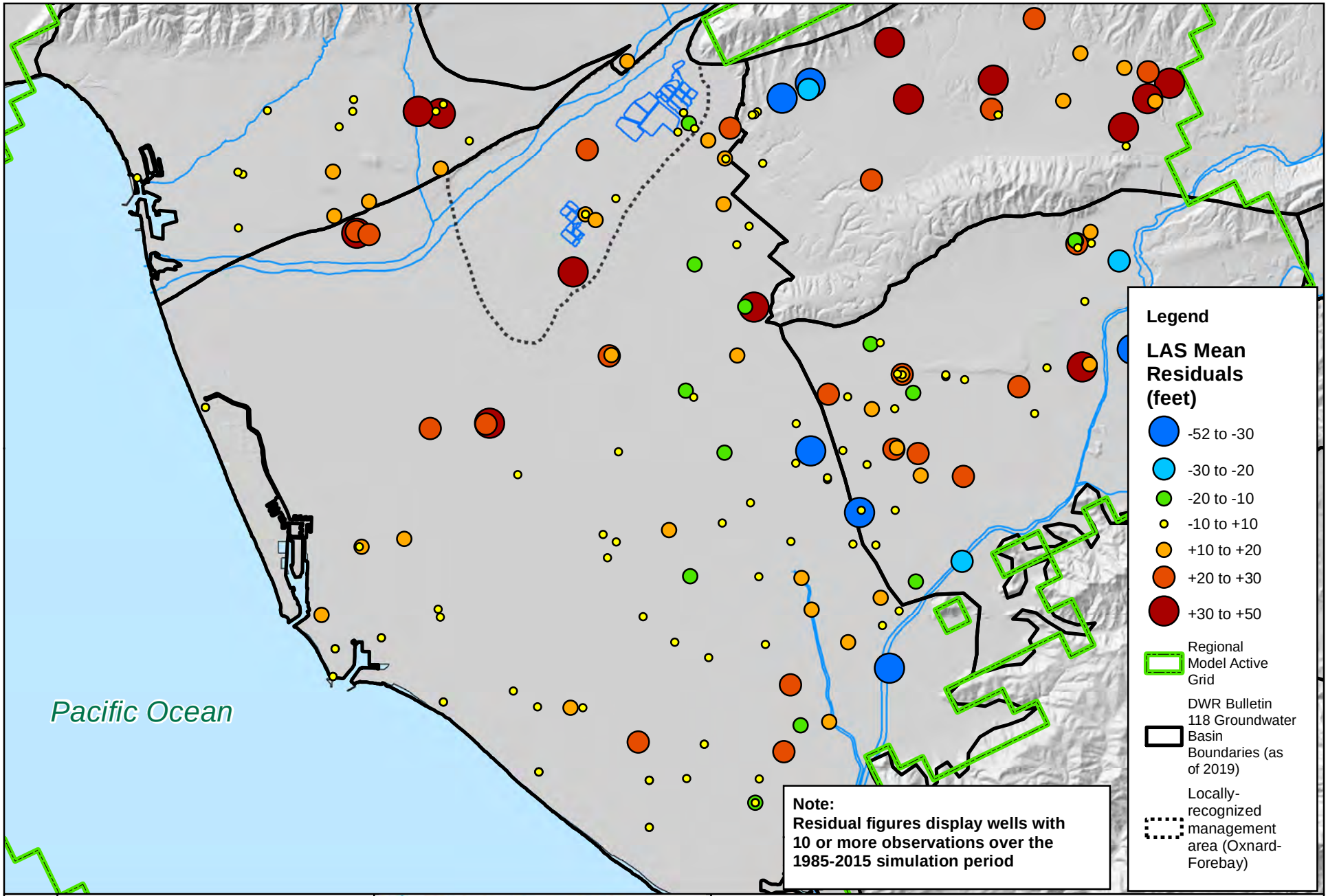

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Figure 4-6.
Mean Residuals for Groundwater Elevation in the Lower Aquifer System

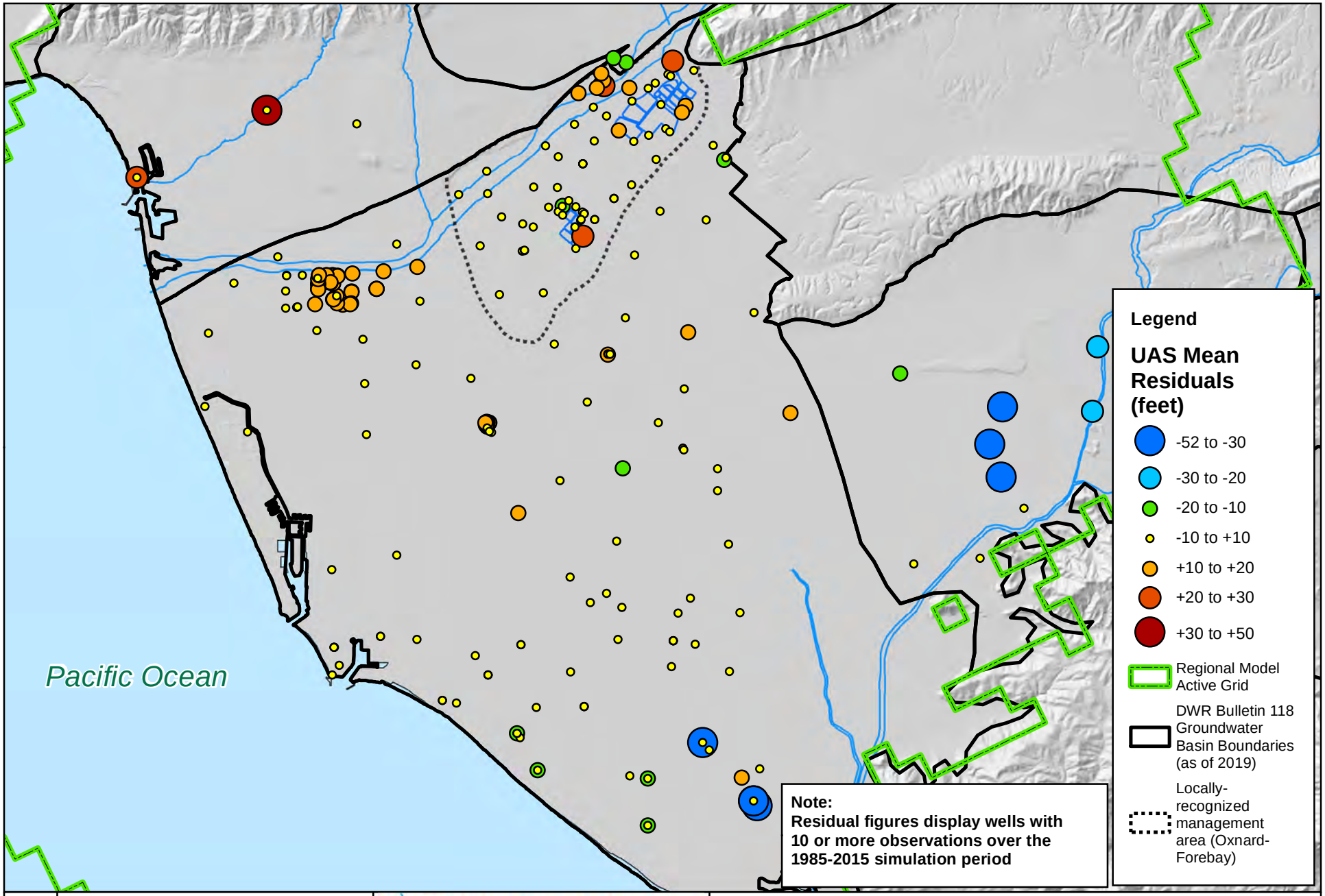

Figure 4-7.
Mean Residuals for Groundwater Elevation in the Upper Aquifer System

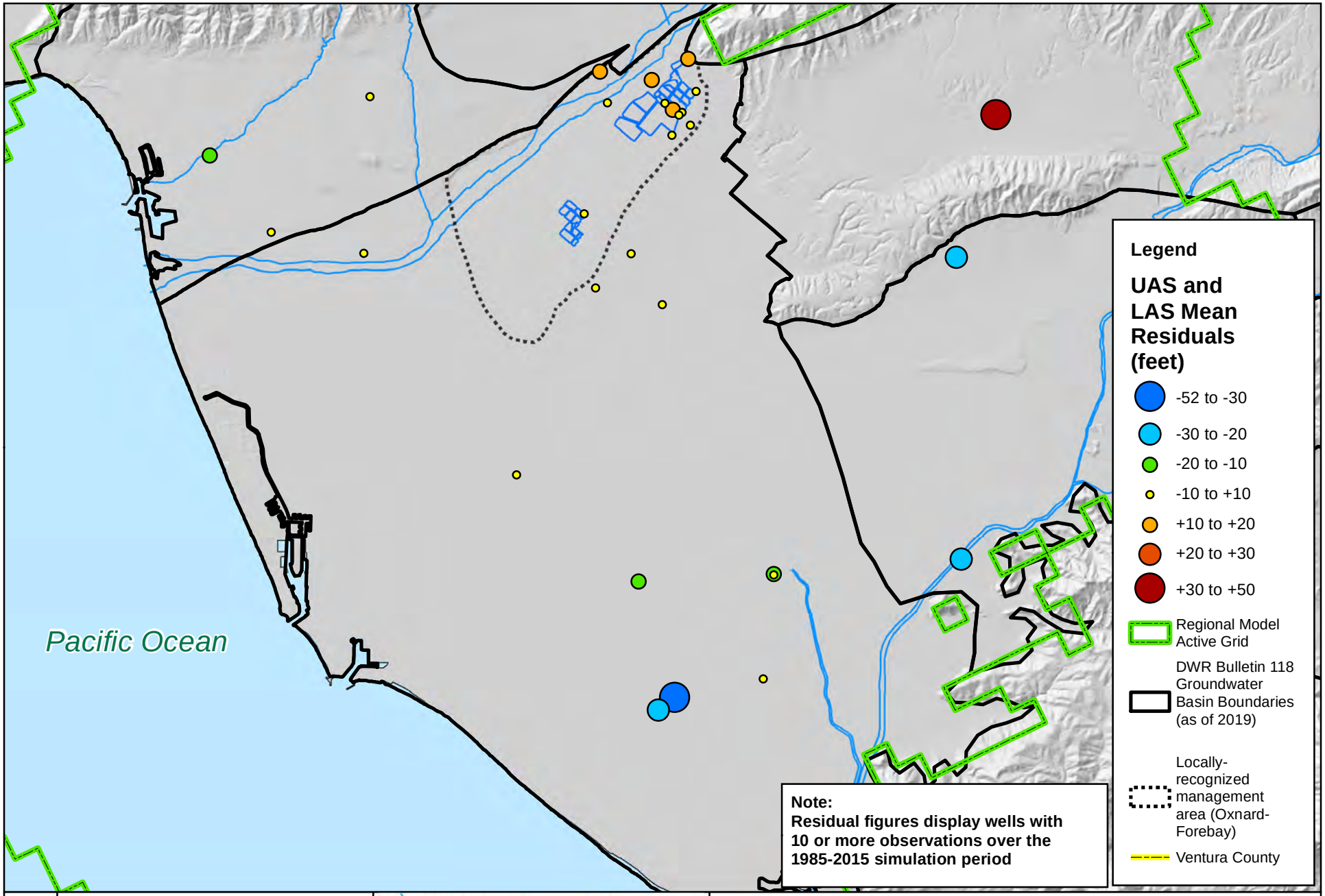

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Figure 4-8.
Mean Residuals for Groundwater Elevation for wells screen in both the UAS and LAS

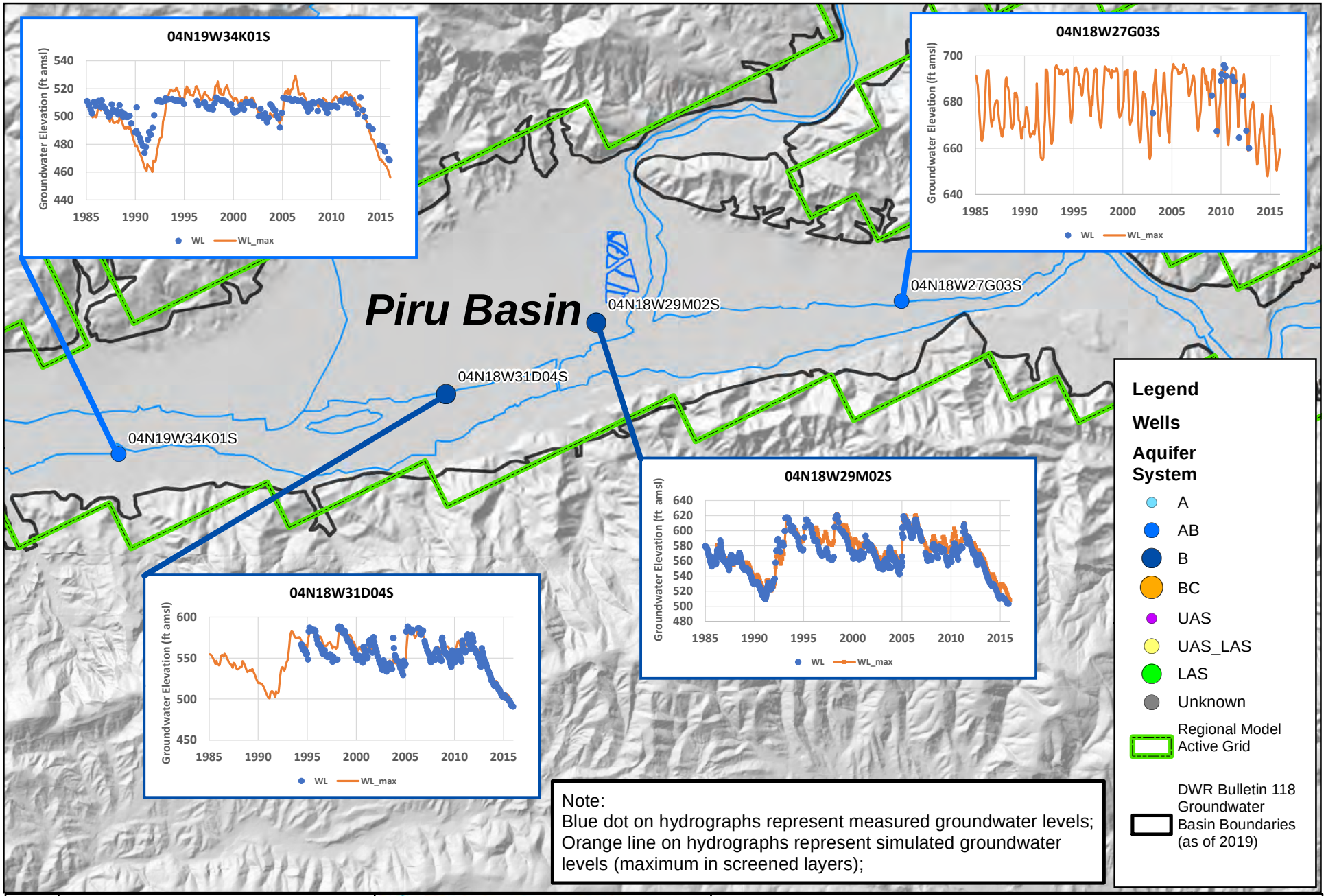

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Figure 4-9.
Selected Hydrographs of Simulated Groundwater Elevations in Piru Basin

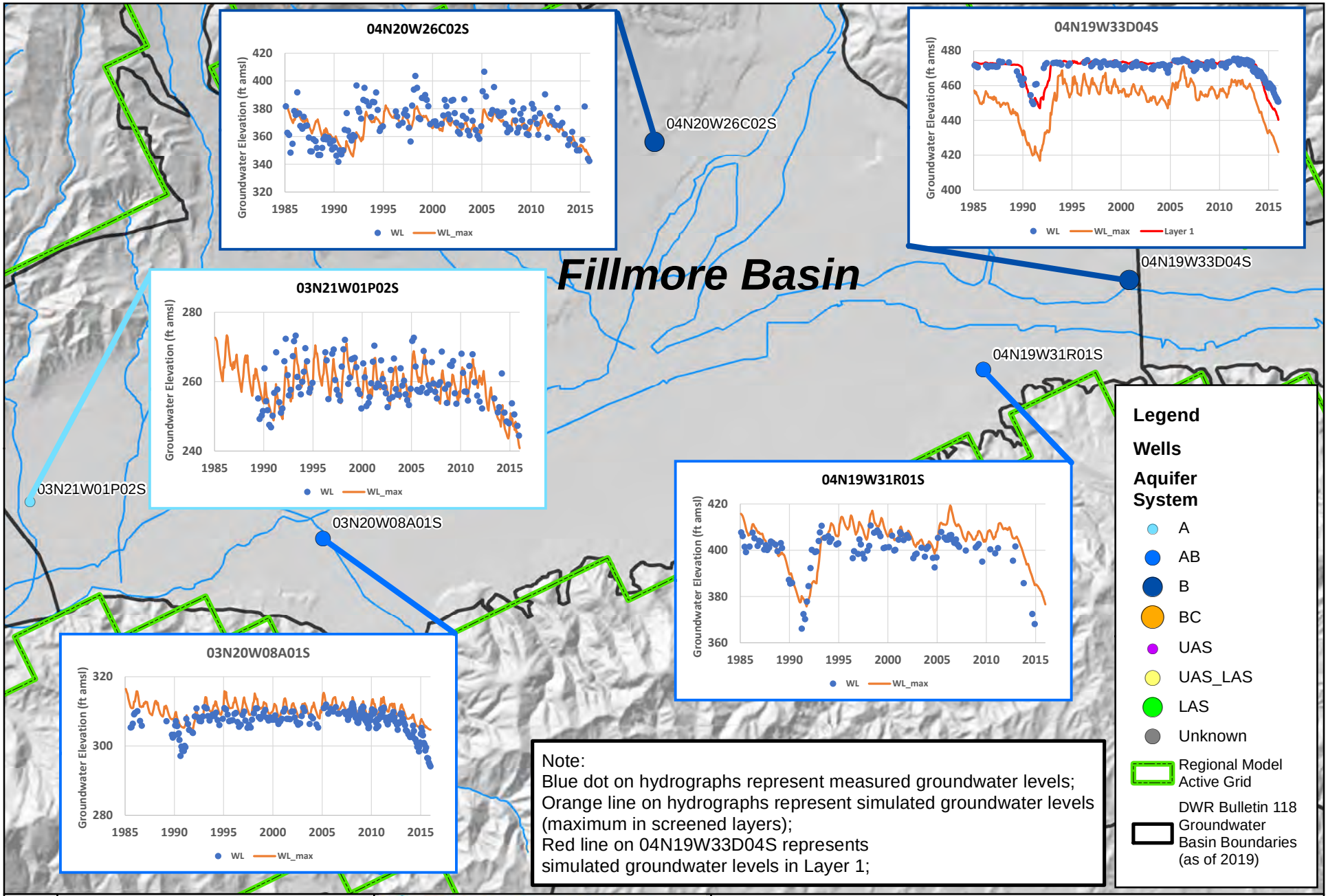

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Figure 4-10.
Selected Hydrographs of Simulated Groundwater Elevations in Fillmore Basin

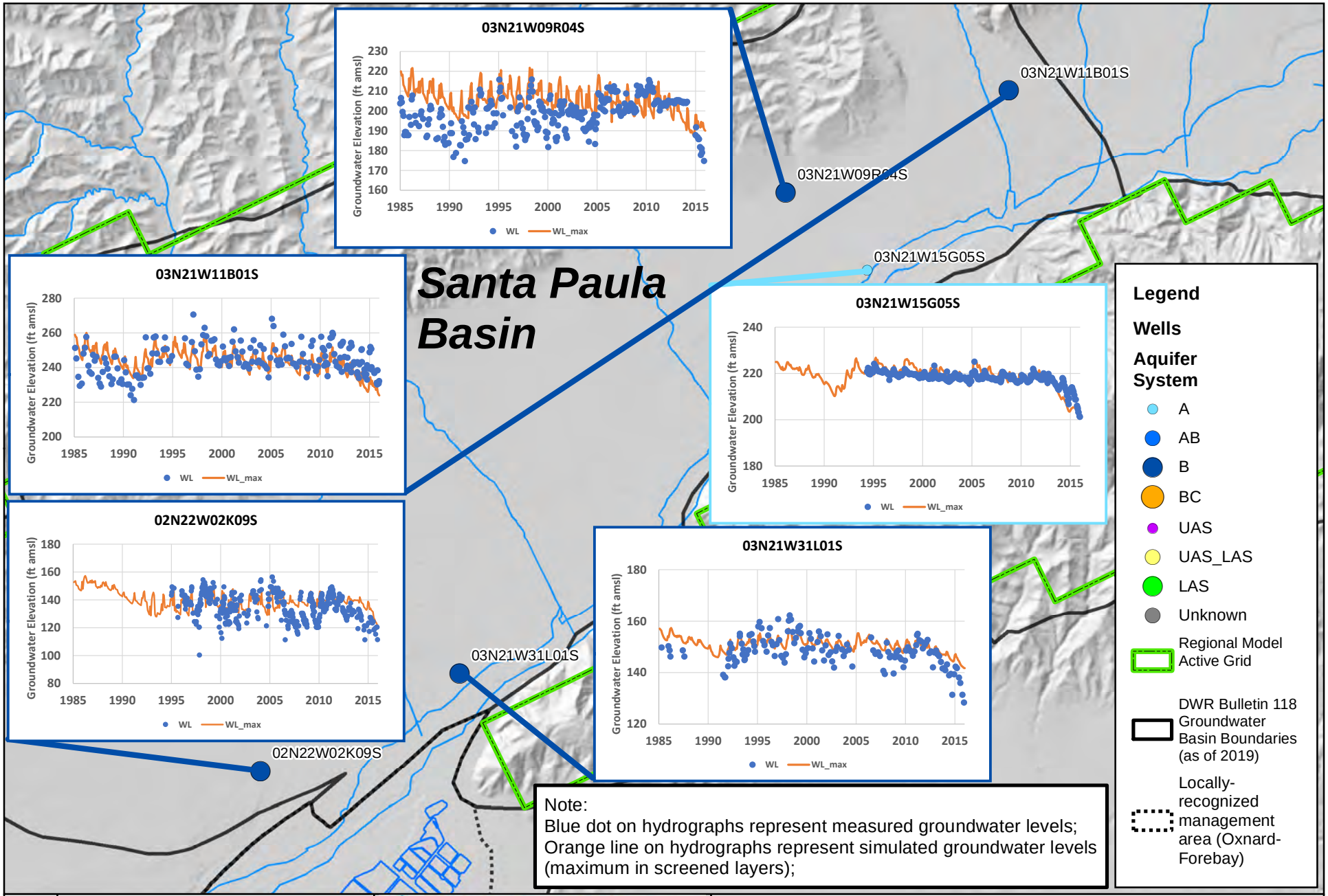

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Figure 4-11.
Selected Hydrographs of Simulated Groundwater Elevations in Santa Paula Basin

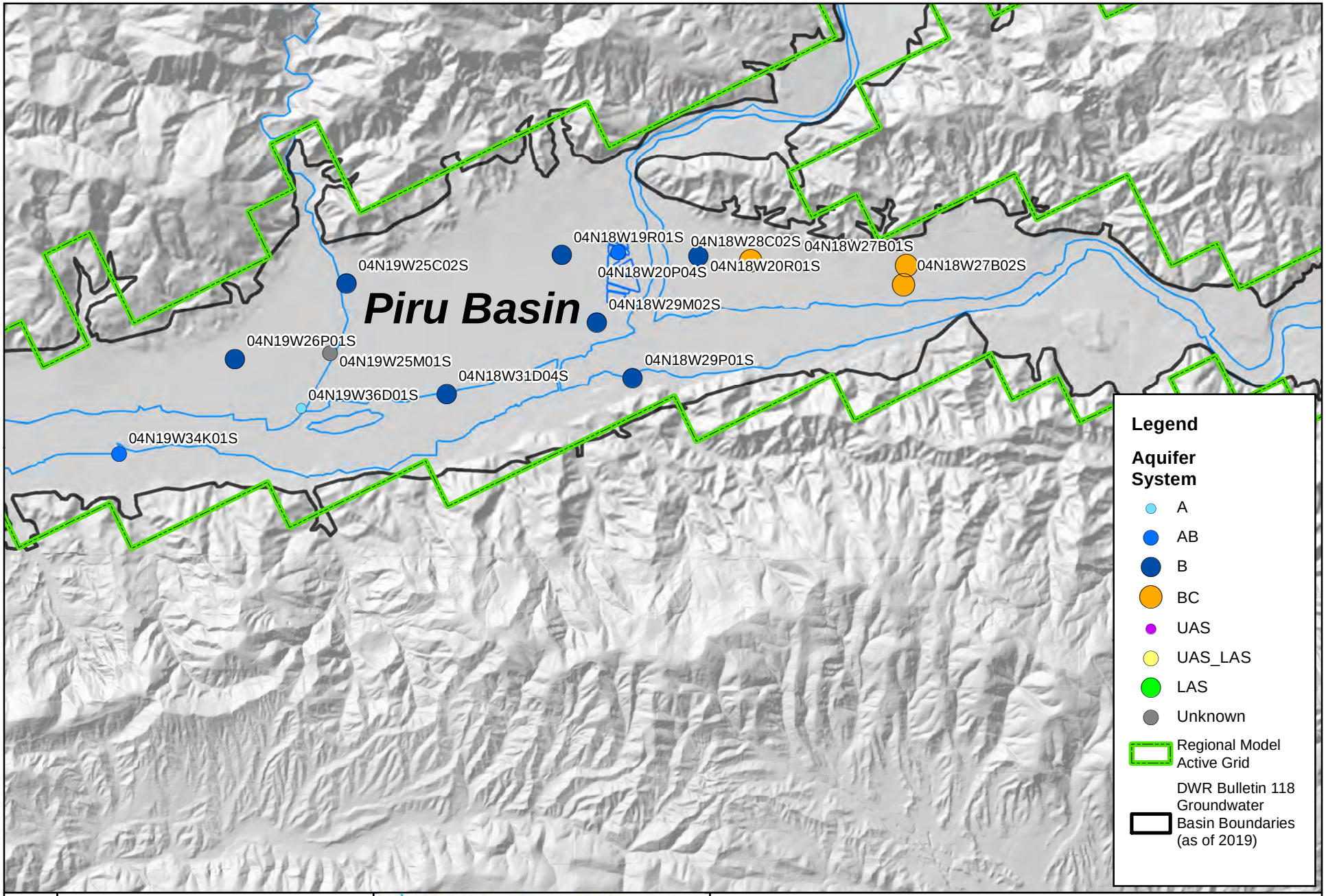

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Figure 4-12.
Representative Hydrographs of Simulated Groundwater Elevations in Piru Basin

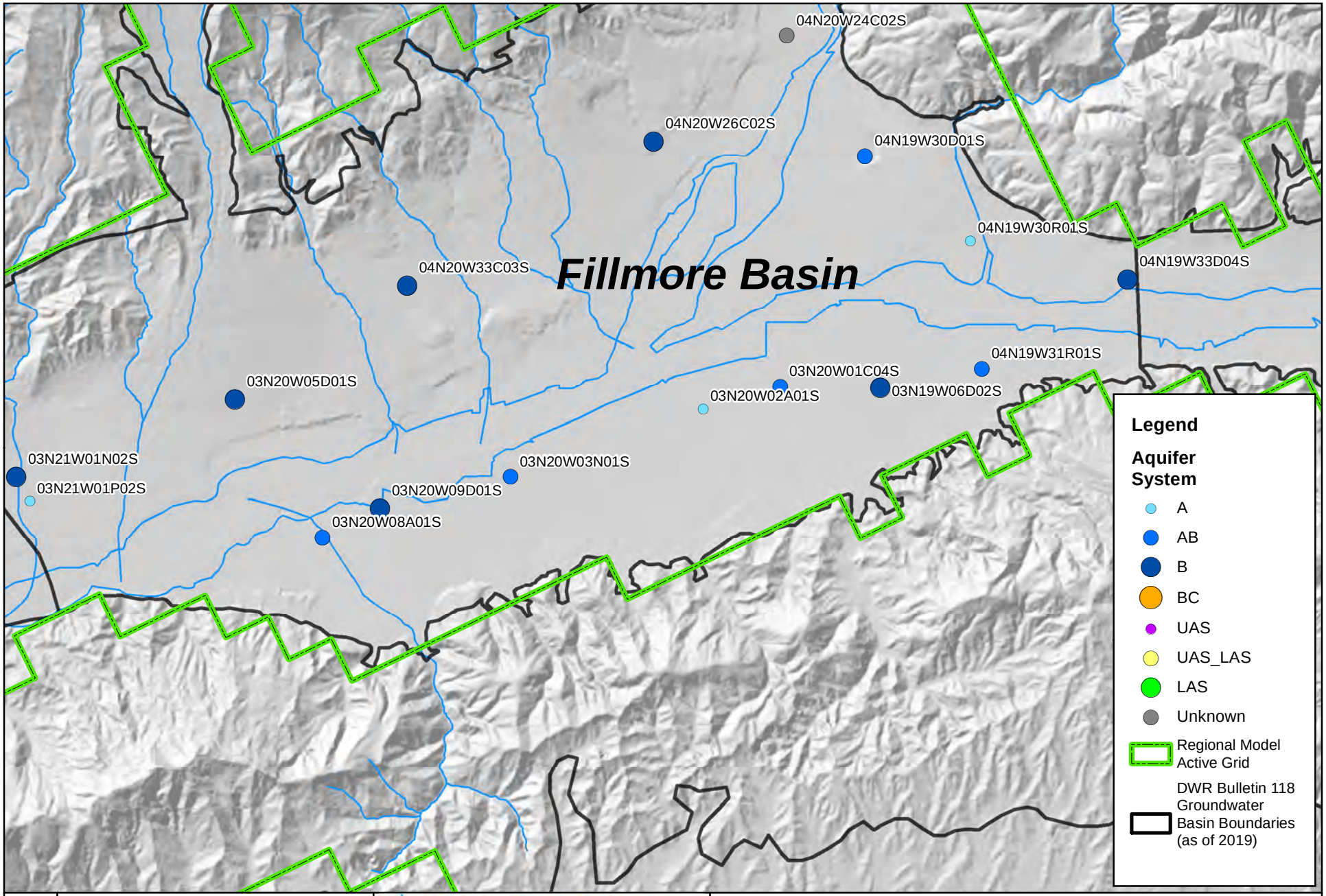

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Figure 4-13.
Representative Hydrographs of Simulated Groundwater Elevations in Fillmore Basin

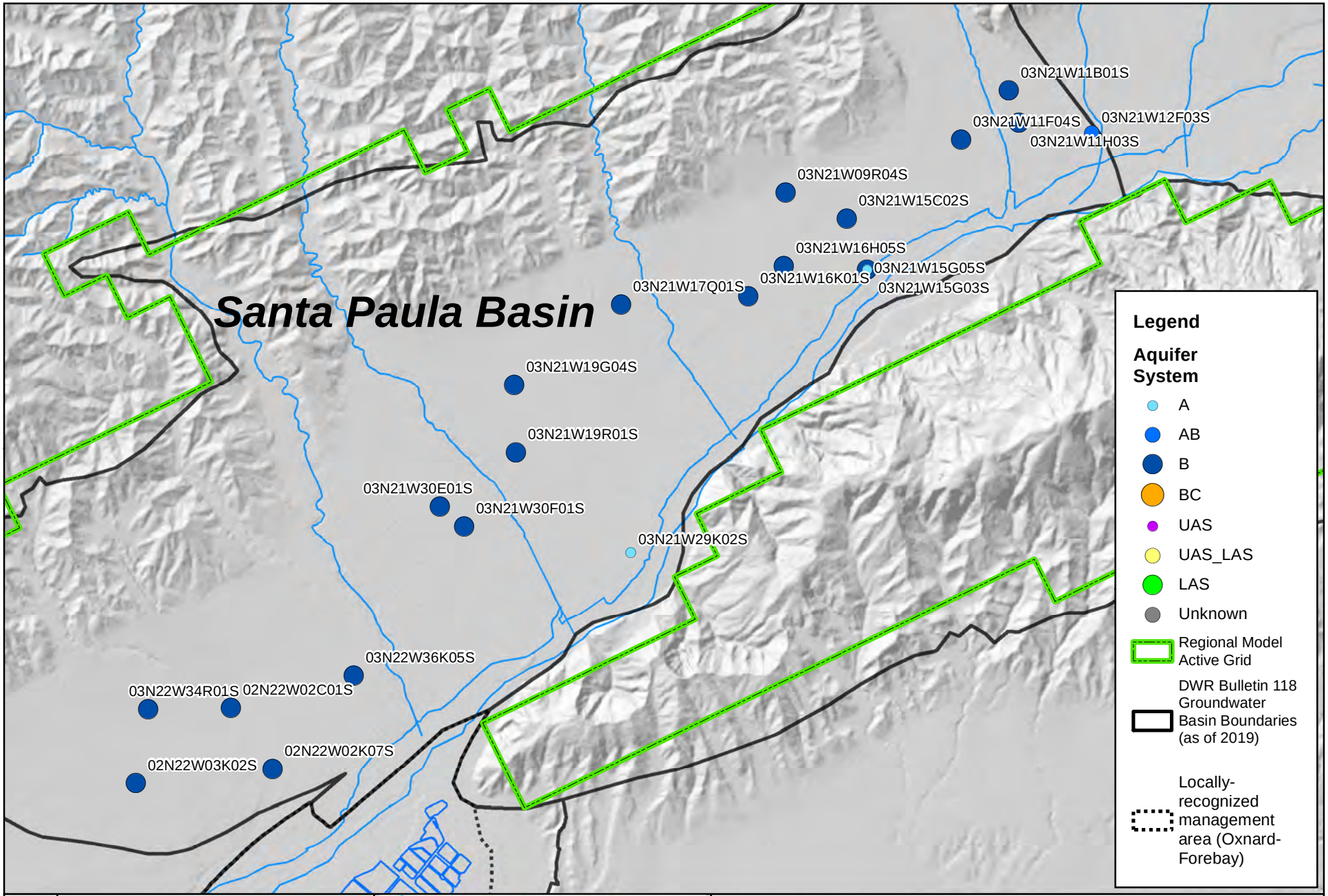

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Figure 4-14.
Representative Hydrographs of Simulated Groundwater Elevations in Santa Paula Basin

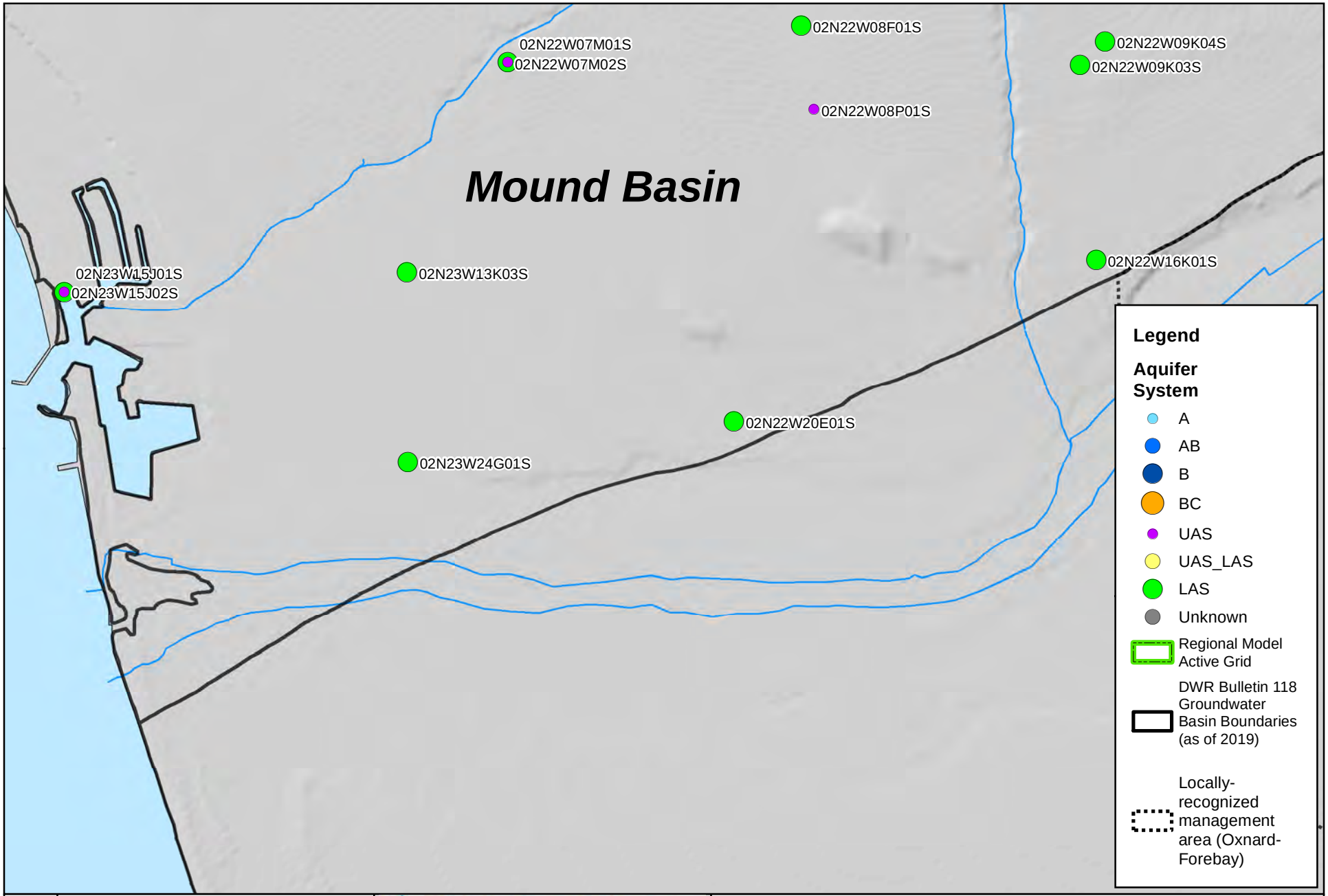

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Figure 4-15.
Representative Hydrographs of Simulated Groundwater Elevations in Mound Basin

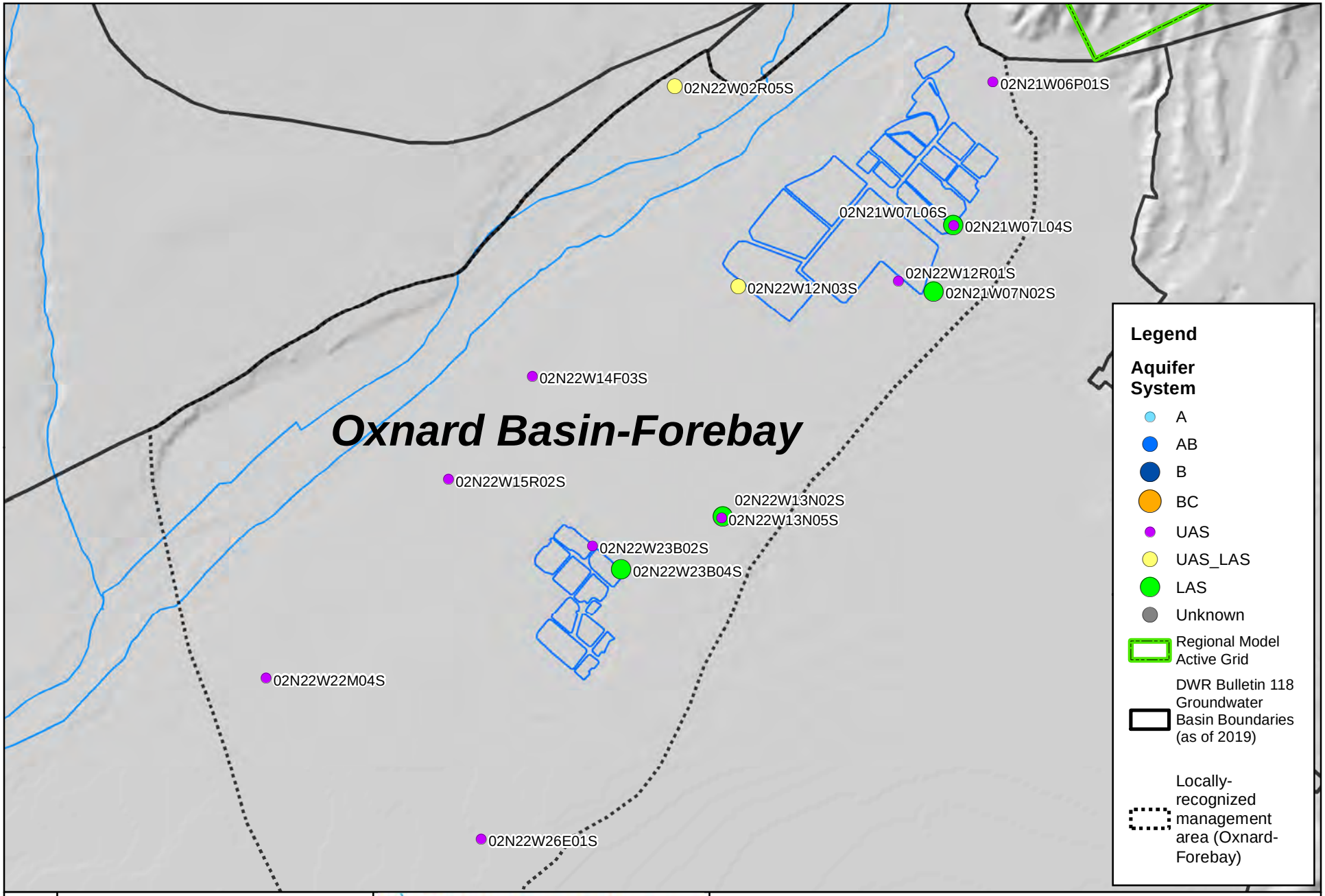

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Figure 4-16.
Representative Hydrographs of Simulated Groundwater Elevations in Oxnard Basin-Forebay

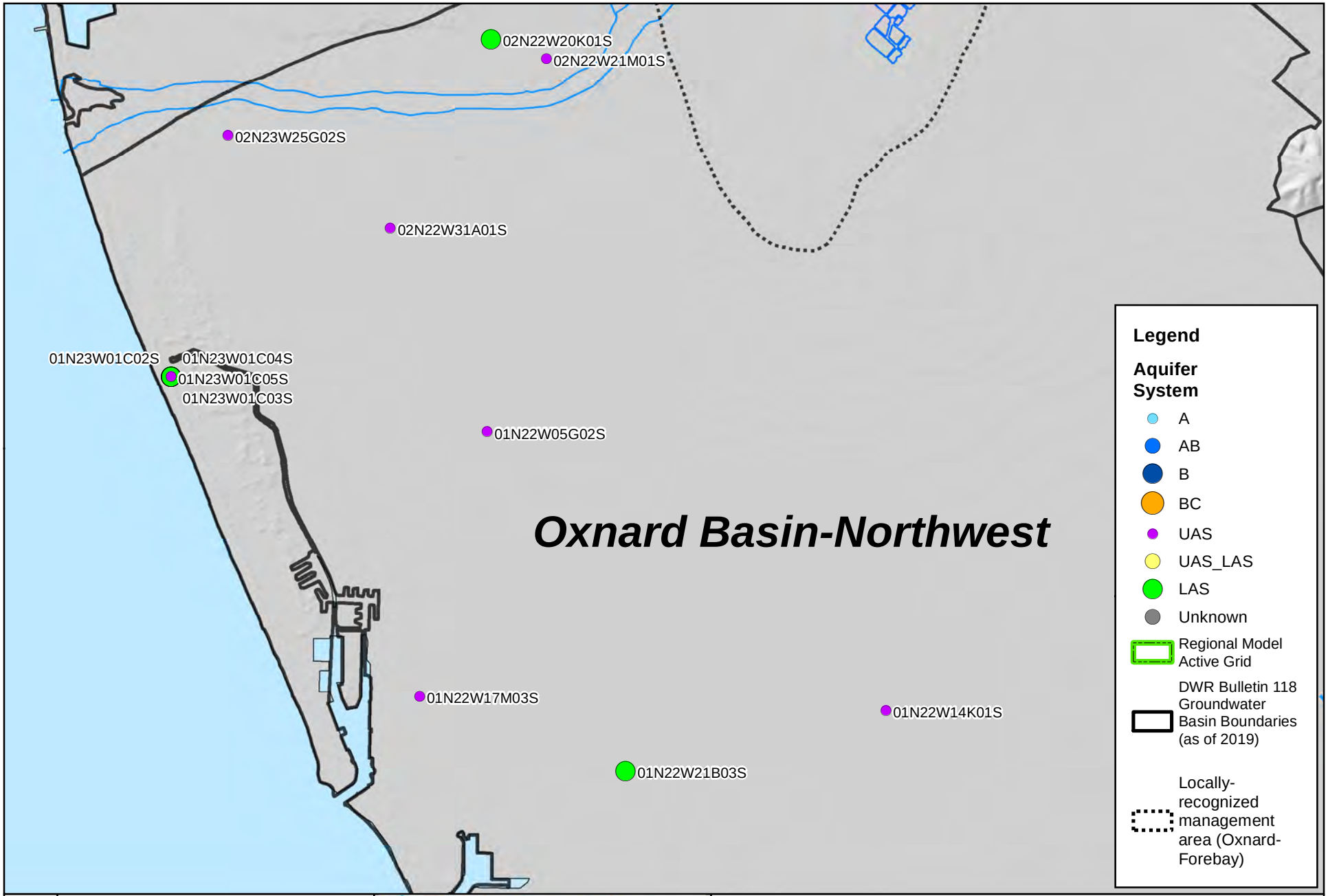

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Figure 4-17.
Representative Hydrographs of Simulated Groundwater Elevations in NW Oxnard Basin

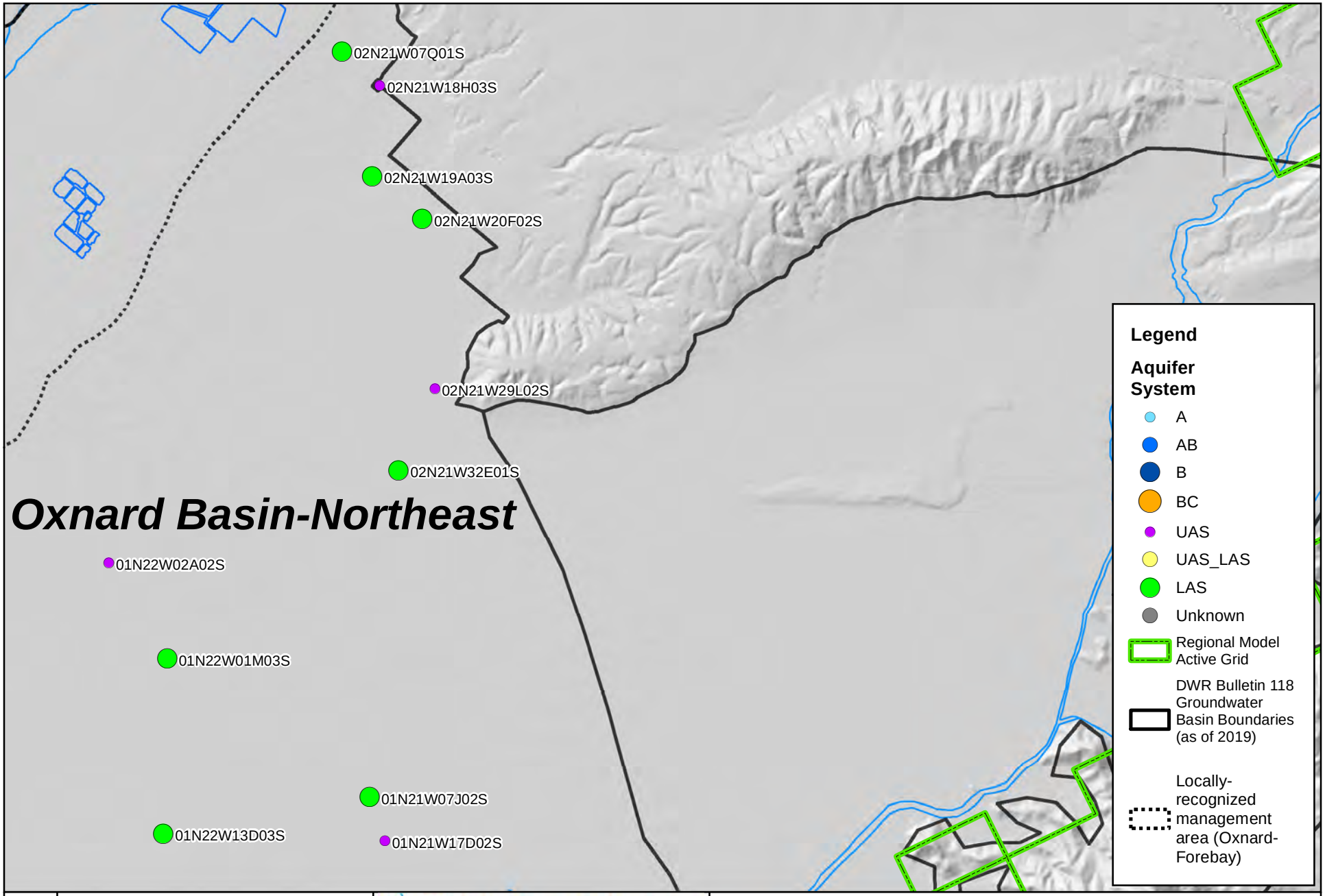

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Figure 4-18.
Representative Hydrographs of Simulated Groundwater Elevations in NE Oxnard Basin

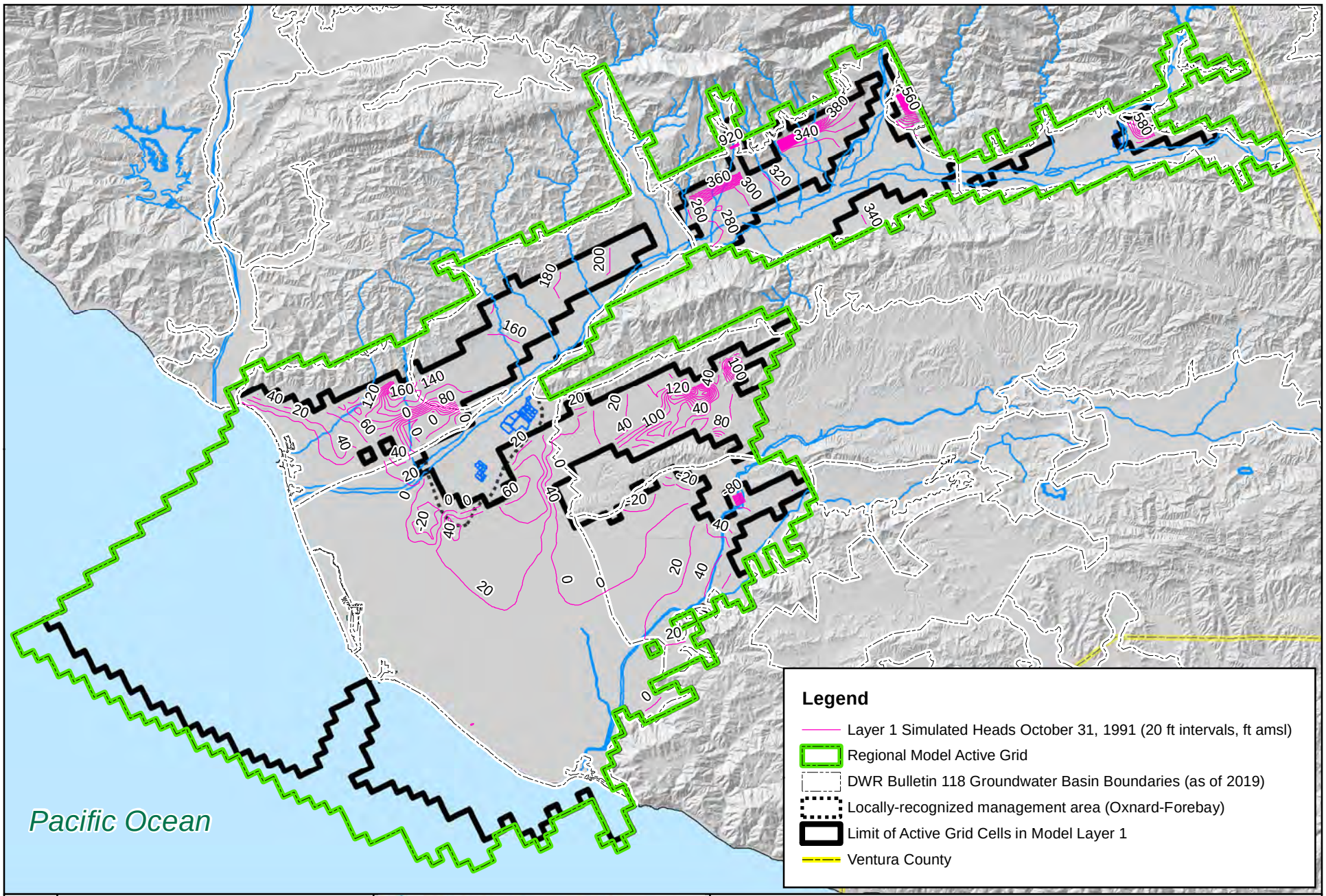

Figure 4-19.
October 1991 Simulated Head Contours of Model Layer 1

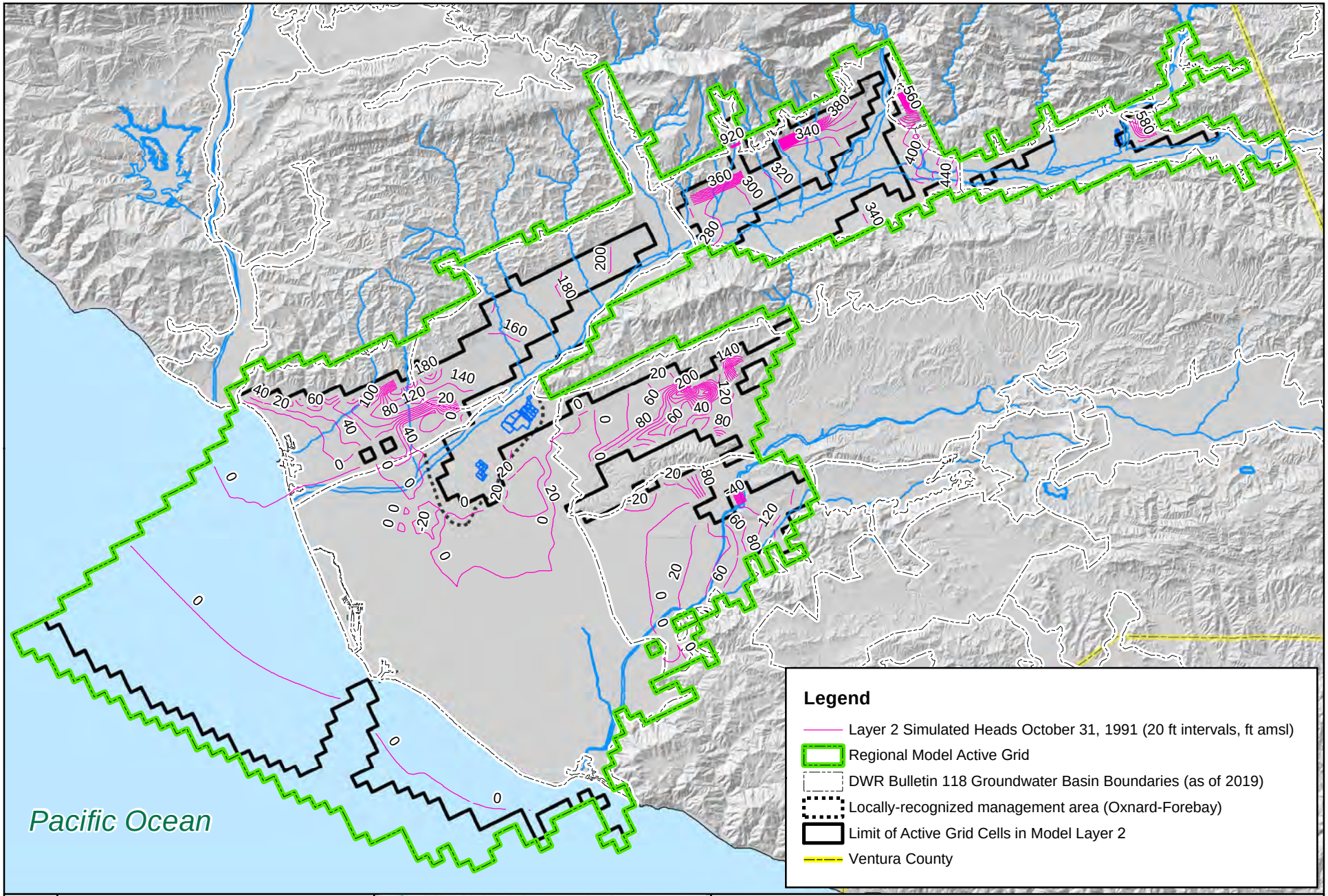

Figure 4-20.
October 1991 Simulated Head Contours of Model Layer 2

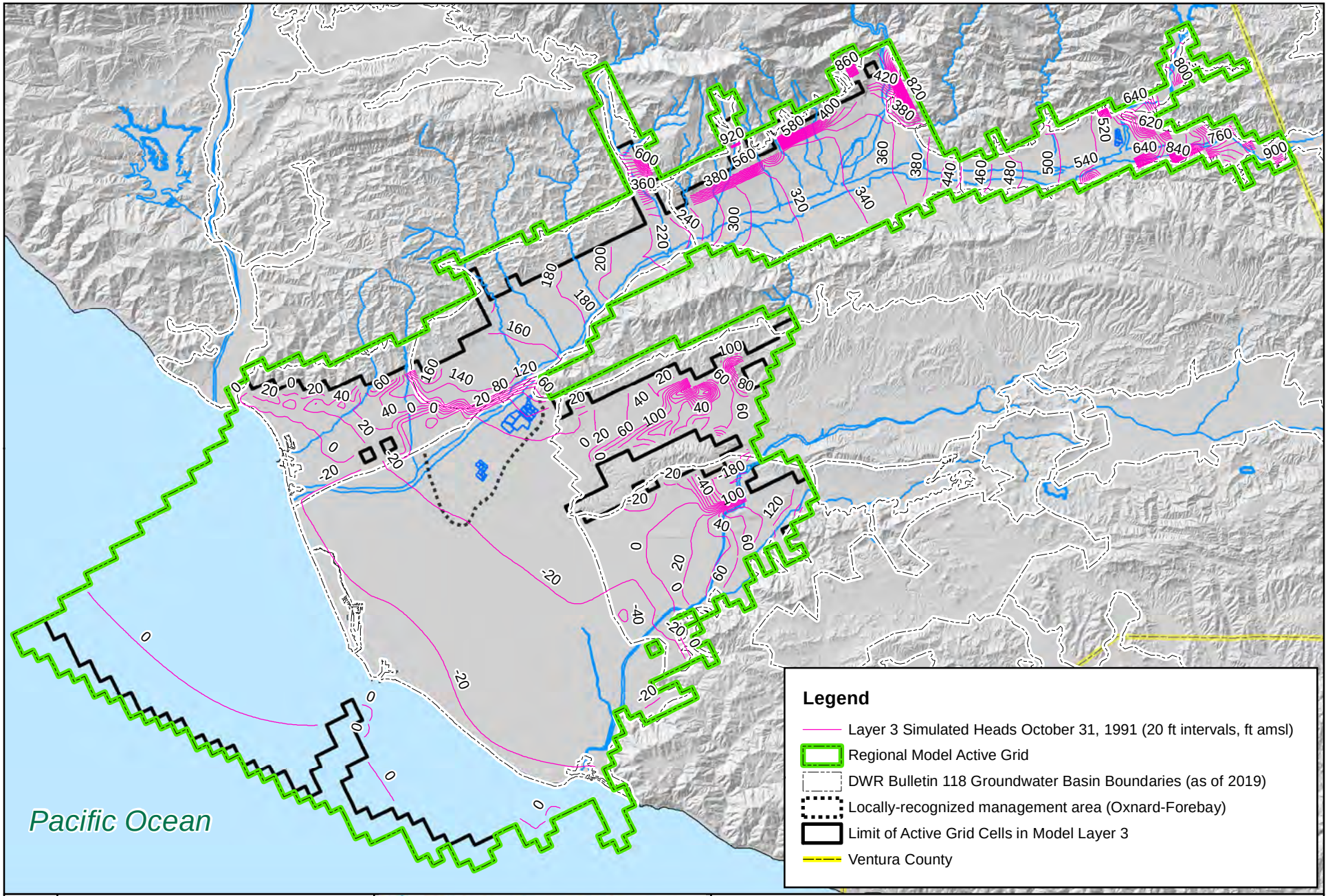

Figure 4-21.
October 1991 Simulated Head Contours of Model Layer 3

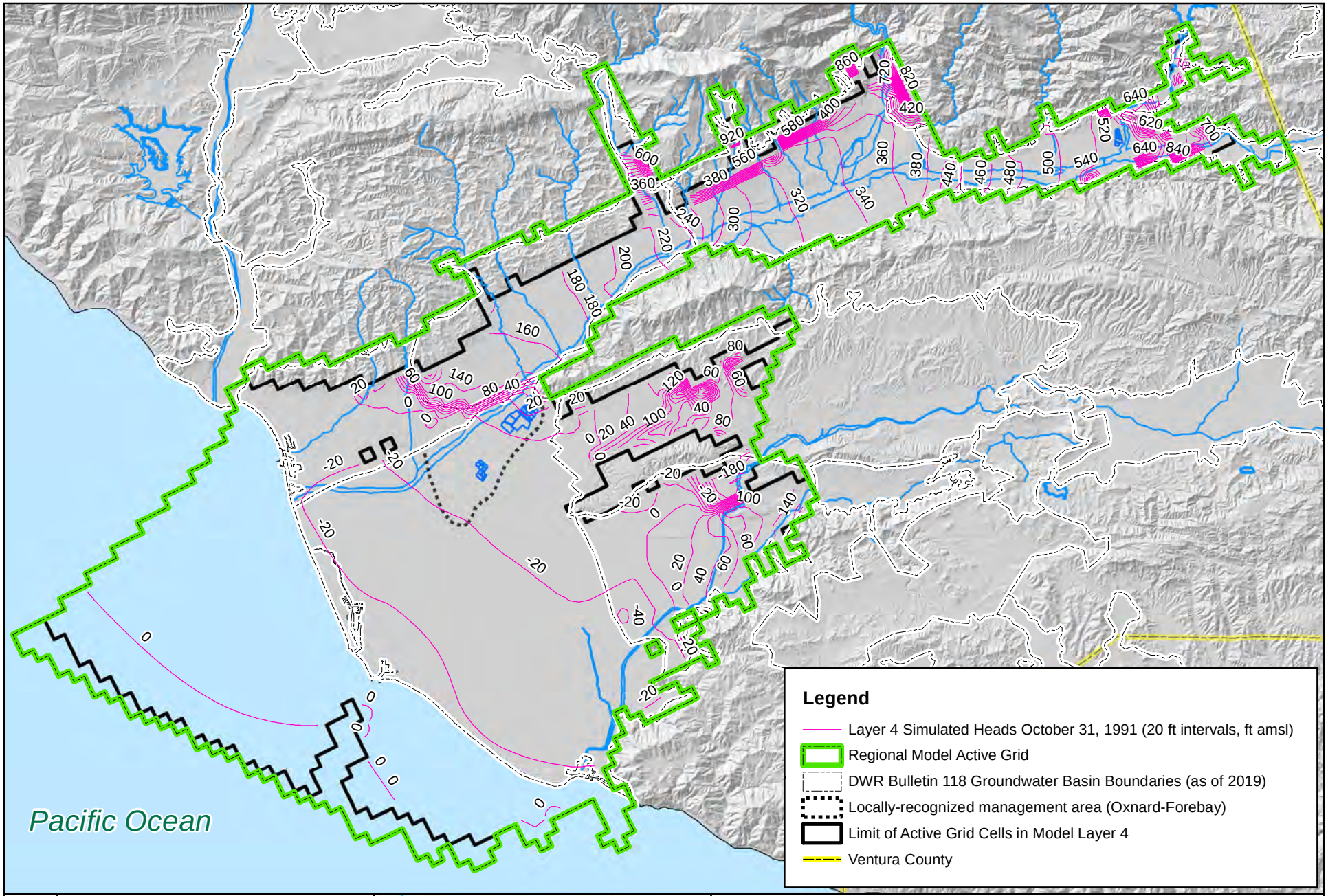

Figure 4-22.
October 1991 Simulated Head Contours of Model Layer 4

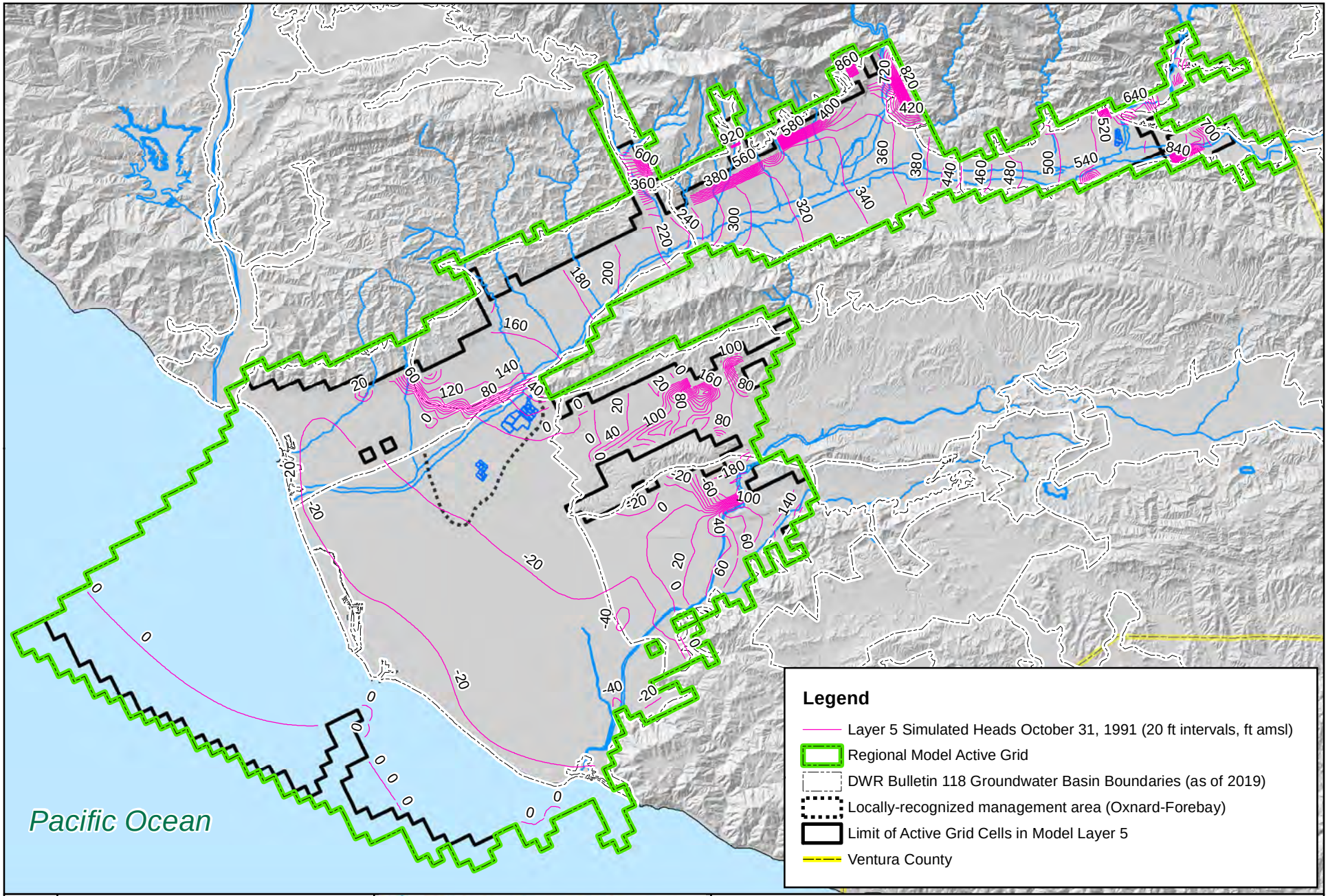

Figure 4-23.
October 1991 Simulated Head Contours of Model Layer 5

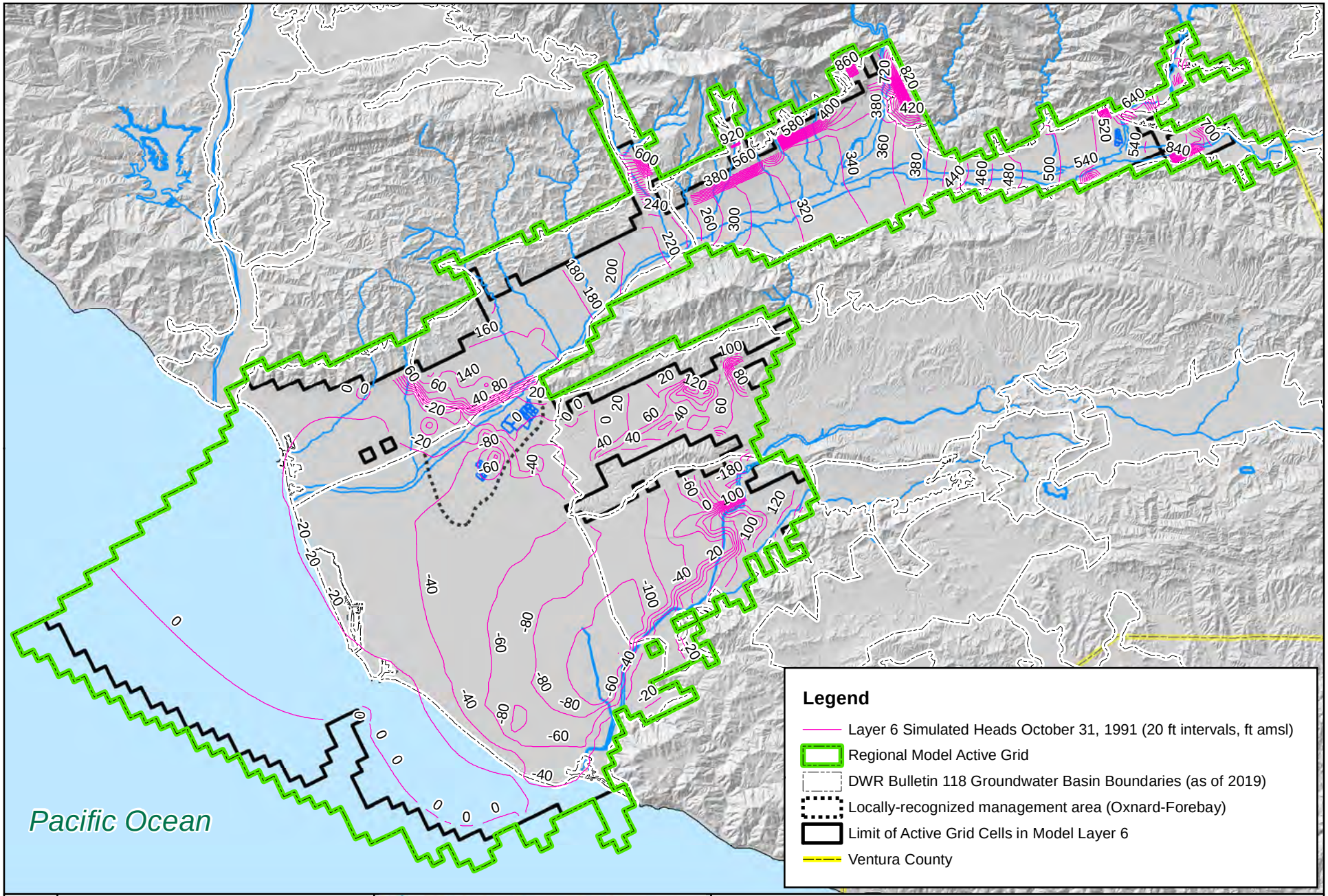

Figure 4-24.
October 1991 Simulated Head Contours of Model Layer 6

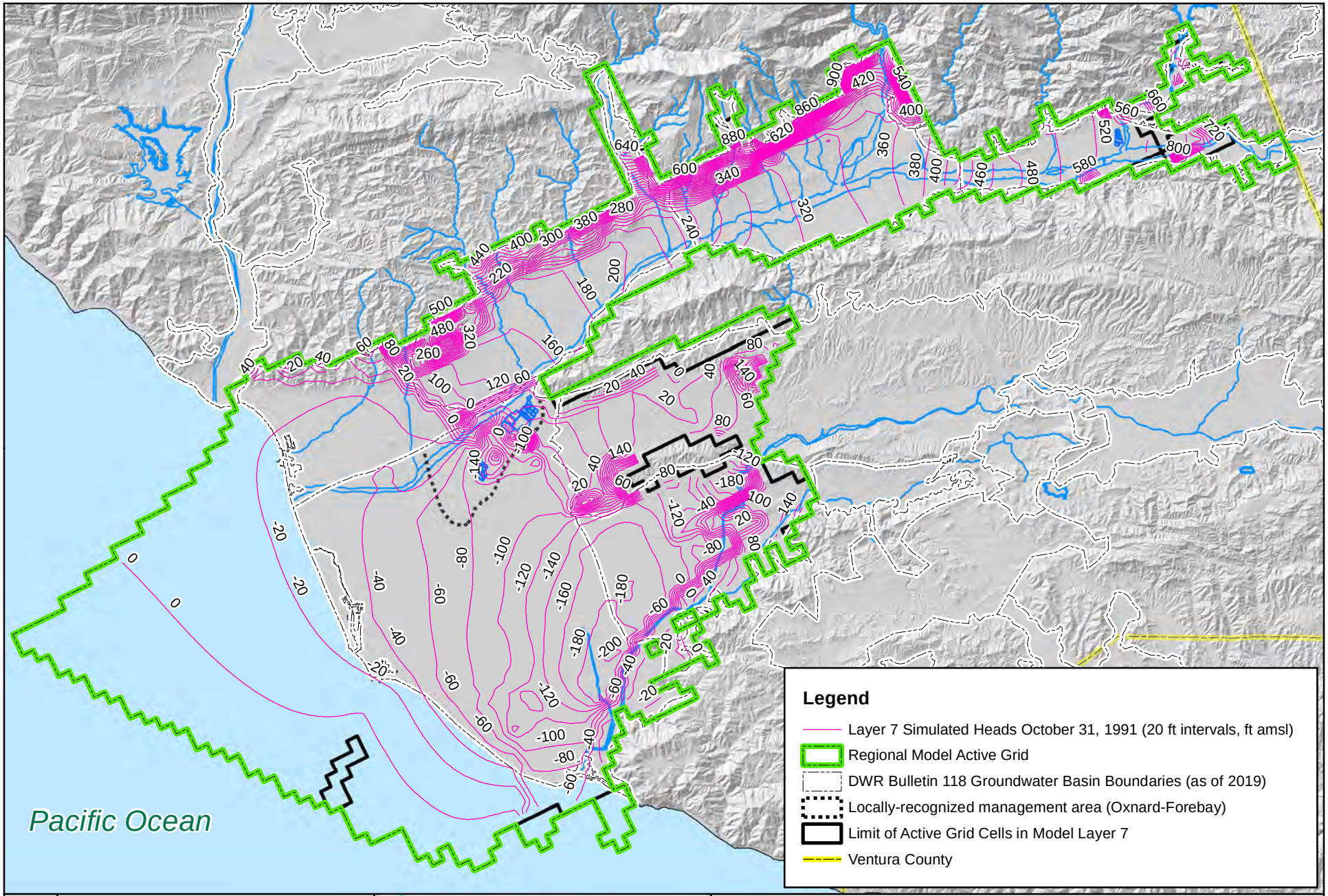

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Figure 4-25.
October 1991 Simulated Head Contours of Model Layer 7

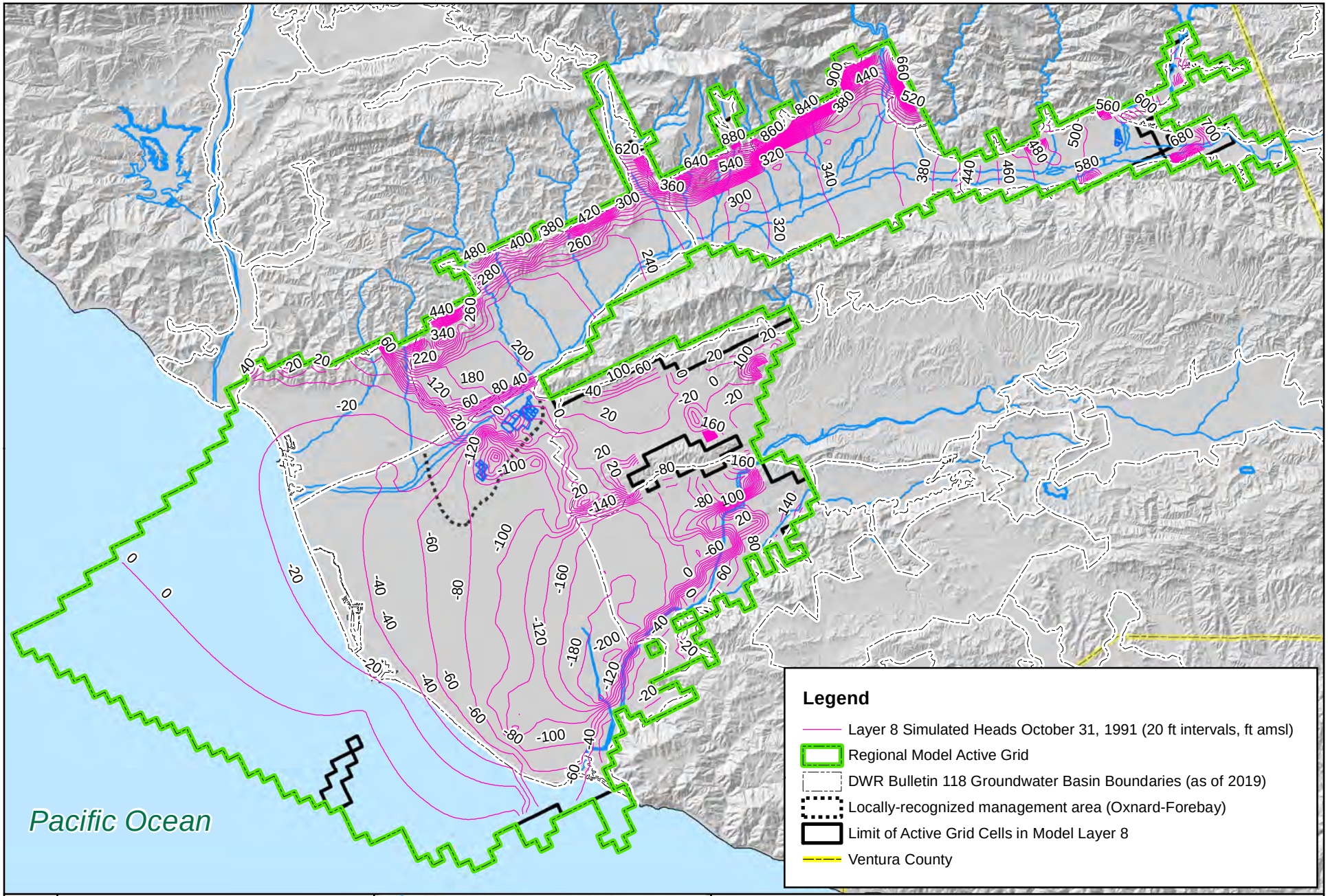

Figure 4-26.
October 1991 Simulated Head Contours of Model Layer 8

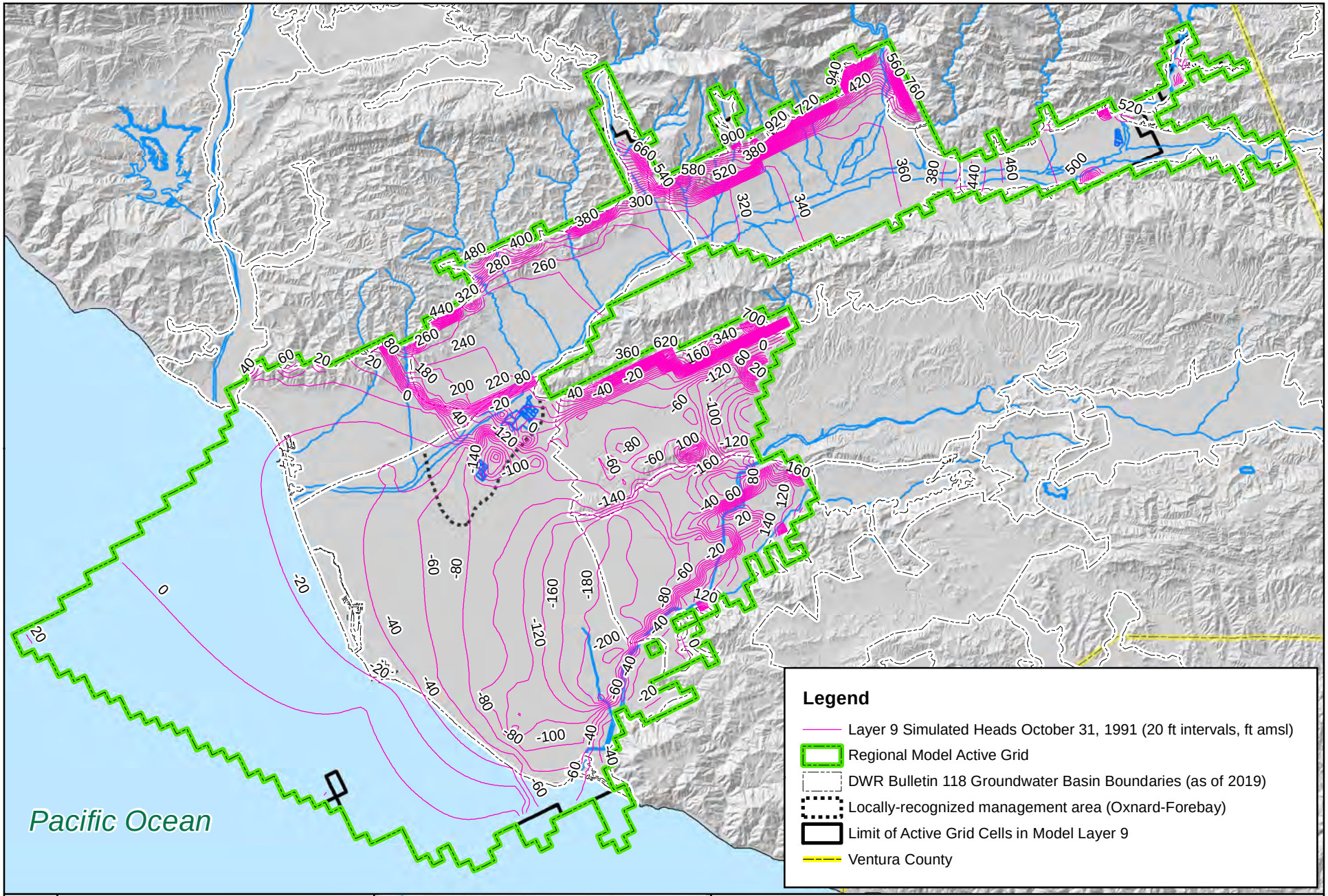

Figure 4-27.
October 1991 Simulated Head Contours of Model Layer 9

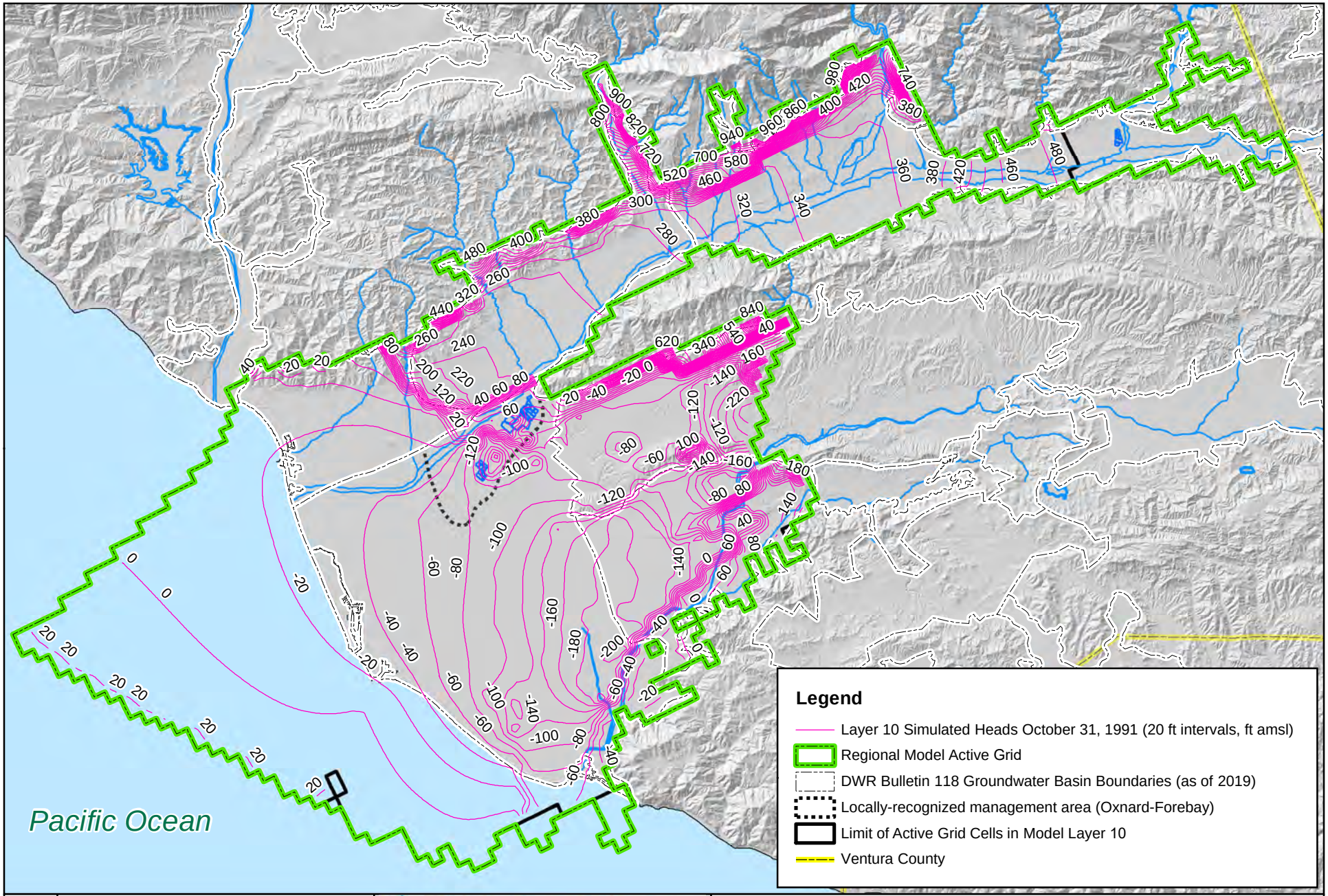

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Figure 4-28.
October 1991 Simulated Head Contours of Model Layer 10

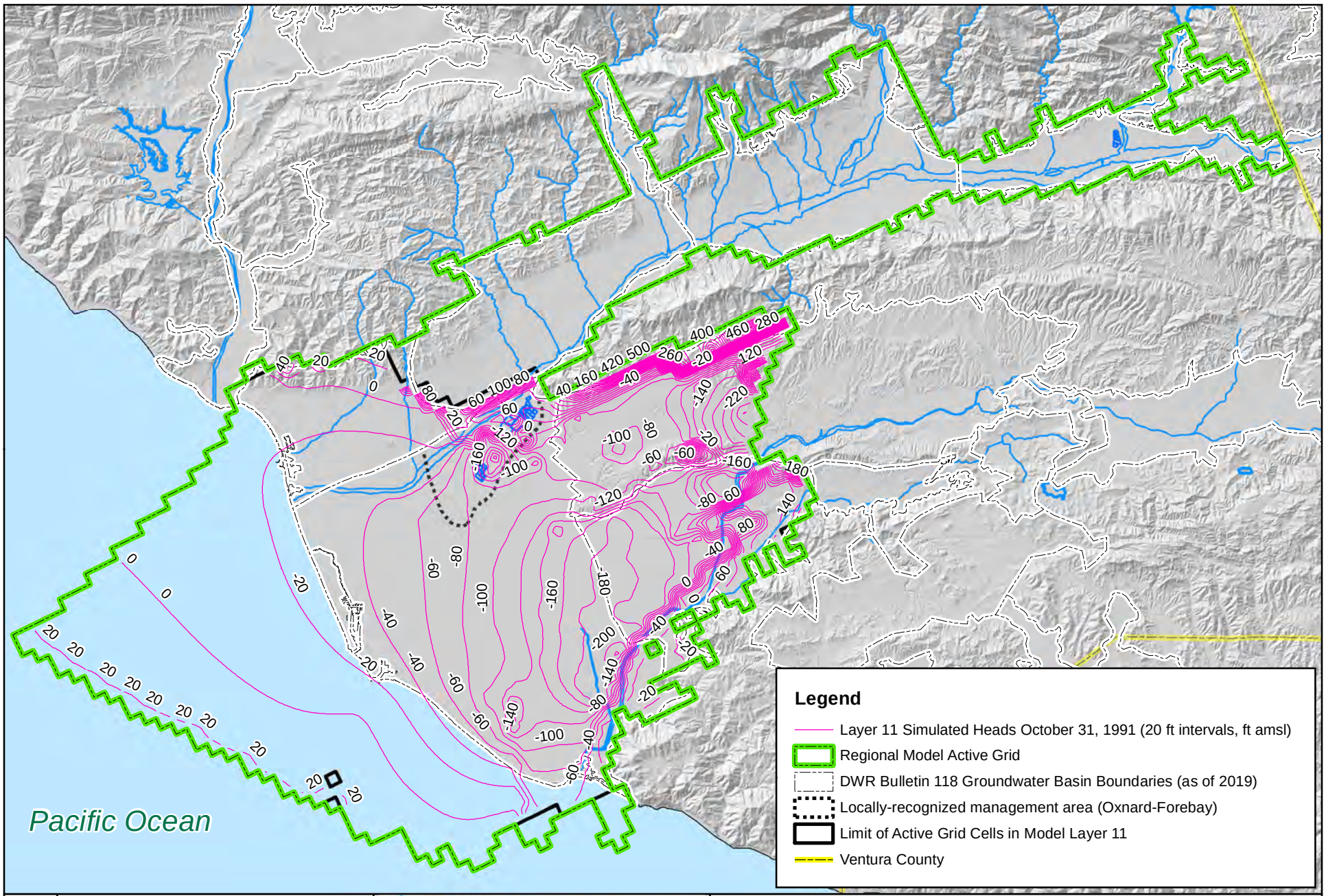


Figure 4-29.
October 1991 Simulated Head Contours of Model Layer 11

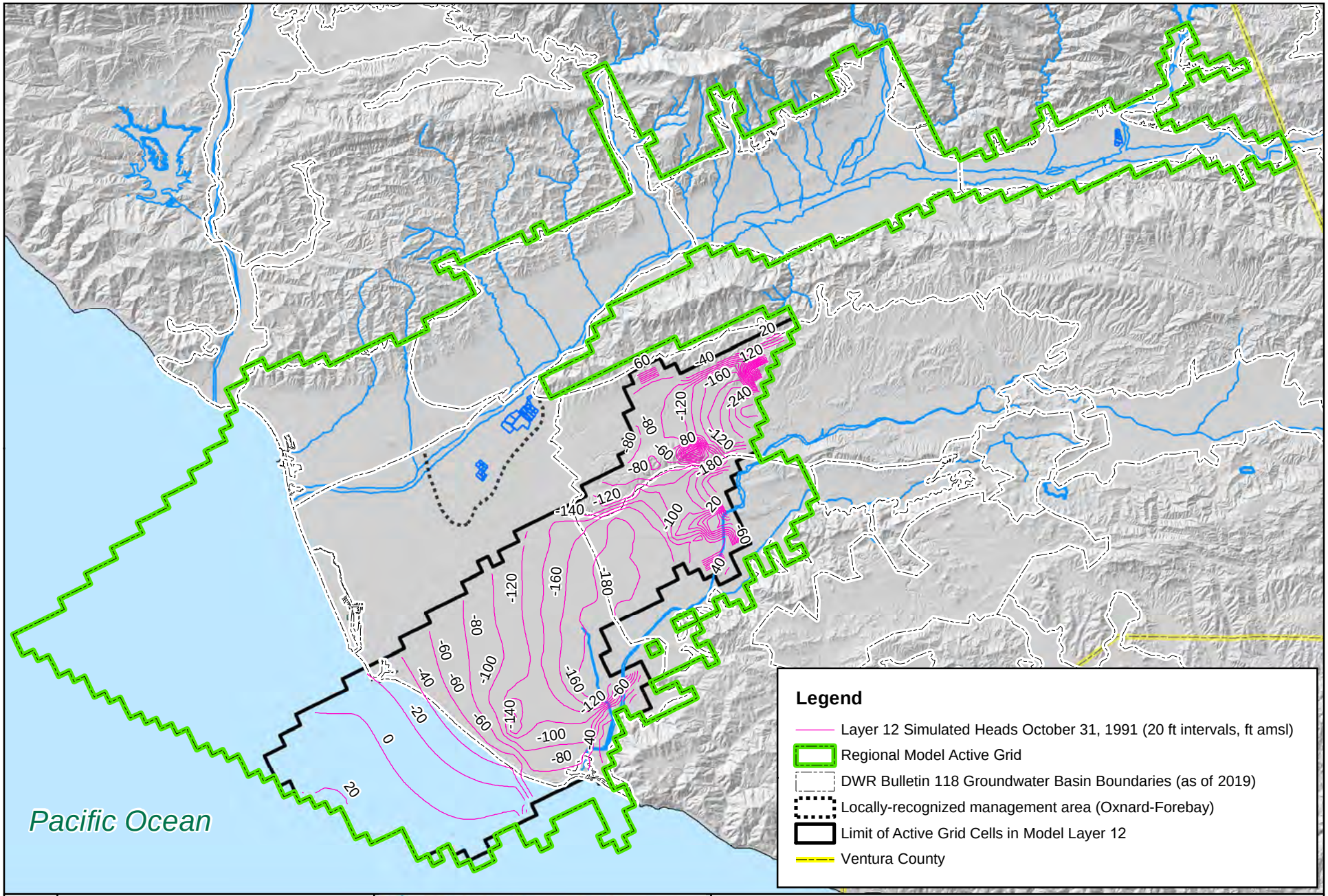


Figure 4-30.
October 1991 Simulated Head Contours of Model Layer 12

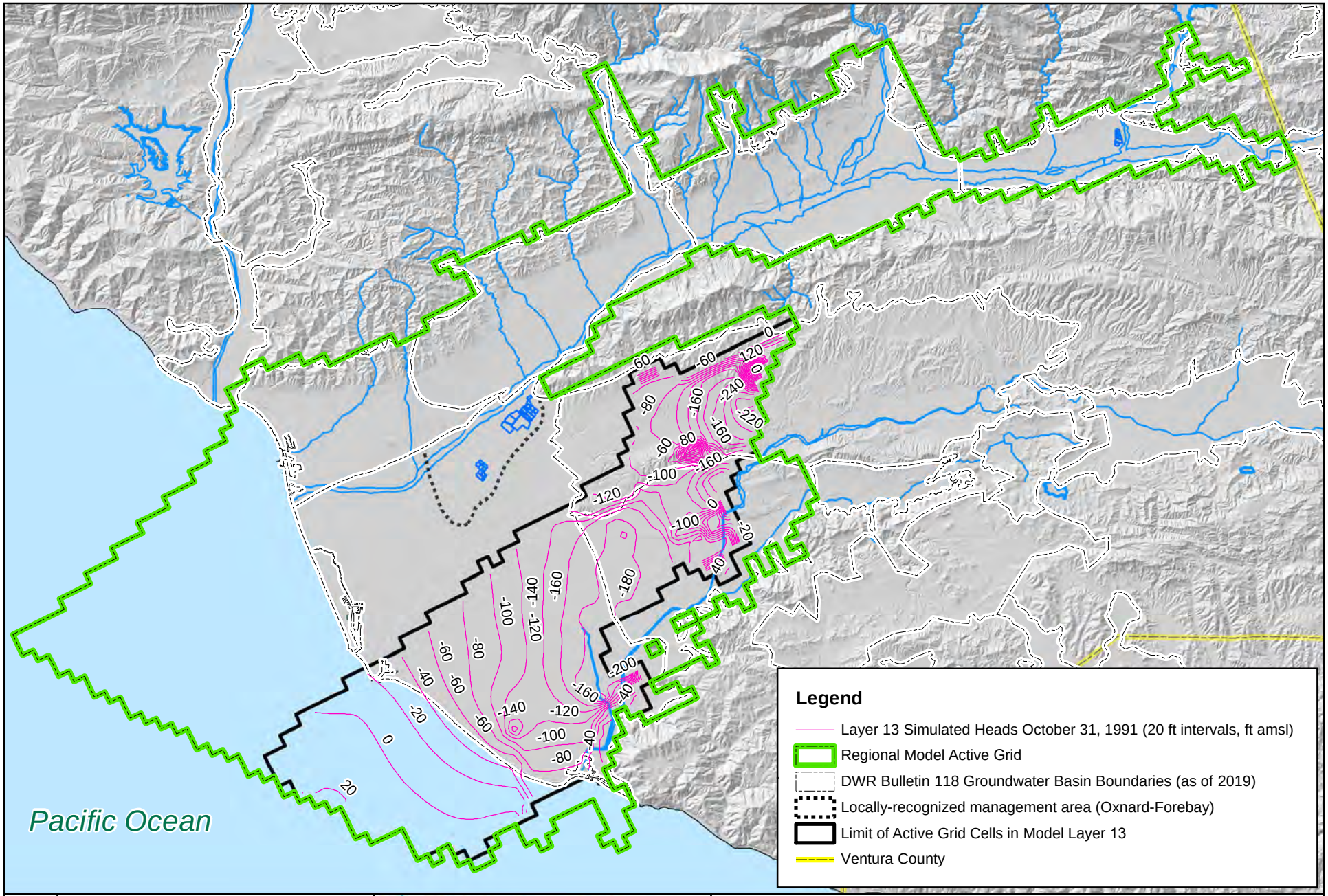


Figure 4-31.
October 1991 Simulated Head Contours of Model Layer 13

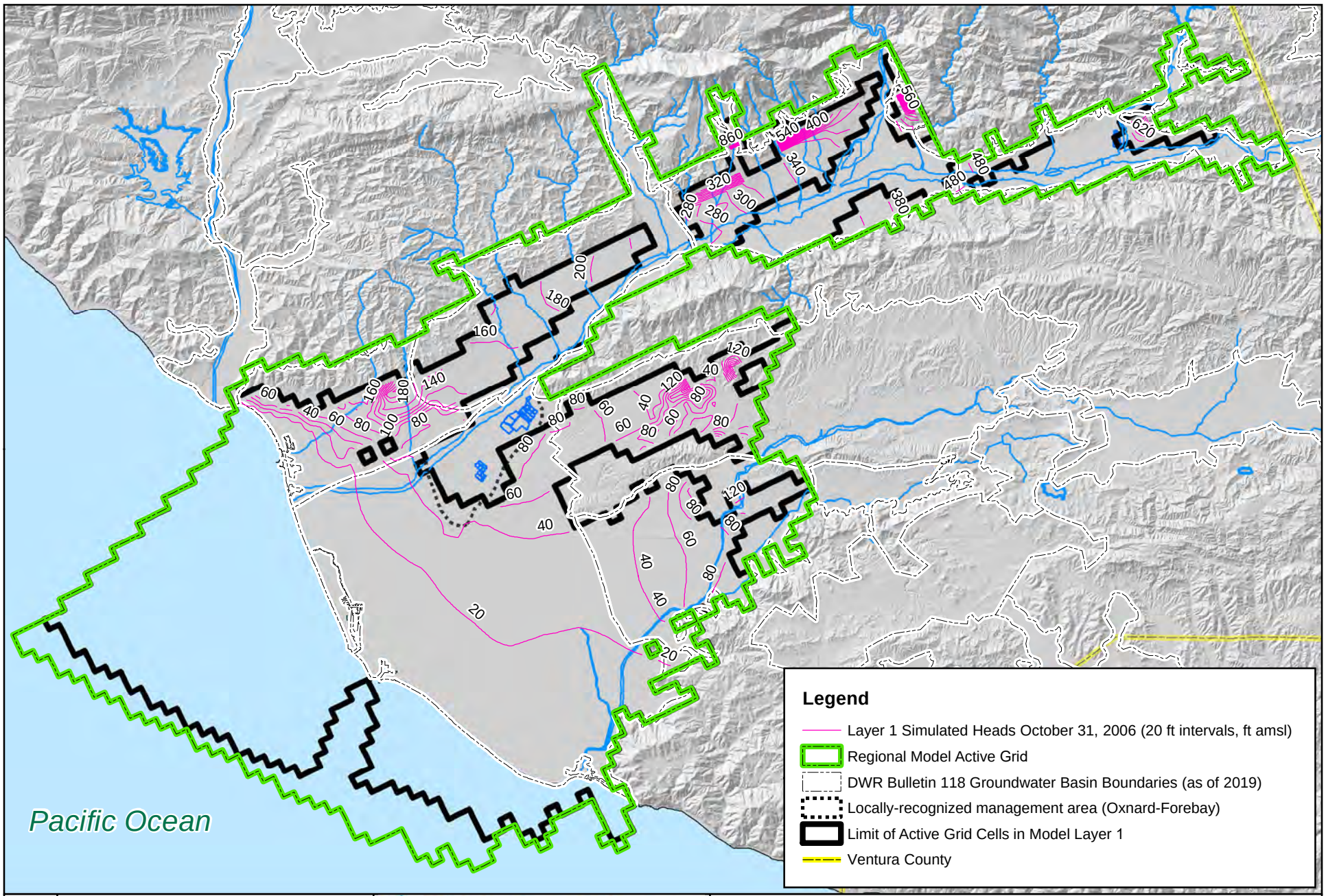


Figure 4-32.
October 2006 Simulated Head Contours of Model Layer 1

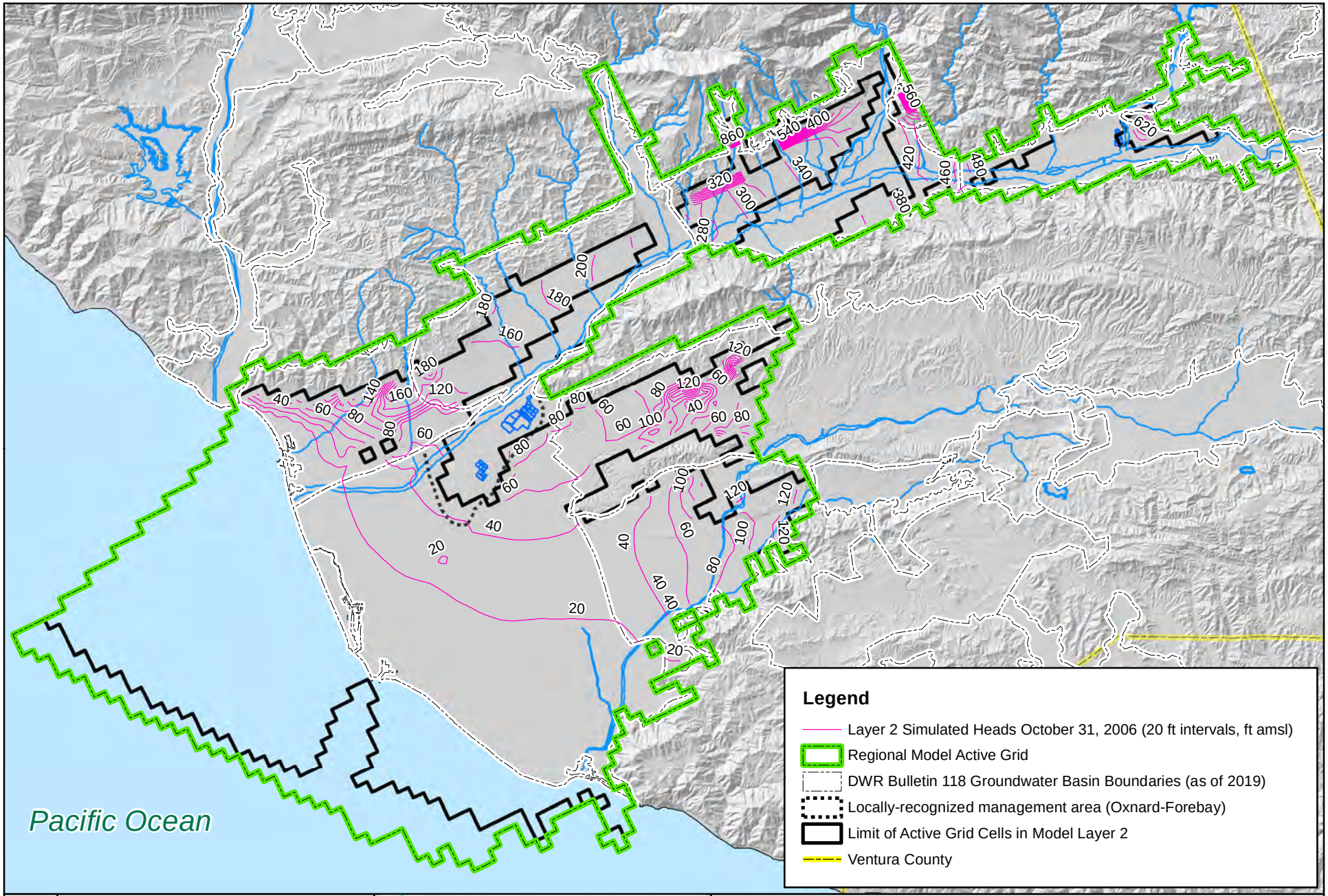


Figure 4-33.
October 2006 Simulated Head Contours of Model Layer 2

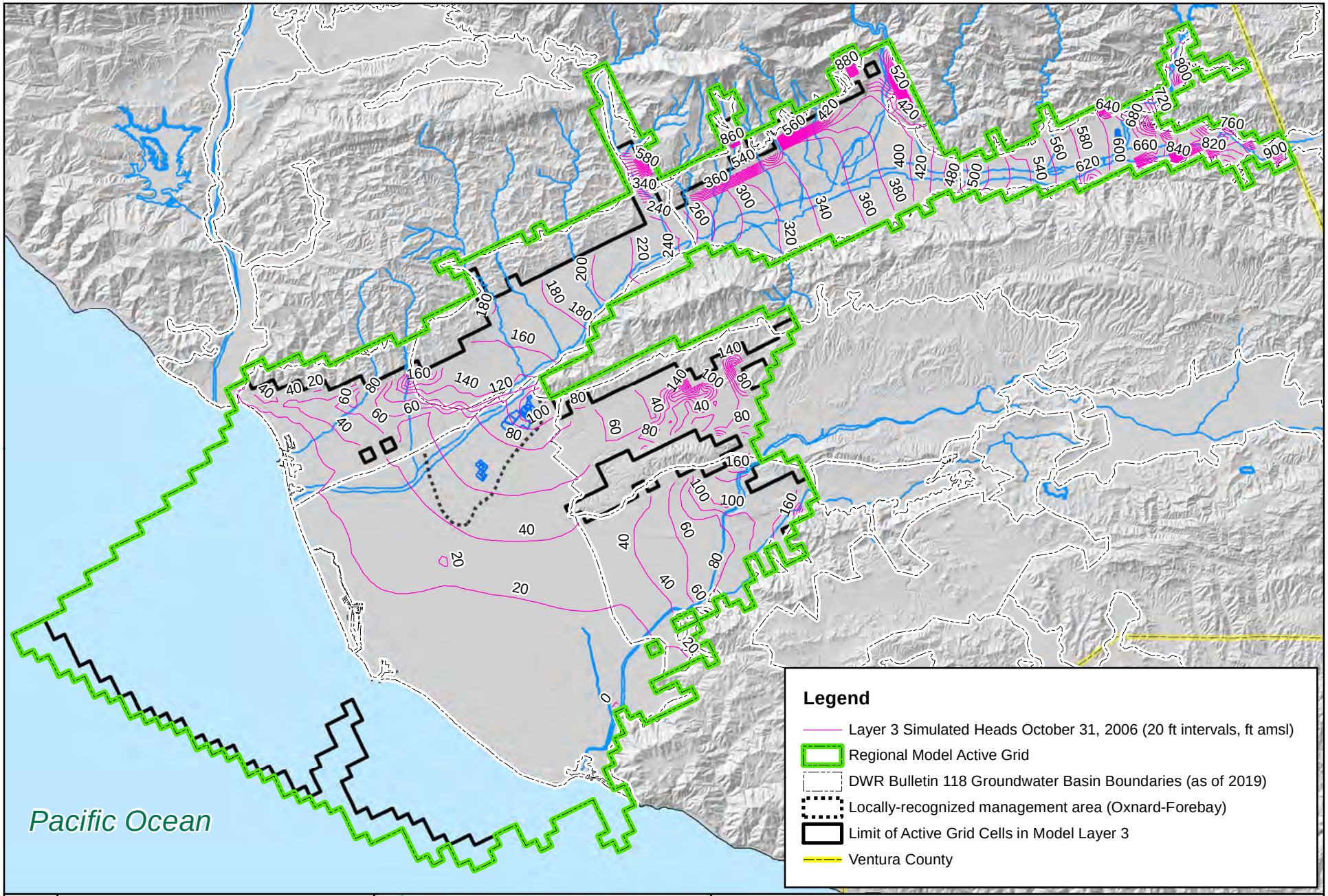


Figure 4-34.
October 2006 Simulated Head Contours of Model Layer 3

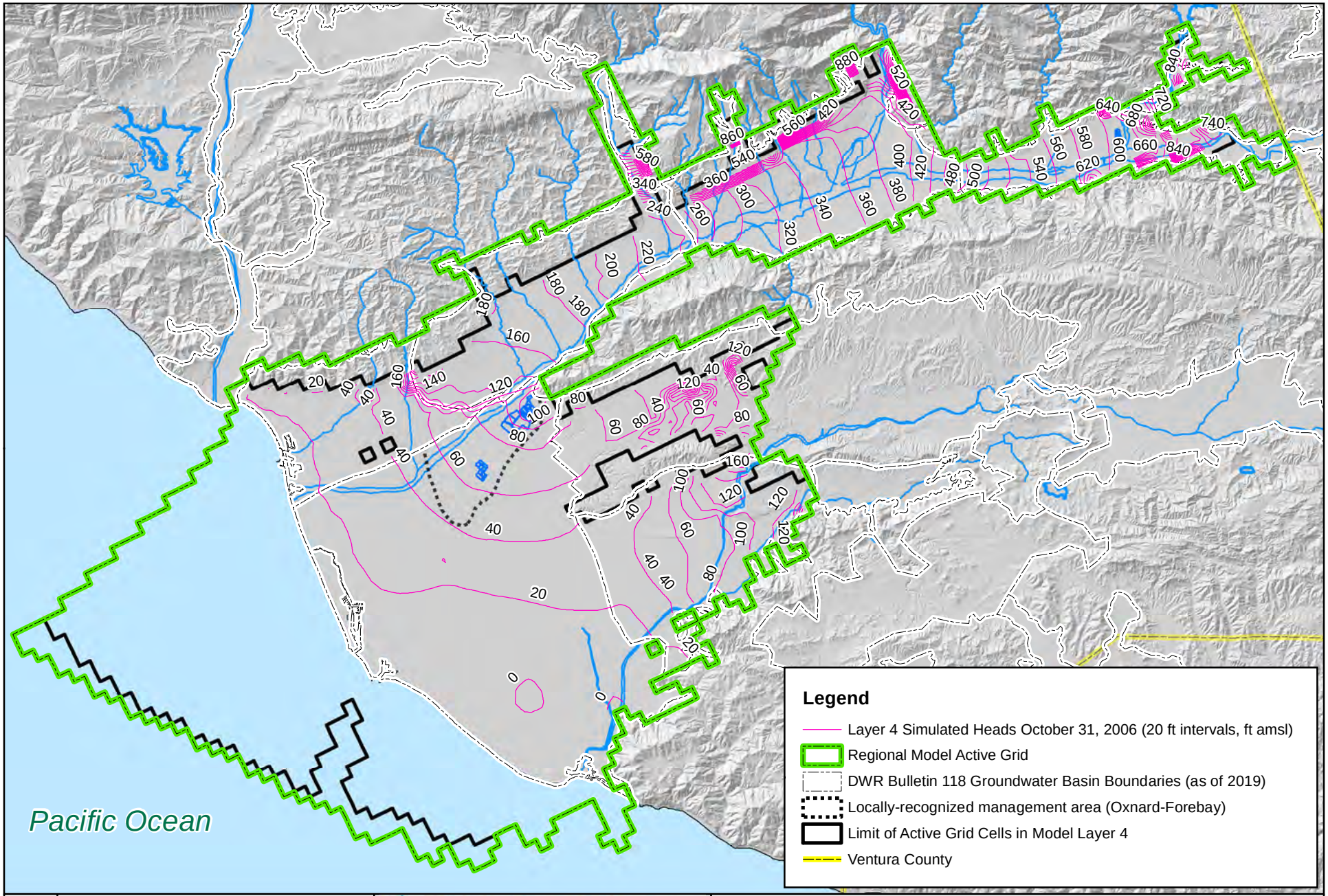


Figure 4-35.
October 2006 Simulated Head Contours of Model Layer 4

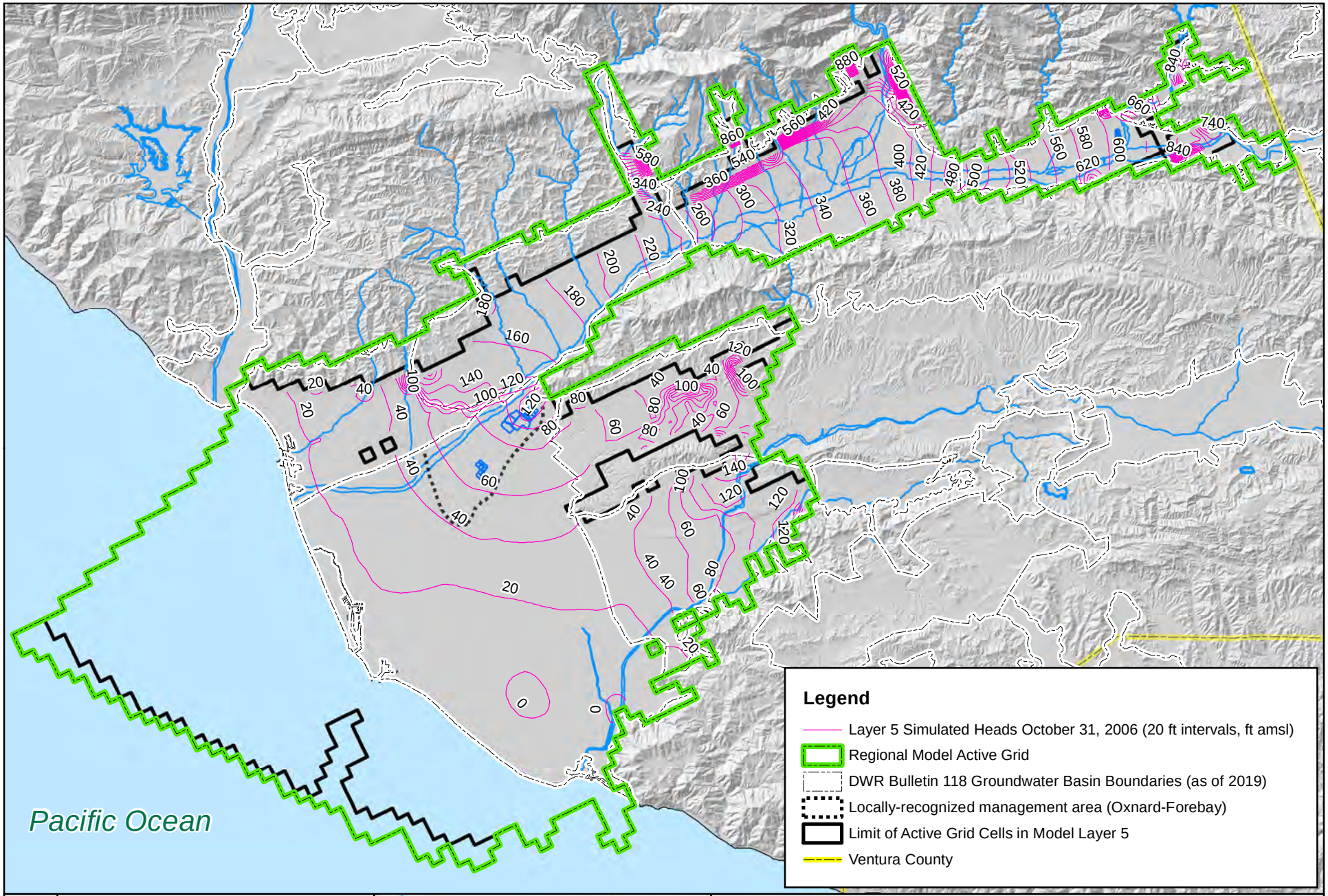


Figure 4-36.
October 2006 Simulated Head Contours of Model Layer 5

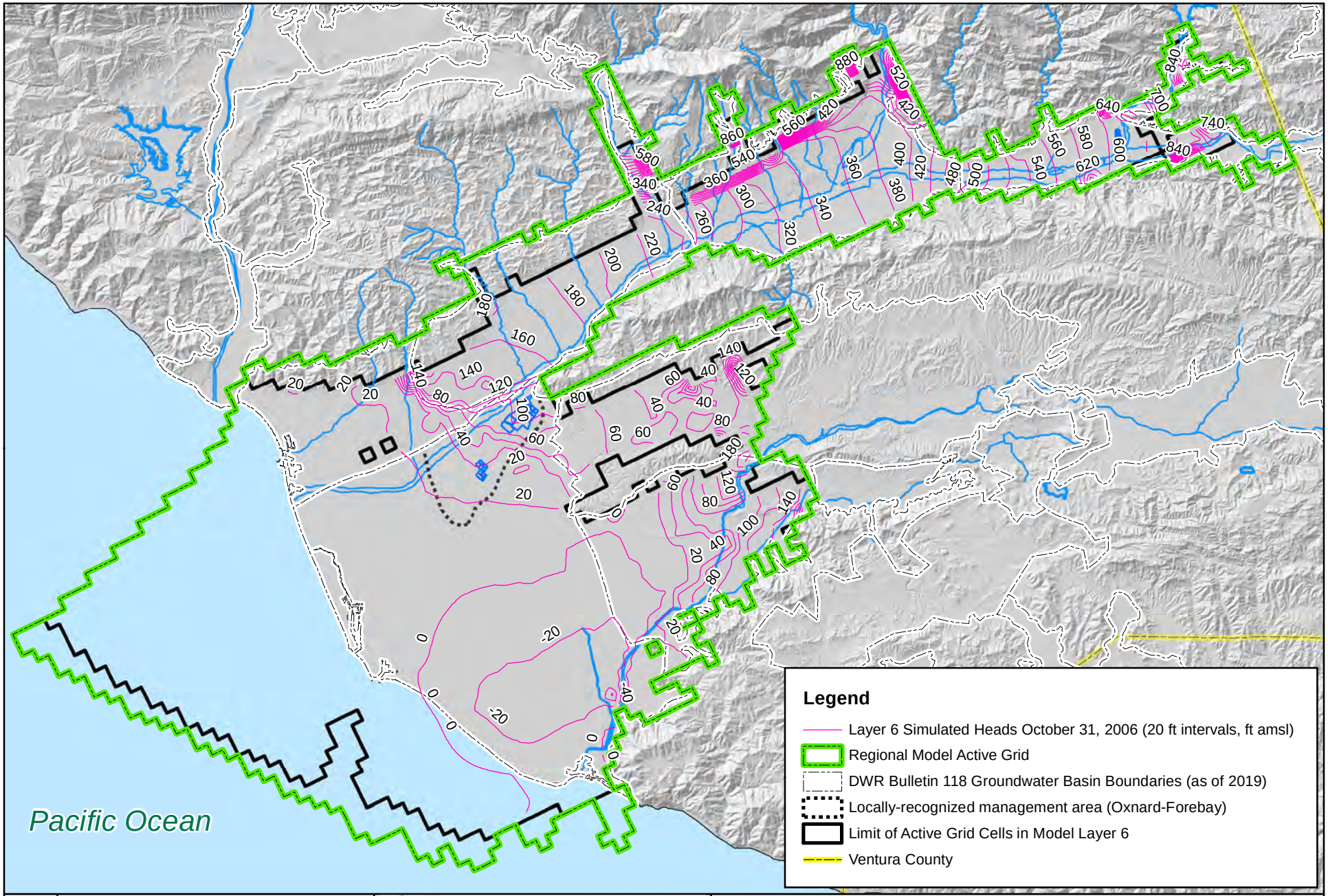


Figure 4-37.
October 2006 Simulated Head Contours of Model Layer 6

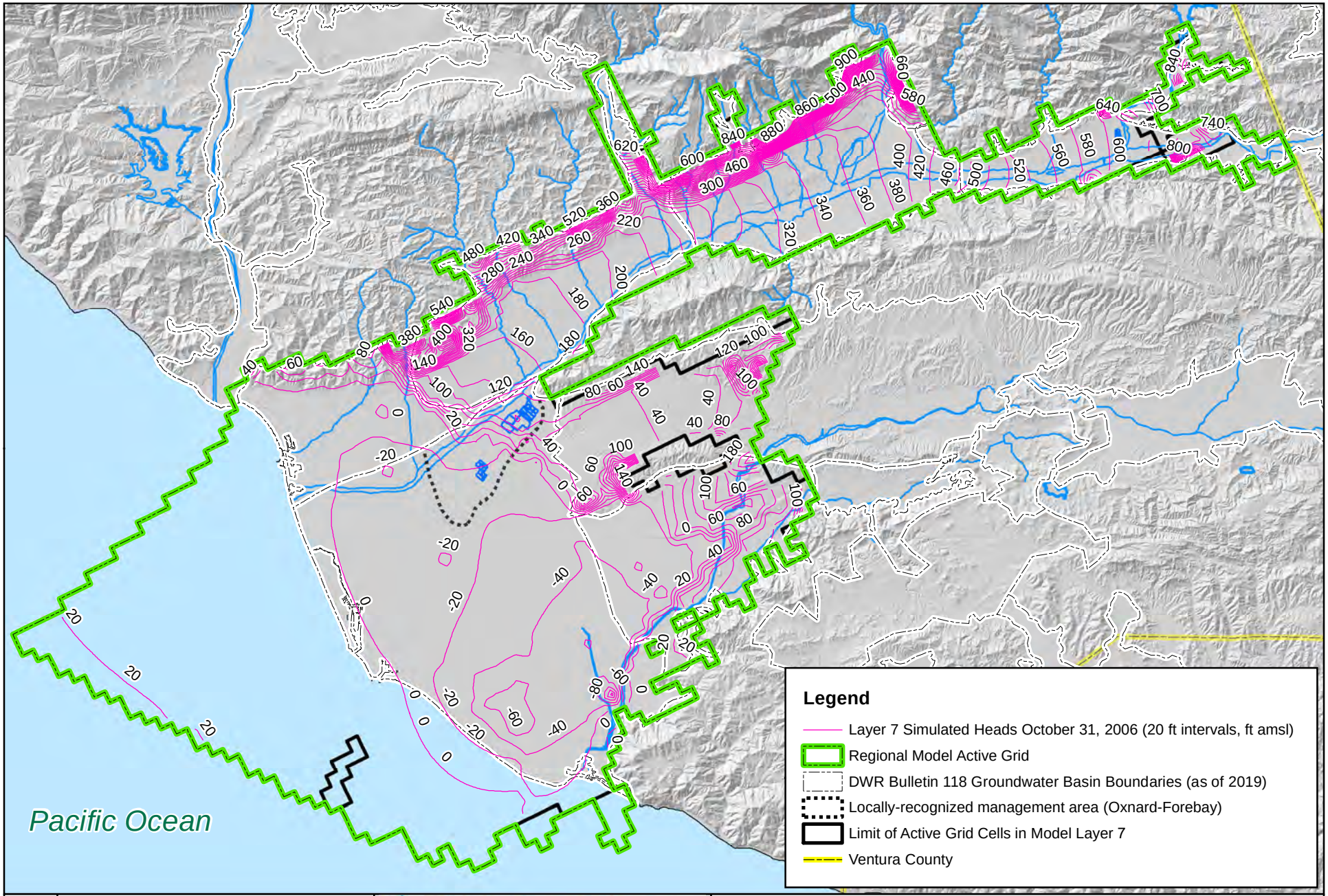


Figure 4-38.
October 2006 Simulated Head Contours of Model Layer 7

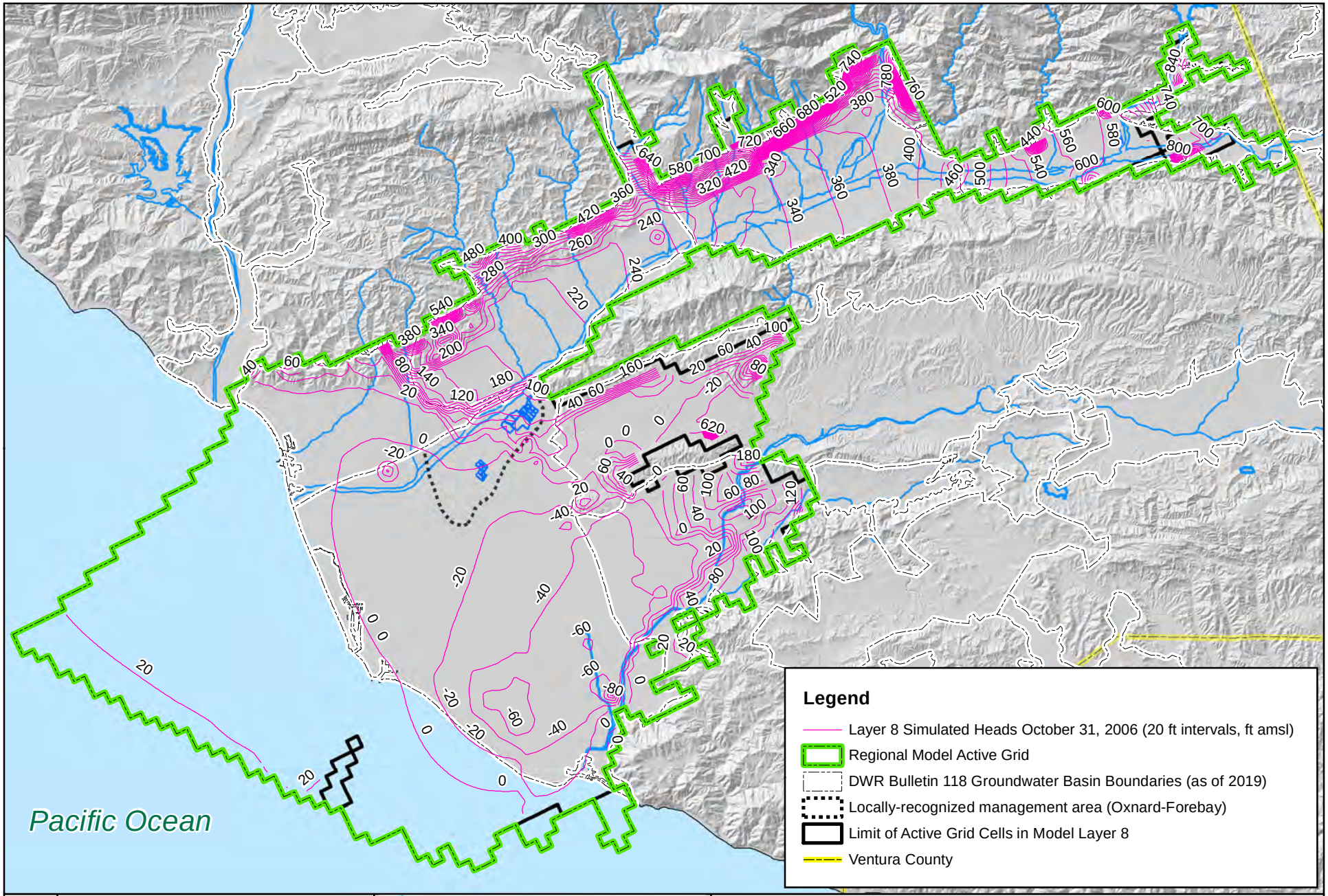


Figure 4-39.
October 2006 Simulated Head Contours of Model Layer 8

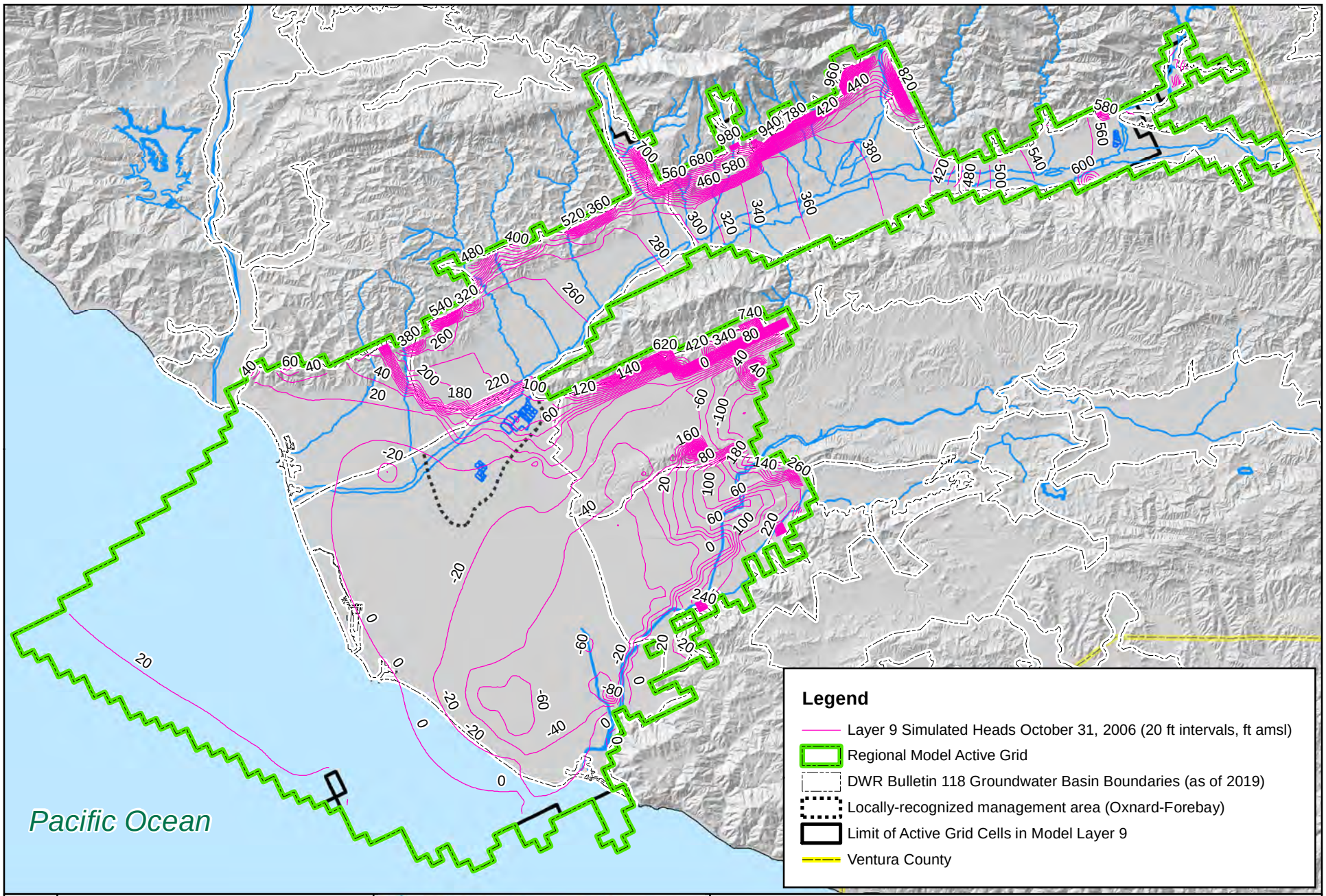


Figure 4-40.
October 2006 Simulated Head Contours of Model Layer 9

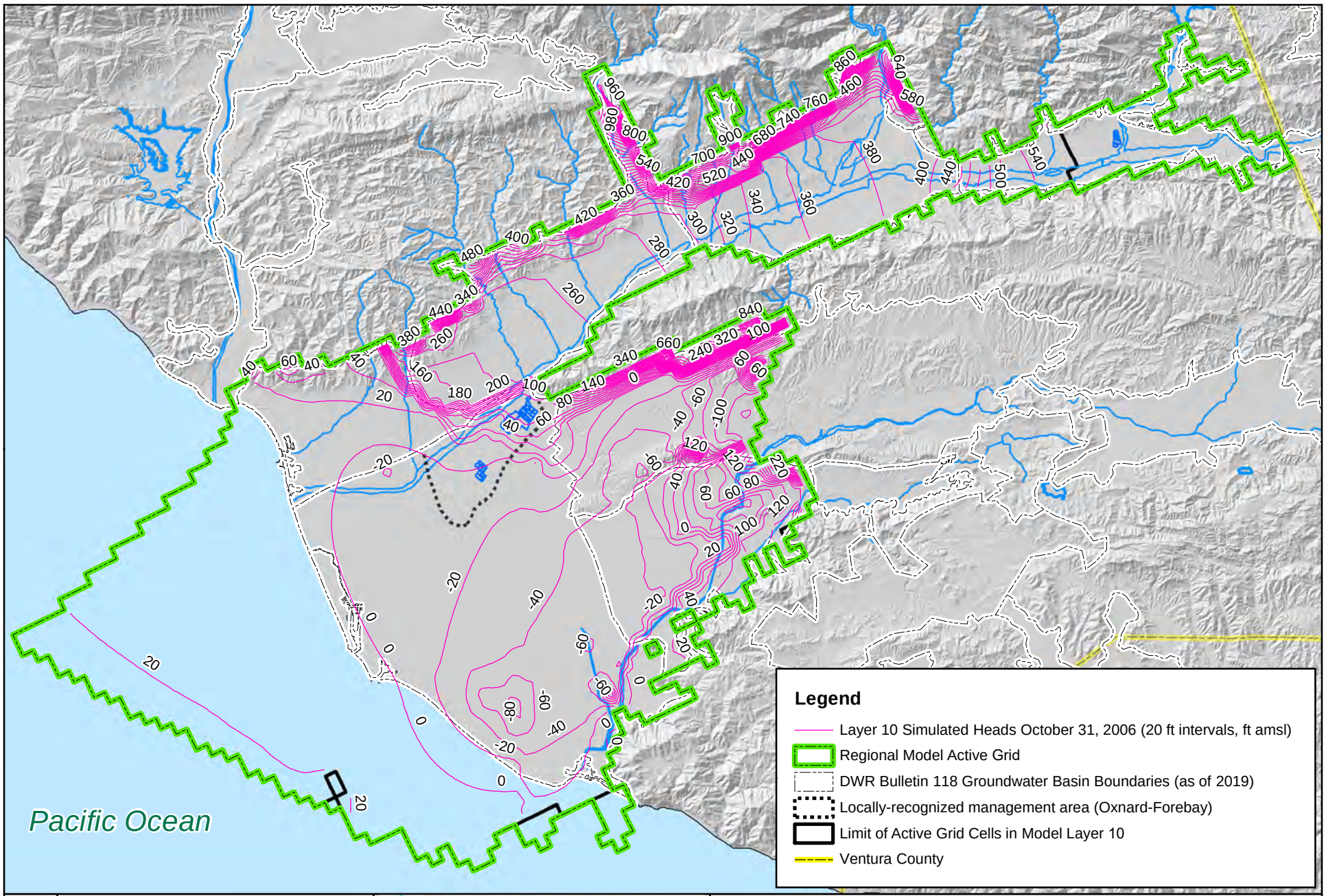


Figure 4-41.
October 2006 Simulated Head Contours of Model Layer 10

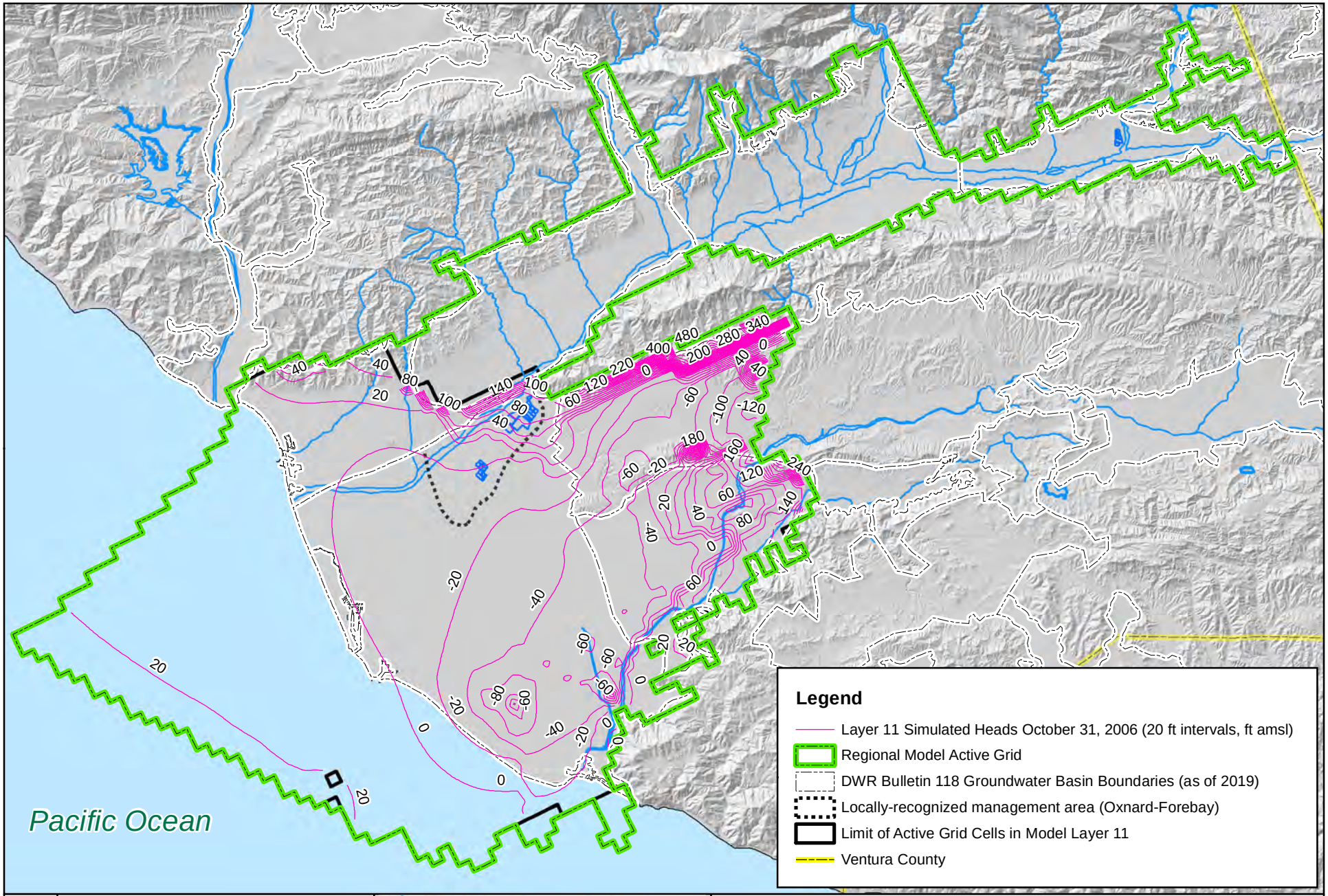


Figure 4-42.
October 2006 Simulated Head Contours of Model Layer 11

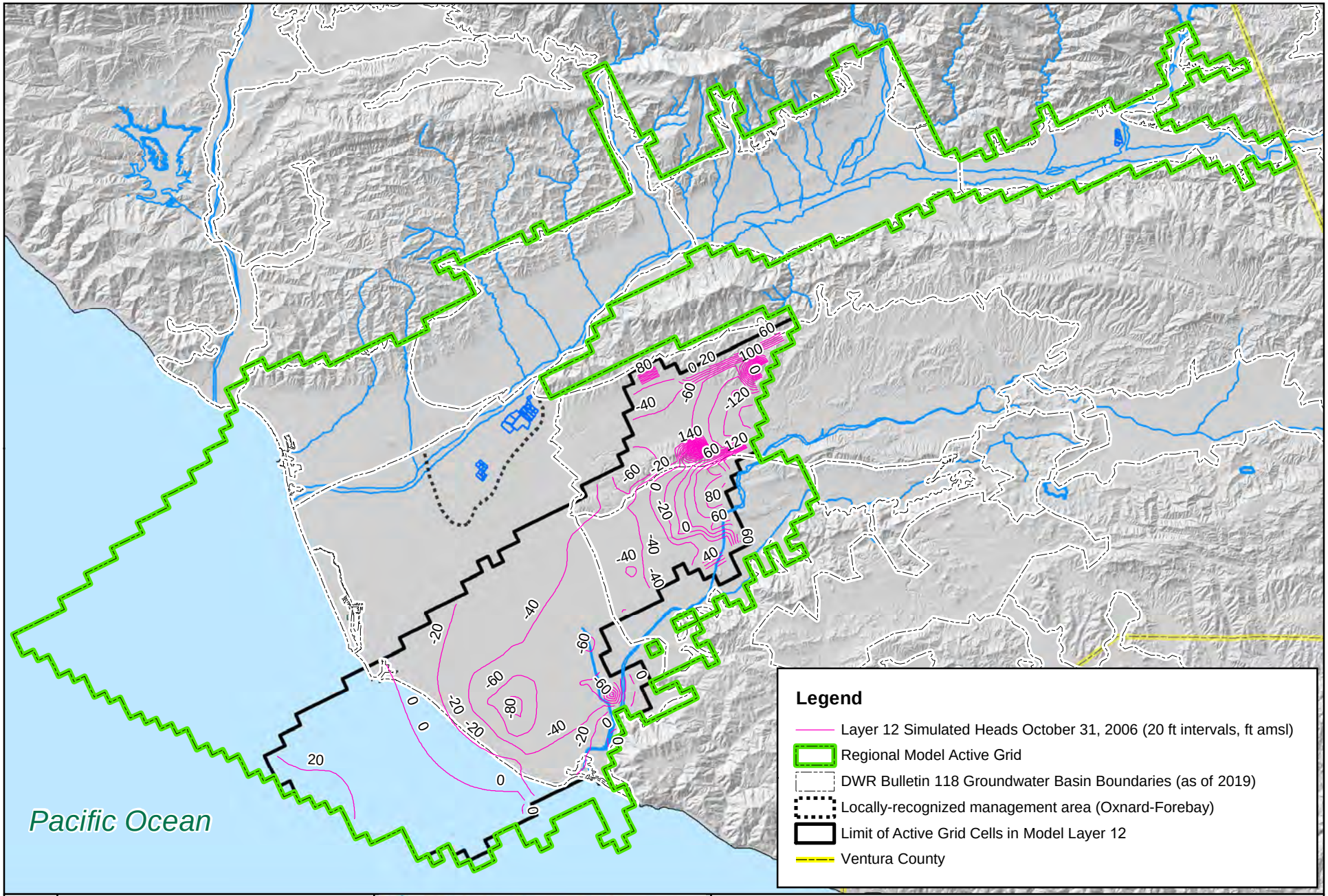


Figure 4-43.
October 2006 Simulated Head Contours of Model Layer 12

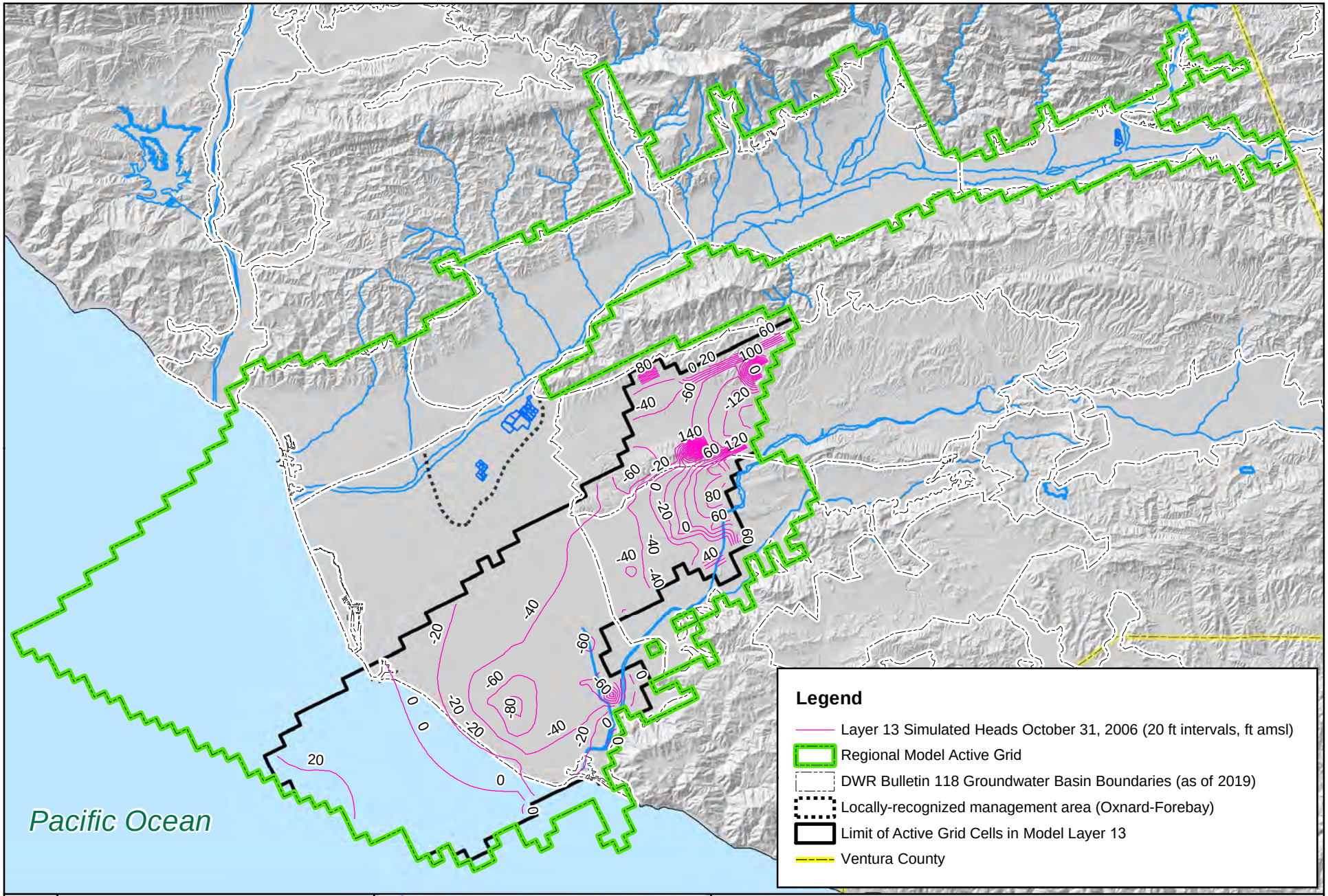


Figure 4-44.
October 2006 Simulated Head Contours of Model Layer 13

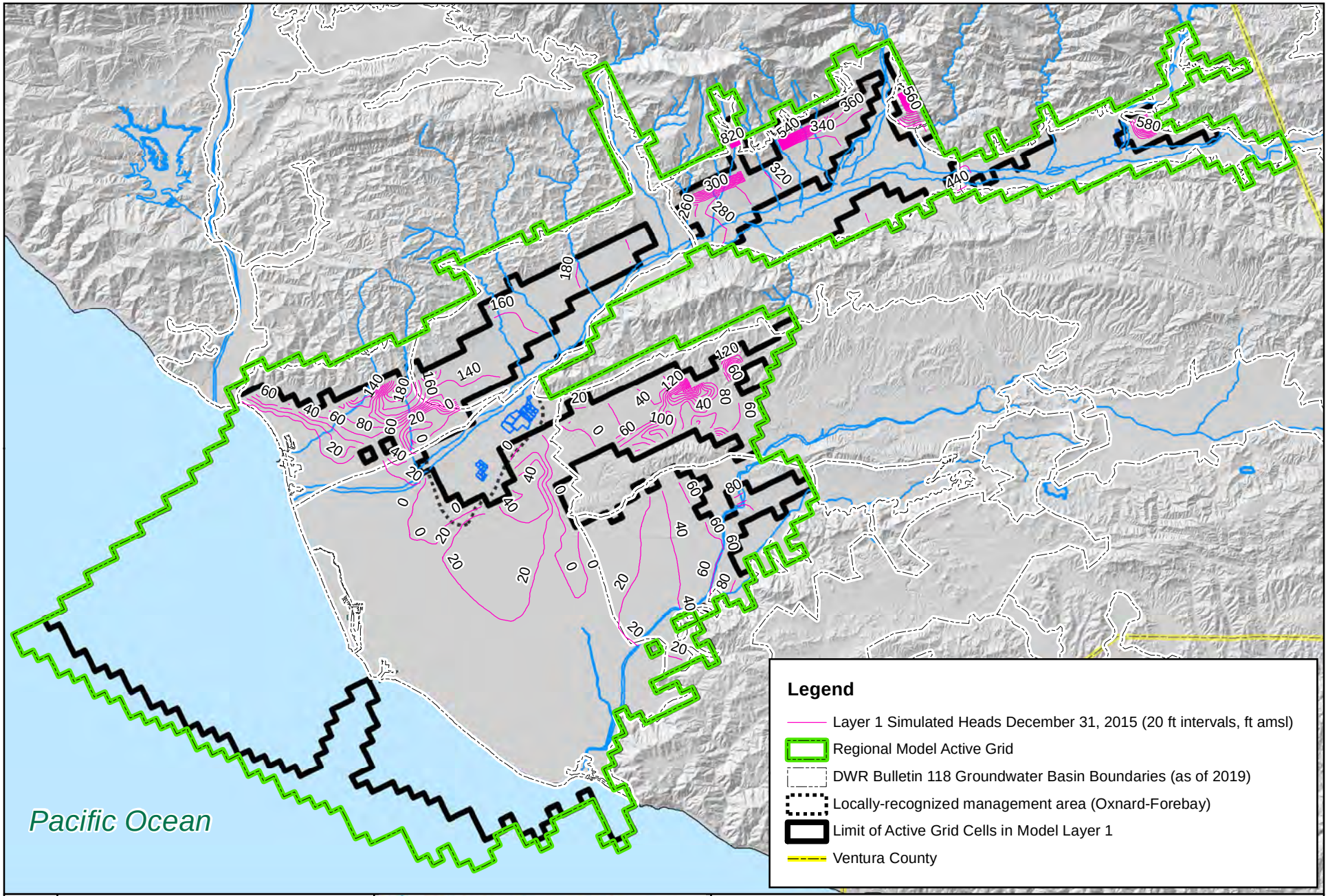


Figure 4-45.
December 2015 Simulated Head Contours of Model Layer 1

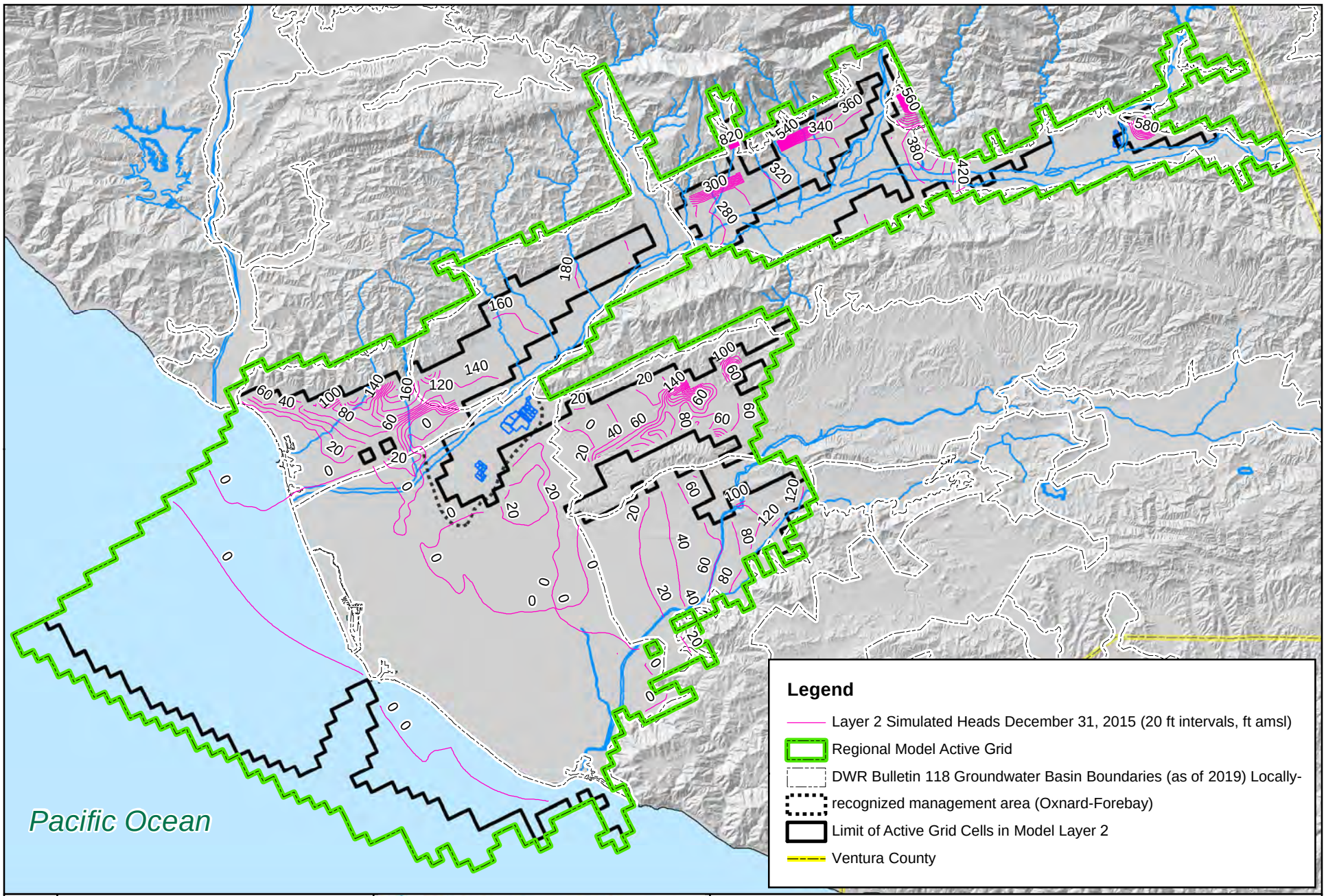


Figure 4-46.
December 2015 Simulated Head Contours of Model Layer 2

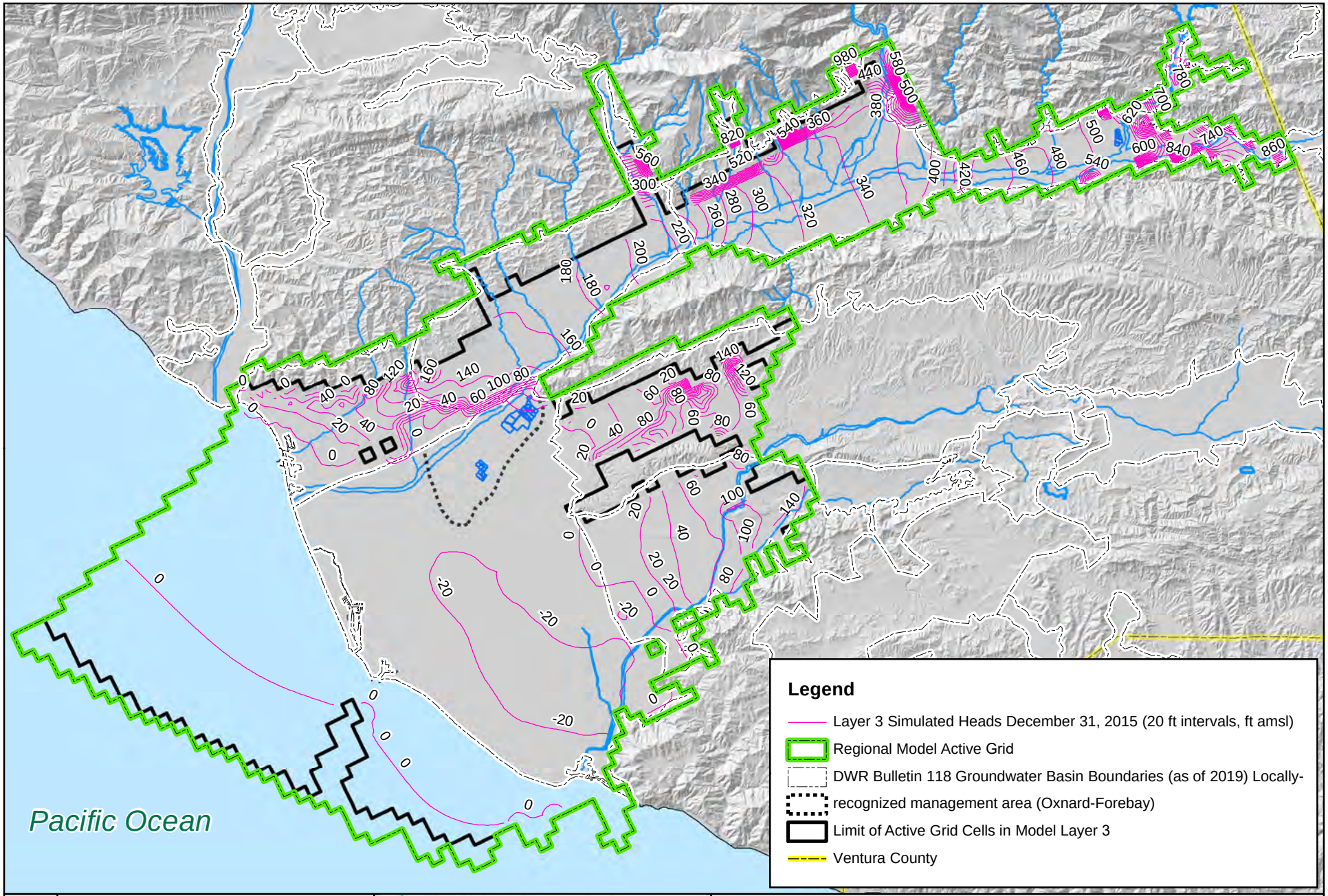


Figure 4-47.
December 2015 Simulated Head Contours of Model Layer 3

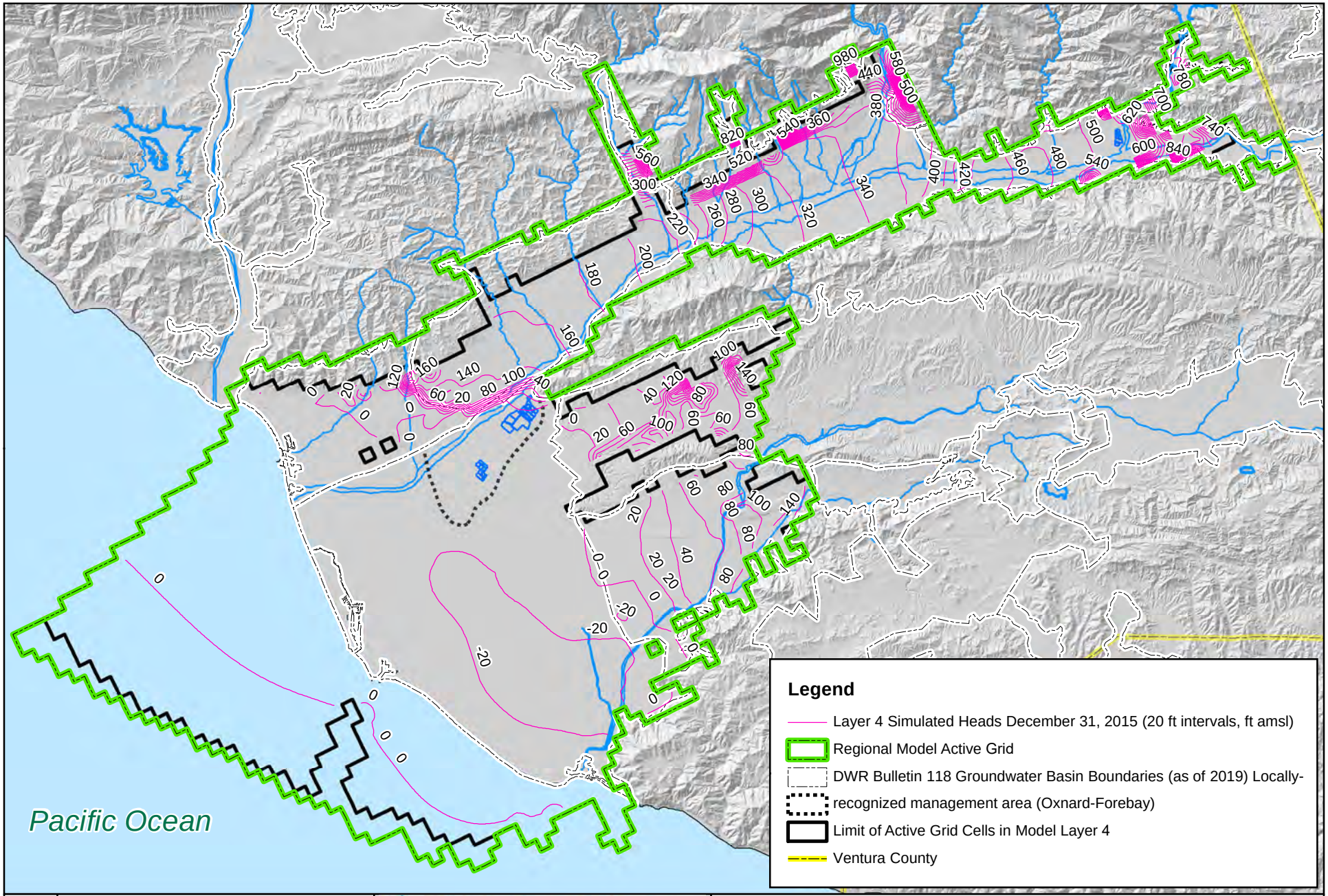


Figure 4-48.
December 2015 Simulated Head Contours of Model Layer 4

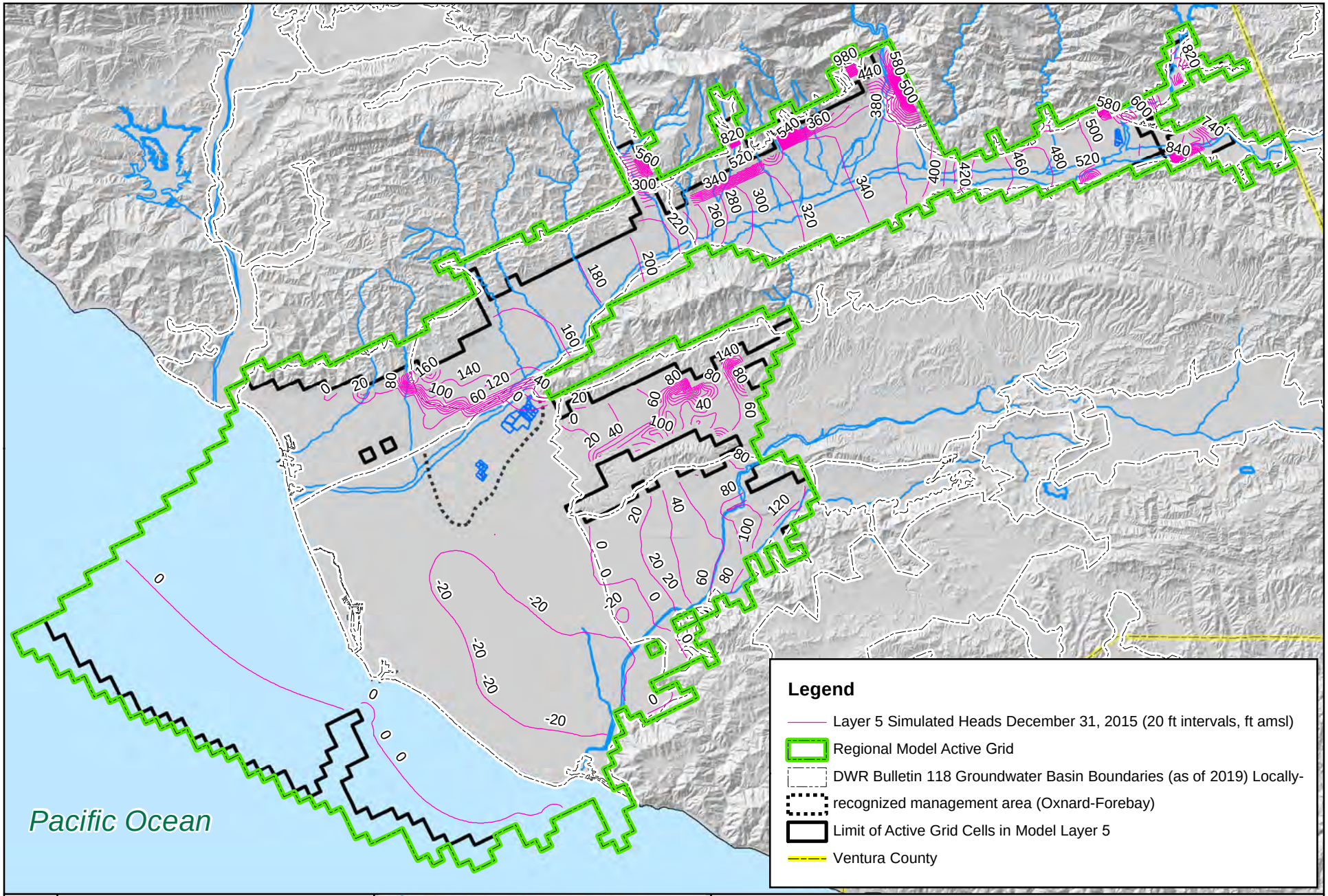


Figure 4-49.
December 2015 Simulated Head Contours of Model Layer 5

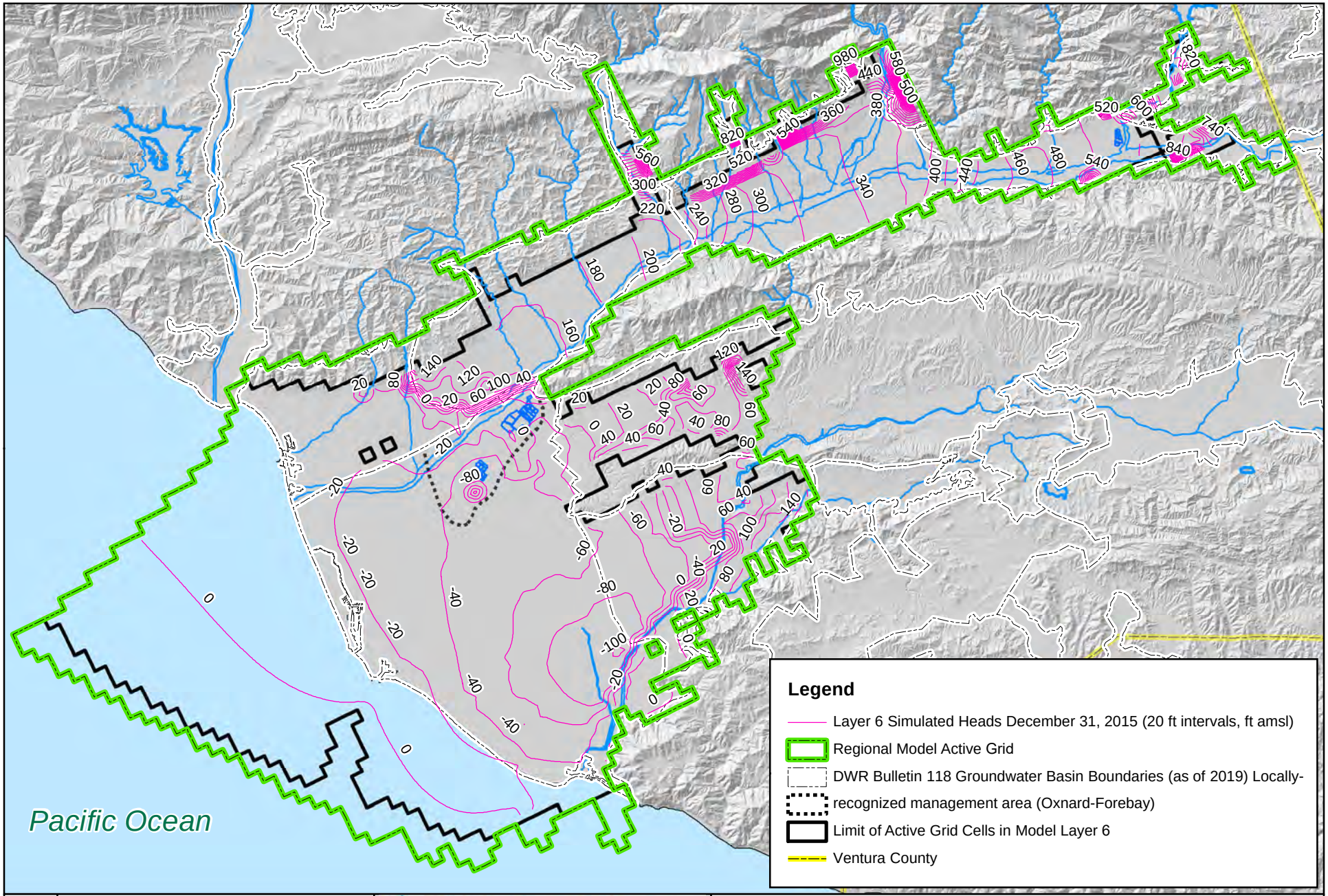


Figure 4-50.
December 2015 Simulated Head Contours of Model Layer 6

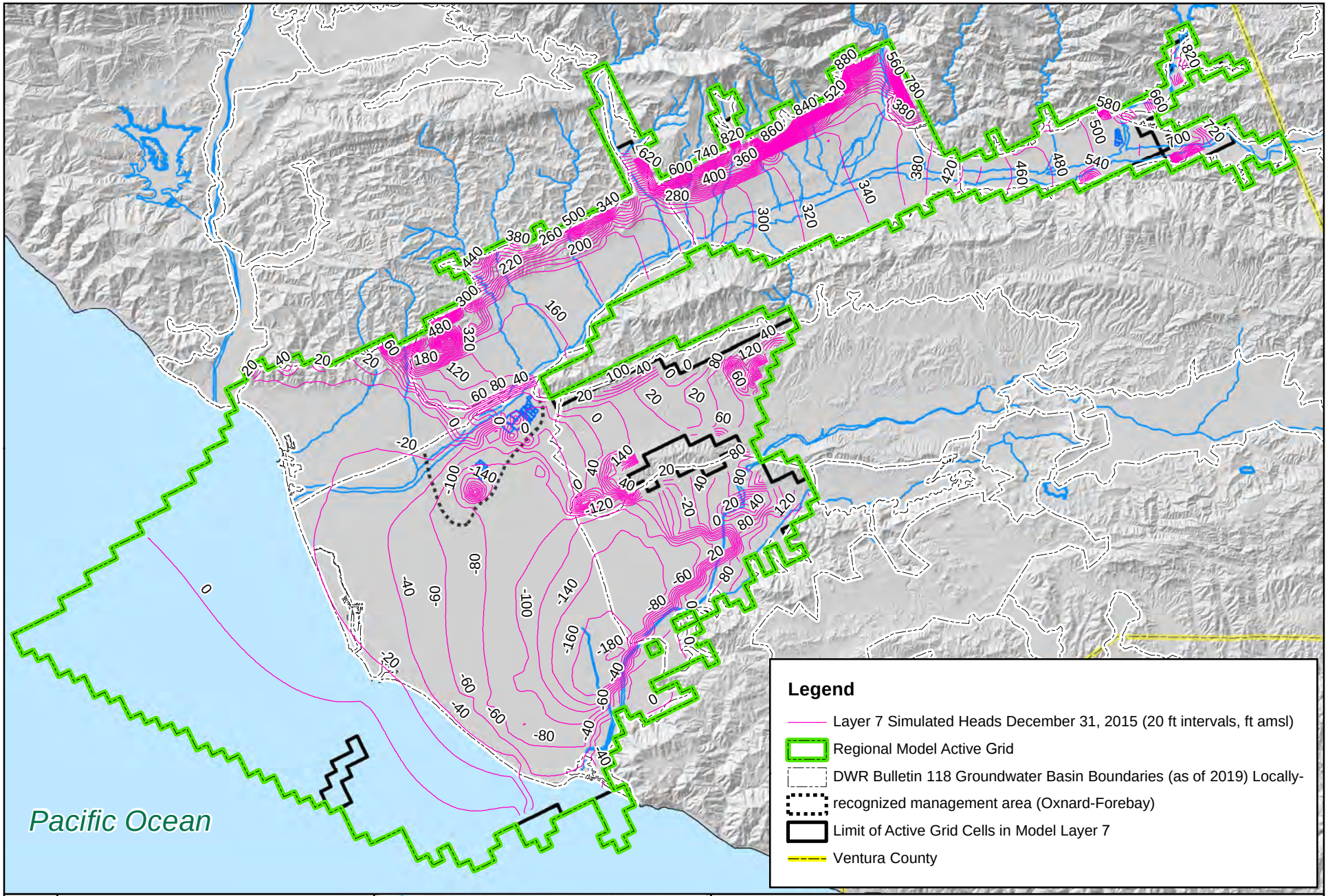


Figure 4-51.
December 2015 Simulated Head Contours of Model Layer 7

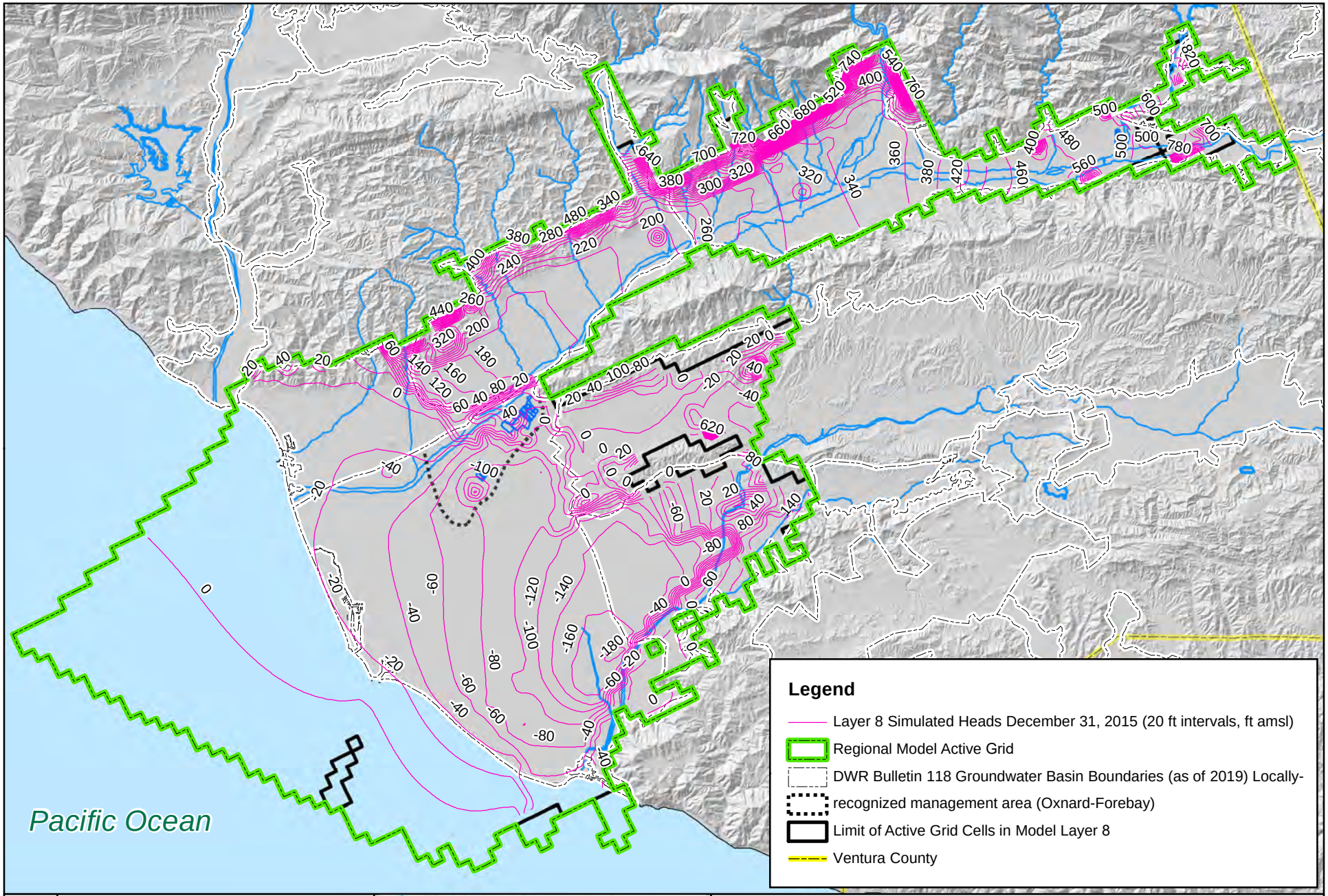


Figure 4-52.
December 2015 Simulated Head Contours of Model Layer 8

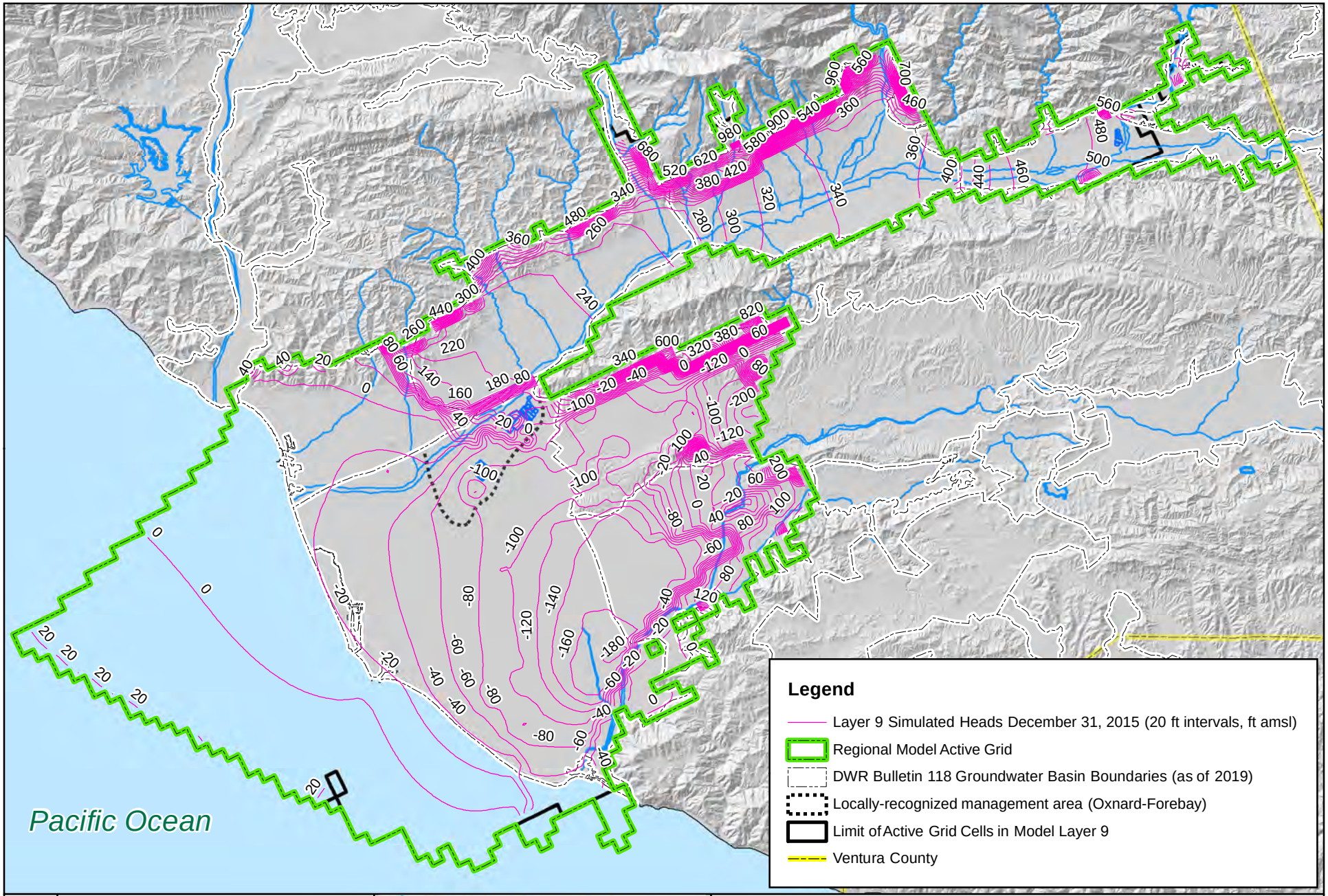


Figure 4-53.
December 2015 Simulated Head Contours of Model Layer 9

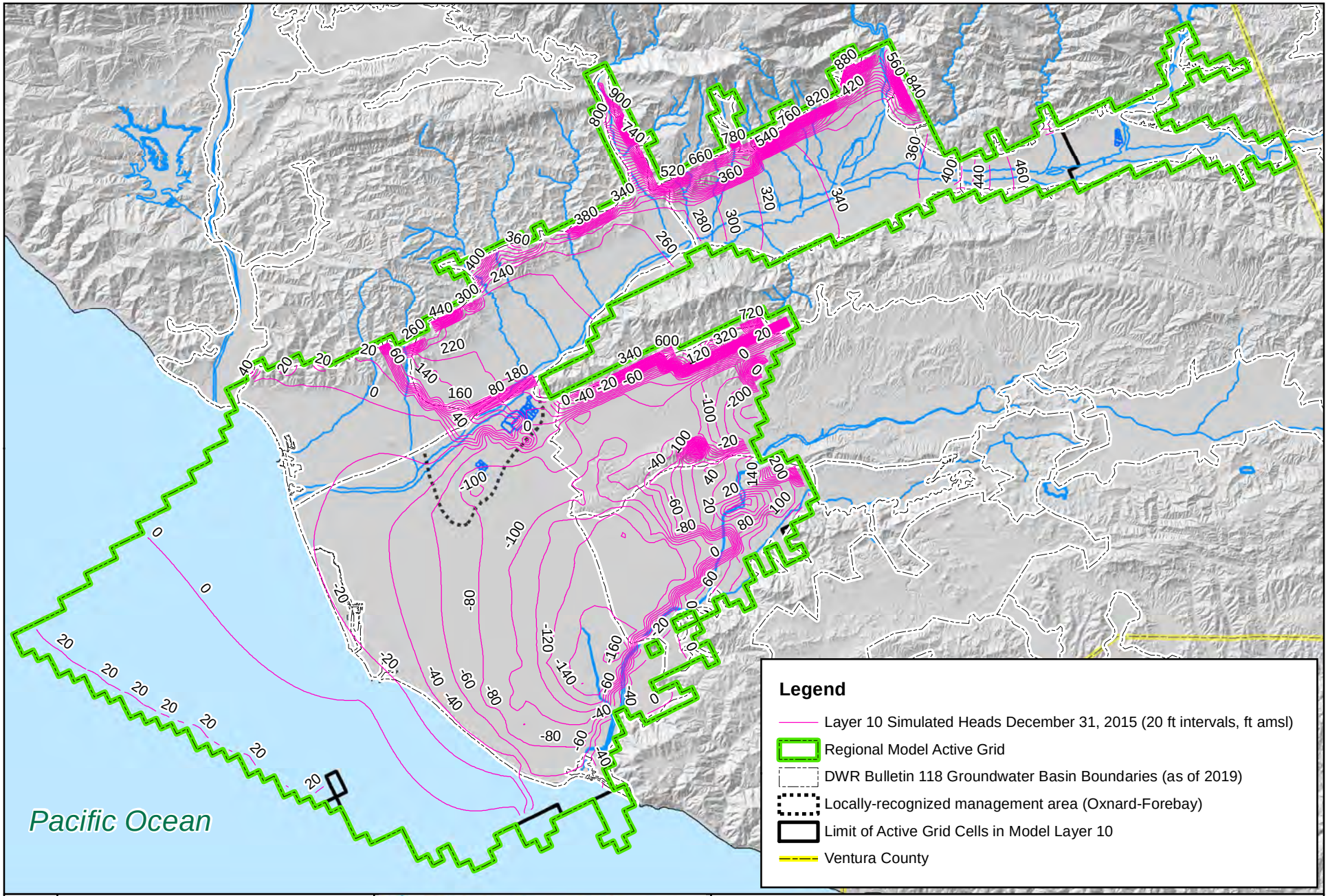


Figure 4-54.
December 2015 Simulated Head Contours of Model Layer 10

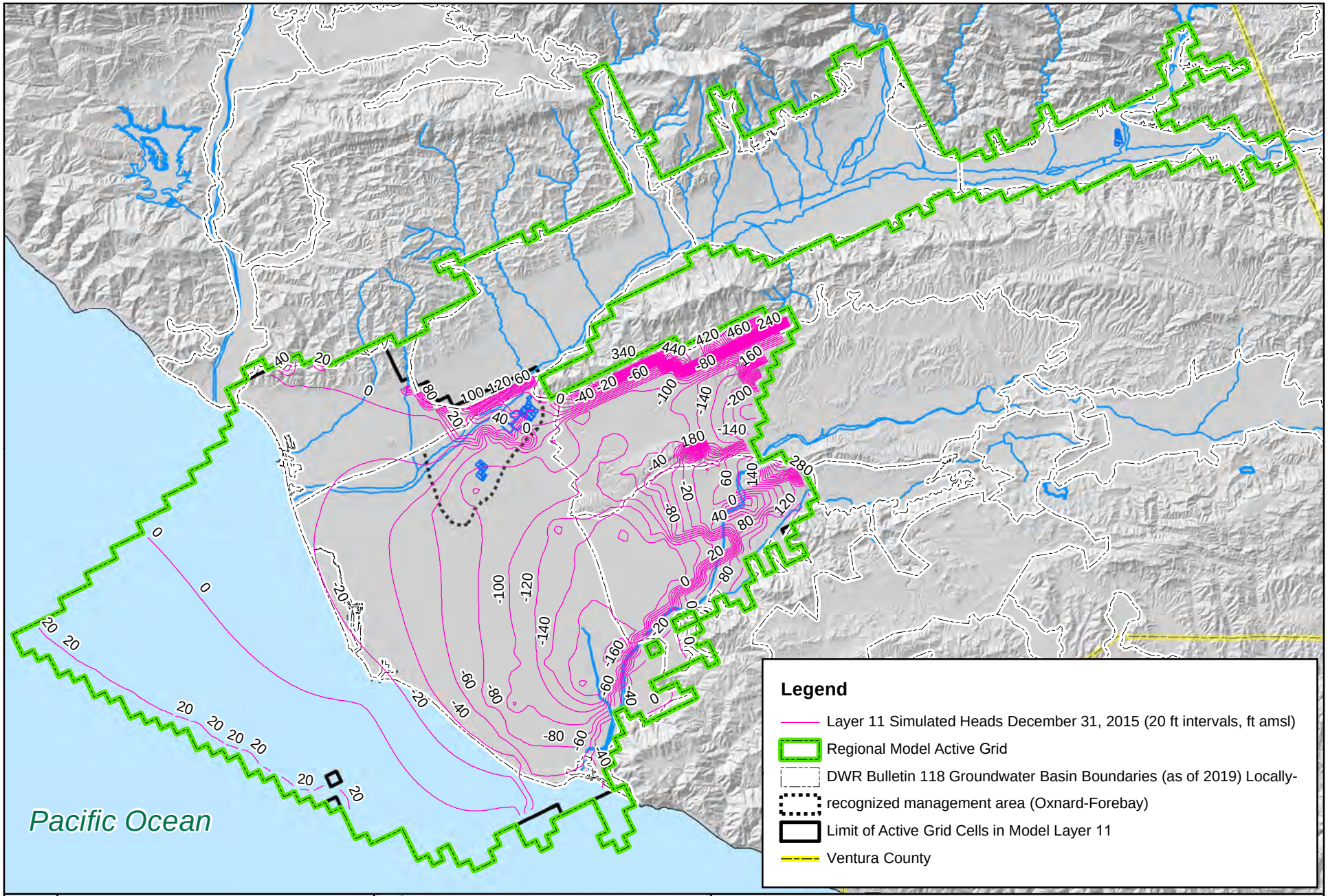


Figure 4-55.
December 2015 Simulated Head Contours of Model Layer 11

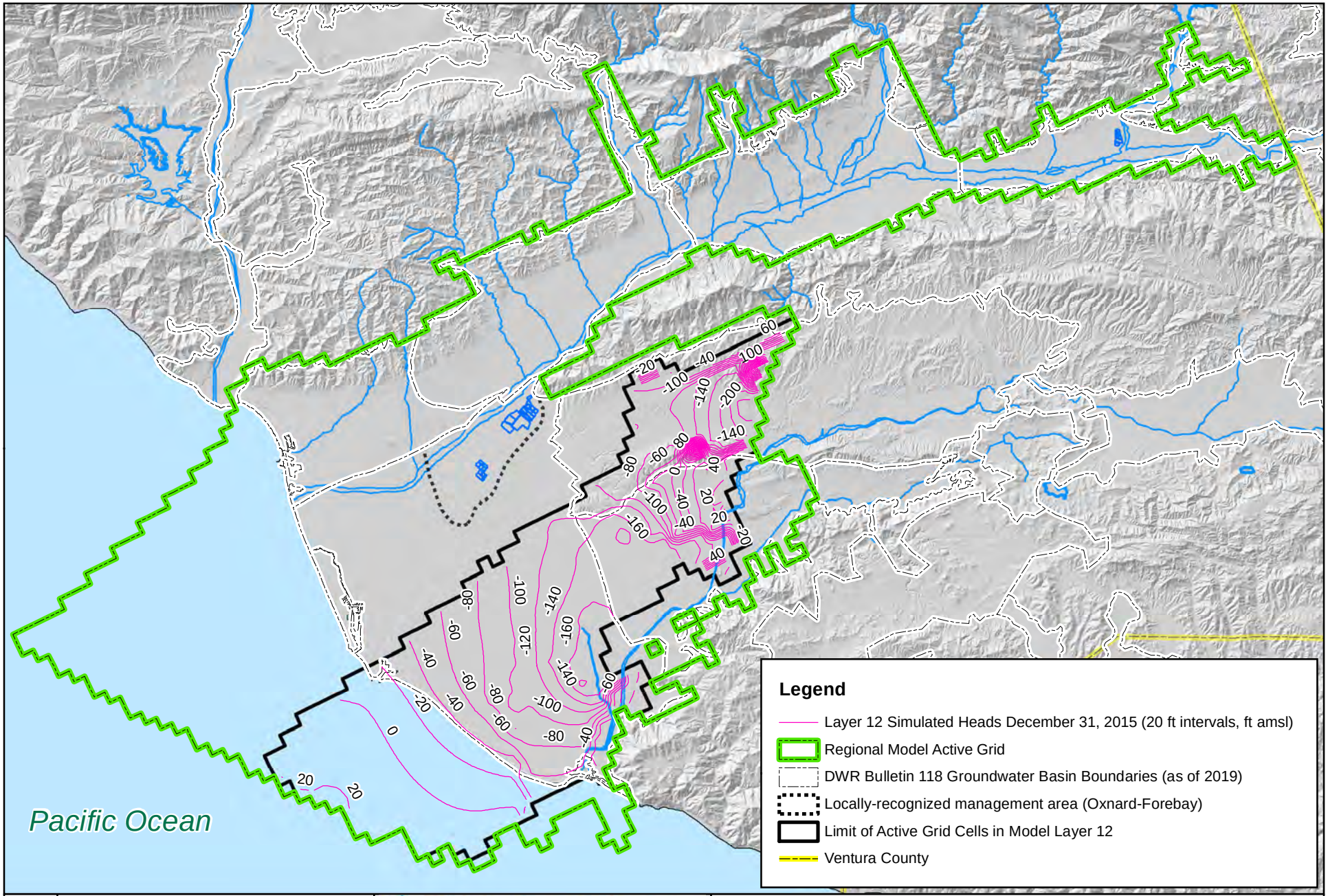


Figure 4-56.
December 2015 Simulated Head Contours of Model Layer 12

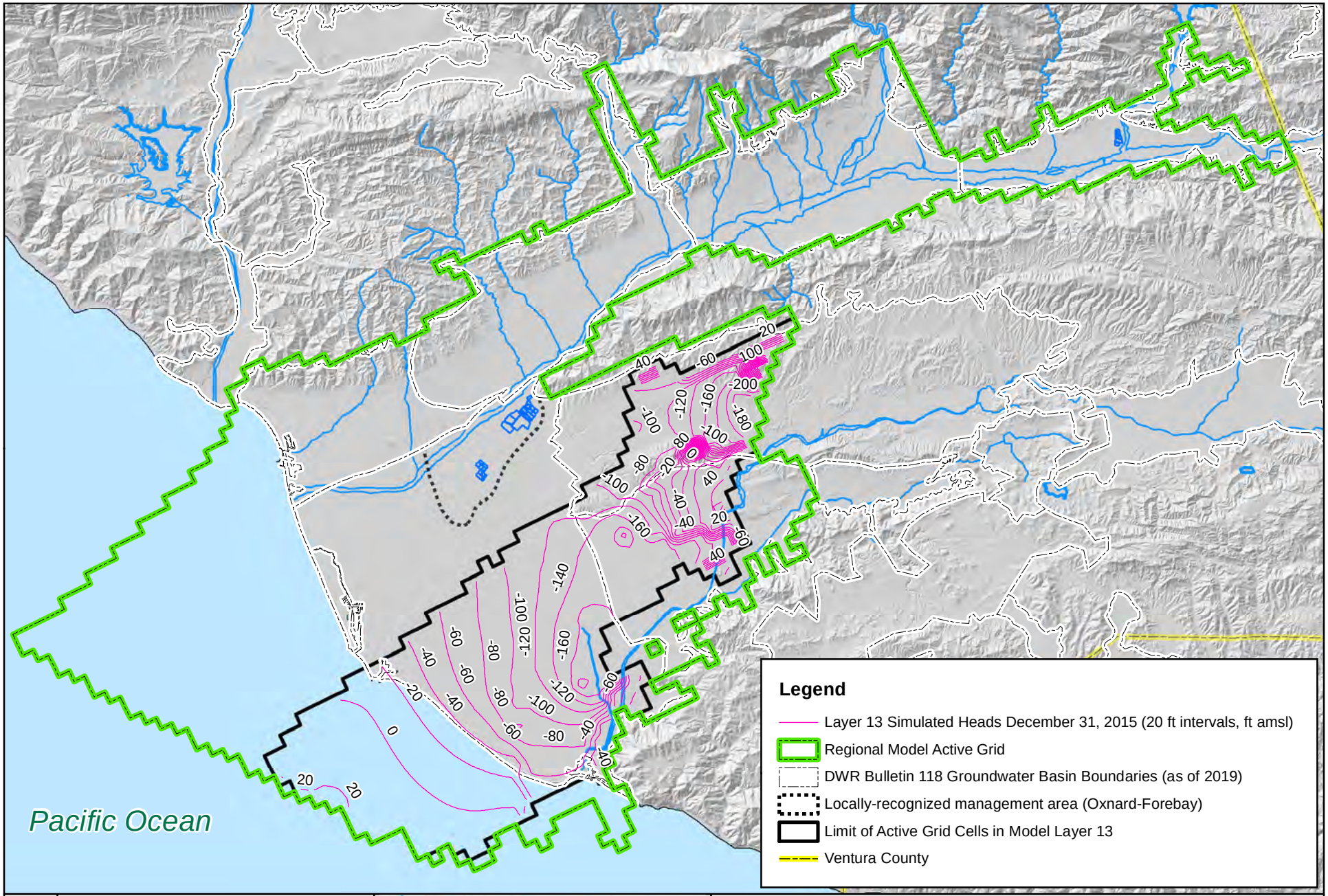
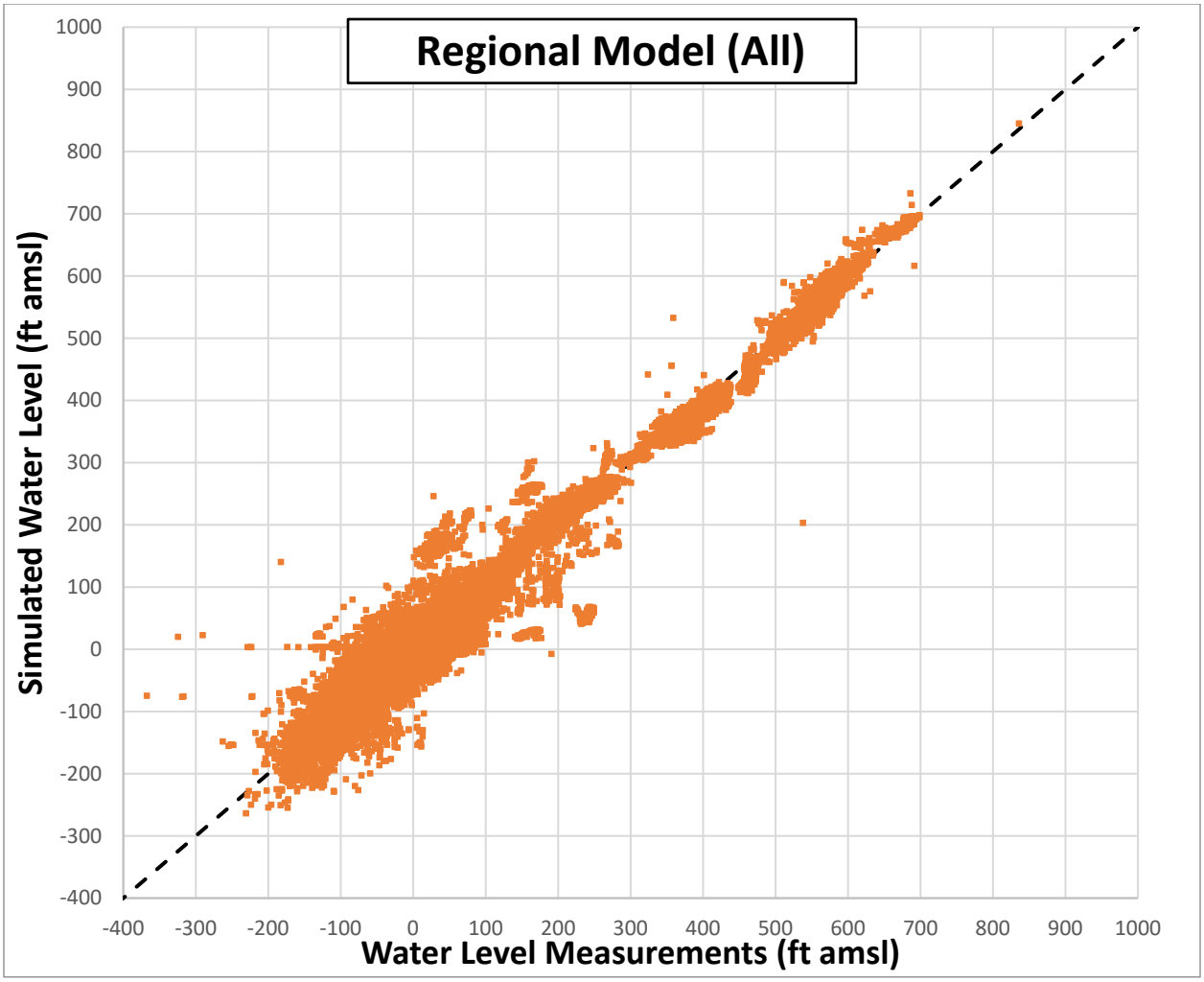
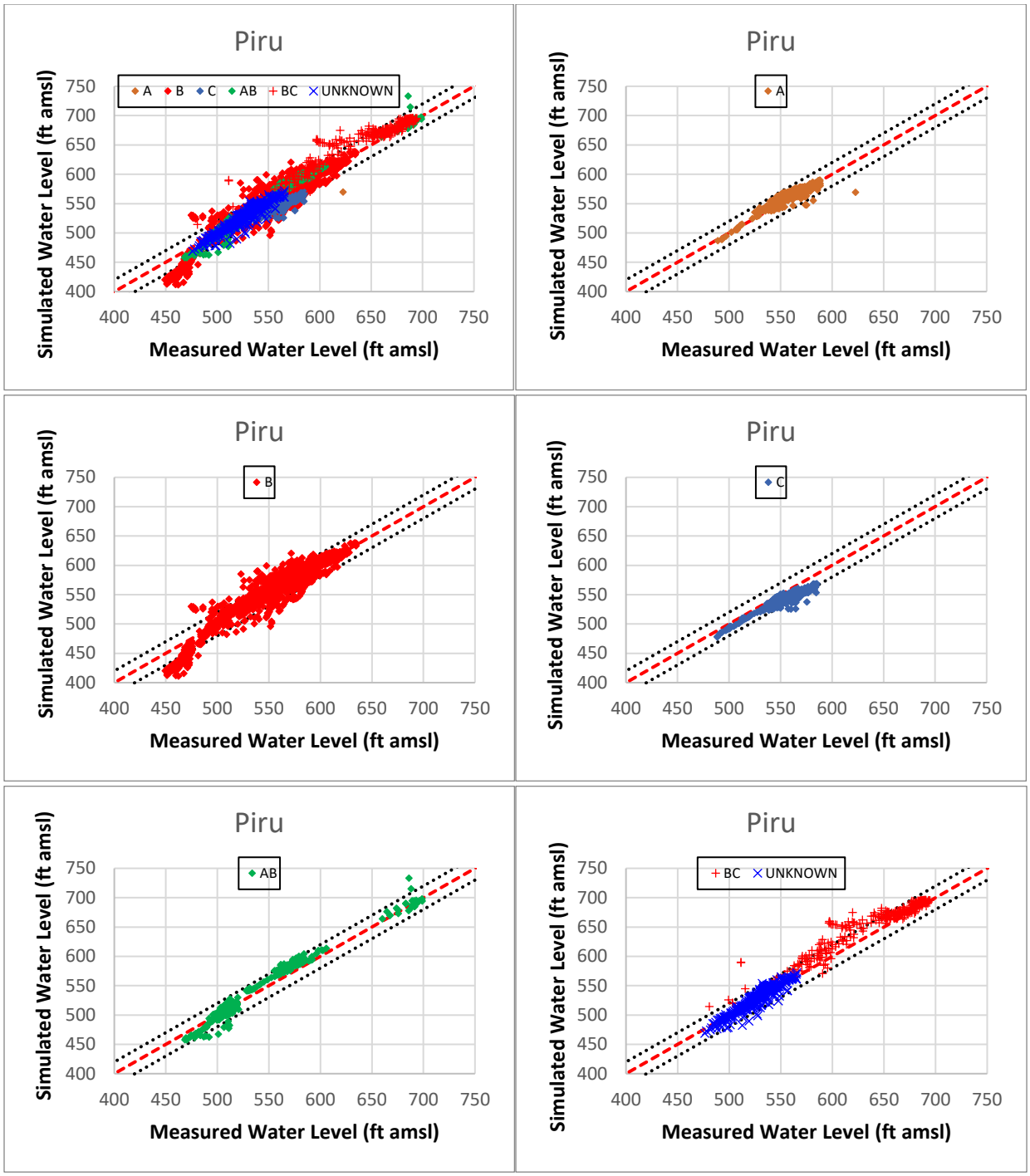


Figure 4-57.
December 2015 Simulated Head Contours of Model Layer 13



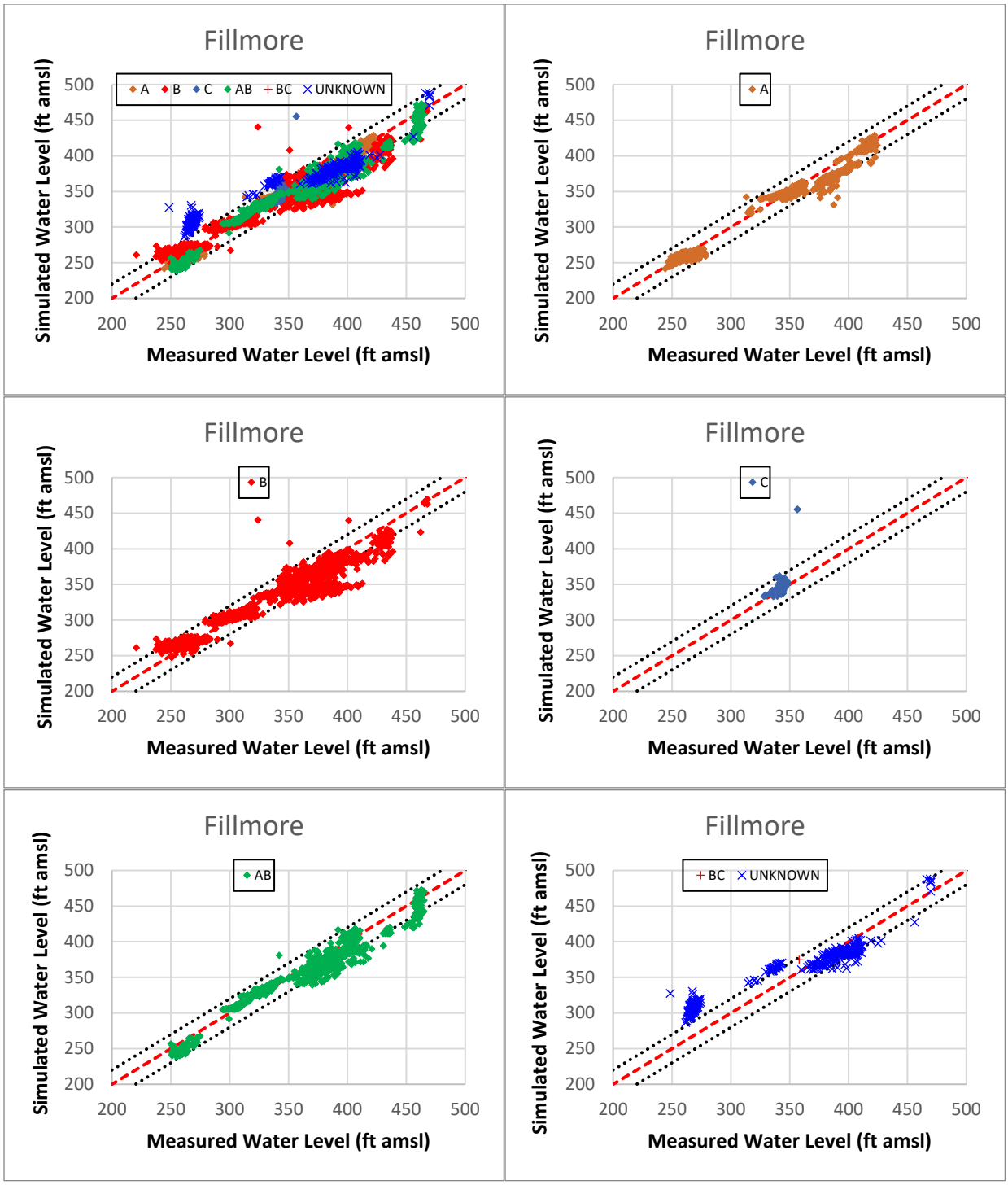
Note: Dashed black line represents a 1 : 1 relationship between measured and simulated groundwater levels.

Figure 4-58. Scatterplots of Simulated versus Measured Groundwater Elevations in the Regional Model Domain (all)



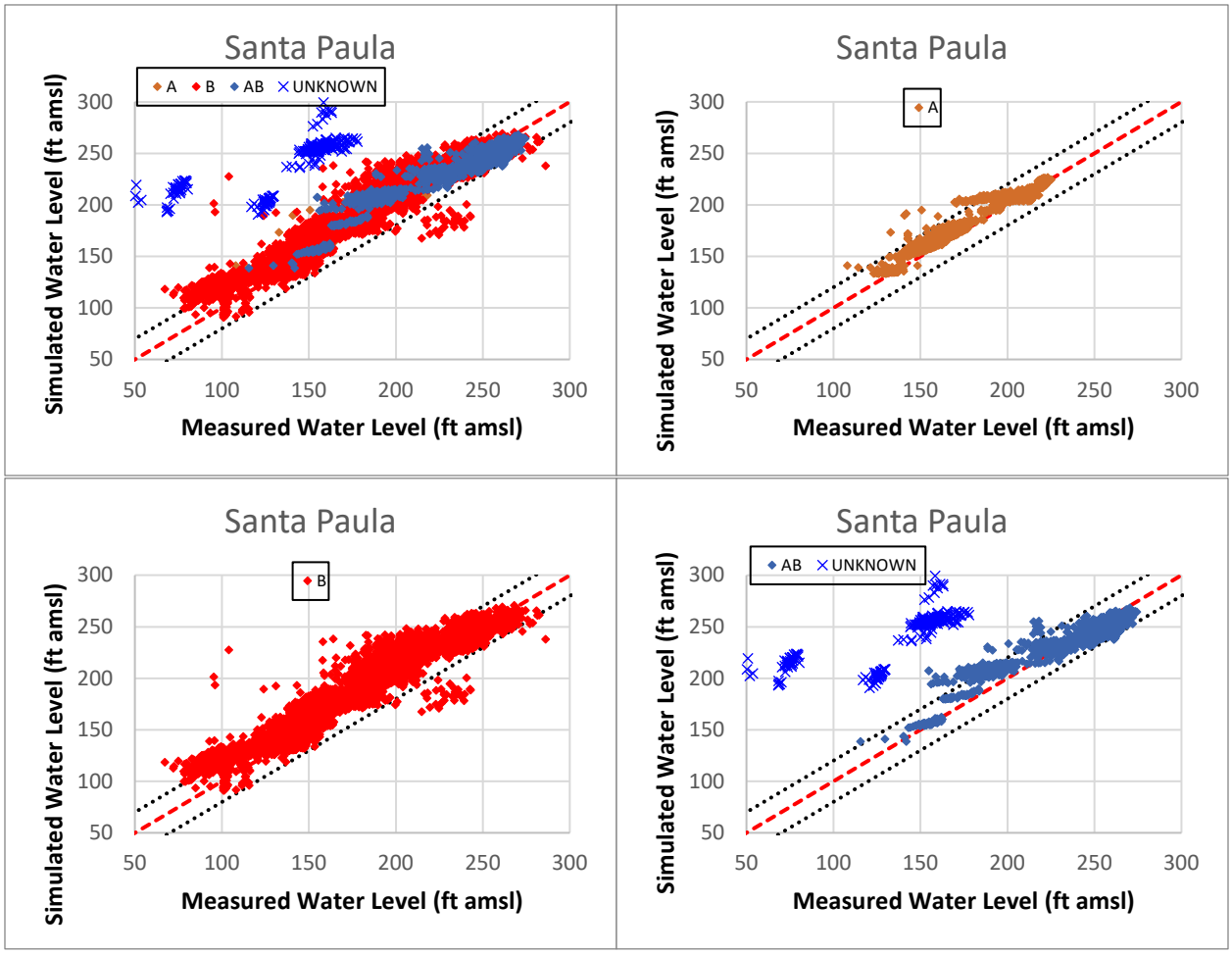
Note: Dashed red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dotted black lines are offset 20 feet above and below the 1 : 1 (dashed red) line.

Figure 4-59: Scatterplots of Simulated versus Measured Groundwater Elevations in the Piru Basin



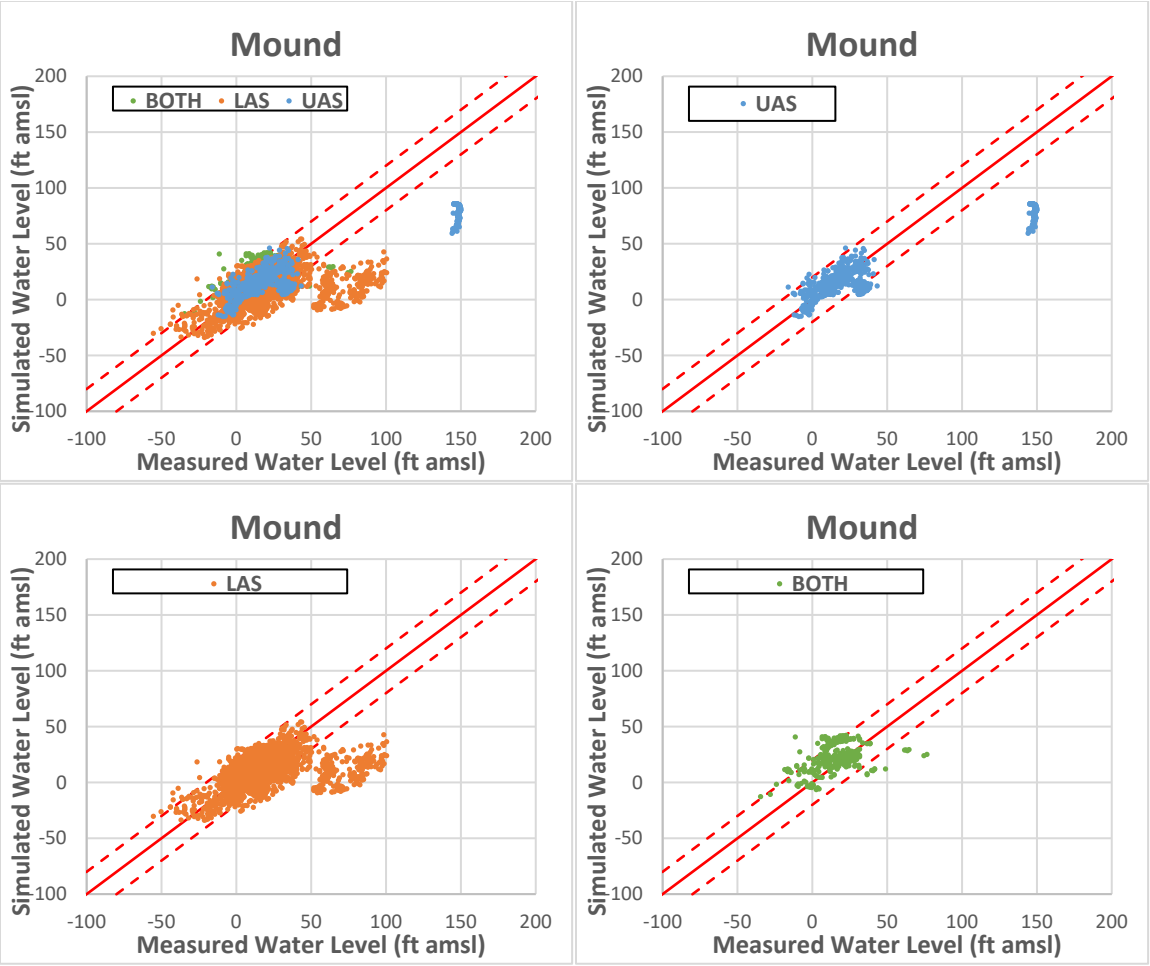
Note: Dashed red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dotted black lines are offset 20 feet above and below the 1 : 1 (dashed red) line.

Figure 4-60: Scatterplots of Simulated versus Measured Groundwater Elevations in the Fillmore Basin



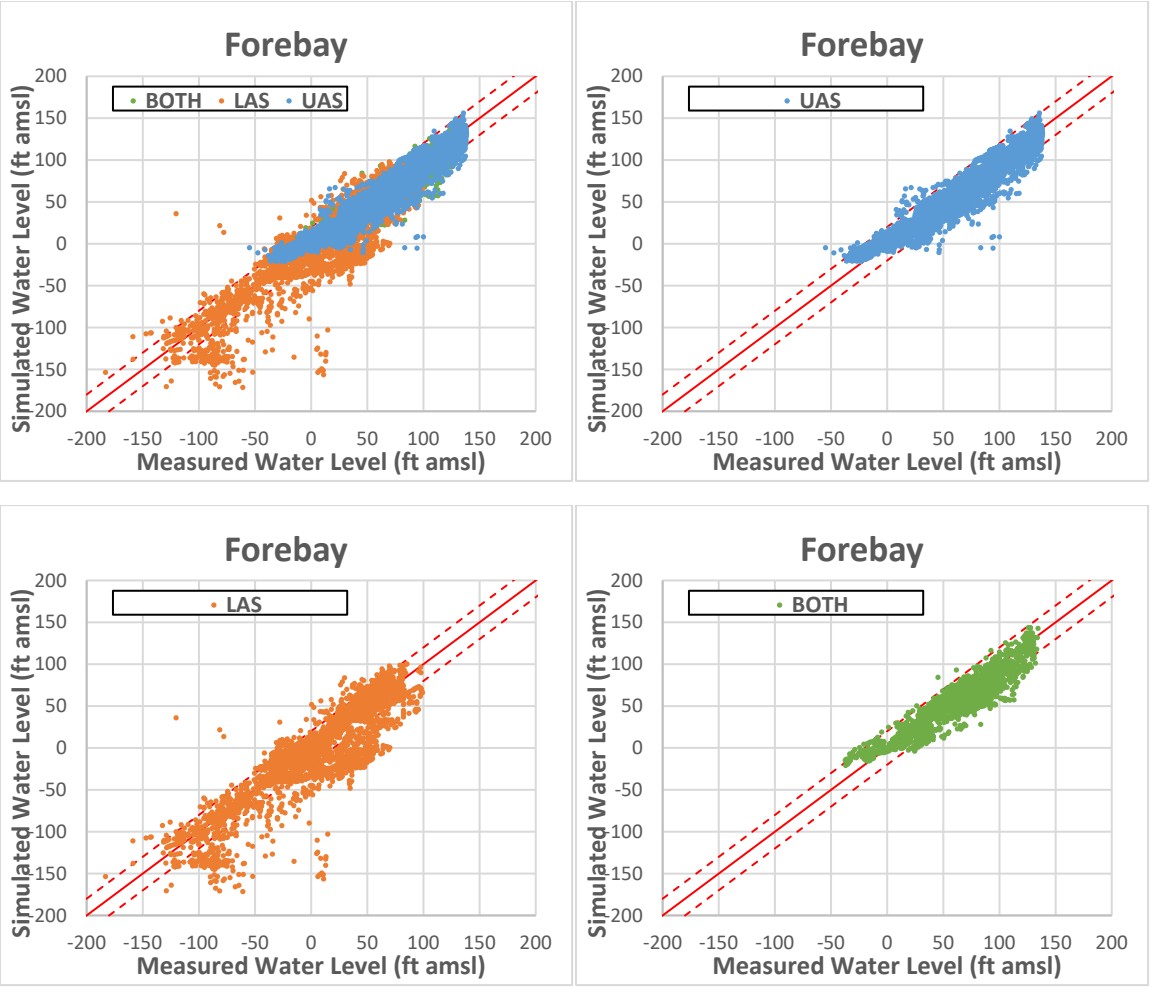
Note: Dashed red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dotted black lines are offset 20 feet above and below the 1 : 1 (dashed red) line.

Figure 4-61: Scatterplots of Simulated versus Measured Groundwater Elevations in the Santa Paula Basin



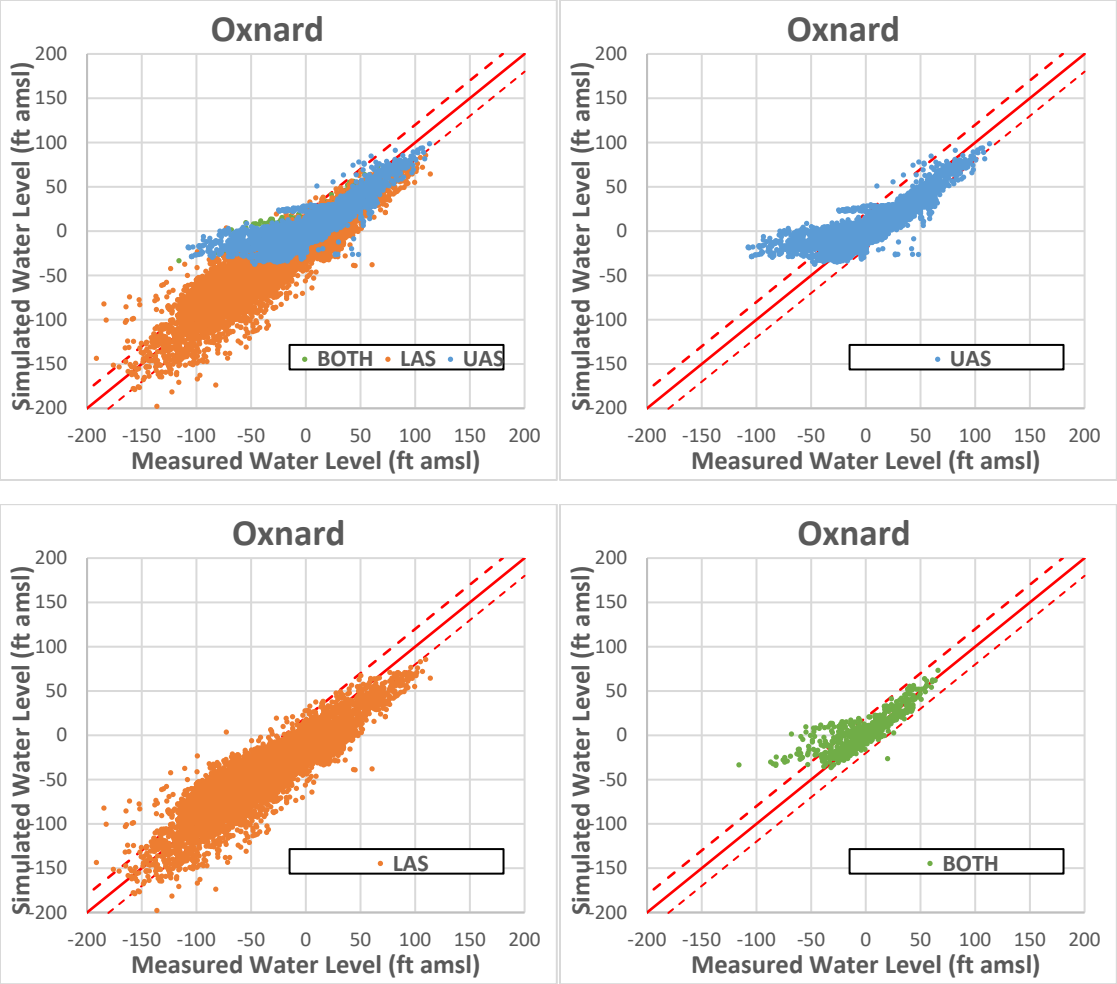
Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dashed red lines are offset 20 feet above and below the 1 : 1 (solid) line.

Figure 4-62. Scatterplots of Simulated versus Measured Groundwater Elevations in the Mound Basin



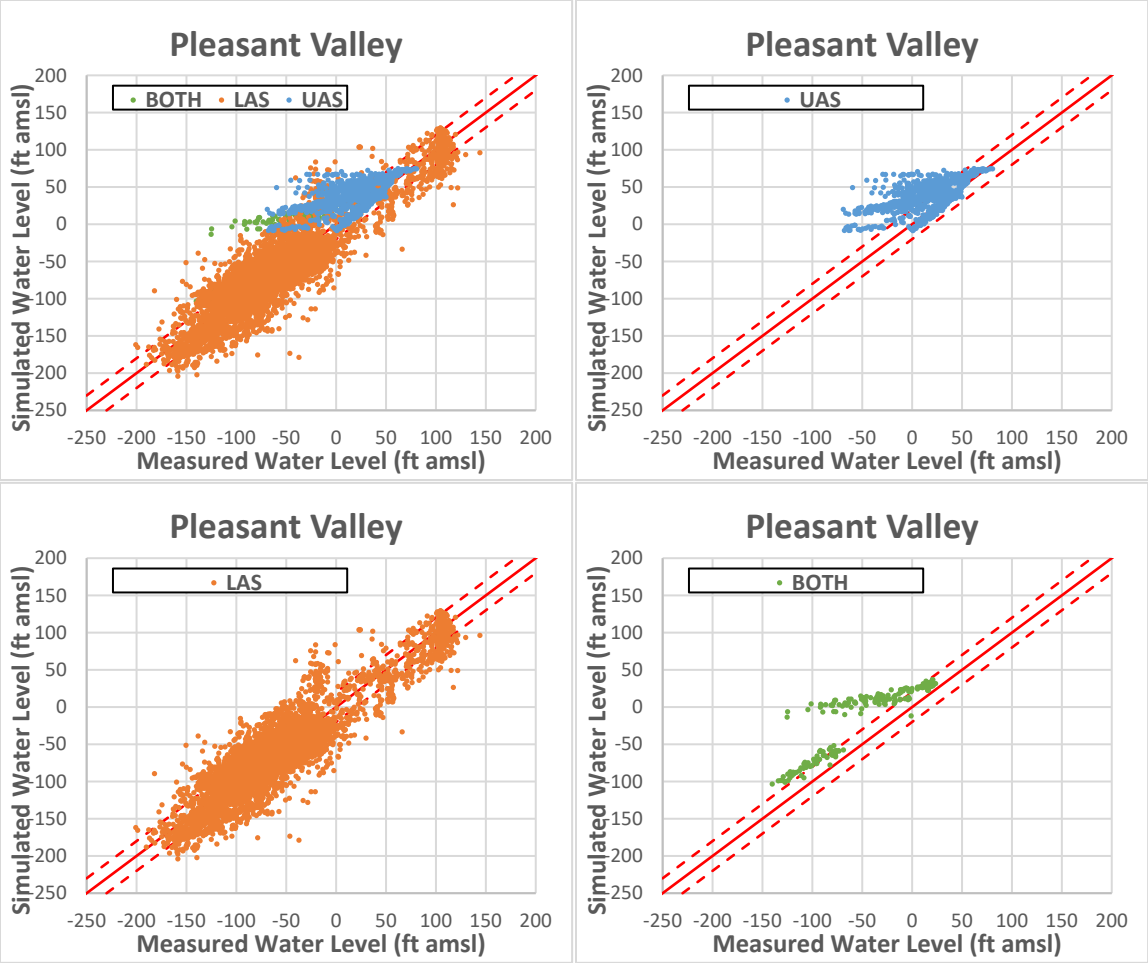
Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dashed red lines are offset 20 feet above and below the 1 : 1 (solid) line.

Figure 4-63. Scatterplots of Simulated versus Measured Groundwater Elevations in the Forebay of the Oxnard Basin



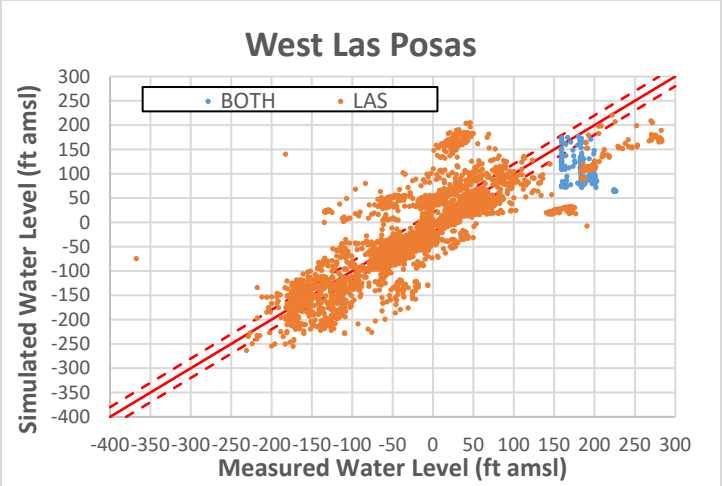
Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dashed red lines are offset 20 feet above and below the 1 : 1 (solid) line.

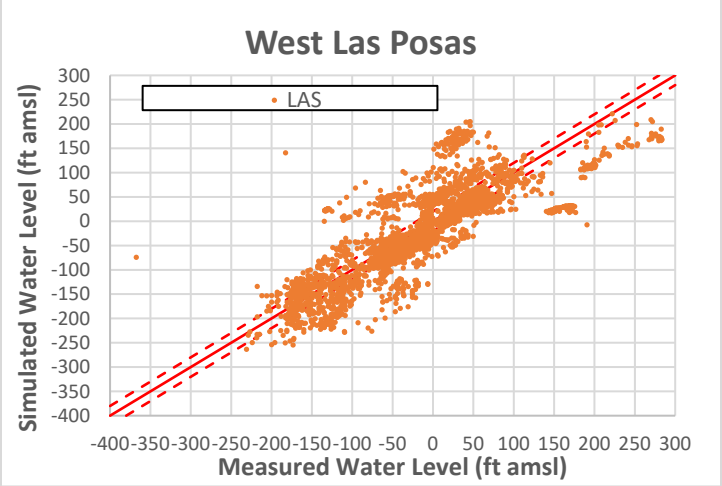
Figure 4-64. Scatterplots of Simulated versus Measured Groundwater Elevations in the Oxnard Basin

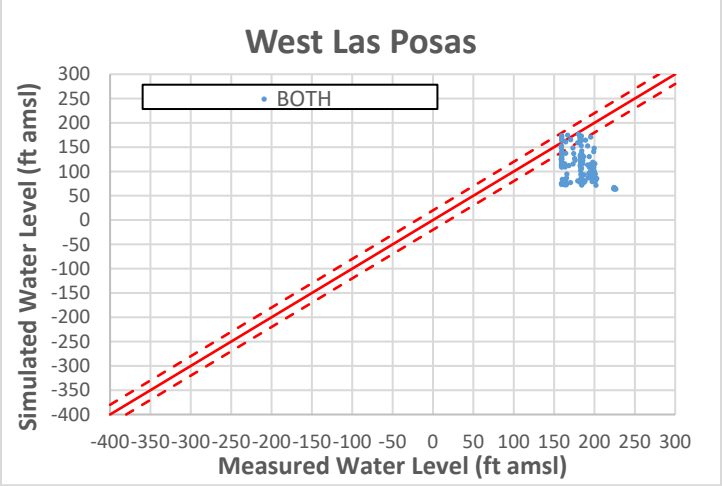


Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dashed red lines are offset 20 feet above and below the 1 : 1 (solid) line.

Figure 4-65. Scatterplots of Simulated versus Measured Groundwater Elevations in the Pleasant Valley Basin







Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater levels. Dashed red lines are offset 20 feet above and below the 1 : 1 (solid) line.

Figure 4-66. Scatterplots of Simulated versus Measured Groundwater Elevations in the West Las Posas Basin

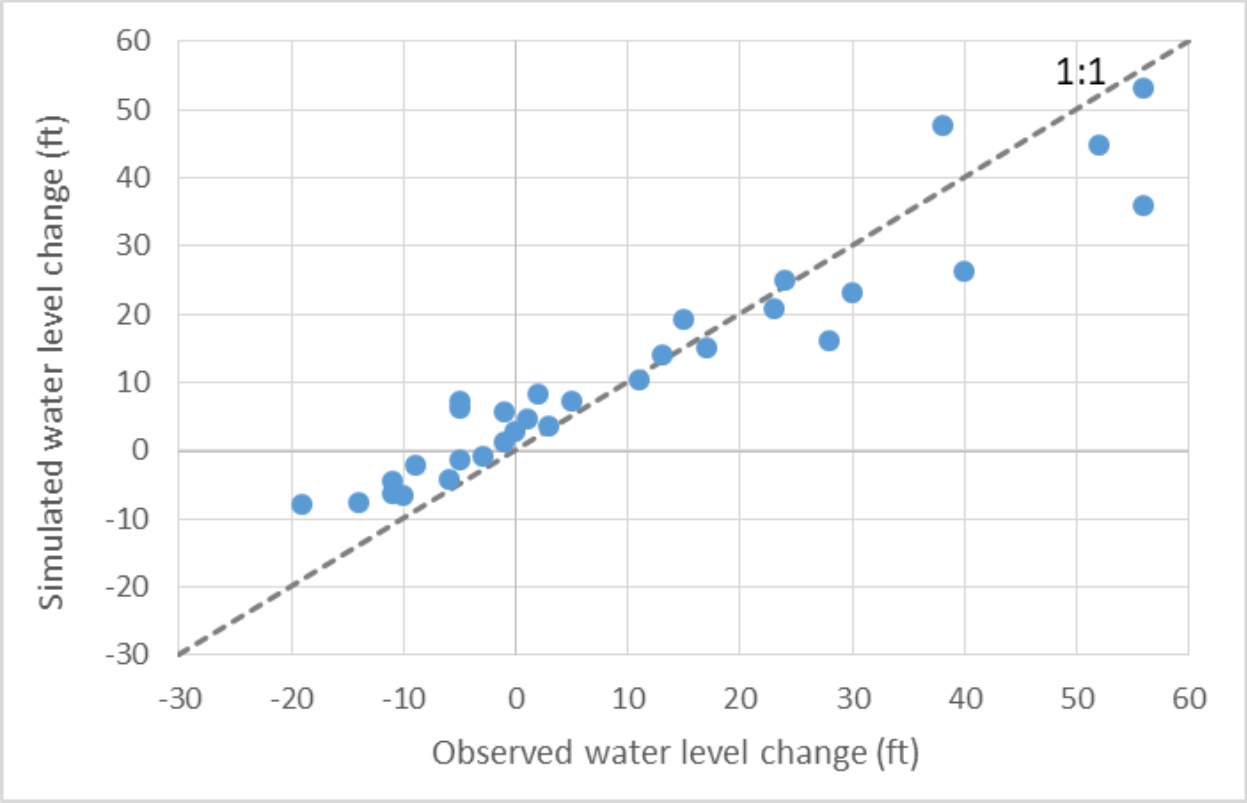


Figure 4-67. Simulated and Observed Change in Groundwater Elevation in Piru Basin (04N18W29M2) During the Wet Season (January 1 to May 1)).Groundwater elevation increases were calculated by subtracting January 1 elevations from May 1 elevations, resulting in one data point annually. Positive changes indicate an increase in groundwater elevation.

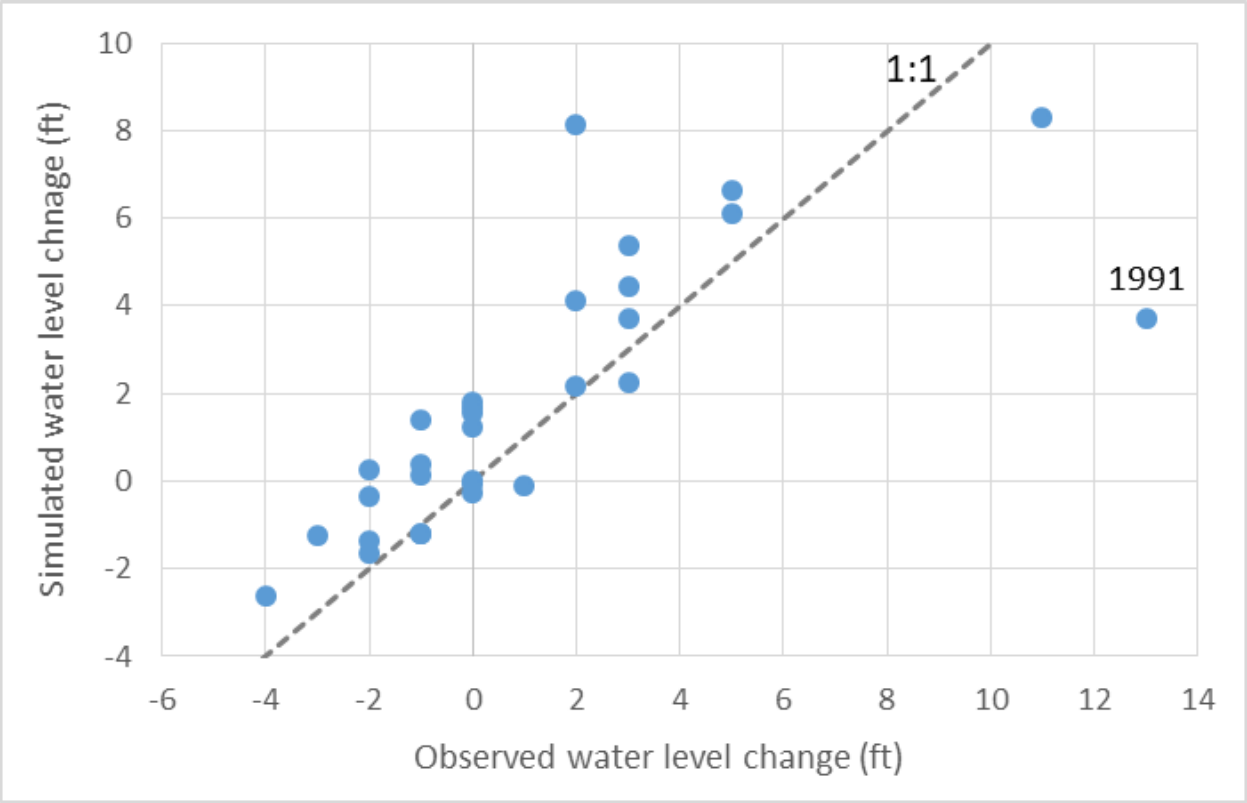


Figure 4-68. Simulated and Observed Change in Groundwater Elevation in Fillmore Basin (03N20W02A01) During the Wet Season (January 1 to May 1). Groundwater elevation increases were calculated by subtracting January 1 elevations from May 1 elevations, resulting in one data point annually. Positive changes indicate an increase in groundwater elevation.

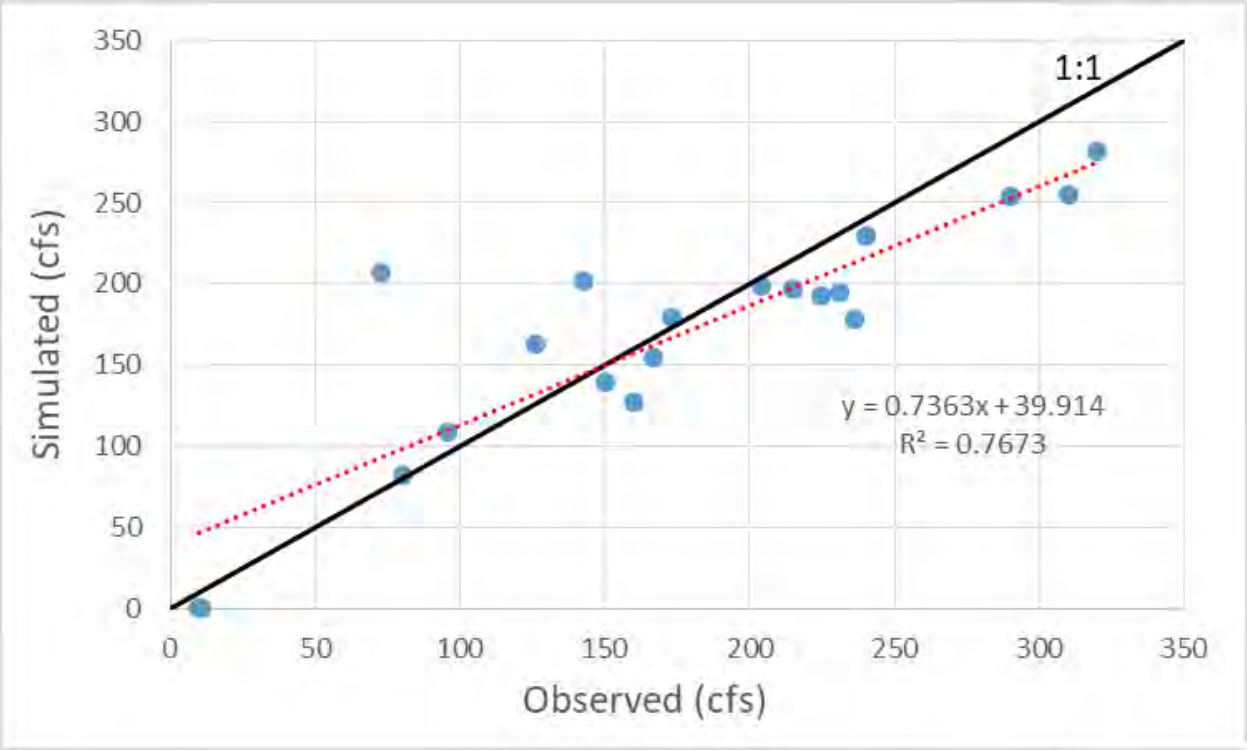


Figure 4-69. Simulated and Observed Monthly Average Streamflow Near the Downstream End of Piru Basin (Cavin Rd.) During Conservation Releases (2000-2015). Observed monthly average streamflows were calculated as the mean of observed flows when multiple flow measurements were performed during one month.

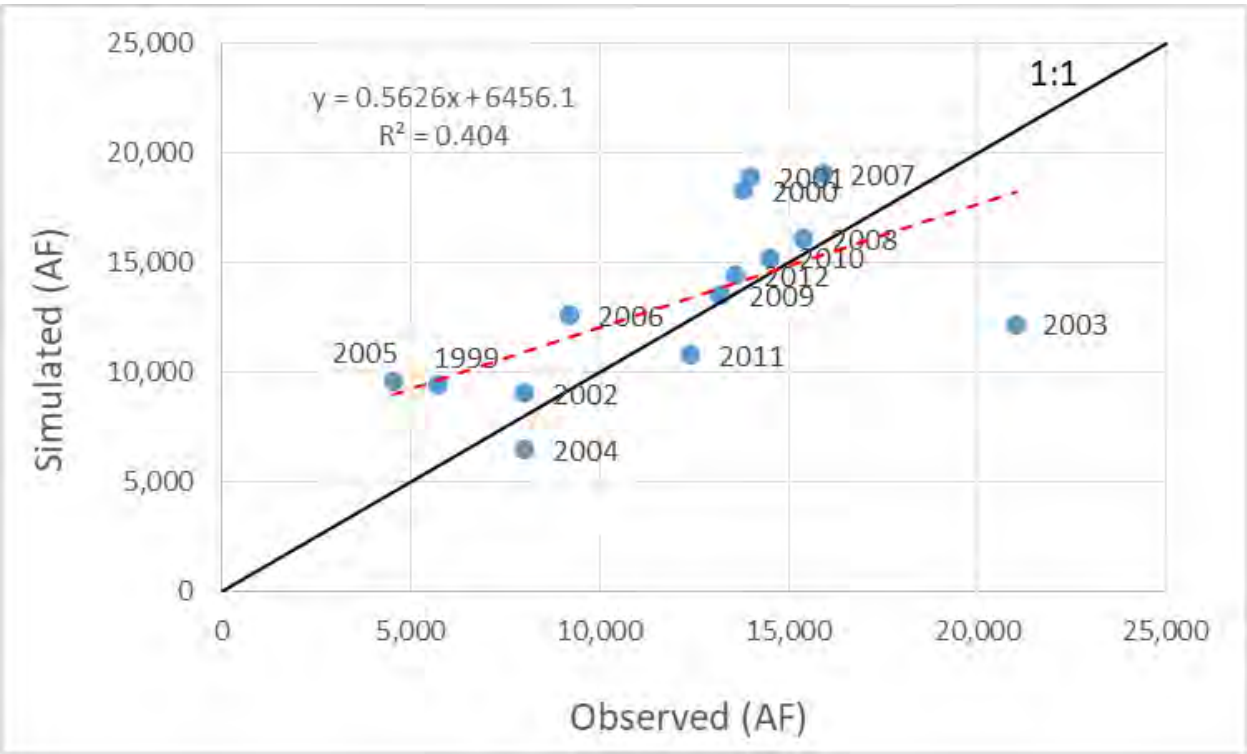
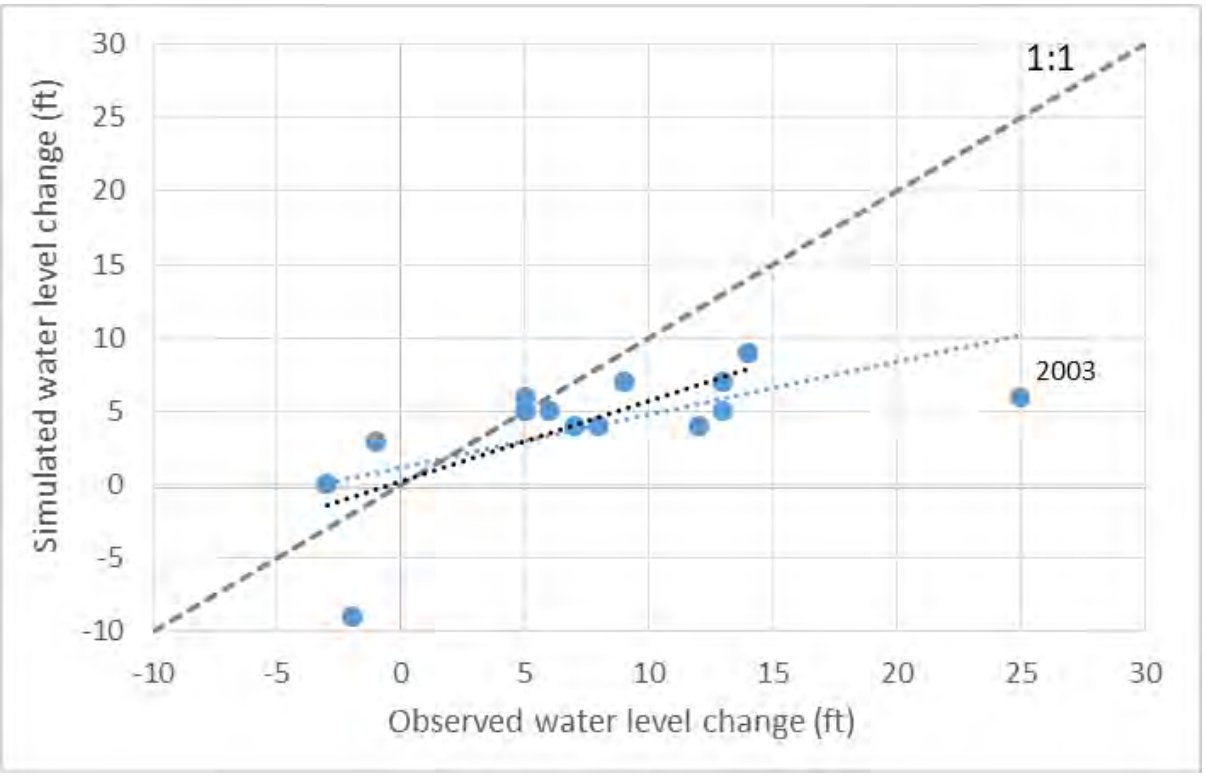


Figure 4-70. Simulated and Observed Total Percolation Volume to Piru Basin (acre-feet) During Conservation Releases (1999-2015).

(A)



(B)

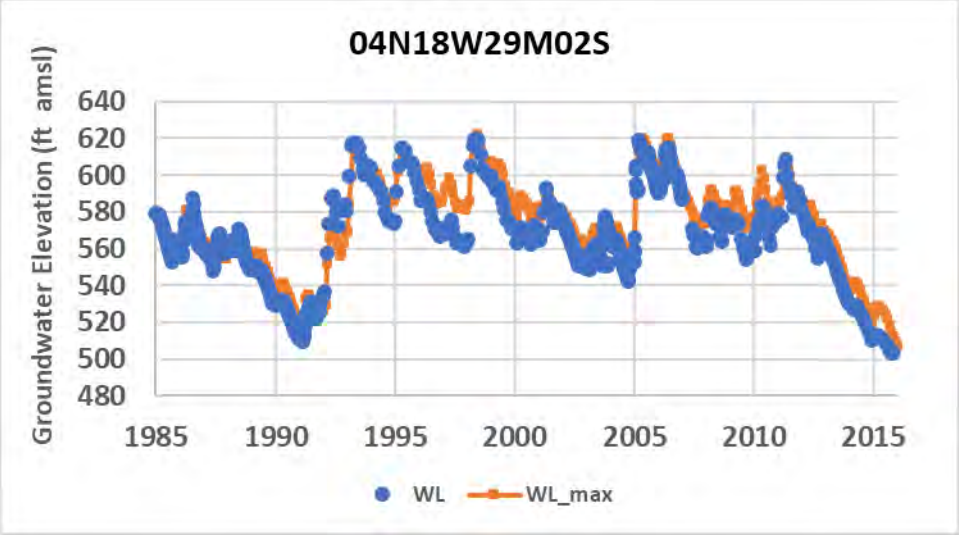


Figure 4-71. (A) Simulated and Bbserved Change in Groundwater Elevation in Piru Basin (well 04N18W29M2) Due to Conservation Releases. Changes in groundwater elevations were calculated as elevations just after minus elevations just before conservations releases. Positive changes indicate an increase in groundwater elevation following a release. Best-fit linear trend lines are shown for the full dataset (blue dotted line) and without outlier year 2003 (black dotted line). (B) Simulated (orange line) and observed (blue dots) groundwater elevations in well 04N18W29M2.

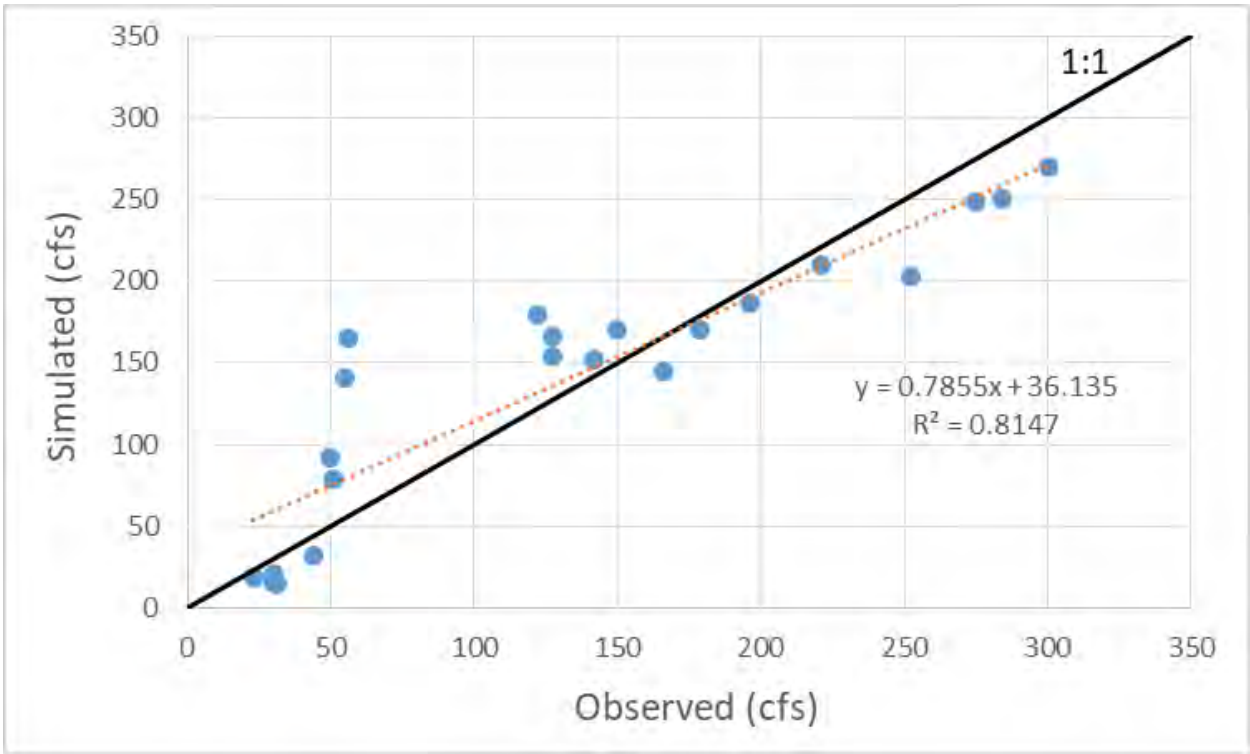


Figure 4-72. Simulated and Observed Monthly Average Streamflow Near the Downstream End of Fillmore Basin (Willard Rd.) During Conservation Releases (2000-2015). Observed monthly average streamflows were calculated as the mean of observed flows when multiple flow measurements were performed during one month.

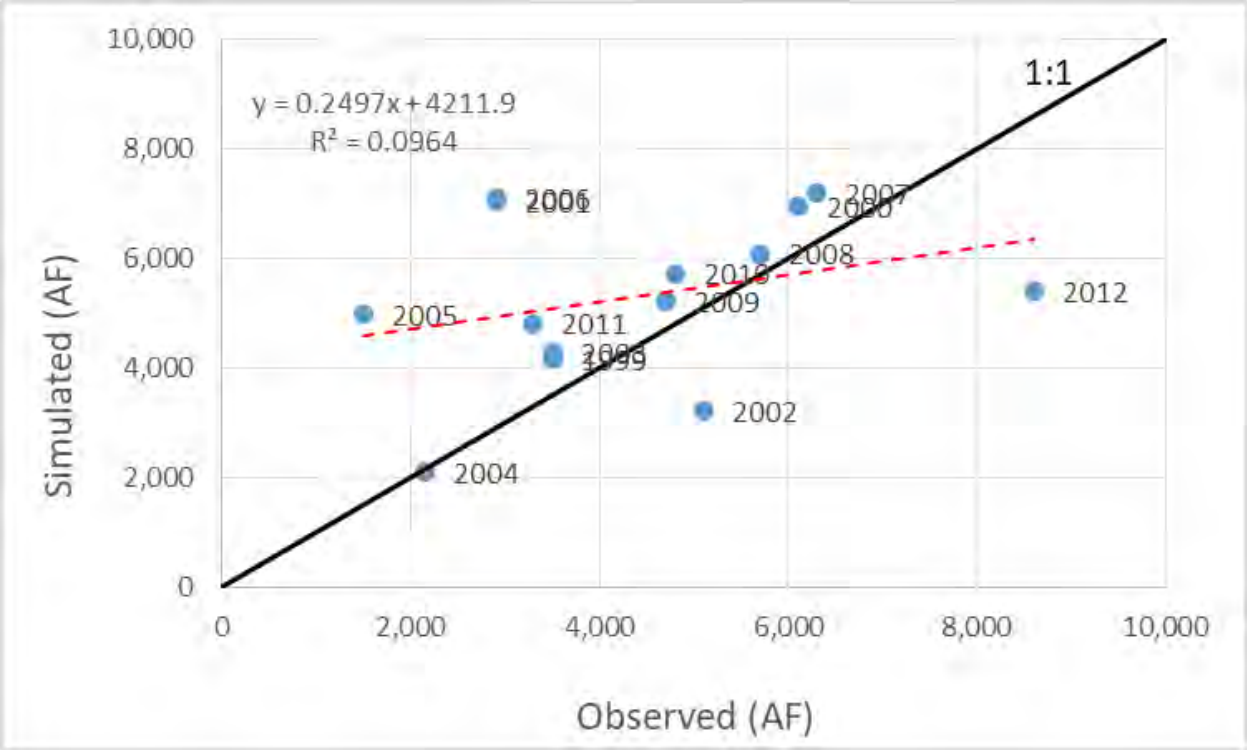
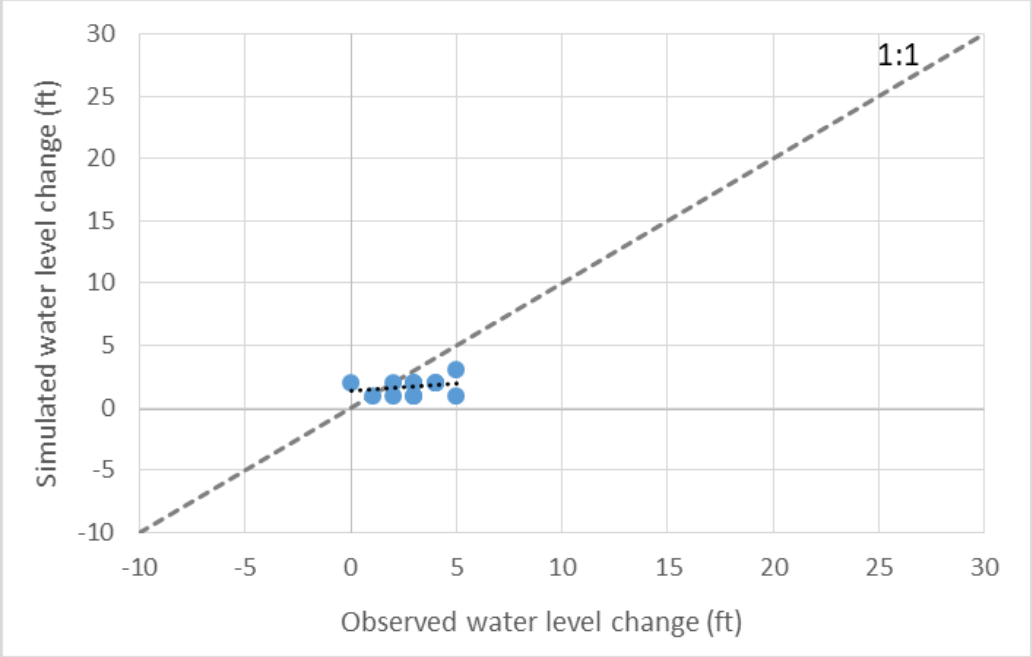


Figure 4-73. Simulated and Observed Total Percolation Volume in Fillmore Basin (acre-feet) During Conservation Releases (1999-2015).

(A)



(B)

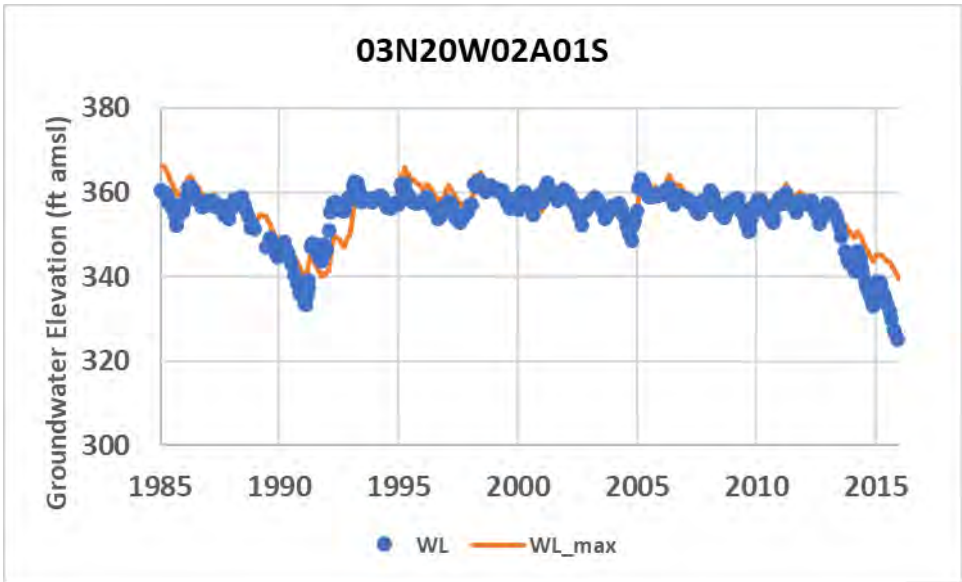


Figure 4-74. (A) Simulated and Observed Change in Groundwater Elevation in Fillmore Basin (03N20W02A01) Due to Conservation Releases. Changes in groundwater elevations were calculated as elevations just after minus elevations just before conservations releases. Positive changes indicate an increase in groundwater elevation. Best-fit linear trend line is shown by a black dotted line. (B) Simulated (orange line) and observed (blue dots) groundwater elevations in well 03N20W02A01.

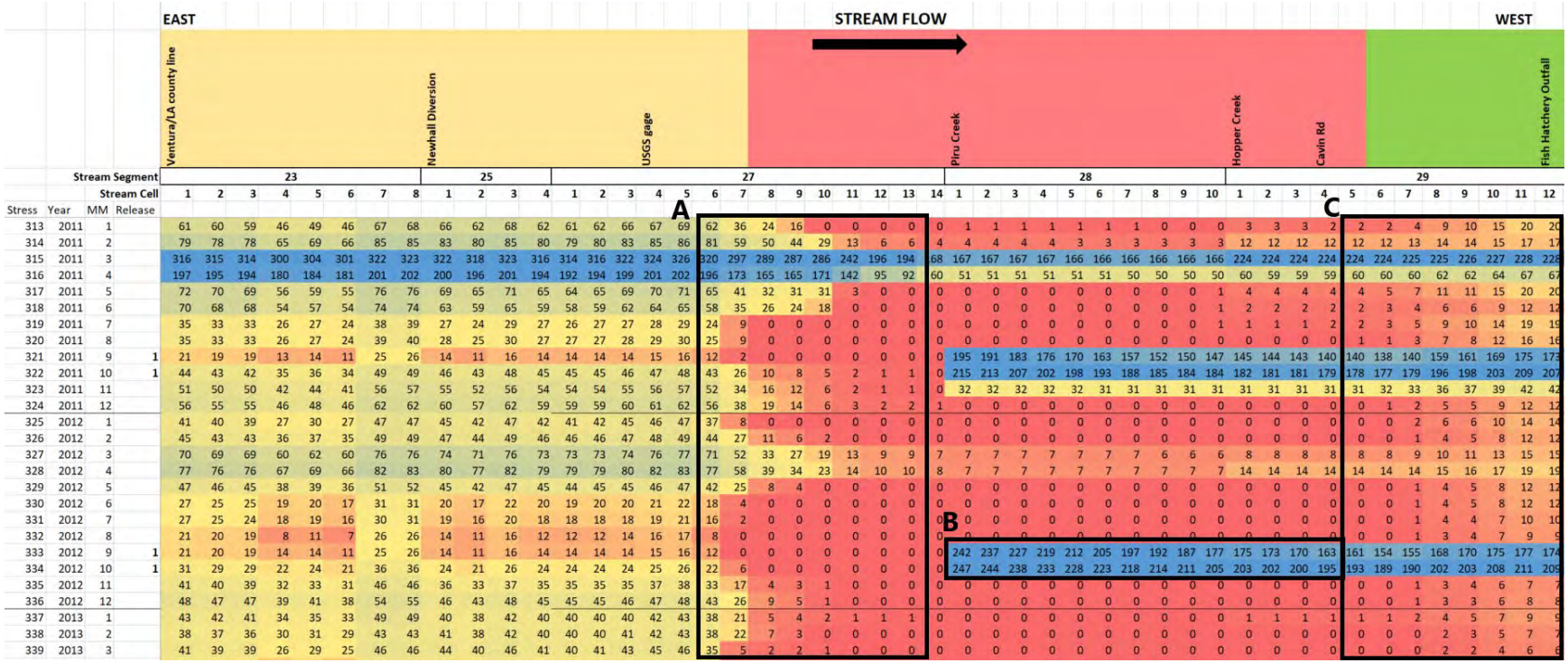
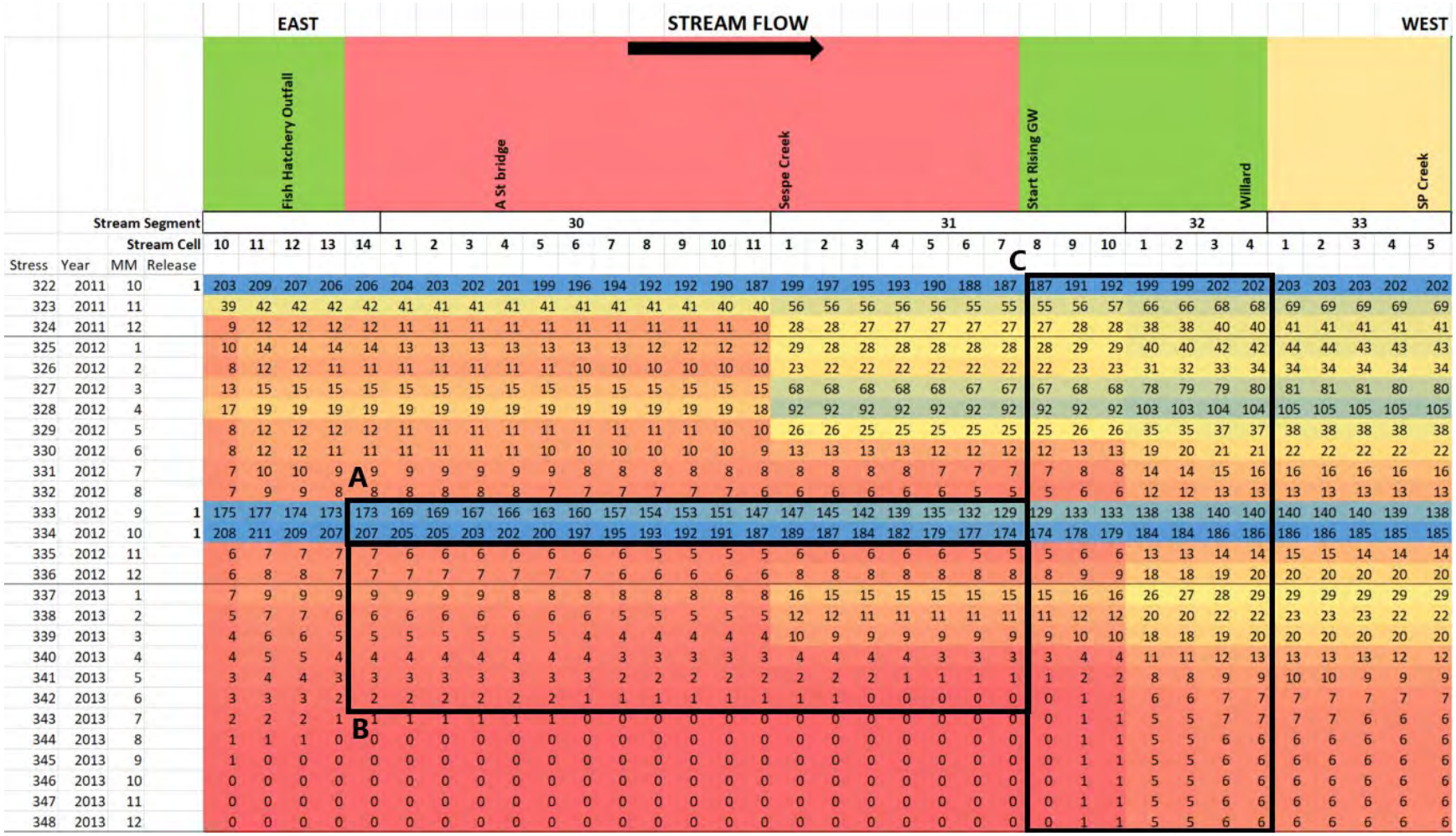


Figure 4-75. Simulated Monthly Streamflow in the Santa Clara River across Piru basin (UWCD groundwater model stream segments 23 – 29). Monthly streamflow is derived from daily model outputs. Columns indicate one model cell, rows indicate months, flow direction is from left to right. Watershed features are indicated at the top for reference, including known losing (red), gaining (green), and stable (yellow) reaches. In the heatmap with monthly flows, flow magnitudes are colored from low (red) to high (blue). A. Upstream portion of dry gap in Piru basin, B. Stream channel percolation during conservation release, C. Piru-Fillmore basin boundary rising groundwater.



Stress	Year	MM	Release	Stream Segment	30																31								32				33				
				Stream Cell	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	1	2	3	4	1	2	3	4	5
322	2011	10	1		203	209	207	206	206	204	203	202	201	199	196	194	192	192	190	187	199	197	195	193	190	188	187	187	191	192	199	199	202	202	203	203	203	202	202
323	2011	11			39	42	42	42	42	41	41	41	41	41	41	41	41	41	40	40	56	56	56	56	56	55	55	55	56	57	66	66	68	68	69	69	69	69	69
324	2011	12			9	12	12	12	12	11	11	11	11	11	11	11	11	11	11	10	28	28	27	27	27	27	27	27	28	28	38	38	40	40	41	41	41	41	41
325	2012	1			10	14	14	14	14	13	13	13	13	13	13	13	12	12	12	12	29	28	28	28	28	28	28	28	29	29	40	40	42	42	44	44	43	43	43
326	2012	2			8	12	12	11	11	11	11	11	11	11	10	10	10	10	10	10	23	22	22	22	22	22	22	22	23	23	31	32	33	34	34	34	34	34	34
327	2012	3			13	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	68	68	68	68	68	67	67	67	68	68	78	79	79	80	81	81	81	80	80
328	2012	4			17	19	19	19	19	19	19	19	19	19	19	19	19	19	19	18	92	92	92	92	92	92	92	92	92	92	103	103	104	104	105	105	105	105	105
329	2012	5			8	12	12	12	12	11	11	11	11	11	11	11	11	11	10	10	26	26	25	25	25	25	25	25	26	26	35	35	37	37	38	38	38	38	38
330	2012	6			8	12	12	11	11	11	11	11	11	10	10	10	10	10	10	9	13	13	13	13	12	12	12	12	13	13	19	20	21	21	22	22	22	22	22
331	2012	7			7	10	10	9	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	8	7	7	7	7	8	8	14	14	15	16	16	16	16	16	16
332	2012	8			7	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	5	5	5	6	6	12	12	13	13	13	13	13	13
333	2012	9	1		175	177	174	173	173	169	169	167	166	163	160	157	154	153	151	147	147	145	142	139	135	132	129	129	133	133	138	138	140	140	140	140	139	138
334	2012	10	1		208	211	209	207	207	205	205	203	202	200	197	195	193	192	191	187	189	187	184	182	179	177	174	174	178	179	184	184	186	186	186	186	185	185	185
335	2012	11			6	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	6	6	6	6	6	5	5	5	6	6	13	13	14	14	15	15	14	14	14
336	2012	12			6	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6	8	8	8	8	8	8	8	8	9	9	18	18	19	20	20	20	20	20	20
337	2013	1			7	9	9	9	9	9	9	9	8	8	8	8	8	8	8	8	16	15	15	15	15	15	15	15	16	16	26	27	28	29	29	29	29	29	29
338	2013	2			5	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	12	12	11	11	11	11	11	11	12	12	20	20	22	22	23	23	23	22	22
339	2013	3			4	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	10	9	9	9	9	9	9	9	10	10	18	18	19	20	20	20	20	20	20
340	2013	4			4	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	4	4	4	4	3	3	3	3	4	4	11	11	12	13	13	13	13	12	12
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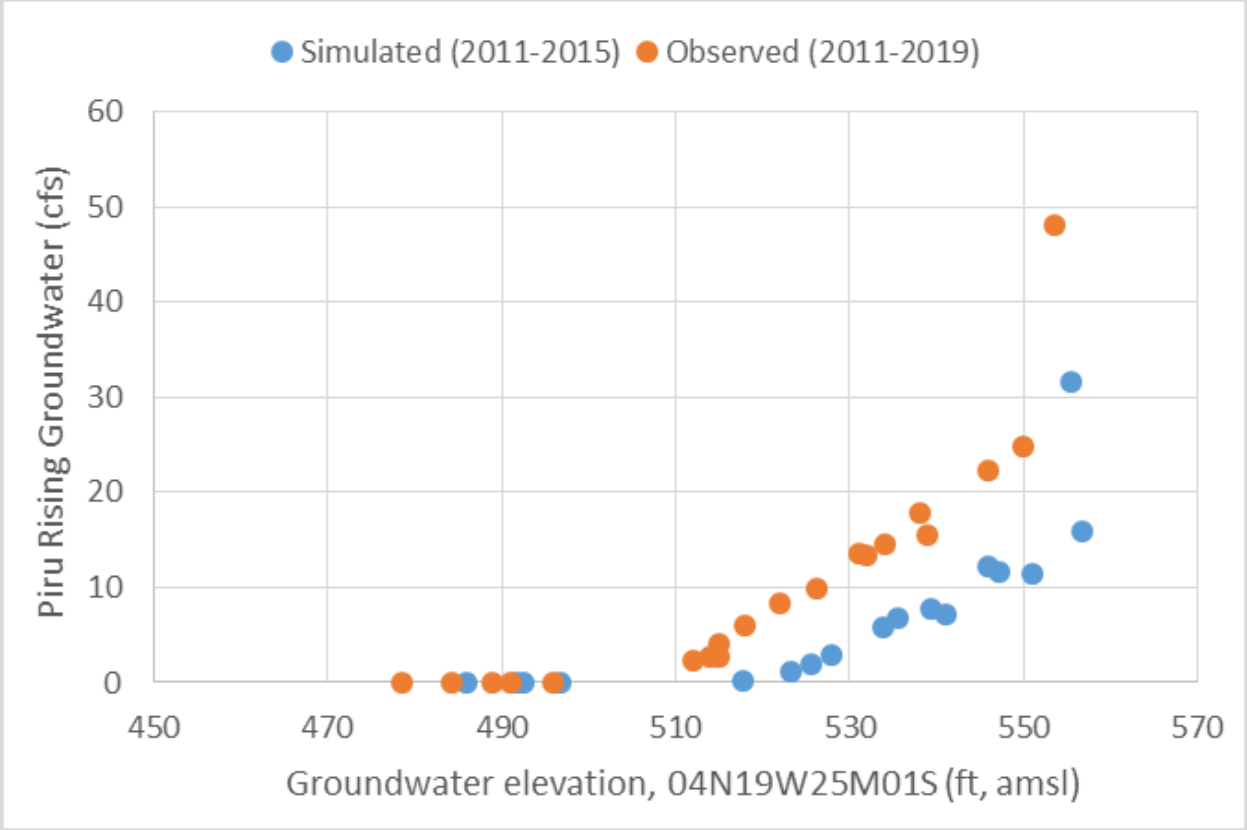
342	2013	6			3	3	3	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	6	6	7	7	7	7	7	7	7
343	2013	7			2	2	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	5	7	7	7	7	6	6	6
344	2013	8			1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	5	6	6	6	6	6	6	6
345	2013	9			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	5	6	6	6	6	6	6	6
346	2013	10			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	5	6	6	6	6	6	6	6
347	2013	11			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	5	6	6	6	6	6	6	6
348	2013	12			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	5	6	6	6	6	6	6	6

Figure 4-76. Simulated Monthly Streamflow in the Santa Clara River across Fillmore Basin (UWCD groundwater model stream segments 30 – 32). Monthly streamflow is derived from daily model outputs. Columns indicate one model cell, rows indicate months, flow direction is from left to right. Watershed features are indicated at the top for reference, including known losing (red), gaining (green), and stable (yellow) reaches. In the heatmap with monthly flows, flow magnitudes are colored from low (red) to high (blue). A. Stream channel percolation during conservation release, B. Stream channel percolation during dry winter period with low flows, C. Fillmore – Santa Paula basin boundary with rising groundwater.

(A)



(B)

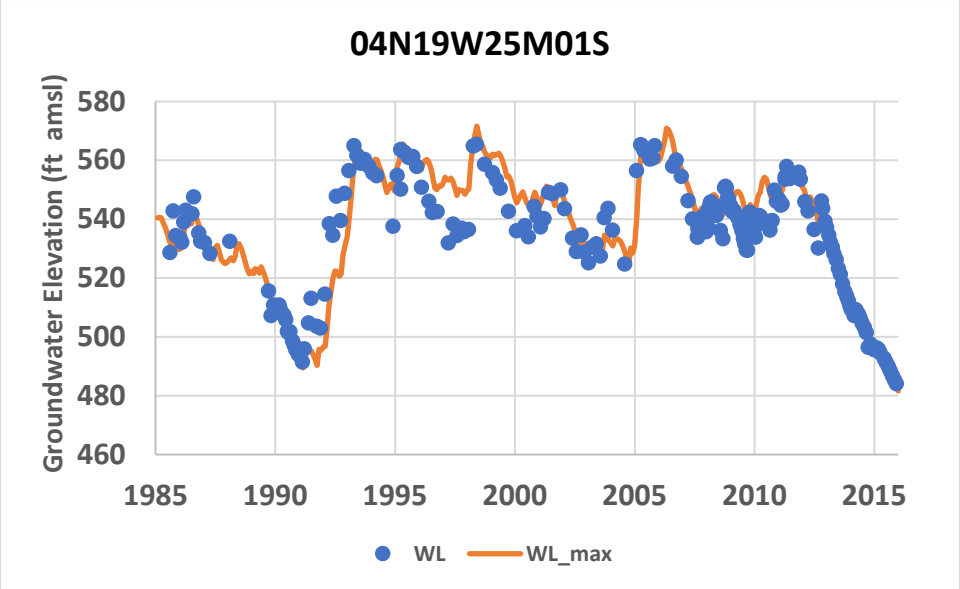
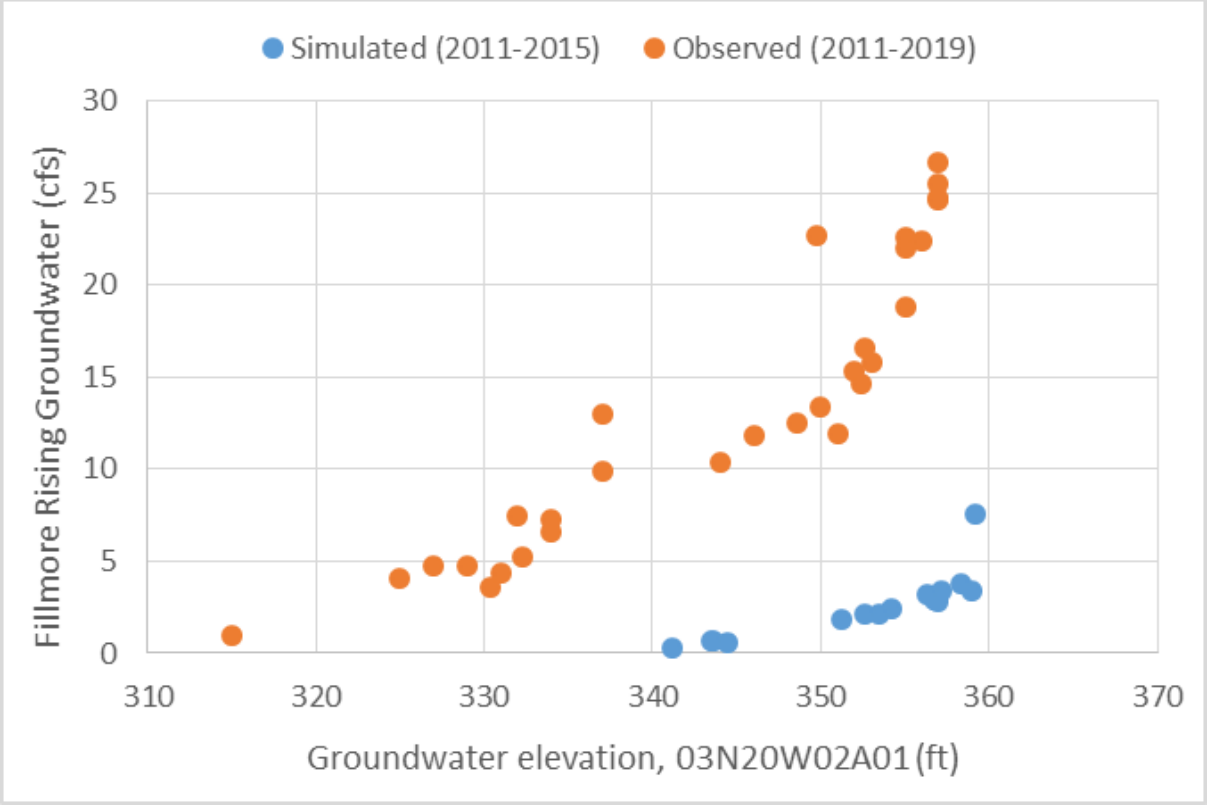


Figure 4-77. (A) Simulated and Observed Relationship Between Rising Groundwater at the Piru-Fillmore Basin Boundary and Groundwater Elevation in Piru Basin Well 04N19W25M01. (B) Simulated (orange line) and observed (blue dots) groundwater elevations in Piru basin well 04N19W25M01.

(A)



(B)

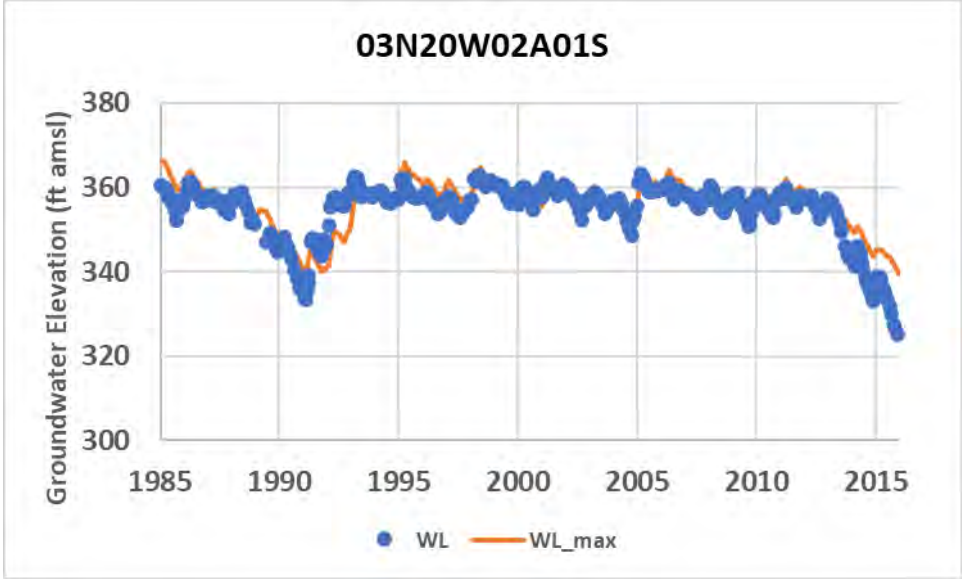


Figure 4-78. (A) Simulated and Observed Relationship Between Rising Groundwater at the Fillmore-Santa Paula Basin Boundary and Groundwater Elevation in Fillmore Basin Well 03N20W02A01. (B) Simulated (orange line) and observed (blue dots) groundwater elevations in Fillmore basin well 03N20W02A01.

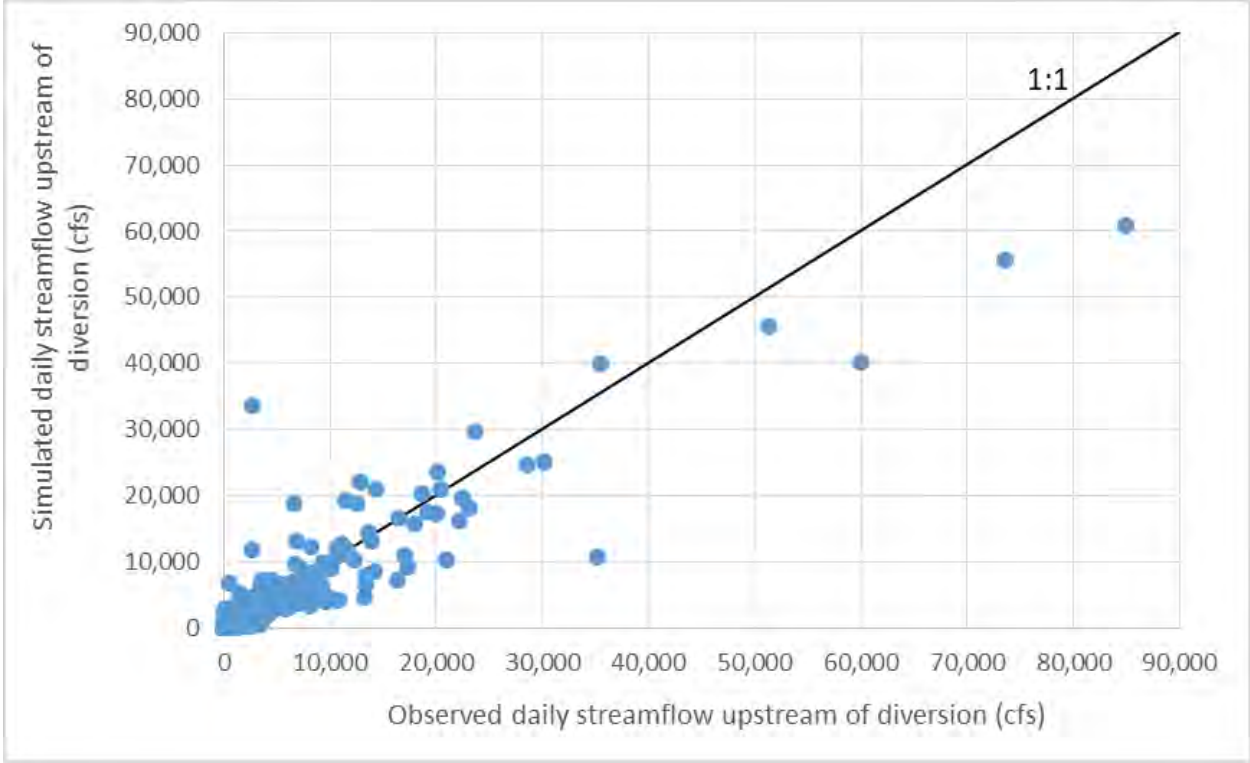


Figure 4-79. Simulated (Regional Model) and Observed Daily Streamflow Upstream of the Freeman Diversion.

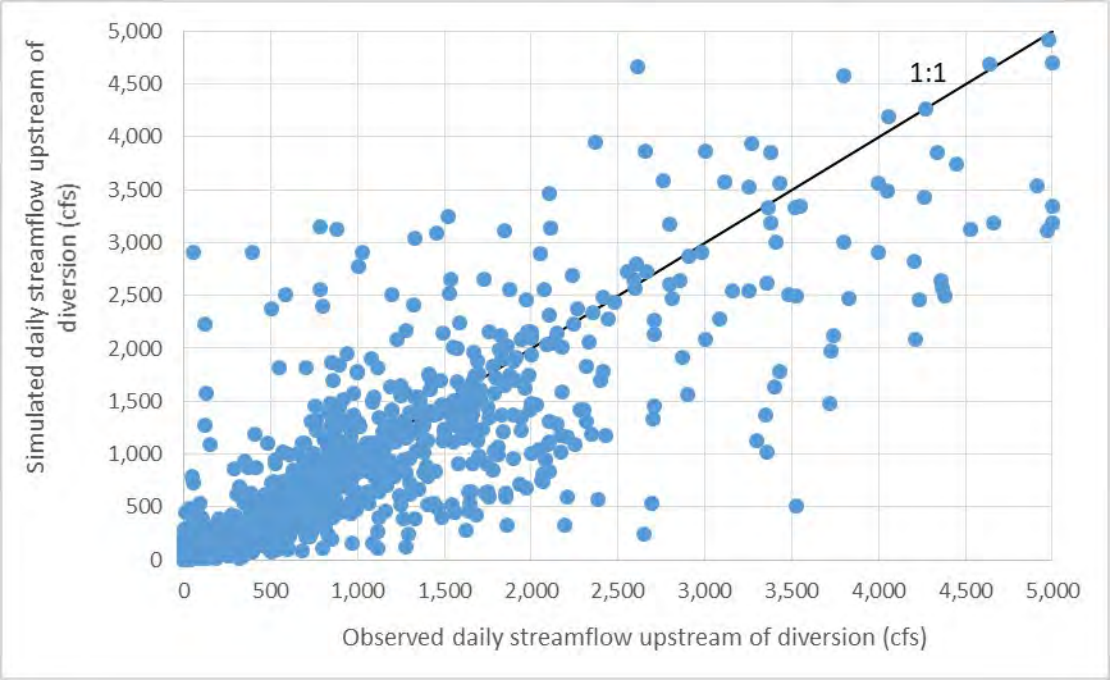


Figure 4-80. Simulated (Regional Model) and Observed daily Streamflow Upstream of the Freeman Diversion.

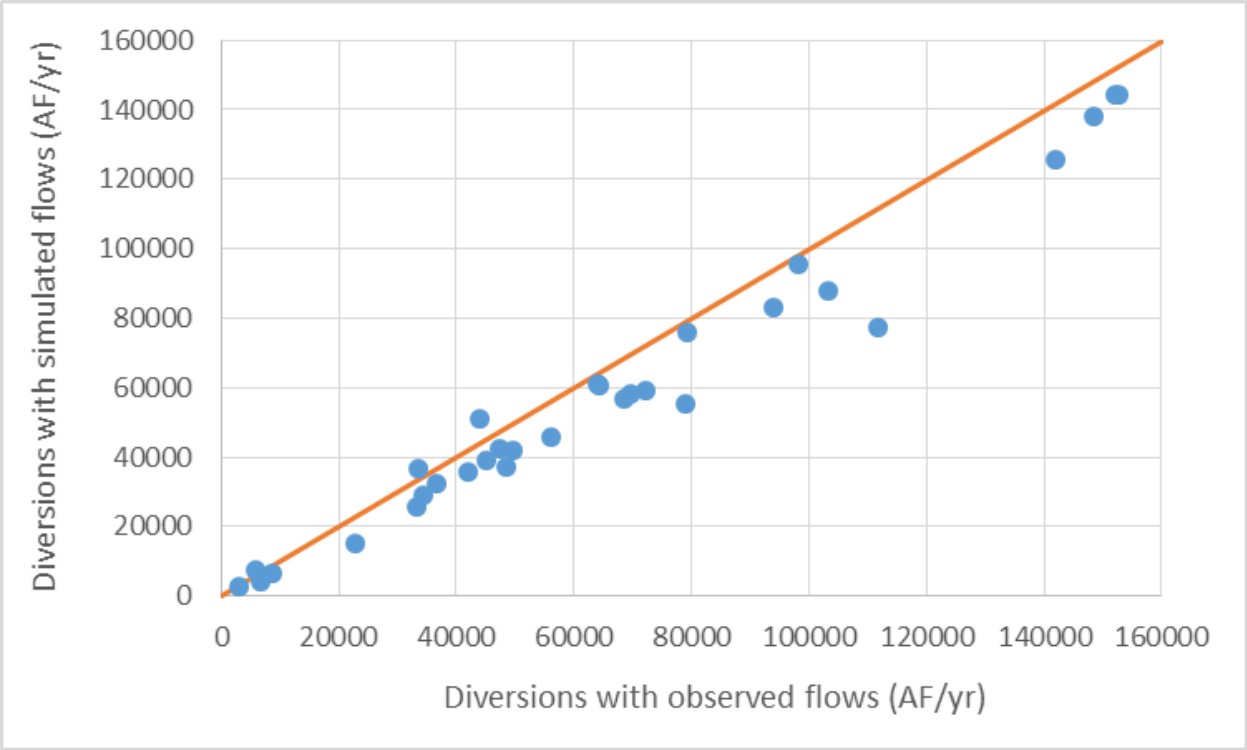


Figure 4-81. Simulated Annual Diversions Based on Observed Flows and Flows Simulated by the Regional Model (1985-2015). Diversion simulations assumed bypass flow operations proposed in United's Freeman Diversion Multiple Species Habitat Conservation Plan, without any infrastructure improvements. The orange line represents the 1:1 line.

Appendix A – Additional Model Expansion Calibration Hydrographs

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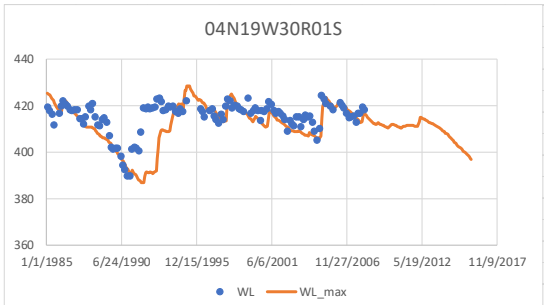
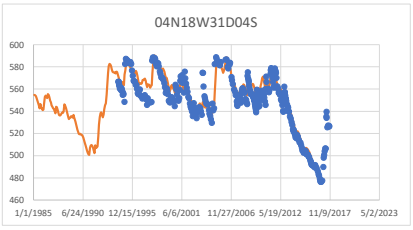
Legend



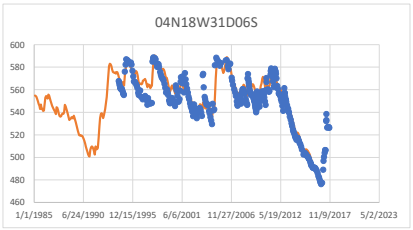
		173	0	300	0	305
04N19W30R01S		2	3	3.6	8.3	5.3
04N19W30R01S		2	459.475	3.6	8.3	5.3
Aquifer	A	G.S.	459.475	OBS #	128	

		Depth to Top of Screen	Est. Depth to Top of Screen	Depth to Bottom of Screen	Est. Depth to Bottom of Screen	Well Depth
Well ID		Upper Screened Model Layer	Lower Screened Model Layer	R.M.	RMS	ARM
Well ID		Model layer with best fit simulated WL		R.M.	RMS	ARM
Aquifer	System	G.S.	Ground surface elev	OBS #	WL data number	

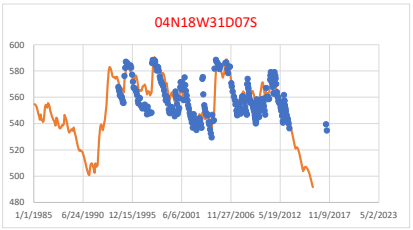
Well Hydrographs in Piru basin



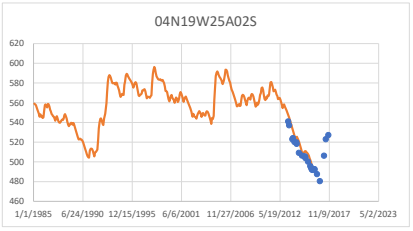
	310	0	330	0	330
04N18W31D04S	7	7	-4.0	7.6	6.2
04N18W31D04S	7		-4.0	7.6	6.2
Aquifer B	G.S.	601.054	OBS #	317	



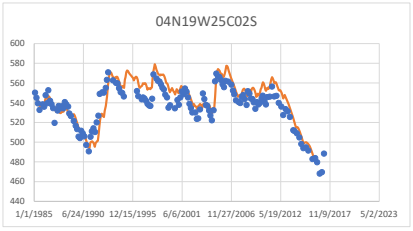
	140	0	160	0	160
04N18W31D06S	5	5	-4.0	7.5	6.1
04N18W31D06S	7		-3.8	7.4	6.0
Aquifer B	G.S.	661.434	OBS #	97	



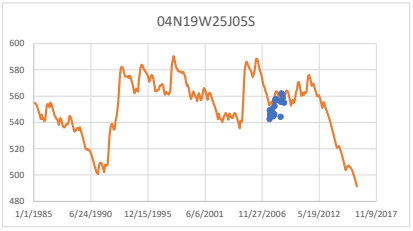
	50	0	70	0	70
04N18W31D07S	3	3	-3.9	7.7	6.2
04N18W31D07S	7		-3.6	7.6	6.1
Aquifer A	G.S.	601.054	OBS #	289	



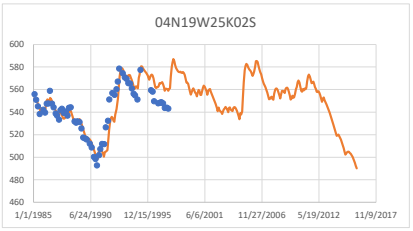
	267	0	460	0	460
04N19W25A02S	7	7	-6.4	6.7	6.4
04N19W25A02S	8		1.5	2.6	2.2
Aquifer B	G.S.	628.34	OBS #	17	



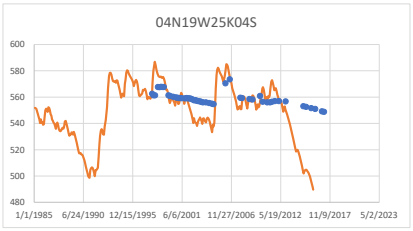
	265	0	504	0	504
04N19W25C02S	7	7	-4.8	10.3	8.8
04N19W25C02S	8		2.0	9.5	6.6
Aquifer B	G.S.	641.037	OBS #	149	



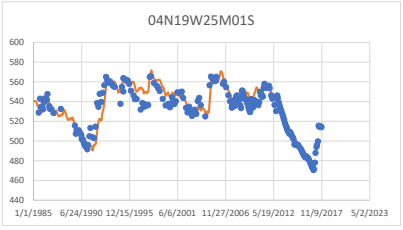
	180	0	380	0	400
04N19W25J05S	7	7	-6.3	7.0	6.5
04N19W25J05S	8		4.8	6.3	5.0
Aquifer B	G.S.	603.437	OBS #	26	



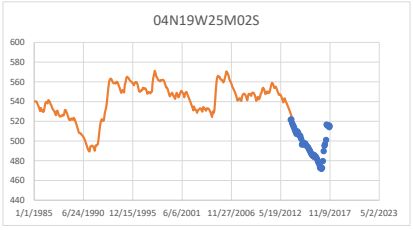
	120	0	290	0	302
04N19W25K02S	5	7	-1.3	9.9	7.5
04N19W25K02S	7		-1.2	9.9	7.4
Aquifer B	G.S.	603.563	OBS #	66	



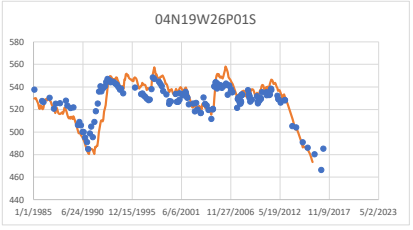
	220	0	370	0	380
04N19W25K04S	7	7	4.9	16.3	11.0
04N19W25K04S	3		5.0	16.3	11.0
Aquifer B	G.S.	602.712	OBS #	50	



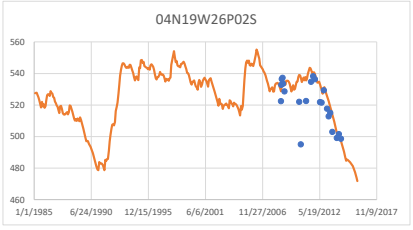
	0	0	0	0	0
04N19W25M01S	0	0	-2.3	7.0	5.2
04N19W25M01S	5		-1.8	7.0	5.0
unknown	G.S.	585.269	OBS #	232	



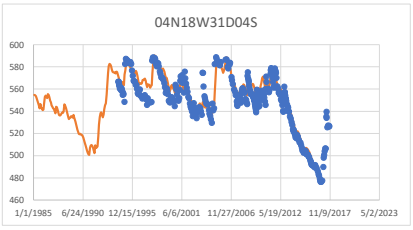
	526	0	626	0	634
04N19W25M02S	7	8	-0.9	2.5	2.0
04N19W25M02S	5		-0.5	2.5	2.0
Aquifer B+C	G.S.	585.335	OBS #	29	



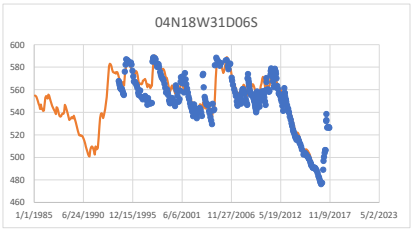
	212	0	268	0	280
04N19W26P01S	7	7	-1.5	9.7	7.5
04N19W26P01S	6		0.1	9.6	6.8
Aquifer B	G.S.	568.779	OBS #	152	



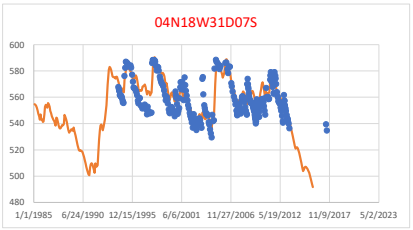
	0	0	0	256	-256
04N19W26P02S	7	7	-6.7	11.5	7.5
04N19W26P02S	10		-0.9	10.3	7.0
Aquifer B	G.S.	558.667	OBS #	22	



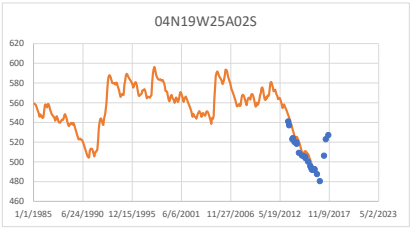
	310	0	330	0	330
04N18W31D04S	7	7	-4.0	7.6	6.2
04N18W31D04S	7		-4.0	7.6	6.2
Aquifer B	G.S.	601.054	OBS #	317	



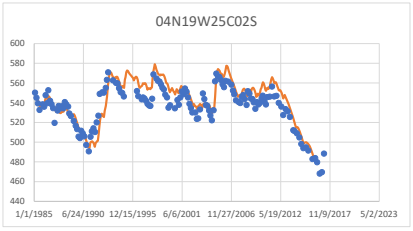
	140	0	160	0	160
04N18W31D06S	5	5	-4.0	7.5	6.1
04N18W31D06S	7		-3.8	7.4	6.0
Aquifer B	G.S.	661.434	OBS #	97	



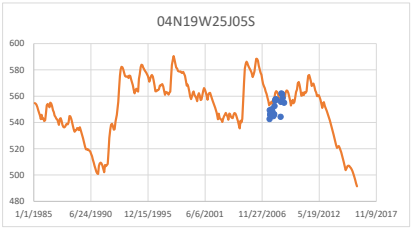
	50	0	70	0	70
04N18W31D07S	3	3	-3.9	7.7	6.2
04N18W31D07S	7		-3.6	7.6	6.1
Aquifer A	G.S.	601.054	OBS #	289	



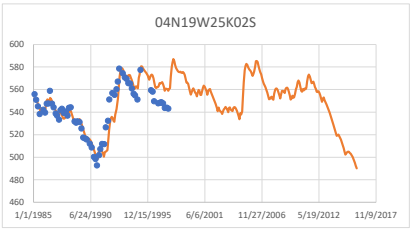
	267	0	460	0	460
04N19W25A02S	7	7	-6.4	6.7	6.4
04N19W25A02S	8		1.5	2.6	2.2
Aquifer B	G.S.	628.34	OBS #	17	



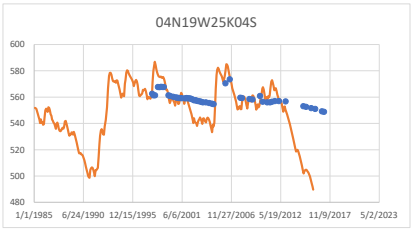
	265	0	504	0	504
04N19W25C02S	7	7	-4.8	10.3	8.8
04N19W25C02S	8		2.0	9.5	6.6
Aquifer B	G.S.	641.037	OBS #	149	



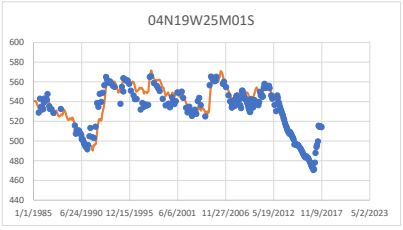
	180	0	380	0	400
04N19W25J05S	7	7	-6.3	7.0	6.5
04N19W25J05S	8		4.8	6.3	5.0
Aquifer B	G.S.	603.437	OBS #	26	



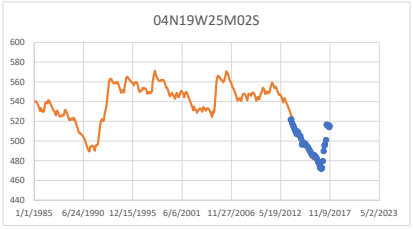
	120	0	290	0	302
04N19W25K02S	5	7	-1.3	9.9	7.5
04N19W25K02S	7		-1.2	9.9	7.4
Aquifer B	G.S.	603.563	OBS #	66	



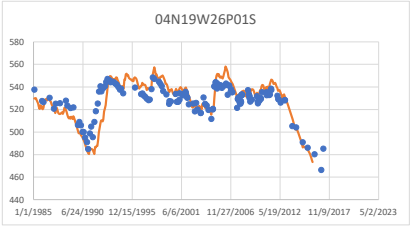
	220	0	370	0	380
04N19W25K04S	7	7	4.9	16.3	11.0
04N19W25K04S	3		5.0	16.3	11.0
Aquifer B	G.S.	602.712	OBS #	50	



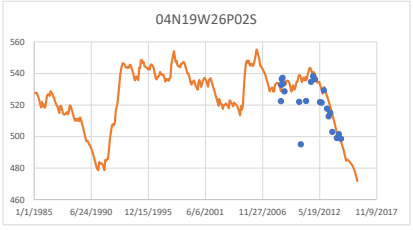
	0	0	0	0	0
04N19W25M01S	0	0	-2.3	7.0	5.2
04N19W25M01S	5		-1.8	7.0	5.0
unknown	G.S.	585.269	OBS #	232	



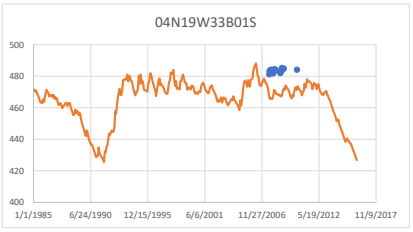
	526	0	626	0	634
04N19W25M02S	7	8	-0.9	2.5	2.0
04N19W25M02S	5		-0.5	2.5	2.0
Aquifer B+C	G.S.	585.335	OBS #	29	



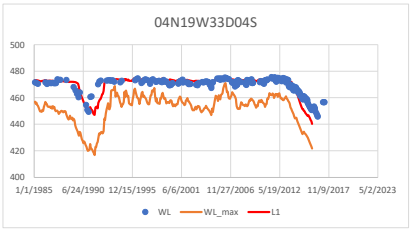
	212	0	268	0	280
04N19W26P01S	7	7	-1.5	9.7	7.5
04N19W26P01S	6		0.1	9.6	6.8
Aquifer B	G.S.	568.779	OBS #	152	



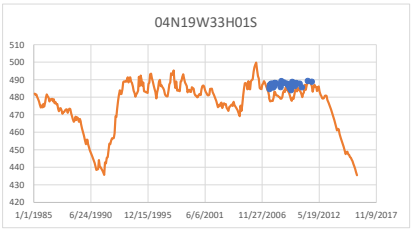
	0	0	0	256	-256
04N19W26P02S	7	7	-6.7	11.5	7.5
04N19W26P02S	10		-0.9	10.3	7.0
Aquifer B	G.S.	558.667	OBS #	22	



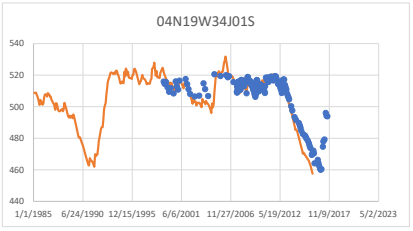
		206	0	306	0	306
04N19W33B01S	7	7	15.6	15.8	15.6	
04N19W33B01S		3		5.2	5.7	5.2
Aquifer	B	G.S.	493.295	OBS #	26	



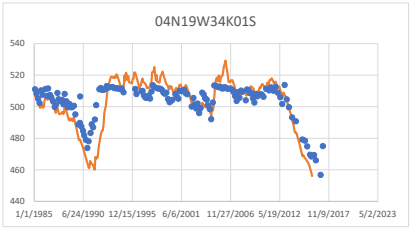
		140	0	486	0	496
04N19W33D04S	6	7	17.7	18.8	17.7	
04N19W33D04S		1	474.31	0.4	4.0	2.6
Aquifer	B	G.S.	474.31	OBS #	227	



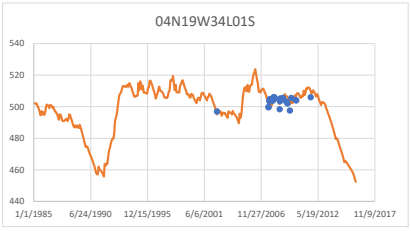
		237	0	362	0	370
04N19W33H01S	7	7	6.6	7.0	6.6	
04N19W33H01S		5		0.9	2.7	2.3
Aquifer	B	G.S.	501.471	OBS #	49	



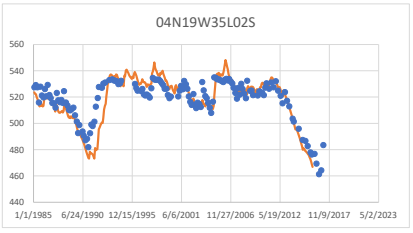
		72	0	120	0	138
04N19W34J01S	3	5	2.0	4.9	3.7	
04N19W34J01S		7		1.4	4.8	3.7
Aquifer	A+B	G.S.	528.394	OBS #	148	



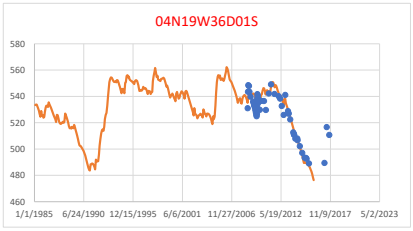
		5	0	120	0	130
04N19W34K01S	3	5	1.2	9.5	7.1	
04N19W34K01S		3		1.2	9.5	7.1
Aquifer	A+B	G.S.	526.533	OBS #	153	



		90	0	430	0	450
04N19W34L01S	3	7	-1.0	2.5	2.0	
04N19W34L01S		3		-0.9	2.4	2.0
Aquifer	A+B	G.S.	519.122	OBS #	21	

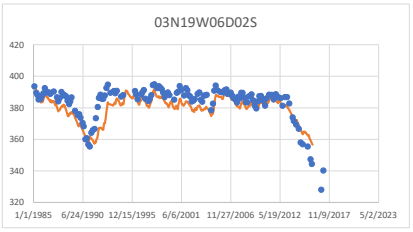


		0	0	0	0	0
04N19W35L02S	0	0	1.5	8.7	6.2	
04N19W35L02S		5		1.9	8.8	6.1
unknown		G.S.	579.362	OBS #	153	

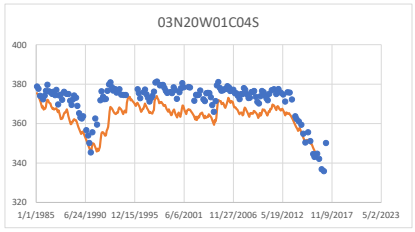


		18	0	73	0	73
04N19W36D01S	3	3	-2.4	5.5	4.4	
04N19W36D01S		5		-2.4	5.4	4.3
Aquifer	A	G.S.	560.409	OBS #	51	

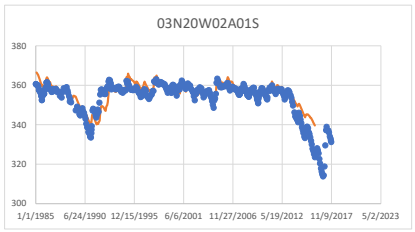
Well Hydrographs in Fillmore basin



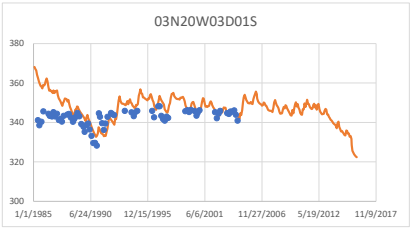
		216	0	405	0	405
03N19W06D02S	5	7		4.6	6.8	5.5
03N19W06D02S		7		4.6	6.8	5.5
Aquifer	B	G.S.	433.237	OBS #	148	



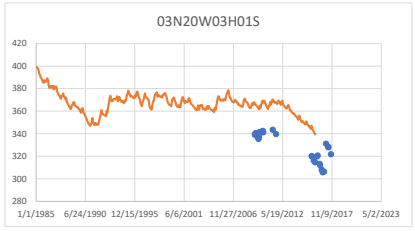
		49	0	218	0	234
03N20W01C04S	3	5		8.6	9.4	8.7
03N20W01C04S		8		2.4	5.2	4.1
Aquifer	A+B	G.S.	403.611	OBS #	154	



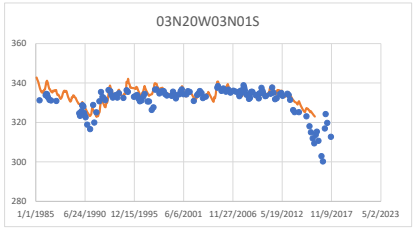
		0	0	0	92	-92
03N20W02A01S	1	3		-1.6	3.8	2.7
03N20W02A01S		7		0.6	3.5	2.5
Aquifer	A	G.S.	381.101	OBS #	401	



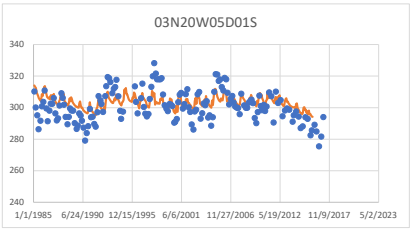
		0	0	0	575	-575
03N20W03D01S	7	8		-4.0	7.0	5.3
03N20W03D01S		8		-4.0	7.0	5.3
Aquifer	B	G.S.	348.336	OBS #	74	



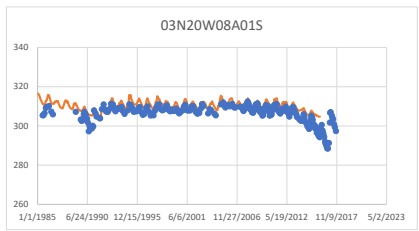
		0	0	0	0	0
03N20W03H01S	0	0		-25.3	25.3	25.3
03N20W03H01S		3		-5.8	7.0	5.8
	unknown	G.S.	359.247	OBS #	25	



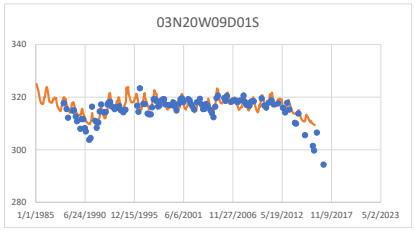
		120	0	172	0	184
03N20W03N01S	3	5		-1.8	3.6	2.5
03N20W03N01S		7		-1.7	3.5	2.5
Aquifer	A+B	G.S.	343.712	OBS #	136	



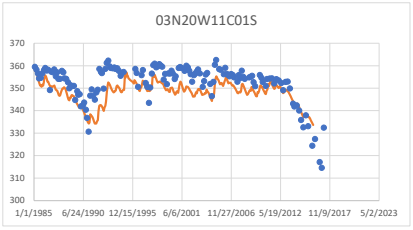
		215	0	315	0	357
03N20W05D01S	5	7		-2.3	7.6	6.2
03N20W05D01S		6		-1.9	7.6	6.2
Aquifer	B	G.S.	446.014	OBS #	167	



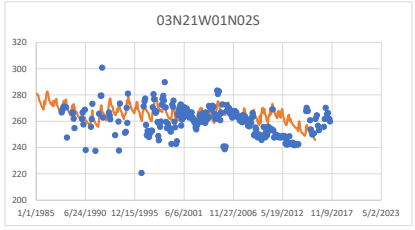
		0	0	0	0	0
03N20W08A01S	3	5		-2.9	3.5	3.0
03N20W08A01S		3		-2.8	3.4	2.9
Aquifer	A+B	G.S.	315.416	OBS #	248	



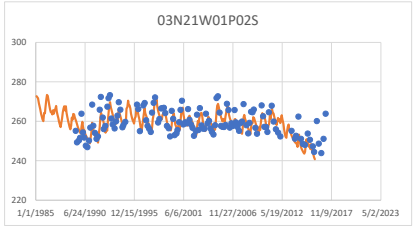
		0	0	0	0	0
03N20W09D01S	5	7		-1.2	2.5	1.8
03N20W09D01S		3		-0.6	2.4	1.7
Aquifer	B	G.S.	323.108	OBS #	110	



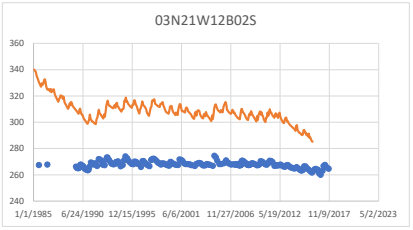
		0	0	0	180	-180
03N20W11C01S	1	5		5.4	6.7	5.9
03N20W11C01S		1	407.59	5.4	6.7	5.9
Aquifer	A+B	G.S.	407.59	OBS #	154	



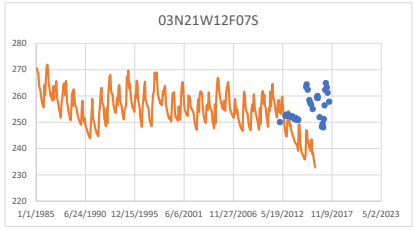
		200	0	400	0	400
03N21W01N02S	5	7		-6.0	11.4	9.0
03N21W01N02S		5		-3.1	10.3	8.1
Aquifer	B	G.S.	325.736	OBS #	252	



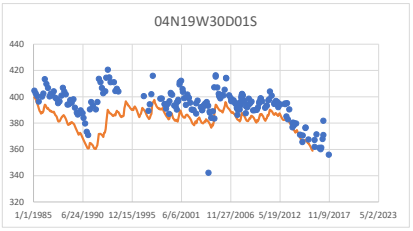
		0	0	0	232	-232
03N21W01P02S	3	3		0.7	4.2	3.5
03N21W01P02S		6		-0.1	3.5	2.8
Aquifer	A	G.S.	301.883	OBS #	134	



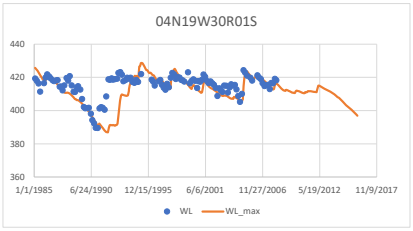
		0	0	0	0	0
03N21W12B02S	0	0		-38.3	38.7	38.3
03N21W12B02S		1		-2.8	3.0	2.9
	unknown	G.S.	279.729	OBS #	203	



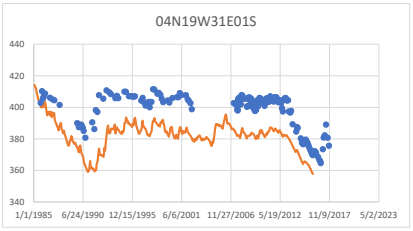
		120	0	400	0	400
03N21W12F07S	3	6		8.6	10.8	9.3
03N21W12F07S		7		5.2	8.3	6.5
Aquifer	A+B	G.S.	289.768	OBS #	26	



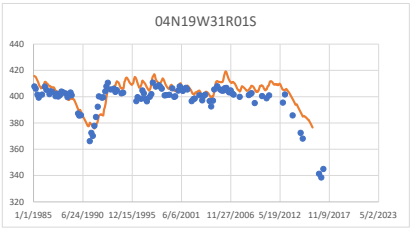
		60	0	380	0	402
04N19W30D01S	3	7	12.7	14.9	13.2	
04N19W30D01S		2	467.517	10.3	13.0	11.0
Aquifer	A+B	G.S.	467.517	OBS #	202	



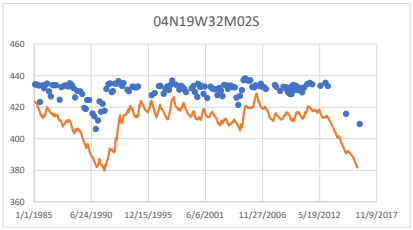
		173	0	300	0	305
04N19W30R01S	2	3	3.6	8.3	5.3	
04N19W30R01S		2	459.475	3.6	8.3	5.3
Aquifer	A	G.S.	459.475	OBS #	128	



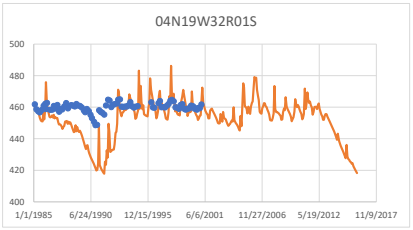
		0	0	0	0	0
04N19W31E01S	0	0	18.7	19.4	18.7	
04N19W31E01S		7	20.0	20.5	20.0	
unknown		G.S.	418.639	OBS #	181	



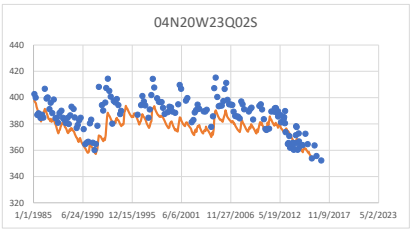
		60	0	137	0	140
04N19W31R01S	3	5	-4.3	7.3	6.1	
04N19W31R01S		8	0.5	5.8	4.3	
Aquifer	A+B	G.S.	457.864	OBS #	102	



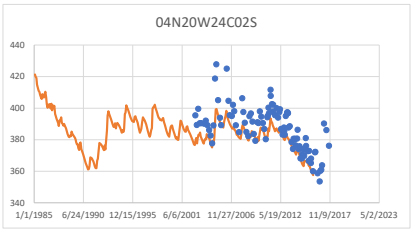
		180	0	300	0	348
04N19W32M02S	5	7	19.3	20.6	19.3	
04N19W32M02S		2	446.906	12.8	14.2	12.8
Aquifer	B	G.S.	446.906	OBS #	152	



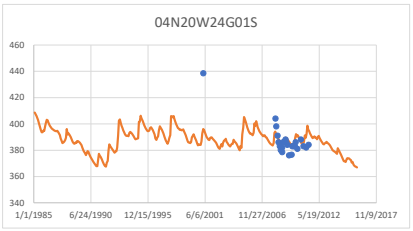
		30	0	90	0	90
04N19W32R01S	3	6	8.6	14.4	10.4	
04N19W32R01S		3		8.6	14.4	10.4
Aquifer	A+B	G.S.	539.7	OBS #	89	



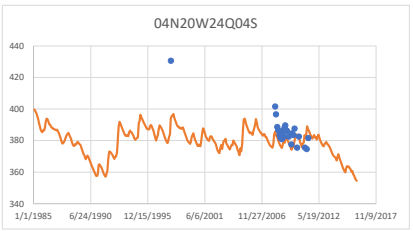
		327	0	567	0	567
04N20W23Q02S	7	7	9.8	12.5	10.9	
04N20W23Q02S		8		5.6	10.4	8.5
Aquifer	B	G.S.	555.567	OBS #	167	



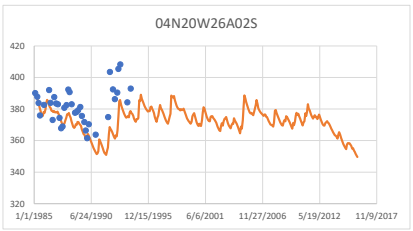
		0	0	0	0	0
04N20W24C02S	0	0	8.7	10.5	8.8	
04N20W24C02S		3		9.0	10.8	9.0
unknown		G.S.	499.288	OBS #	92	



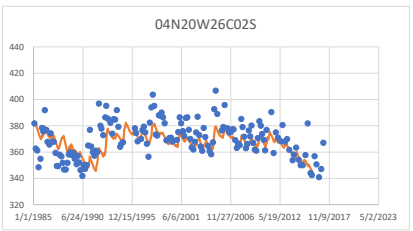
		100	0	260	0	270
04N20W24G01S	4	7	-1.1	10.1	6.0	
04N20W24G01S		6		0.0	10.0	5.5
Aquifer	B	G.S.	603.861	OBS #	25	



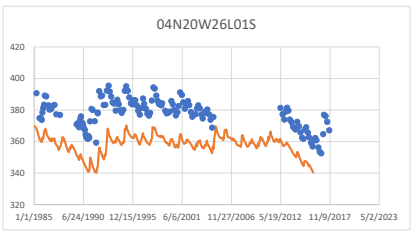
		90	0	300	0	305
04N20W24Q04S	3	7	5.7	10.5	8.2	
04N20W24Q04S		9		4.6	10.5	6.9
Aquifer	A+B	G.S.	463.028	OBS #	25	



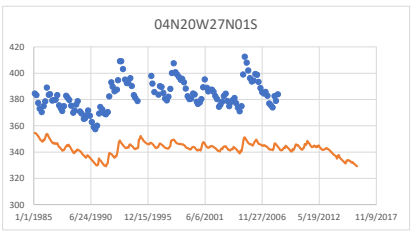
		40	0	254	0	261
04N20W26A02S	3	7	9.5	13.6	10.4	
04N20W26A02S		8		3.7	13.1	10.1
Aquifer	A+B	G.S.	455.255	OBS #	38	



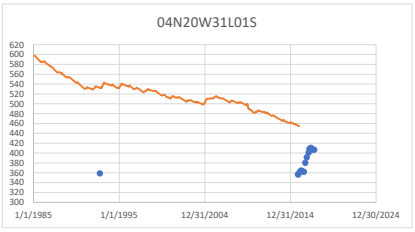
		155	0	255	0	267
04N20W26C02S	6	7	3.2	10.8	8.2	
04N20W26C02S		5		2.0	10.8	8.2
Aquifer	B	G.S.	495.236	OBS #	159	



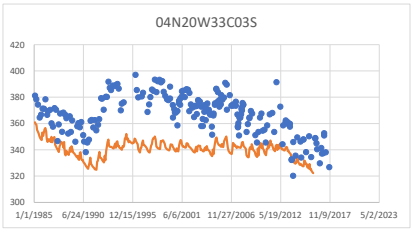
		110	0	397	0	404
04N20W26L01S	3	7	21.9	22.4	21.9	
04N20W26L01S		10		5.4	9.9	8.3
Aquifer	A+B	G.S.	432.3	OBS #	141	



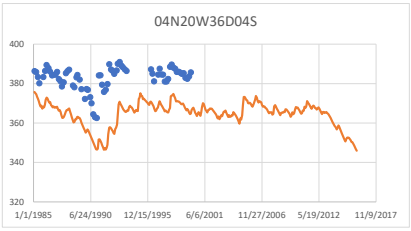
		0	0	0	470	-470
04N20W27N01S	7	7	39.8	40.7	39.8	
04N20W27N01S		10		15.9	19.4	17.3
Aquifer	B	G.S.	537.206	OBS #	133	



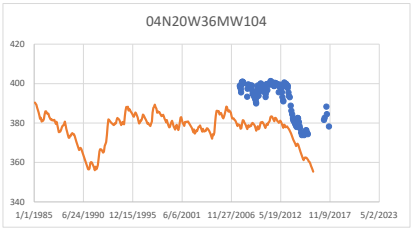
		633	0	1100	0	1100
04N20W31L01S		9	13	-123.5	128.4	123.5
04N20W31L01S		7		-58.7	58.8	58.7
Aquifer	C	G.S.	609.389	OBS #	3	



		470	0	700	0	724
04N20W33C03S		7	8	27.6	29.8	27.7
04N20W33C03S		10		10.7	15.8	13.6
Aquifer	B+C	G.S.	542.85	OBS #	209	

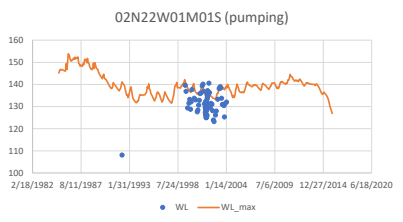


		34	0	68	0	70
04N20W36D04S		3	3	18.9	19.7	18.9
04N20W36D04S		10		4.3	11.2	8.9
Aquifer	A	G.S.	397.386	OBS #	74	

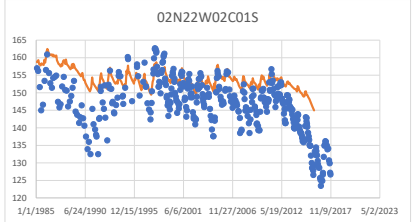


		10	0	40	0	40
04N20W36MW104		3	3	16.8	17.1	16.8
04N20W36MW104		9		16.3	16.5	16.3
Aquifer	A	G.S.	411.029	OBS #	132	

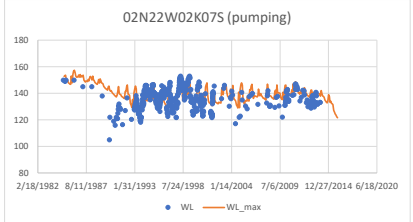
Well Hydrographs in Santa Paula basin



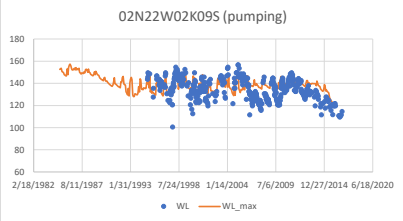
02N22W01M01S	70	0	107	0	116
02N22W01M01S	3	3	-4.7	6.4	5.1
02N22W01M01S	5		-4.7	6.3	5.0
Aquifer A	G.S.	146.425	OBS #	104	



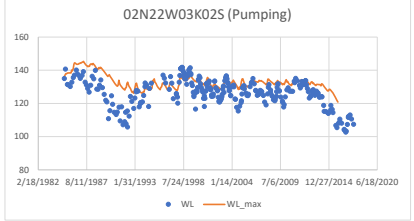
02N22W02C01S	190	0	225	0	226
02N22W02C01S	5	5	-5.8	7.3	6.2
02N22W02C01S	7		-4.0	5.3	4.3
Aquifer B	G.S.	197.832	OBS #	375	



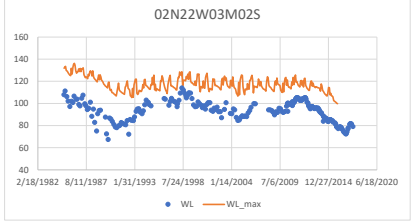
02N22W02K07S	168	0	698	0	698
02N22W02K07S	5	7	-2.4	7.1	5.5
02N22W02K07S	5		-0.6	6.9	5.5
Aquifer B	G.S.	153.877	OBS #	518	



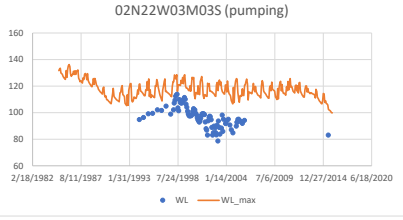
02N22W02K09S	300	0	400	0	420
02N22W02K09S	5	7	-4.0	9.1	7.4
02N22W02K09S	7		-0.4	8.7	6.6
Aquifer B	G.S.	167.74	OBS #	514	



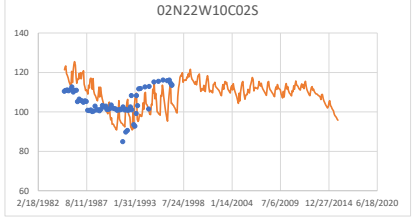
02N22W03K02S	0	115	164	0	164
02N22W03K02S	4	5	-5.7	8.2	6.5
02N22W03K02S	6		-0.3	5.4	4.2
Aquifer B	G.S.	246.669	OBS #	277	



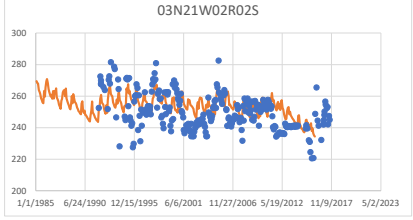
02N22W03M02S	468	0	528	0	544
02N22W03M02S	7	7	-22.1	23.2	22.1
02N22W03M02S	7		-22.1	23.2	22.1
Aquifer B	G.S.	298.269	OBS #	213	



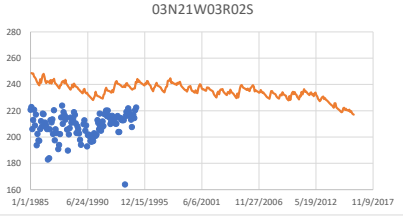
02N22W03M03S	354	0	568	0	604
02N22W03M03S	7	7	-21.7	22.9	21.7
02N22W03M03S	7		-21.7	22.9	21.7
Aquifer B	G.S.	298.267	OBS #	90	



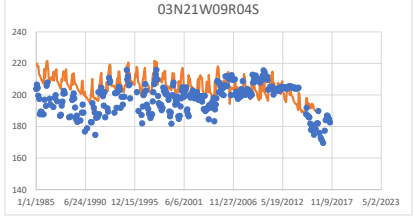
02N22W10C02S	279	0	575	0	575
02N22W10C02S	6	7	-1.4	9.5	8.2
02N22W10C02S	7		-1.3	9.5	8.2
Aquifer B	G.S.	245.011	OBS #	69	



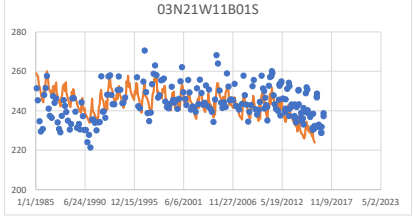
	202	0	360	0	377
03N21W02R02S	5	7	-4.2	10.7	8.8
03N21W02R02S	6		-3.5	10.5	8.6
Aquifer B	G.S.	324.079	OBS #	258	



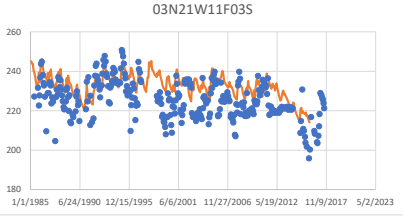
	238	0	524	0	560
03N21W03R02S	7	7	-29.3	30.8	29.3
03N21W03R02S	3		-27.0	28.6	27.0
Aquifer B	G.S.	398.699	OBS #	119	



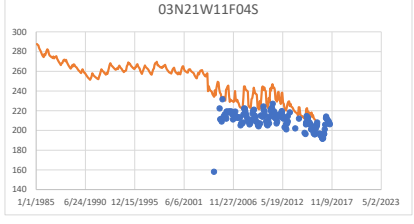
	360	0	756	0	780
03N21W09R04S	7	7	-7.0	11.4	9.5
03N21W09R04S	7		-7.0	11.4	9.5
Aquifer B	G.S.	286.374	OBS #	304	



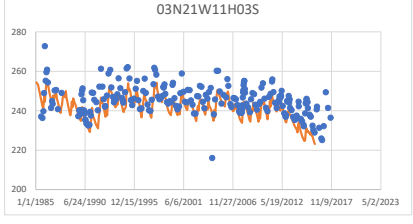
	0	0	0	0	0
03N21W11B01S	7	7	1.4	7.6	6.2
03N21W11B01S	6		1.6	7.5	6.2
Aquifer B	G.S.	331.275	OBS #	201	



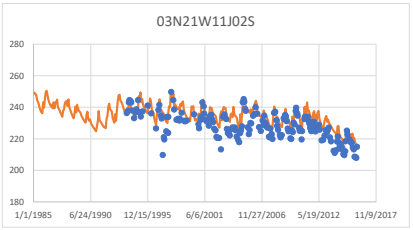
	153	0	518	0	540
03N21W11F03S	4	7	-7.3	10.2	8.5
03N21W11F03S	6		-6.1	9.5	7.8
Aquifer B	G.S.	313.881	OBS #	310	



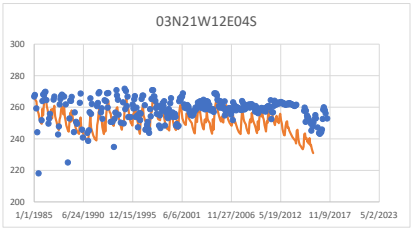
	570	0	850	0	860
03N21W11F04S	7	8	-18.8	20.2	18.8
03N21W11F04S	7		-15.8	16.9	15.8
Aquifer B+C	G.S.	311.227	OBS #	126	



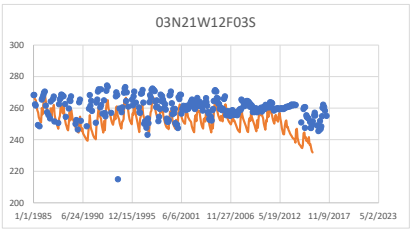
	0	0	0	230	-230
03N21W11H03S	1	5	5.0	6.7	5.5
03N21W11H03S	7		5.5	6.9	6.0
Aquifer A+B	G.S.	307.877	OBS #	234	



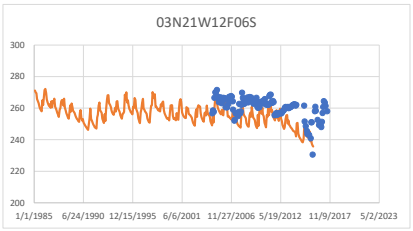
		260	0	700	0	1070
03N21W11J02S	5	7	-5.7	7.0	6.0	
03N21W11J02S		6		-4.1	5.7	4.6
Aquifer	B	G.S.	286.964	OBS #	193	



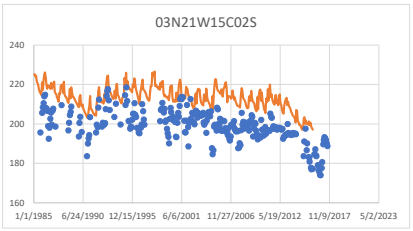
		120	0	284	0	300
03N21W12E04S	3	5	7.2	9.9	8.4	
03N21W12E04S		7		4.1	8.5	6.8
Aquifer	A+B	G.S.	291.652	OBS #	304	



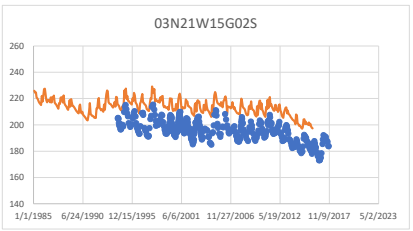
		120	0	284	0	302
03N21W12F03S	3	5	7.9	9.8	8.5	
03N21W12F03S		7		4.6	7.7	6.2
Aquifer	A+B	G.S.	291.609	OBS #	299	



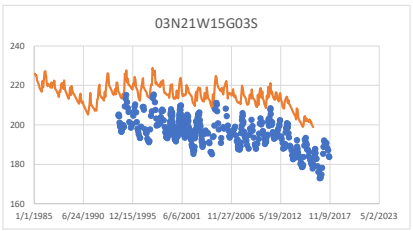
		120	0	395	0	400
03N21W12F06S	4	7	7.5	9.1	7.8	
03N21W12F06S		7		7.5	9.1	7.8
Aquifer	B	G.S.	278.213	OBS #	126	



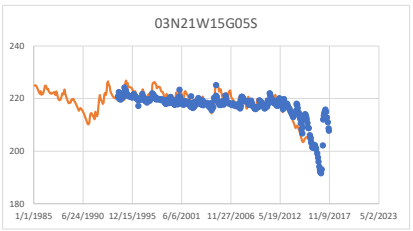
03N21W15C02S		176	0	322	0	350
03N21W15C02S	5	5	-13.6	14.5	13.6	
03N21W15C02S		7		-12.0	13.1	12.1
Aquifer	B	G.S.	257.098	OBS #	270	



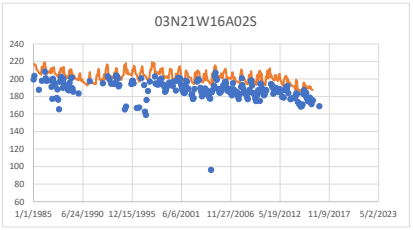
		520	0	540	0	540
03N21W15G02S	7	7	-16.4	16.7	16.4	
03N21W15G02S		7		-16.4	16.7	16.4
Aquifer	B	G.S.	231.004	OBS #	405	



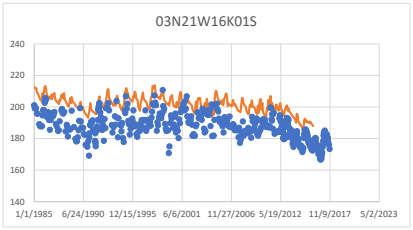
		370	0	390	0	390
03N21W15G03S	5	6	-18.0	18.3	18.0	
03N21W15G03S		7		-16.3	16.6	16.3
Aquifer	B	G.S.	231.004	OBS #	414	



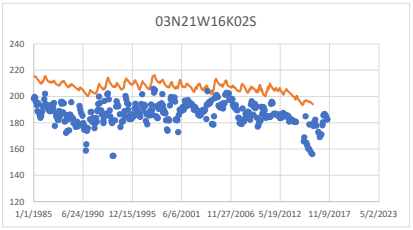
03N21W15G05S		60	0	80	0	80
03N21W15G05S	3	3	-0.6	2.7	2.0	
03N21W15G05S		3		-0.6	2.7	2.0
Aquifer	A	G.S.	231.004	OBS #	418	



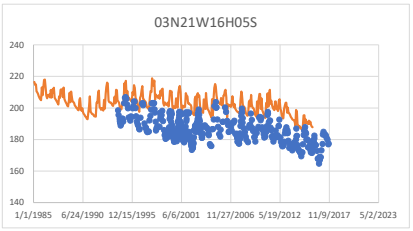
		430	0	580	0	600
03N21W16A02S	7	7	-14.4	16.7	14.4	
03N21W16A02S		7		-14.4	16.7	14.4
Aquifer	B	G.S.	272.291	OBS #	229	



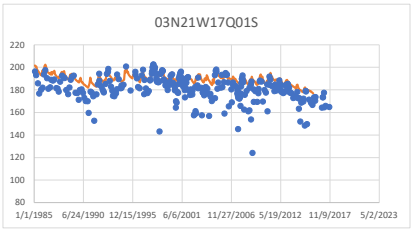
03N21W16K01S		119	0	214	0	216
03N21W16K01S	4	5	-12.2	13.2	12.3	
03N21W16K01S		7		-10.0	11.2	10.2
Aquifer	B	G.S.	250.074	OBS #	472	



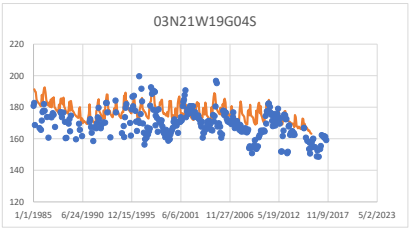
03N21W16K02S		92	0	243	0	243
03N21W16K02S	3	5	-19.9	21.0	19.9	
03N21W16K02S		7		-13.0	14.8	13.1
Aquifer	A+B	G.S.	238.061	OBS #	359	



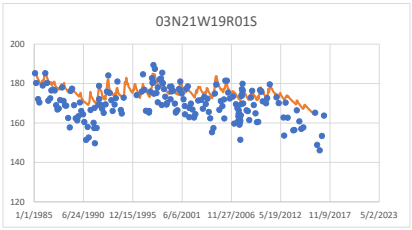
		530	0	550	0	550
03N21W16H05S	7	7	-15.3	15.9	15.3	
03N21W16H05S		7		-15.3	15.9	15.3
Aquifer	B	G.S.	252.011	OBS #	411	



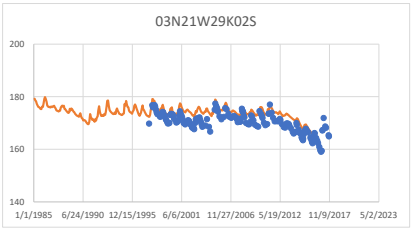
03N21W17Q01S		183	0	243	0	243
03N21W17Q01S	5	5	-8.7	12.2	8.8	
03N21W17Q01S		5		-8.7	12.2	8.8
Aquifer	B	G.S.	289.727	OBS #	285	



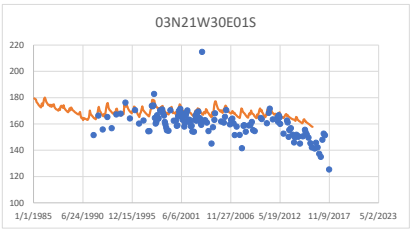
	450	0	720	0	720	
03N21W19G04S	7	7	-7.6	10.6	8.8	
03N21W19G04S	7		-7.6	10.6	8.8	
Aquifer B	G.S.	257.226	OBS #	285		



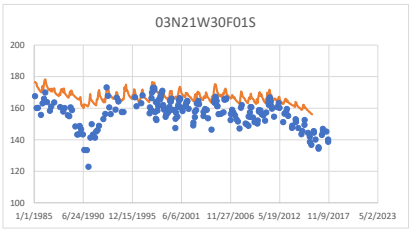
03N21W19R01S	160	0	205	0	210	
03N21W19R01S	4	5	-6.1	8.0	6.6	
03N21W19R01S	6		-4.4	6.5	5.2	
Aquifer B	G.S.	243.186	OBS #	184		



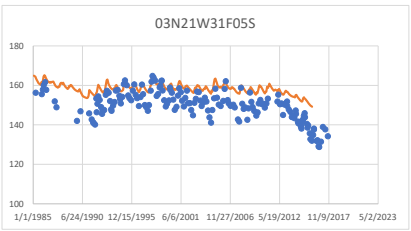
03N21W29K02S	30	0	60	0	70	
03N21W29K02S	3	3	-2.9	3.2	2.9	
03N21W29K02S	4		-2.9	3.1	2.9	
Aquifer A	G.S.	185.625	OBS #	172		



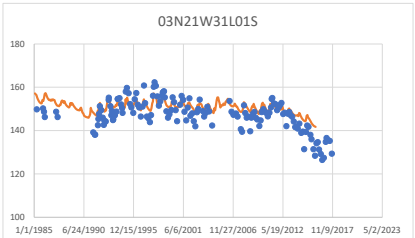
03N21W30E01S	160	0	240	0	240	
03N21W30E01S	5	5	-7.4	10.0	8.2	
03N21W30E01S	6		-6.9	9.5	7.7	
Aquifer B	G.S.	245.739	OBS #	129		



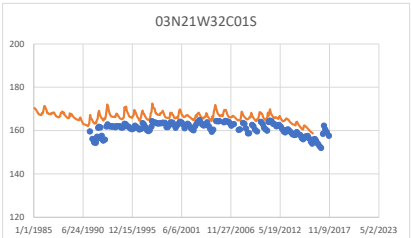
	260	0	424	0	440	
03N21W30F01S	5	6	-10.2	11.6	10.3	
03N21W30F01S	6		-9.2	10.5	9.2	
Aquifer B	G.S.	225.522	OBS #	198		



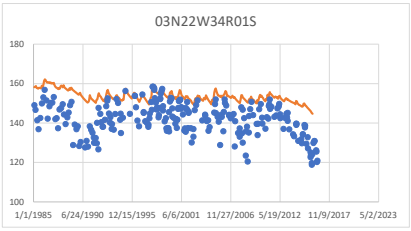
03N21W31F05S	92	0	102	0	102	
03N21W31F05S	3	3	-7.2	8.2	7.3	
03N21W31F05S	3		-7.2	8.2	7.3	
Aquifer A	G.S.	176.04	OBS #	171		



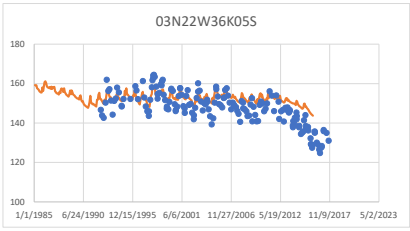
03N21W31L01S	137	0	157	0	157	
03N21W31L01S	4	5	-2.4	4.4	3.6	
03N21W31L01S	3		-2.0	4.3	3.4	
Aquifer B	G.S.	155.798	OBS #	147		



03N21W32C01S	12	0	32	0	0	
03N21W32C01S	3	3	-4.9	5.2	4.9	
03N21W32C01S	3		-4.9	5.2	4.9	
Aquifer A	G.S.	197.566	OBS #	148		



	300	0	343	0	354	
03N22W34R01S	5	5	-11.1	12.7	11.1	
03N22W34R01S	7		-4.9	7.2	5.5	
Aquifer B	G.S.	263.998	OBS #	249		



03N22W36K05S	175	0	265	0	278	
03N22W36K05S	5	5	-3.6	6.0	4.9	
03N22W36K05S	5		-3.6	6.0	4.9	
Aquifer B	G.S.	185.121	OBS #	164		

Appendix B – Monthly Flow Budgets

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Monthly Flow Budget for Aquifer A in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	SCR Underflow	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Net Stream Percolation
1/31/1985	31	31	640	424	31	-209	354	-105	1	-1005	-2942	2811
2/28/1985	59	28	1028	383	12	-185	290	-140	0	-886	-2863	2361
3/31/1985	90	31	916	424	26	-265	343	-122	1	-990	-2972	2640
4/30/1985	120	30	2276	411	9	-276	364	-229	0	-937	-3297	1680
5/31/1985	151	31	2499	424	9	-318	368	-228	0	-953	-3276	1474
6/30/1985	181	30	2236	411	9	-306	764	-227	0	-895	-3191	1198
7/31/1985	212	31	1640	424	9	-312	2374	-343	0	-874	-3895	977
8/31/1985	243	31	2573	424	9	-293	473	-334	0	-842	-3259	1248
9/30/1985	273	30	-2393	411	9	-225	469	-336	0	-778	-5691	8535
10/31/1985	304	31	1726	424	9	-197	464	-339	0	-859	-3500	2271
11/30/1985	334	30	-1335	411	300	-144	1617	-53	4	-854	-1896	1951
12/31/1985	365	31	346	424	22	-126	369	-222	1	-881	-2840	2906
1/31/1986	396	31	-2424	424	244	-168	1313	-34	3	-892	-2267	3801
2/28/1986	424	28	-6420	383	611	-201	3113	-18	9	-862	-1666	5052
3/31/1986	455	31	-4201	424	310	-338	1748	-30	5	-1016	-2444	5543
4/30/1986	485	30	945	411	13	-379	401	-150	1	-975	-3309	3041
5/31/1986	516	31	2051	424	9	-417	407	-196	0	-997	-3629	2346
6/30/1986	546	30	2623	411	9	-318	680	-195	0	-950	-3586	1326
7/31/1986	577	31	-1814	424	9	-297	1540	-260	0	-880	-5289	6567
8/31/1986	608	31	574	424	9	-308	3530	-261	0	-978	-3759	769
9/30/1986	638	30	1766	411	16	-248	475	-151	1	-972	-2920	1622
10/31/1986	669	31	2223	424	9	-215	391	-260	0	-979	-3154	1561
11/30/1986	699	30	97	411	103	-155	755	-74	2	-960	-2445	2266
12/31/1986	730	31	1267	424	9	-127	346	-250	0	-957	-3267	2555
1/31/1987	761	31	554	424	55	-141	466	-105	1	-971	-2848	2564
2/28/1987	789	28	724	383	24	-139	369	-139	1	-844	-2755	2377
3/31/1987	820	31	430	424	67	-216	549	-97	1	-922	-2817	2581
4/30/1987	850	30	2101	411	9	-242	487	-273	0	-849	-3287	1644
5/31/1987	881	31	1833	424	9	-282	725	-270	0	-840	-3412	1811
6/30/1987	911	30	-2984	411	9	-276	1057	-270	0	-763	-5849	8665
7/31/1987	942	31	166	424	9	-296	649	-366	0	-817	-5042	5273
8/31/1987	973	31	1861	424	9	-288	587	-363	0	-856	-3930	2555
9/30/1987	1003	30	2083	411	9	-223	545	-358	0	-796	-3279	1608
10/31/1987	1034	31	411	424	60	-192	602	-132	2	-831	-2581	2239
11/30/1987	1064	30	16	411	134	-137	988	-98	3	-797	-2489	1969
12/31/1987	1095	31	-2532	424	213	-115	1284	-71	4	-836	-2645	4276
1/31/1988	1126	31	-1555	424	182	-149	1000	-42	3	-822	-2653	3611
2/29/1988	1155	29	-913	397	124	-167	727	-47	2	-762	-2557	3196
3/31/1988	1186	31	854	424	9	-263	323	-171	0	-816	-3563	3202
4/30/1988	1216	30	-952	411	160	-248	1072	-47	3	-768	-2703	3073
5/31/1988	1247	31	-2898	424	9	-330	409	-186	0	-797	-5639	9007
6/30/1988	1277	30	800	411	9	-286	405	-187	0	-821	-4198	3868
7/31/1988	1308	31	2349	424	9	-297	483	-243	0	-838	-3779	1892
8/31/1988	1339	31	2437	424	9	-285	483	-241	0	-812	-3641	1627
9/30/1988	1369	30	2001	411	9	-216	478	-241	0	-751	-3421	1730
10/31/1988	1400	31	1699	424	9	-182	473	-241	0	-747	-3504	2068
11/30/1988	1430	30	850	411	23	-125	418	-118	1	-716	-2965	2221
12/31/1988	1461	31	-3613	424	254	-106	1573	-42	5	-737	-3041	5283
1/31/1989	1492	31	858	424	11	-121	295	-115	1	-764	-3427	2837
2/28/1989	1520	28	-1256	383	164	-119	967	-36	2	-664	-2634	3192
3/31/1989	1551	31	615	424	20	-188	322	-89	1	-763	-3168	2827
4/30/1989	1581	30	1556	411	9	-214	391	-155	0	-716	-3468	2185
5/31/1989	1612	31	-755	424	9	-255	396	-155	0	-752	-4857	5945
6/30/1989	1642	30	1574	411	9	-253	391	-155	0	-740	-3128	1891
7/31/1989	1673	31	1870	424	9	-258	405	-183	0	-713	-3341	1787
8/31/1989	1704	31	2042	424	9	-235	405	-181	0	-708	-3117	1361
9/30/1989	1734	30	1575	411	9	-180	400	-179	0	-659	-2953	1575
10/31/1989	1765	31	1093	424	9	-157	395	-179	0	-661	-3164	2239
11/30/1989	1795	30	1203	411	9	-111	376	-170	0	-605	-3185	2073
12/31/1989	1826	31	1248	424	9	-92	367	-175	0	-601	-3214	2034
1/31/1990	1857	31	-567	424	128	-104	739	-43	2	-629	-2951	3002
2/28/1990	1885	28	-735	383	117	-103	809	-46	3	-553	-2976	3102
3/31/1990	1916	31	674	424	9	-163	508	-149	0	-607	-3340	2642
4/30/1990	1946	30	523	411	9	-189	1177	-148	0	-580	-3959	2757

Monthly Flow Budget for Aquifer A in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	SCR Underflow	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Net Stream Percolation
5/31/1990	1977	31	1184	424	9	-225	459	-142	0	-587	-3019	1897
6/30/1990	2007	30	1256	411	9	-223	427	-148	0	-549	-2933	1749
7/31/1990	2038	31	1165	424	9	-237	473	-164	0	-551	-2805	1686
8/31/1990	2069	31	988	424	9	-231	443	-155	0	-532	-2896	1949
9/30/1990	2099	30	881	411	9	-180	442	-145	0	-490	-2823	1894
10/31/1990	2130	31	943	424	9	-157	437	-142	0	-483	-2857	1826
11/30/1990	2160	30	717	411	9	-111	442	-142	0	-443	-2983	2100
12/31/1990	2191	31	990	424	9	-92	437	-142	0	-437	-2969	1780
1/31/1991	2222	31	209	424	32	-104	444	-81	1	-425	-2691	2192
2/28/1991	2250	28	-253	383	95	-103	660	-50	2	-364	-2771	2402
3/31/1991	2281	31	-4906	424	791	-167	4194	-15	12	-433	-5561	5663
4/30/1991	2311	30	1452	411	9	-196	502	-173	1	-419	-3451	1865
5/31/1991	2342	31	861	424	9	-225	455	-175	0	-434	-3995	3080
6/30/1991	2372	30	1144	411	9	-223	466	-171	0	-413	-3248	2026
7/31/1991	2403	31	1062	424	9	-237	414	-167	0	-417	-2424	1336
8/31/1991	2434	31	1128	424	9	-231	411	-160	0	-410	-2178	1004
9/30/1991	2464	30	858	411	9	-180	406	-159	0	-381	-2071	1107
10/31/1991	2495	31	-3275	424	9	-157	399	-162	0	-503	-7948	11213
11/30/1991	2525	30	660	411	9	-111	395	-161	0	-529	-3659	2984
12/31/1991	2556	31	-1498	424	271	-92	1558	-28	4	-509	-2862	2732
1/31/1992	2587	31	-641	424	125	-104	1035	-41	2	-512	-3400	3112
2/29/1992	2616	29	-9309	397	701	-150	5107	-15	12	-494	-5701	9453
3/31/1992	2647	31	-6039	424	434	-241	3993	-19	7	-583	-3958	5981
4/30/1992	2677	30	-2461	411	9	-301	2487	-161	0	-591	-5367	5976
5/31/1992	2708	31	-201	424	9	-287	2789	-163	0	-664	-4920	3011
6/30/1992	2738	30	1342	411	9	-226	998	-164	0	-677	-3816	2123
7/31/1992	2769	31	2209	424	9	-237	420	-187	0	-720	-3491	1573
8/31/1992	2800	31	2397	424	9	-231	420	-188	0	-742	-3328	1238
9/30/1992	2830	30	-974	411	9	-180	417	-186	0	-723	-4325	5551
10/31/1992	2861	31	-4567	424	74	-166	1711	-62	1	-833	-6375	9791
11/30/1992	2891	30	-3150	411	9	-132	3349	-201	0	-819	-5815	6347
12/31/1992	2922	31	-2692	424	285	-115	1964	-35	5	-930	-2492	3586
1/31/1993	2953	31	-10991	424	821	-178	4767	-11	14	-1021	-1363	7536
2/28/1993	2981	28	-7905	383	578	-229	3390	-16	9	-1017	-3119	7927
3/31/1993	3012	31	-7427	424	220	-438	1205	-44	3	-1194	-4266	11517
4/30/1993	3042	30	-2464	411	9	-571	1706	-233	0	-1187	-5040	7372
5/31/1993	3073	31	-213	424	9	-655	3037	-236	0	-1241	-4745	3621
6/30/1993	3103	30	1004	411	9	-741	2038	-197	0	-1278	-4164	2919
7/31/1993	3134	31	1521	424	9	-800	2292	-241	0	-1458	-3653	1907
8/31/1993	3165	31	2316	424	9	-777	538	-241	0	-1489	-3634	2852
9/30/1993	3195	30	1182	411	9	-605	563	-241	0	-1455	-3994	4131
10/31/1993	3226	31	-231	424	9	-521	3376	-240	0	-1504	-4463	3150
11/30/1993	3256	30	318	411	9	-353	1881	-165	0	-1459	-3547	2905
12/31/1993	3287	31	-339	424	47	-307	1622	-88	1	-1542	-2879	3060
1/31/1994	3318	31	849	424	9	-347	866	-208	0	-1436	-3858	3701
2/28/1994	3346	28	-1645	383	314	-357	1917	-26	4	-1305	-2022	2739
3/31/1994	3377	31	404	424	93	-577	1002	-59	2	-1484	-2677	2871
4/30/1994	3407	30	1839	411	9	-652	418	-220	0	-1378	-3319	2892
5/31/1994	3438	31	1998	424	9	-742	414	-192	0	-1387	-3529	3005
6/30/1994	3468	30	2938	411	9	-630	367	-217	0	-1263	-3517	1903
7/31/1994	3499	31	3613	424	9	-548	358	-256	0	-1226	-3567	1192
8/31/1994	3530	31	2942	424	9	-435	365	-252	0	-1186	-3915	2049
9/30/1994	3560	30	-581	411	9	-283	354	-250	0	-1004	-4743	6088
10/31/1994	3591	31	-1193	424	34	-248	1396	-113	1	-1062	-4092	4854
11/30/1994	3621	30	-63	411	11	-184	1110	-182	1	-1071	-3787	3755
12/31/1994	3652	31	-2095	424	22	-176	1886	-128	1	-1248	-3832	5147
1/31/1995	3683	31	-10142	424	1177	-312	5709	-7	15	-1387	-550	5073
2/28/1995	3711	28	123	383	44	-294	1006	-82	2	-1126	-2796	2739
3/31/1995	3742	31	-5928	424	481	-578	2565	-14	6	-1348	-2665	7058
4/30/1995	3772	30	35	411	11	-715	1327	-138	1	-1349	-3477	3895
5/31/1995	3803	31	1564	424	10	-657	1955	-117	0	-1218	-3267	1307
6/30/1995	3833	30	1579	411	9	-749	1527	-185	0	-1239	-3587	2234
7/31/1995	3864	31	2809	424	9	-527	477	-209	0	-1052	-3719	1786

Monthly Flow Budget for Aquifer A in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	SCR Underflow	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Net Stream Percolation
8/31/1995	3895	31	958	424	9	-490	1432	-209	0	-1068	-4093	3035
9/30/1995	3925	30	840	411	9	-355	1581	-208	0	-1037	-4003	2763
10/31/1995	3956	31	1167	424	9	-286	572	-209	0	-1079	-4024	3426
11/30/1995	3986	30	1196	411	9	-197	320	-208	0	-1040	-3622	3132
12/31/1995	4017	31	-401	424	101	-222	697	-60	2	-1252	-2433	3145
1/31/1996	4048	31	1182	424	16	-308	354	-107	1	-1384	-2964	2787
2/29/1996	4077	29	-3792	397	432	-358	2227	-23	6	-1399	-1748	4259
3/31/1996	4108	31	-1883	424	120	-583	1027	-49	3	-1557	-2902	5402
4/30/1996	4138	30	-425	411	9	-710	389	-147	1	-1475	-3753	5701
5/31/1996	4169	31	2435	424	9	-780	364	-189	0	-1432	-3815	2983
6/30/1996	4199	30	3926	411	9	-638	358	-189	0	-1294	-3489	907
7/31/1996	4230	31	4007	424	9	-571	501	-213	0	-1281	-3975	1097
8/31/1996	4261	31	3629	424	9	-480	508	-206	0	-1237	-4051	1403
9/30/1996	4291	30	875	411	9	-268	476	-198	0	-1008	-4777	4480
10/31/1996	4322	31	-2274	424	96	-240	629	-52	1	-1052	-3658	6126
11/30/1996	4352	30	295	411	125	-192	875	-50	2	-1085	-2865	2485
12/31/1996	4383	31	-3007	424	360	-215	1928	-28	4	-1335	-1910	3777
1/31/1997	4414	31	-3699	424	413	-310	2272	-20	5	-1376	-1914	4205
2/28/1997	4442	28	619	383	9	-319	448	-158	0	-1186	-3180	3384
3/31/1997	4473	31	-2309	424	9	-512	350	-162	0	-1348	-4031	7579
4/30/1997	4503	30	1812	411	9	-565	348	-164	0	-1250	-3687	3087
5/31/1997	4534	31	3509	424	9	-562	312	-163	0	-1253	-3492	1216
6/30/1997	4564	30	3452	411	9	-454	347	-158	0	-1186	-3311	890
7/31/1997	4595	31	2926	424	9	-417	605	-224	0	-1180	-3779	1635
8/31/1997	4626	31	-850	424	9	-342	723	-220	0	-1006	-5178	6440
9/30/1997	4656	30	612	411	9	-264	563	-220	0	-1004	-4594	4487
10/31/1997	4687	31	-72	424	9	-227	625	-220	0	-1046	-4675	5182
11/30/1997	4717	30	-408	411	115	-177	832	-60	2	-1110	-2523	2917
12/31/1997	4748	31	-2733	424	413	-191	2318	-28	7	-1309	-1795	2894
1/31/1998	4779	31	-1655	424	181	-264	1113	-45	3	-1396	-2403	4043
2/28/1998	4807	28	-12516	383	1206	-352	5831	-12	16	-1320	-1007	7772
3/31/1998	4838	31	-5160	424	245	-651	1425	-37	5	-1499	-2905	8156
4/30/1998	4868	30	-1365	411	81	-777	2336	-74	2	-1431	-3589	4410
5/31/1998	4899	31	-1802	424	275	-971	3708	-33	3	-1496	-2709	2602
6/30/1998	4929	30	2417	411	9	-868	2573	-219	0	-1312	-3333	323
7/31/1998	4960	31	4019	424	9	-709	446	-202	0	-1168	-2868	48
8/31/1998	4991	31	1498	424	9	-778	326	-204	0	-1271	-3501	3497
9/30/1998	5021	30	2141	411	9	-526	327	-202	0	-1175	-3726	2742
10/31/1998	5052	31	1394	424	9	-360	338	-200	0	-1070	-4073	3538
11/30/1998	5082	30	-231	411	33	-259	1042	-97	1	-1063	-3372	3537
12/31/1998	5113	31	-971	424	9	-225	1087	-190	0	-1076	-3972	4914
1/31/1999	5144	31	-1004	424	107	-320	833	-72	2	-1256	-2969	4255
2/28/1999	5172	28	378	383	21	-361	390	-162	1	-1285	-3176	3811
3/31/1999	5203	31	90	424	97	-581	617	-82	1	-1496	-3054	3983
4/30/1999	5233	30	-1798	411	83	-725	581	-95	2	-1489	-3364	6394
5/31/1999	5264	31	1354	424	9	-843	446	-287	0	-1520	-4043	4460
6/30/1999	5294	30	2623	411	9	-781	402	-287	0	-1378	-3951	2953
7/31/1999	5325	31	4969	424	9	-656	413	-229	0	-1323	-3423	-184
8/31/1999	5356	31	4145	424	9	-565	413	-228	0	-1274	-3359	435
9/30/1999	5386	30	-66	411	9	-333	406	-218	0	-1053	-4466	5311
10/31/1999	5417	31	997	424	9	-270	766	-218	0	-1080	-4217	3588
11/30/1999	5447	30	2074	411	9	-217	345	-174	0	-1174	-3097	1824
12/31/1999	5478	31	2229	424	9	-162	399	-219	0	-1205	-3260	1784
1/31/2000	5509	31	898	424	80	-168	631	-85	2	-1210	-2748	2177
2/29/2000	5538	29	-5250	397	408	-213	2208	-31	6	-1182	-1831	5489
3/31/2000	5569	31	-1986	424	119	-410	815	-70	3	-1258	-3316	5680
4/30/2000	5599	30	827	411	99	-452	727	-80	2	-1185	-2913	2564
5/31/2000	5630	31	1729	424	9	-466	507	-280	0	-1184	-4018	3279
6/30/2000	5660	30	152	411	9	-501	506	-276	0	-1140	-4352	5193
7/31/2000	5691	31	3261	424	9	-399	413	-199	0	-1125	-3709	1323
8/31/2000	5722	31	3288	424	9	-324	424	-197	0	-1095	-3549	1019
9/30/2000	5752	30	-2392	411	9	-236	419	-196	0	-964	-5474	8424
10/31/2000	5783	31	-1087	424	20	-222	431	-123	1	-1050	-4575	6182

Monthly Flow Budget for Aquifer A in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	SCR Underflow	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Net Stream Percolation
11/30/2000	5813	30	892	411	9	-160	412	-199	0	-1044	-3708	3388
12/31/2000	5844	31	1973	424	9	-135	411	-200	0	-1155	-3146	1820
1/31/2001	5875	31	-2252	424	303	-169	1702	-37	4	-1209	-2030	3263
2/28/2001	5903	28	-4518	383	470	-209	2611	-27	8	-1135	-1284	3701
3/31/2001	5934	31	-3306	424	226	-425	1715	-51	3	-1263	-2901	5579
4/30/2001	5964	30	-240	411	57	-497	1858	-96	1	-1217	-3410	3134
5/31/2001	5995	31	2263	424	9	-495	955	-260	0	-1224	-3838	2165
6/30/2001	6025	30	2609	411	9	-398	466	-256	0	-1159	-3874	2193
7/31/2001	6056	31	3033	424	9	-378	410	-189	0	-1174	-3387	1251
8/31/2001	6087	31	3357	424	9	-333	416	-187	0	-1145	-3131	590
9/30/2001	6117	30	-2365	411	9	-250	410	-187	0	-990	-5301	8262
10/31/2001	6148	31	-594	424	9	-235	413	-192	0	-1058	-4733	5967
11/30/2001	6178	30	-1432	411	169	-185	1161	-48	3	-1071	-2383	3377
12/31/2001	6209	31	-58	424	41	-177	465	-87	1	-1257	-2450	3098
1/31/2002	6240	31	591	424	21	-187	337	-79	1	-1248	-2707	2848
2/28/2002	6268	28	1692	383	9	-166	296	-146	0	-1061	-2920	1913
3/31/2002	6299	31	1328	424	9	-244	412	-146	0	-1140	-3288	2644
4/30/2002	6329	30	1637	411	9	-275	457	-143	0	-1065	-3229	2197
5/31/2002	6360	31	2447	424	9	-316	492	-139	0	-1068	-3225	1376
6/30/2002	6390	30	2228	411	9	-304	487	-135	0	-997	-3067	1368
7/31/2002	6421	31	2533	424	9	-314	553	-176	0	-988	-3259	1217
8/31/2002	6452	31	3104	424	9	-293	579	-176	0	-953	-2978	284
9/30/2002	6482	30	-2598	411	9	-225	498	-177	0	-855	-5772	8710
10/31/2002	6513	31	2278	424	9	-197	485	-179	0	-953	-2882	1013
11/30/2002	6543	30	-710	411	239	-144	1550	-34	3	-931	-1957	1575
12/31/2002	6574	31	-2120	424	206	-130	1318	-40	3	-976	-2282	3598
1/31/2003	6605	31	1111	424	9	-141	364	-153	0	-979	-3323	2688
2/28/2003	6633	28	-3223	383	313	-142	1942	-24	6	-838	-2251	3835
3/31/2003	6664	31	-1570	424	161	-251	969	-38	3	-951	-2651	3905
4/30/2003	6694	30	-1811	411	37	-376	438	-77	1	-930	-3276	5583
5/31/2003	6725	31	817	424	58	-388	486	-60	1	-960	-3199	2820
6/30/2003	6755	30	1994	411	9	-294	409	-153	0	-912	-3428	1965
7/31/2003	6786	31	2507	424	9	-298	429	-176	0	-926	-3370	1400
8/31/2003	6817	31	2652	424	9	-288	427	-174	0	-906	-3194	1049
9/30/2003	6847	30	-3208	411	9	-225	446	-177	0	-832	-5863	9440
10/31/2003	6878	31	-66	424	9	-196	451	-182	0	-926	-4068	4555
11/30/2003	6908	30	463	411	33	-141	459	-81	1	-951	-2667	2474
12/31/2003	6939	31	-1045	424	97	-123	773	-56	2	-982	-2540	3451
1/31/2004	6970	31	-215	424	9	-141	335	-106	1	-984	-3442	4119
2/29/2004	6999	29	-4153	397	331	-160	1889	-24	5	-900	-2257	4874
3/31/2004	7030	31	142	424	9	-318	318	-147	0	-994	-3744	4310
4/30/2004	7060	30	2018	411	9	-283	331	-146	0	-933	-3440	2034
5/31/2004	7091	31	2036	424	9	-289	336	-146	0	-946	-3347	1922
6/30/2004	7121	30	1903	411	9	-279	353	-144	0	-897	-3159	1804
7/31/2004	7152	31	2588	424	9	-297	429	-200	0	-901	-3199	1148
8/31/2004	7183	31	2061	424	9	-286	433	-198	0	-875	-2987	1419
9/30/2004	7213	30	2006	411	9	-218	452	-198	0	-820	-2769	1127
10/31/2004	7244	31	-6709	424	335	-193	2061	-33	6	-867	-4328	9306
11/30/2004	7274	30	1254	411	9	-139	422	-201	0	-903	-3230	2377
12/31/2004	7305	31	-5215	424	411	-125	2337	-27	6	-953	-2353	5494
1/31/2005	7336	31	-13515	424	948	-230	4908	-13	15	-1050	-3039	11552
2/28/2005	7364	28	-10408	383	608	-254	4137	-18	11	-1045	-3504	10090
3/31/2005	7395	31	-4560	424	114	-530	740	-60	2	-1249	-4017	9137
4/30/2005	7425	30	-1801	411	10	-666	313	-167	1	-1251	-3700	6853
5/31/2005	7456	31	73	424	9	-782	360	-224	0	-1285	-4220	5645
6/30/2005	7486	30	2138	411	9	-642	881	-221	0	-1125	-3465	2016
7/31/2005	7517	31	863	424	9	-798	1675	-221	0	-1284	-3927	3259
8/31/2005	7548	31	2982	424	9	-742	394	-219	0	-1324	-3217	1694
9/30/2005	7578	30	482	411	9	-438	390	-219	0	-1038	-3960	4364
10/31/2005	7609	31	-636	424	57	-455	556	-97	2	-1206	-2994	4349
11/30/2005	7639	30	1340	411	9	-383	383	-220	0	-1378	-3233	3070
12/31/2005	7670	31	1538	424	9	-319	370	-214	0	-1468	-3411	3070
1/31/2006	7701	31	-2876	424	251	-376	1408	-80	3	-1579	-2992	5817

Monthly Flow Budget for Aquifer A in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	SCR Underflow	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Net Stream Percolation
2/28/2006	7729	28	-2744	383	261	-391	1515	-73	4	-1516	-2488	5049
3/31/2006	7760	31	-3406	424	228	-654	1377	-87	4	-1740	-3139	6995
4/30/2006	7790	30	-2978	411	262	-775	1467	-76	4	-1710	-3223	6620
5/31/2006	7821	31	147	424	13	-927	1629	-273	1	-1707	-4017	4711
6/30/2006	7851	30	2361	411	9	-918	1426	-444	0	-1534	-4359	3049
7/31/2006	7882	31	4637	424	9	-871	347	-194	0	-1501	-3097	246
8/31/2006	7913	31	3805	424	9	-469	350	-192	0	-1080	-3247	398
9/30/2006	7943	30	1984	411	9	-342	343	-194	0	-1047	-3604	2440
10/31/2006	7974	31	996	424	9	-291	346	-196	0	-1089	-3756	3557
11/30/2006	8004	30	1620	411	9	-243	344	-195	0	-1155	-2942	2151
12/31/2006	8035	31	1811	424	9	-232	303	-168	1	-1333	-3020	2205
1/31/2007	8066	31	526	424	53	-280	423	-79	1	-1379	-2857	3168
2/28/2007	8094	28	404	383	36	-298	407	-98	1	-1231	-2805	3201
3/31/2007	8125	31	2158	424	9	-435	338	-190	0	-1300	-3518	2513
4/30/2007	8155	30	1831	411	9	-427	295	-133	0	-1227	-3209	2450
5/31/2007	8186	31	2708	424	9	-396	343	-190	0	-1212	-3420	1735
6/30/2007	8216	30	2943	411	9	-342	342	-190	0	-1131	-3255	1213
7/31/2007	8247	31	3419	424	9	-341	378	-217	0	-1080	-3522	930
8/31/2007	8278	31	-353	424	9	-303	391	-215	0	-982	-4761	5790
9/30/2007	8308	30	-707	411	9	-225	354	-208	0	-924	-4850	6141
10/31/2007	8339	31	-1090	424	9	-196	386	-220	0	-977	-4952	6615
11/30/2007	8369	30	1391	411	9	-145	377	-218	0	-978	-3525	2679
12/31/2007	8400	31	-1698	424	188	-136	1011	-48	2	-1056	-2547	3861
1/31/2008	8431	31	-8139	424	682	-200	3439	-22	10	-1148	-1760	6713
2/29/2008	8460	29	-2148	397	92	-241	597	-72	2	-1074	-3146	5594
3/31/2008	8491	31	102	424	9	-350	407	-228	0	-1115	-4316	5067
4/30/2008	8521	30	1371	411	9	-399	396	-227	0	-1092	-3981	3513
5/31/2008	8552	31	2329	424	9	-409	397	-227	0	-1128	-3939	2544
6/30/2008	8582	30	1671	411	9	-402	394	-227	0	-1084	-3758	2987
7/31/2008	8613	31	2386	424	9	-381	418	-214	0	-1101	-3820	2278
8/31/2008	8644	31	1663	424	9	-383	414	-213	0	-1078	-3817	2981
9/30/2008	8674	30	-3038	411	9	-241	394	-214	0	-941	-5935	9555
10/31/2008	8705	31	-1087	424	9	-208	389	-219	0	-1021	-5549	7260
11/30/2008	8735	30	-451	411	121	-170	791	-63	2	-1088	-2685	3133
12/31/2008	8766	31	-1112	424	117	-166	801	-61	3	-1223	-2762	3979
1/31/2009	8797	31	665	424	9	-204	264	-155	0	-1216	-3469	3681
2/28/2009	8825	28	-4879	383	331	-253	1731	-25	4	-1136	-2585	6428
3/31/2009	8856	31	-156	424	9	-428	263	-156	0	-1269	-3955	5267
4/30/2009	8886	30	1373	411	9	-466	270	-156	0	-1177	-3658	3394
5/31/2009	8917	31	2833	424	9	-448	283	-156	0	-1183	-3518	1756
6/30/2009	8947	30	2989	411	9	-356	287	-155	0	-1119	-3314	1248
7/31/2009	8978	31	3675	424	9	-346	380	-202	0	-1121	-3648	829
8/31/2009	9009	31	3326	424	9	-325	389	-201	0	-1091	-3509	977
9/30/2009	9039	30	-1505	411	9	-233	392	-200	0	-959	-5076	7161
10/31/2009	9070	31	-2916	424	154	-196	922	-56	2	-992	-3774	6432
11/30/2009	9100	30	992	411	9	-148	386	-203	0	-1015	-3696	3265
12/31/2009	9131	31	-2863	424	251	-142	1401	-39	4	-1139	-2568	4671
1/31/2010	9162	31	-4861	424	390	-220	2058	-30	6	-1226	-2351	5810
2/28/2010	9190	28	-2799	383	239	-256	1338	-42	4	-1123	-2534	4790
3/31/2010	9221	31	-2127	424	9	-422	333	-214	0	-1263	-4387	7648
4/30/2010	9251	30	-3526	411	75	-544	530	-79	1	-1238	-3878	8247
5/31/2010	9282	31	1616	424	9	-645	341	-222	0	-1287	-4219	3983
6/30/2010	9312	30	3562	411	9	-528	449	-219	0	-1214	-3685	1216
7/31/2010	9343	31	4596	424	9	-476	508	-235	0	-1213	-3828	215
8/31/2010	9374	31	4429	424	9	-398	507	-234	0	-1184	-3693	139
9/30/2010	9404	30	242	411	9	-265	493	-234	0	-1061	-4684	5088
10/31/2010	9435	31	-1599	424	72	-247	658	-92	1	-1062	-4349	6193
11/30/2010	9465	30	104	411	28	-175	479	-131	1	-1061	-3341	3685
12/31/2010	9496	31	-6409	424	580	-204	3042	-25	8	-1299	-1465	5347
1/31/2011	9527	31	1174	424	9	-275	346	-198	1	-1258	-3301	3079
2/28/2011	9555	28	-2343	383	210	-281	1165	-47	3	-1160	-2463	4533
3/31/2011	9586	31	-6832	424	369	-516	1989	-30	5	-1371	-2969	8931
4/30/2011	9616	30	-2600	411	9	-653	364	-213	0	-1341	-4558	8584

Monthly Flow Budget for Aquifer A in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	SCR Underflow	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Net Stream Percolation
5/31/2011	9647	31	1712	424	10	-757	403	-160	0	-1338	-3720	3427
6/30/2011	9677	30	1684	411	9	-745	483	-215	0	-1335	-3723	3432
7/31/2011	9708	31	3999	424	9	-672	487	-217	0	-1332	-3544	845
8/31/2011	9739	31	3579	424	9	-567	481	-212	0	-1306	-3452	1044
9/30/2011	9769	30	784	411	9	-356	475	-207	0	-1108	-4538	4531
10/31/2011	9800	31	-947	424	46	-274	449	-85	1	-1079	-3788	5253
11/30/2011	9830	30	-7	411	66	-254	545	-73	1	-1217	-2619	3148
12/31/2011	9861	31	1229	424	9	-214	359	-209	0	-1309	-3356	3066
1/31/2012	9892	31	1463	424	51	-243	455	-105	1	-1281	-2837	2072
2/29/2012	9921	29	1711	397	9	-208	377	-235	0	-1147	-3300	2397
3/31/2012	9952	31	-1109	424	175	-318	1041	-55	3	-1244	-2743	3827
4/30/2012	9982	30	-1031	411	138	-445	838	-61	2	-1234	-2806	4188
5/31/2012	10013	31	2285	424	9	-445	444	-235	0	-1198	-3575	2291
6/30/2012	10043	30	3365	411	9	-341	501	-234	0	-1097	-3466	853
7/31/2012	10074	31	3207	424	9	-341	491	-228	0	-1110	-3319	866
8/31/2012	10105	31	3240	424	9	-321	492	-226	0	-1080	-3169	632
9/30/2012	10135	30	-1950	411	9	-229	475	-227	0	-932	-5160	7602
10/31/2012	10166	31	-701	424	9	-196	482	-232	0	-988	-4666	5868
11/30/2012	10196	30	860	411	37	-150	534	-108	1	-1044	-2416	1875
12/31/2012	10227	31	-11	424	75	-135	713	-74	1	-1115	-2303	2424
1/31/2013	10258	31	846	424	42	-152	510	-80	1	-1109	-2535	2054
2/28/2013	10286	28	1257	383	9	-147	321	-176	0	-953	-2850	2156
3/31/2013	10317	31	1176	424	10	-228	315	-133	1	-1028	-2916	2378
4/30/2013	10347	30	1609	411	9	-268	333	-174	0	-950	-3039	2068
5/31/2013	10378	31	2100	424	9	-290	407	-173	0	-949	-3123	1595
6/30/2013	10408	30	2457	411	9	-279	444	-170	0	-881	-2884	895
7/31/2013	10439	31	2293	424	9	-297	475	-178	0	-863	-2765	901
8/31/2013	10470	31	2209	424	9	-283	472	-178	0	-825	-2583	753
9/30/2013	10500	30	1719	411	9	-214	469	-178	0	-766	-2497	1047
10/31/2013	10531	31	1191	424	9	-179	476	-178	0	-777	-2638	1671
11/30/2013	10561	30	530	411	11	-120	422	-128	1	-745	-2695	2314
12/31/2013	10592	31	985	424	9	-94	467	-174	0	-751	-3100	2234
1/31/2014	10623	31	1089	424	9	-104	375	-212	0	-727	-3133	2279
2/28/2014	10651	28	-1150	383	200	-103	1084	-44	2	-622	-2784	3035
3/31/2014	10682	31	52	424	83	-162	590	-66	2	-711	-3090	2878
4/30/2014	10712	30	1419	411	9	-188	351	-208	0	-656	-2880	1742
5/31/2014	10743	31	1661	424	9	-225	383	-210	0	-667	-2686	1311
6/30/2014	10773	30	1130	411	9	-223	397	-208	0	-618	-2553	1655
7/31/2014	10804	31	1830	424	9	-237	370	-190	0	-641	-2425	859
8/31/2014	10835	31	1639	424	9	-228	364	-179	0	-615	-2059	643
9/30/2014	10865	30	1014	411	9	-180	373	-168	0	-564	-1763	869
10/31/2014	10896	31	690	424	9	-157	373	-174	0	-563	-1869	1266
11/30/2014	10926	30	248	411	9	-111	332	-150	0	-516	-2356	2132
12/31/2014	10957	31	-2179	424	280	-92	1635	-30	4	-535	-4486	4977
1/31/2015	10988	31	-505	424	48	-104	421	-64	1	-559	-3902	4240
2/28/2015	11016	28	474	383	9	-103	269	-119	1	-470	-2602	2159
3/31/2015	11047	31	366	424	9	-162	282	-114	0	-528	-2744	2466
4/30/2015	11077	30	1113	411	9	-188	329	-149	0	-492	-2639	1606
5/31/2015	11108	31	103	424	9	-225	321	-125	1	-504	-2797	2793
6/30/2015	11138	30	1215	411	9	-223	345	-148	0	-472	-2449	1314
7/31/2015	11169	31	749	424	21	-234	386	-95	1	-461	-1935	1145
8/31/2015	11200	31	1207	424	9	-231	374	-157	0	-444	-1938	756
9/30/2015	11230	30	378	411	9	-180	355	-126	1	-415	-1918	1486
10/31/2015	11261	31	686	424	9	-157	383	-152	0	-414	-2079	1298
11/30/2015	11291	30	569	411	9	-111	375	-145	0	-380	-2277	1549
12/31/2015	11322	31	423	424	9	-92	356	-137	0	-376	-2447	1839

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
1/31/1985	31	31	130	158	-474	2942	-2348	-407
2/28/1985	59	28	269	73	-670	2863	-2169	-366
3/31/1985	90	31	263	127	-560	2972	-2379	-423
4/30/1985	120	30	432	0	-1013	3297	-2313	-402
5/31/1985	151	31	544	0	-1017	3276	-2381	-422
6/30/1985	181	30	548	0	-1014	3191	-2316	-409
7/31/1985	212	31	355	0	-1457	3895	-2354	-439
8/31/1985	243	31	992	0	-1464	3259	-2349	-439
9/30/1985	273	30	-1448	0	-1464	5691	-2296	-482
10/31/1985	304	31	859	0	-1464	3500	-2406	-489
11/30/1985	334	30	-290	1526	-213	1896	-2364	-554
12/31/1985	365	31	784	54	-858	2840	-2399	-421
1/31/1986	396	31	-442	1229	-218	2267	-2283	-554
2/28/1986	424	28	-2084	3275	-113	1666	-2117	-628
3/31/1986	455	31	-1064	1714	-185	2444	-2317	-592
4/30/1986	485	30	235	75	-864	3309	-2239	-517
5/31/1986	516	31	426	0	-1207	3629	-2309	-538
6/30/1986	546	30	394	0	-1203	3586	-2243	-535
7/31/1986	577	31	-1239	0	-1162	5289	-2306	-583
8/31/1986	608	31	366	0	-1158	3759	-2386	-582
9/30/1986	638	30	624	90	-738	2920	-2339	-556
10/31/1986	669	31	912	0	-1147	3154	-2382	-537
11/30/1986	699	30	263	501	-322	2445	-2334	-554
12/31/1986	730	31	728	0	-1126	3267	-2357	-512
1/31/1987	761	31	203	281	-480	2848	-2339	-513
2/28/1987	789	28	347	125	-677	2755	-2119	-430
3/31/1987	820	31	106	312	-450	2817	-2297	-489
4/30/1987	850	30	645	0	-1289	3287	-2198	-445
5/31/1987	881	31	604	0	-1298	3412	-2251	-466
6/30/1987	911	30	-1835	0	-1303	5849	-2195	-516
7/31/1987	942	31	-462	0	-1671	5042	-2296	-613
8/31/1987	973	31	668	0	-1673	3930	-2321	-604
9/30/1987	1003	30	1206	0	-1670	3279	-2245	-570
10/31/1987	1034	31	569	352	-598	2581	-2320	-584
11/30/1987	1064	30	26	687	-410	2489	-2244	-549
12/31/1987	1095	31	-556	1093	-319	2645	-2302	-562
1/31/1988	1126	31	-358	825	-286	2653	-2228	-606
2/29/1988	1155	29	-161	584	-329	2557	-2091	-560
3/31/1988	1186	31	272	0	-1109	3563	-2185	-541
4/30/1988	1216	30	-492	858	-319	2703	-2136	-614
5/31/1988	1247	31	-1545	0	-1295	5639	-2191	-607

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
6/30/1988	1277	30	-87	0	-1305	4198	-2194	-612
7/31/1988	1308	31	752	0	-1619	3779	-2287	-626
8/31/1988	1339	31	892	0	-1615	3641	-2299	-618
9/30/1988	1369	30	1014	0	-1607	3421	-2232	-597
10/31/1988	1400	31	1000	0	-1604	3504	-2290	-610
11/30/1988	1430	30	545	113	-805	2965	-2216	-602
12/31/1988	1461	31	-1209	1451	-272	3041	-2260	-751
1/31/1989	1492	31	321	17	-886	3427	-2316	-563
2/28/1989	1520	28	-533	852	-277	2634	-2121	-555
3/31/1989	1551	31	266	73	-694	3168	-2308	-505
4/30/1989	1581	30	457	0	-1216	3468	-2241	-467
5/31/1989	1612	31	-747	0	-1224	4857	-2345	-541
6/30/1989	1642	30	901	0	-1220	3128	-2288	-520
7/31/1989	1673	31	903	0	-1260	3341	-2499	-486
8/31/1989	1704	31	1098	0	-1257	3117	-2488	-471
9/30/1989	1734	30	1144	0	-1254	2953	-2393	-450
10/31/1989	1765	31	993	0	-1255	3164	-2443	-460
11/30/1989	1795	30	793	0	-1192	3185	-2345	-442
12/31/1989	1826	31	894	0	-1260	3214	-2391	-457
1/31/1990	1857	31	-413	592	-309	2951	-2285	-536
2/28/1990	1885	28	-748	650	-333	2976	-2080	-464
3/31/1990	1916	31	584	0	-1167	3340	-2314	-443
4/30/1990	1946	30	-87	0	-1172	3959	-2271	-429
5/31/1990	1977	31	831	0	-1071	3019	-2335	-445
6/30/1990	2007	30	949	0	-1171	2933	-2272	-439
7/31/1990	2038	31	1349	0	-1442	2805	-2147	-564
8/31/1990	2069	31	1289	0	-1456	2896	-2131	-598
9/30/1990	2099	30	1296	0	-1467	2823	-2060	-593
10/31/1990	2130	31	1332	0	-1472	2857	-2103	-614
11/30/1990	2160	30	1117	0	-1471	2983	-2028	-600
12/31/1990	2191	31	1191	0	-1474	2969	-2067	-618
1/31/1991	2222	31	577	171	-776	2691	-2059	-604
2/28/1991	2250	28	-388	506	-476	2771	-1851	-562
3/31/1991	2281	31	-6698	4089	-125	5561	-2029	-798
4/30/1991	2311	30	615	0	-1523	3451	-1989	-554
5/31/1991	2342	31	152	0	-1531	3995	-2055	-561
6/30/1991	2372	30	841	0	-1532	3248	-2003	-555
7/31/1991	2403	31	1599	0	-1397	2424	-2098	-528
8/31/1991	2434	31	1836	0	-1399	2178	-2098	-516
9/30/1991	2464	30	1861	0	-1395	2071	-2035	-502

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
10/31/1991	2495	31	-3781	0	-1405	7948	-2162	-601
11/30/1991	2525	30	482	0	-1404	3659	-2147	-590
12/31/1991	2556	31	-1180	1416	-222	2862	-2184	-693
1/31/1992	2587	31	-1009	640	-317	3400	-2146	-568
2/29/1992	2616	29	-6621	3756	-122	5701	-2029	-684
3/31/1992	2647	31	-3260	2259	-160	3958	-2179	-618
4/30/1992	2677	30	-1438	0	-1227	5367	-2185	-517
5/31/1992	2708	31	-820	0	-1238	4920	-2319	-543
6/30/1992	2738	30	264	0	-1232	3816	-2315	-533
7/31/1992	2769	31	941	0	-1359	3491	-2530	-544
8/31/1992	2800	31	1126	0	-1351	3328	-2567	-536
9/30/1992	2830	30	61	0	-1344	4325	-2519	-524
10/31/1992	2861	31	-2952	316	-439	6375	-2610	-690
11/30/1992	2891	30	-1246	0	-1346	5815	-2597	-626
12/31/1992	2922	31	-481	1608	-237	2492	-2614	-769
1/31/1993	2953	31	-2235	4502	-126	1363	-2640	-863
2/28/1993	2981	28	-2751	2962	-146	3119	-2440	-745
3/31/1993	3012	31	-1646	1099	-274	4266	-2675	-770
4/30/1993	3042	30	-339	0	-1126	5040	-2859	-716
5/31/1993	3073	31	56	0	-1119	4745	-2992	-690
6/30/1993	3103	30	319	0	-953	4164	-2907	-623
7/31/1993	3134	31	573	0	-1088	3653	-2490	-648
8/31/1993	3165	31	548	0	-1084	3634	-2467	-632
9/30/1993	3195	30	70	0	-1079	3994	-2379	-606
10/31/1993	3226	31	-305	0	-1085	4463	-2446	-628
11/30/1993	3256	30	192	4	-803	3547	-2332	-607
12/31/1993	3287	31	357	230	-440	2879	-2380	-646
1/31/1994	3318	31	362	0	-983	3858	-2571	-666
2/28/1994	3346	28	-398	1642	-176	2022	-2338	-752
3/31/1994	3377	31	408	466	-313	2677	-2537	-702
4/30/1994	3407	30	746	0	-1004	3319	-2440	-621
5/31/1994	3438	31	541	0	-939	3529	-2507	-624
6/30/1994	3468	30	518	0	-1009	3517	-2416	-611
7/31/1994	3499	31	730	0	-1127	3567	-2629	-541
8/31/1994	3530	31	368	0	-1126	3915	-2632	-526
9/30/1994	3560	30	-605	0	-1129	4743	-2483	-527
10/31/1994	3591	31	-482	69	-528	4092	-2583	-568
11/30/1994	3621	30	89	34	-816	3787	-2550	-543
12/31/1994	3652	31	-33	92	-645	3832	-2669	-576
1/31/1995	3683	31	-2808	5915	-103	550	-2550	-1004

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
2/28/1995	3711	28	235	214	-431	2796	-2236	-579
3/31/1995	3742	31	-1721	2456	-135	2665	-2521	-744
4/30/1995	3772	30	258	17	-699	3477	-2461	-593
5/31/1995	3803	31	362	21	-669	3267	-2431	-550
6/30/1995	3833	30	363	0	-931	3587	-2479	-540
7/31/1995	3864	31	336	0	-1075	3719	-2460	-519
8/31/1995	3895	31	26	0	-1076	4093	-2511	-532
9/30/1995	3925	30	58	0	-1075	4003	-2460	-526
10/31/1995	3956	31	148	0	-1077	4024	-2544	-550
11/30/1995	3986	30	463	0	-1075	3622	-2479	-531
12/31/1995	4017	31	602	559	-325	2433	-2663	-606
1/31/1996	4048	31	828	75	-697	2964	-2636	-534
2/29/1996	4077	29	-819	2367	-141	1748	-2498	-656
3/31/1996	4108	31	-62	652	-309	2902	-2602	-582
4/30/1996	4138	30	160	11	-906	3753	-2504	-513
5/31/1996	4169	31	446	0	-1169	3815	-2576	-516
6/30/1996	4199	30	678	0	-1162	3489	-2506	-500
7/31/1996	4230	31	755	0	-1742	3975	-2409	-578
8/31/1996	4261	31	693	0	-1751	4051	-2406	-587
9/30/1996	4291	30	-215	0	-1758	4777	-2223	-582
10/31/1996	4322	31	-502	398	-493	3658	-2392	-670
11/30/1996	4352	30	-54	620	-435	2865	-2352	-644
12/31/1996	4383	31	-398	1940	-234	1910	-2501	-718
1/31/1997	4414	31	-615	2064	-128	1914	-2566	-669
2/28/1997	4442	28	466	0	-852	3180	-2317	-477
3/31/1997	4473	31	-41	0	-921	4031	-2557	-512
4/30/1997	4503	30	213	0	-916	3687	-2477	-506
5/31/1997	4534	31	492	0	-912	3492	-2554	-518
6/30/1997	4564	30	575	0	-908	3311	-2487	-491
7/31/1997	4595	31	607	0	-1324	3779	-2489	-573
8/31/1997	4626	31	-809	0	-1337	5178	-2408	-625
9/30/1997	4656	30	-231	0	-1337	4594	-2389	-636
10/31/1997	4687	31	-184	0	-1341	4675	-2478	-672
11/30/1997	4717	30	417	603	-371	2523	-2467	-704
12/31/1997	4748	31	-567	2265	-162	1795	-2556	-775
1/31/1998	4779	31	111	943	-265	2403	-2496	-695
2/28/1998	4807	28	-4119	6416	-100	1007	-2256	-948
3/31/1998	4838	31	-838	1428	-236	2905	-2478	-780
4/30/1998	4868	30	-497	419	-403	3589	-2416	-691
5/31/1998	4899	31	-467	1223	-220	2709	-2498	-747

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
6/30/1998	4929	30	845	0	-1143	3333	-2428	-607
7/31/1998	4960	31	1154	0	-1005	2868	-2502	-516
8/31/1998	4991	31	657	0	-1005	3501	-2628	-525
9/30/1998	5021	30	271	0	-1001	3726	-2487	-510
10/31/1998	5052	31	-37	0	-1004	4073	-2498	-534
11/30/1998	5082	30	-68	158	-468	3372	-2447	-547
12/31/1998	5113	31	-42	0	-872	3972	-2517	-541
1/31/1999	5144	31	192	490	-357	2969	-2671	-623
2/28/1999	5172	28	483	85	-722	3176	-2495	-527
3/31/1999	5203	31	160	491	-376	3054	-2718	-610
4/30/1999	5233	30	-156	422	-428	3364	-2615	-586
5/31/1999	5264	31	485	0	-1272	4043	-2690	-565
6/30/1999	5294	30	477	0	-1274	3951	-2614	-540
7/31/1999	5325	31	760	0	-1061	3423	-2508	-613
8/31/1999	5356	31	812	0	-1058	3359	-2504	-610
9/30/1999	5386	30	-468	0	-1067	4466	-2326	-605
10/31/1999	5417	31	-45	0	-1073	4217	-2443	-656
11/30/1999	5447	30	835	0	-866	3097	-2447	-618
12/31/1999	5478	31	930	0	-1067	3260	-2502	-620
1/31/2000	5509	31	456	439	-458	2748	-2608	-578
2/29/2000	5538	29	-936	2381	-171	1831	-2466	-640
3/31/2000	5569	31	-370	632	-419	3316	-2577	-581
4/30/2000	5599	30	36	501	-430	2913	-2486	-533
5/31/2000	5630	31	597	0	-1534	4018	-2582	-500
6/30/2000	5660	30	227	0	-1548	4352	-2544	-487
7/31/2000	5691	31	409	0	-1095	3709	-2476	-547
8/31/2000	5722	31	547	0	-1091	3549	-2457	-548
9/30/2000	5752	30	-1454	0	-1095	5474	-2343	-582
10/31/2000	5783	31	-864	110	-694	4575	-2460	-668
11/30/2000	5813	30	418	0	-1092	3708	-2414	-620
12/31/2000	5844	31	1068	0	-1091	3146	-2519	-605
1/31/2001	5875	31	-273	1688	-232	2030	-2496	-716
2/28/2001	5903	28	-867	2683	-168	1284	-2270	-662
3/31/2001	5934	31	-663	1140	-285	2901	-2456	-637
4/30/2001	5964	30	-273	329	-521	3410	-2373	-573
5/31/2001	5995	31	500	0	-1322	3838	-2472	-544
6/30/2001	6025	30	398	0	-1324	3874	-2431	-518
7/31/2001	6056	31	678	0	-1004	3387	-2582	-480
8/31/2001	6087	31	880	0	-997	3131	-2563	-452
9/30/2001	6117	30	-1392	0	-1000	5301	-2430	-478

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
10/31/2001	6148	31	-647	0	-1006	4733	-2543	-536
11/30/2001	6178	30	4	973	-253	2383	-2492	-616
12/31/2001	6209	31	901	214	-436	2450	-2596	-533
1/31/2002	6240	31	639	96	-480	2707	-2415	-548
2/28/2002	6268	28	565	0	-811	2920	-2169	-505
3/31/2002	6299	31	467	0	-824	3288	-2366	-565
4/30/2002	6329	30	428	0	-824	3229	-2279	-554
5/31/2002	6360	31	507	0	-829	3225	-2332	-571
6/30/2002	6390	30	560	0	-828	3067	-2249	-550
7/31/2002	6421	31	798	0	-1132	3259	-2371	-554
8/31/2002	6452	31	1057	0	-1130	2978	-2361	-545
9/30/2002	6482	30	-1766	0	-1136	5772	-2285	-586
10/31/2002	6513	31	1260	0	-1139	2882	-2402	-600
11/30/2002	6543	30	-50	1289	-224	1957	-2310	-661
12/31/2002	6574	31	-164	1102	-251	2282	-2357	-612
1/31/2003	6605	31	689	0	-1183	3323	-2275	-553
2/28/2003	6633	28	-1162	1805	-212	2251	-2061	-621
3/31/2003	6664	31	-370	909	-329	2651	-2249	-613
4/30/2003	6694	30	-122	203	-618	3276	-2184	-555
5/31/2003	6725	31	-147	264	-499	3199	-2239	-578
6/30/2003	6755	30	481	0	-1196	3428	-2181	-531
7/31/2003	6786	31	572	0	-1106	3370	-2308	-528
8/31/2003	6817	31	747	0	-1099	3194	-2314	-528
9/30/2003	6847	30	-1929	0	-1101	5863	-2257	-576
10/31/2003	6878	31	44	0	-1111	4068	-2375	-626
11/30/2003	6908	30	671	148	-576	2667	-2308	-602
12/31/2003	6939	31	257	516	-349	2540	-2345	-620
1/31/2004	6970	31	130	9	-744	3442	-2275	-561
2/29/2004	6999	29	-1172	1918	-190	2257	-2134	-679
3/31/2004	7030	31	124	0	-994	3744	-2274	-601
4/30/2004	7060	30	301	0	-992	3440	-2202	-548
5/31/2004	7091	31	477	0	-992	3347	-2271	-561
6/30/2004	7121	30	576	0	-984	3159	-2204	-547
7/31/2004	7152	31	765	0	-1131	3199	-2301	-533
8/31/2004	7183	31	956	0	-1124	2987	-2296	-524
9/30/2004	7213	30	1071	0	-1115	2769	-2221	-504
10/31/2004	7244	31	-3030	1960	-206	4328	-2319	-733
11/30/2004	7274	30	710	0	-1123	3230	-2259	-559
12/31/2004	7305	31	-1278	2110	-177	2353	-2328	-679
1/31/2005	7336	31	-4843	5156	-157	3039	-2296	-899

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
2/28/2005	7364	28	-3564	3153	-174	3504	-2132	-787
3/31/2005	7395	31	-1035	576	-368	4017	-2378	-812
4/30/2005	7425	30	198	13	-826	3700	-2339	-747
5/31/2005	7456	31	12	0	-1095	4220	-2425	-712
6/30/2005	7486	30	555	0	-1081	3465	-2285	-654
7/31/2005	7517	31	206	0	-988	3927	-2490	-654
8/31/2005	7548	31	860	0	-982	3217	-2471	-624
9/30/2005	7578	30	-137	0	-975	3960	-2257	-591
10/31/2005	7609	31	256	252	-409	2994	-2434	-658
11/30/2005	7639	30	785	0	-976	3233	-2453	-589
12/31/2005	7670	31	678	0	-965	3411	-2528	-596
1/31/2006	7701	31	-644	1280	-339	2992	-2578	-712
2/28/2006	7729	28	-555	1316	-297	2488	-2335	-617
3/31/2006	7760	31	-776	1203	-357	3139	-2548	-660
4/30/2006	7790	30	-1233	1467	-324	3223	-2479	-654
5/31/2006	7821	31	177	61	-1116	4017	-2534	-605
6/30/2006	7851	30	440	0	-1774	4359	-2459	-567
7/31/2006	7882	31	941	0	-989	3097	-2451	-599
8/31/2006	7913	31	499	0	-973	3247	-2211	-563
9/30/2006	7943	30	136	0	-971	3604	-2204	-565
10/31/2006	7974	31	112	0	-977	3756	-2292	-600
11/30/2006	8004	30	933	0	-976	2942	-2310	-588
12/31/2006	8035	31	865	1	-854	3020	-2437	-595
1/31/2007	8066	31	404	267	-468	2857	-2413	-648
2/28/2007	8094	28	278	192	-535	2805	-2167	-572
3/31/2007	8125	31	527	0	-1106	3518	-2355	-583
4/30/2007	8155	30	467	3	-848	3209	-2277	-553
5/31/2007	8186	31	579	0	-1106	3420	-2325	-569
6/30/2007	8216	30	642	0	-1103	3255	-2247	-547
7/31/2007	8247	31	799	0	-1233	3522	-2581	-507
8/31/2007	8278	31	-474	0	-1236	4761	-2533	-518
9/30/2007	8308	30	-723	0	-1101	4850	-2482	-543
10/31/2007	8339	31	-539	0	-1246	4952	-2575	-592
11/30/2007	8369	30	826	0	-1244	3525	-2542	-565
12/31/2007	8400	31	117	880	-274	2547	-2633	-638
1/31/2008	8431	31	-1775	3566	-118	1760	-2662	-770
2/29/2008	8460	29	-205	443	-344	3146	-2477	-564
3/31/2008	8491	31	33	0	-1150	4316	-2626	-572
4/30/2008	8521	30	286	0	-1149	3981	-2576	-543
5/31/2008	8552	31	442	0	-1150	3939	-2669	-562

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
6/30/2008	8582	30	516	0	-1146	3758	-2590	-538
7/31/2008	8613	31	572	0	-1275	3820	-2548	-569
8/31/2008	8644	31	561	0	-1277	3817	-2530	-571
9/30/2008	8674	30	-1644	0	-1281	5935	-2401	-609
10/31/2008	8705	31	-1060	0	-1287	5549	-2525	-676
11/30/2008	8735	30	378	547	-363	2685	-2541	-706
12/31/2008	8766	31	269	617	-358	2762	-2618	-671
1/31/2009	8797	31	560	0	-919	3469	-2528	-581
2/28/2009	8825	28	-1085	1670	-181	2585	-2326	-663
3/31/2009	8856	31	106	0	-932	3955	-2510	-619
4/30/2009	8886	30	259	0	-932	3658	-2433	-553
5/31/2009	8917	31	476	0	-929	3518	-2505	-561
6/30/2009	8947	30	576	0	-920	3314	-2435	-535
7/31/2009	8978	31	754	0	-1293	3648	-2563	-547
8/31/2009	9009	31	880	0	-1291	3509	-2561	-537
9/30/2009	9039	30	-802	0	-1289	5076	-2441	-544
10/31/2009	9070	31	-970	751	-363	3774	-2530	-662
11/30/2009	9100	30	664	0	-1294	3696	-2495	-571
12/31/2009	9131	31	-353	1314	-265	2568	-2599	-666
1/31/2010	9162	31	-951	2026	-182	2351	-2587	-657
2/28/2010	9190	28	-688	1312	-237	2534	-2357	-564
3/31/2010	9221	31	-86	0	-1150	4387	-2584	-566
4/30/2010	9251	30	-708	367	-411	3878	-2529	-597
5/31/2010	9282	31	125	0	-1143	4219	-2621	-579
6/30/2010	9312	30	563	0	-1134	3685	-2573	-542
7/31/2010	9343	31	758	0	-1406	3828	-2623	-557
8/31/2010	9374	31	860	0	-1403	3693	-2611	-540
9/30/2010	9404	30	-277	0	-1398	4684	-2486	-522
10/31/2010	9435	31	-1027	360	-495	4349	-2559	-629
11/30/2010	9465	30	344	133	-750	3341	-2508	-559
12/31/2010	9496	31	-976	3086	-168	1465	-2660	-746
1/31/2011	9527	31	824	0	-1023	3301	-2510	-592
2/28/2011	9555	28	-383	1069	-250	2463	-2304	-595
3/31/2011	9586	31	-1439	1880	-171	2969	-2513	-726
4/30/2011	9616	30	-406	0	-1078	4558	-2416	-658
5/31/2011	9647	31	221	13	-817	3720	-2503	-634
6/30/2011	9677	30	411	0	-1072	3723	-2460	-602
7/31/2011	9708	31	628	0	-1060	3544	-2536	-575
8/31/2011	9739	31	685	0	-1061	3452	-2531	-545
9/30/2011	9769	30	-579	0	-1062	4538	-2368	-529

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
10/31/2011	9800	31	-534	202	-426	3788	-2435	-595
11/30/2011	9830	30	465	328	-371	2619	-2467	-575
12/31/2011	9861	31	771	0	-1062	3356	-2530	-535
1/31/2012	9892	31	480	202	-458	2837	-2510	-551
2/29/2012	9921	29	664	0	-1156	3300	-2330	-478
3/31/2012	9952	31	-183	809	-273	2743	-2495	-600
4/30/2012	9982	30	-147	606	-295	2806	-2408	-562
5/31/2012	10013	31	526	0	-1161	3575	-2426	-513
6/30/2012	10043	30	534	0	-1160	3466	-2351	-489
7/31/2012	10074	31	644	0	-1086	3319	-2386	-490
8/31/2012	10105	31	774	0	-1085	3169	-2375	-483
9/30/2012	10135	30	-1307	0	-1086	5160	-2258	-509
10/31/2012	10166	31	-631	0	-1096	4666	-2365	-575
11/30/2012	10196	30	864	212	-576	2416	-2358	-558
12/31/2012	10227	31	554	460	-340	2303	-2422	-555
1/31/2013	10258	31	513	213	-437	2535	-2273	-552
2/28/2013	10286	28	627	0	-976	2850	-2022	-478
3/31/2013	10317	31	544	16	-744	2916	-2211	-522
4/30/2013	10347	30	570	0	-982	3039	-2118	-509
5/31/2013	10378	31	561	0	-984	3123	-2169	-531
6/30/2013	10408	30	702	0	-980	2884	-2088	-519
7/31/2013	10439	31	1043	0	-1069	2765	-2233	-506
8/31/2013	10470	31	1198	0	-1064	2583	-2220	-497
9/30/2013	10500	30	1182	0	-1058	2497	-2141	-480
10/31/2013	10531	31	1100	0	-1060	2638	-2187	-492
11/30/2013	10561	30	634	23	-775	2695	-2113	-464
12/31/2013	10592	31	591	0	-1064	3100	-2142	-484
1/31/2014	10623	31	761	0	-1309	3133	-2085	-500
2/28/2014	10651	28	-1002	979	-298	2784	-1912	-552
3/31/2014	10682	31	-435	419	-455	3090	-2083	-536
4/30/2014	10712	30	803	0	-1242	2880	-1986	-455
5/31/2014	10743	31	1142	0	-1312	2686	-2037	-479
6/30/2014	10773	30	1197	0	-1310	2553	-1968	-472
7/31/2014	10804	31	1290	0	-1199	2425	-2064	-451
8/31/2014	10835	31	1634	0	-1206	2059	-2046	-440
9/30/2014	10865	30	1846	0	-1212	1763	-1971	-426
10/31/2014	10896	31	1785	0	-1207	1869	-2011	-435
11/30/2014	10926	30	1043	0	-1046	2356	-1937	-415
12/31/2014	10957	31	-3282	1591	-221	4486	-1999	-575
1/31/2015	10988	31	-1308	241	-496	3902	-1826	-513

Flow Budget for Aquifer B in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
2/28/2015	11016	28	293	12	-843	2602	-1632	-432
3/31/2015	11047	31	417	3	-892	2744	-1792	-480
4/30/2015	11077	30	715	0	-1136	2639	-1729	-489
5/31/2015	11108	31	472	2	-977	2797	-1785	-509
6/30/2015	11138	30	922	0	-1137	2449	-1725	-509
7/31/2015	11169	31	1274	69	-864	1935	-1939	-476
8/31/2015	11200	31	1687	0	-1235	1938	-1924	-466
9/30/2015	11230	30	1345	11	-957	1918	-1869	-448
10/31/2015	11261	31	1541	0	-1240	2079	-1909	-470
11/30/2015	11291	30	1268	0	-1246	2277	-1840	-460
12/31/2015	11322	31	1159	0	-1258	2447	-1876	-471

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
1/31/1985	31	31	-4	1	407	-405
2/28/1985	59	28	44	-38	366	-371
3/31/1985	90	31	6	-13	423	-416
4/30/1985	120	30	80	-73	402	-409
5/31/1985	151	31	74	-71	422	-426
6/30/1985	181	30	79	-75	409	-413
7/31/1985	212	31	91	-107	439	-423
8/31/1985	243	31	90	-108	439	-422
9/30/1985	273	30	32	-102	482	-412
10/31/1985	304	31	45	-101	489	-433
11/30/1985	334	30	-171	33	554	-416
12/31/1985	365	31	54	-44	421	-430
1/31/1986	396	31	-86	23	554	-491
2/28/1986	424	28	-227	44	628	-445
3/31/1986	455	31	-149	47	592	-489
4/30/1986	485	30	25	-52	517	-489
5/31/1986	516	31	86	-106	538	-518
6/30/1986	546	30	84	-109	535	-511
7/31/1986	577	31	19	-118	583	-484
8/31/1986	608	31	28	-121	582	-489
9/30/1986	638	30	-21	-62	556	-473
10/31/1986	669	31	84	-132	537	-489
11/30/1986	699	30	-93	10	554	-471
12/31/1986	730	31	112	-138	512	-486
1/31/1987	761	31	-42	-8	513	-462
2/28/1987	789	28	44	-59	430	-415
3/31/1987	820	31	-25	-8	489	-456
4/30/1987	850	30	133	-136	445	-443
5/31/1987	881	31	119	-127	466	-458
6/30/1987	911	30	51	-121	516	-446
7/31/1987	942	31	49	-192	613	-471
8/31/1987	973	31	62	-193	604	-473
9/30/1987	1003	30	85	-198	570	-457
10/31/1987	1034	31	-94	-24	584	-466
11/30/1987	1064	30	-96	-3	549	-450
12/31/1987	1095	31	-107	9	562	-464
1/31/1988	1126	31	-55	37	606	-588
2/29/1988	1155	29	-25	30	560	-565
3/31/1988	1186	31	82	-25	541	-598
4/30/1988	1216	30	-74	41	614	-582
5/31/1988	1247	31	39	-37	607	-609
6/30/1988	1277	30	26	-31	612	-607
7/31/1988	1308	31	83	-79	626	-629
8/31/1988	1339	31	92	-82	618	-628
9/30/1988	1369	30	102	-87	597	-611
10/31/1988	1400	31	102	-87	610	-626
11/30/1988	1430	30	13	-11	602	-604
12/31/1988	1461	31	-183	46	751	-614
1/31/1989	1492	31	-16	-8	563	-538
2/28/1989	1520	28	-107	39	555	-487
3/31/1989	1551	31	29	1	505	-534
4/30/1989	1581	30	100	-46	467	-521
5/31/1989	1612	31	39	-37	541	-543

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
6/30/1989	1642	30	50	-42	520	-529
7/31/1989	1673	31	54	-44	486	-495
8/31/1989	1704	31	67	-47	471	-490
9/30/1989	1734	30	72	-51	450	-471
10/31/1989	1765	31	71	-50	460	-481
11/30/1989	1795	30	66	-44	442	-463
12/31/1989	1826	31	68	-49	457	-476
1/31/1990	1857	31	-101	26	536	-461
2/28/1990	1885	28	-66	15	464	-412
3/31/1990	1916	31	84	-68	443	-459
4/30/1990	1946	30	79	-62	429	-446
5/31/1990	1977	31	60	-45	445	-460
6/30/1990	2007	30	71	-64	439	-446
7/31/1990	2038	31	133	-174	564	-524
8/31/1990	2069	31	93	-168	598	-522
9/30/1990	2099	30	81	-169	593	-506
10/31/1990	2130	31	69	-165	614	-518
11/30/1990	2160	30	67	-166	600	-501
12/31/1990	2191	31	57	-163	618	-513
1/31/1991	2222	31	-50	-50	604	-504
2/28/1991	2250	28	-90	-17	562	-454
3/31/1991	2281	31	-375	54	798	-478
4/30/1991	2311	30	112	-194	554	-472
5/31/1991	2342	31	114	-173	561	-502
6/30/1991	2372	30	104	-163	555	-496
7/31/1991	2403	31	41	-100	528	-470
8/31/1991	2434	31	54	-105	516	-466
9/30/1991	2464	30	57	-109	502	-450
10/31/1991	2495	31	-30	-97	601	-474
11/30/1991	2525	30	-23	-98	590	-470
12/31/1991	2556	31	-260	42	693	-475
1/31/1992	2587	31	-137	30	568	-461
2/29/1992	2616	29	-326	64	684	-422
3/31/1992	2647	31	-233	64	618	-448
4/30/1992	2677	30	-13	-43	517	-461
5/31/1992	2708	31	-4	-39	543	-500
6/30/1992	2738	30	10	-46	533	-497
7/31/1992	2769	31	35	-59	544	-519
8/31/1992	2800	31	49	-64	536	-521
9/30/1992	2830	30	50	-68	524	-505
10/31/1992	2861	31	-190	35	690	-535
11/30/1992	2891	30	-41	-57	626	-528
12/31/1992	2922	31	-286	63	769	-546
1/31/1993	2953	31	-403	77	863	-537
2/28/1993	2981	28	-340	75	745	-480
3/31/1993	3012	31	-316	87	770	-541
4/30/1993	3042	30	-166	1	716	-551
5/31/1993	3073	31	-102	-2	690	-586
6/30/1993	3103	30	-40	-5	623	-578
7/31/1993	3134	31	9	-67	648	-589
8/31/1993	3165	31	26	-72	632	-586
9/30/1993	3195	30	35	-77	606	-564
10/31/1993	3226	31	25	-72	628	-581

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
11/30/1993	3256	30	-8	-38	607	-560
12/31/1993	3287	31	-85	18	646	-579
1/31/1994	3318	31	73	-60	666	-679
2/28/1994	3346	28	-179	53	752	-626
3/31/1994	3377	31	-52	32	702	-682
4/30/1994	3407	30	108	-67	621	-662
5/31/1994	3438	31	98	-45	624	-677
6/30/1994	3468	30	109	-64	611	-655
7/31/1994	3499	31	84	-58	541	-567
8/31/1994	3530	31	97	-62	526	-560
9/30/1994	3560	30	71	-62	527	-536
10/31/1994	3591	31	-25	10	568	-553
11/30/1994	3621	30	18	-23	543	-538
12/31/1994	3652	31	-18	-2	576	-557
1/31/1995	3683	31	-476	75	1004	-603
2/28/1995	3711	28	-76	34	579	-537
3/31/1995	3742	31	-213	68	744	-599
4/30/1995	3772	30	-17	21	593	-597
5/31/1995	3803	31	47	16	550	-613
6/30/1995	3833	30	65	-1	540	-604
7/31/1995	3864	31	74	-34	519	-560
8/31/1995	3895	31	60	-33	532	-559
9/30/1995	3925	30	50	-34	526	-542
10/31/1995	3956	31	43	-31	550	-561
11/30/1995	3986	30	46	-34	531	-543
12/31/1995	4017	31	-75	37	606	-569
1/31/1996	4048	31	46	-9	534	-572
2/29/1996	4077	29	-177	49	656	-529
3/31/1996	4108	31	-56	40	582	-566
4/30/1996	4138	30	51	-14	513	-551
5/31/1996	4169	31	92	-37	516	-571
6/30/1996	4199	30	96	-45	500	-552
7/31/1996	4230	31	163	-123	578	-619
8/31/1996	4261	31	153	-121	587	-618
9/30/1996	4291	30	133	-122	582	-592
10/31/1996	4322	31	-76	16	670	-610
11/30/1996	4352	30	-69	19	644	-593
12/31/1996	4383	31	-145	41	718	-614
1/31/1997	4414	31	-170	56	669	-554
2/28/1997	4442	28	45	-23	477	-499
3/31/1997	4473	31	61	-16	512	-557
4/30/1997	4503	30	53	-19	506	-541
5/31/1997	4534	31	66	-25	518	-559
6/30/1997	4564	30	83	-33	491	-540
7/31/1997	4595	31	144	-75	573	-641
8/31/1997	4626	31	83	-66	625	-642
9/30/1997	4656	30	60	-66	636	-631
10/31/1997	4687	31	42	-62	672	-653
11/30/1997	4717	30	-106	33	704	-631
12/31/1997	4748	31	-184	55	775	-645
1/31/1998	4779	31	-78	49	695	-667
2/28/1998	4807	28	-412	70	948	-606
3/31/1998	4838	31	-203	77	780	-655

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
4/30/1998	4868	30	-95	54	691	-651
5/31/1998	4899	31	-124	60	747	-683
6/30/1998	4929	30	68	-13	607	-662
7/31/1998	4960	31	101	-30	516	-586
8/31/1998	4991	31	93	-28	525	-589
9/30/1998	5021	30	89	-34	510	-566
10/31/1998	5052	31	73	-33	534	-574
11/30/1998	5082	30	-7	19	547	-559
12/31/1998	5113	31	59	-23	541	-578
1/31/1999	5144	31	-79	29	623	-573
2/28/1999	5172	28	28	-33	527	-522
3/31/1999	5203	31	-56	24	610	-579
4/30/1999	5233	30	-46	21	586	-561
5/31/1999	5264	31	89	-78	565	-576
6/30/1999	5294	30	90	-77	540	-552
7/31/1999	5325	31	112	-56	613	-669
8/31/1999	5356	31	123	-61	610	-672
9/30/1999	5386	30	102	-61	605	-646
10/31/1999	5417	31	67	-55	656	-667
11/30/1999	5447	30	76	-40	618	-654
12/31/1999	5478	31	110	-61	620	-670
1/31/2000	5509	31	-37	21	578	-563
2/29/2000	5538	29	-166	42	640	-516
3/31/2000	5569	31	-65	32	581	-548
4/30/2000	5599	30	-27	25	533	-531
5/31/2000	5630	31	126	-75	500	-550
6/30/2000	5660	30	112	-65	487	-534
7/31/2000	5691	31	96	-21	547	-622
8/31/2000	5722	31	102	-26	548	-624
9/30/2000	5752	30	47	-23	582	-606
10/31/2000	5783	31	-56	18	668	-630
11/30/2000	5813	30	18	-22	620	-615
12/31/2000	5844	31	54	-23	605	-636
1/31/2001	5875	31	-179	88	716	-625
2/28/2001	5903	28	-181	79	662	-560
3/31/2001	5934	31	-114	87	637	-610
4/30/2001	5964	30	-39	62	573	-596
5/31/2001	5995	31	76	1	544	-621
6/30/2001	6025	30	89	0	518	-607
7/31/2001	6056	31	62	23	480	-565
8/31/2001	6087	31	92	14	452	-558
9/30/2001	6117	30	42	16	478	-536
10/31/2001	6148	31	0	24	536	-560
11/30/2001	6178	30	-143	72	616	-545
12/31/2001	6209	31	-25	55	533	-564
1/31/2002	6240	31	87	16	548	-651
2/28/2002	6268	28	143	-52	505	-597
3/31/2002	6299	31	123	-39	565	-649
4/30/2002	6329	30	115	-42	554	-628
5/31/2002	6360	31	113	-41	571	-643
6/30/2002	6390	30	118	-46	550	-622
7/31/2002	6421	31	79	-24	554	-609
8/31/2002	6452	31	87	-26	545	-605

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
9/30/2002	6482	30	23	-20	586	-588
10/31/2002	6513	31	28	-17	600	-611
11/30/2002	6543	30	-147	75	661	-588
12/31/2002	6574	31	-78	67	612	-601
1/31/2003	6605	31	118	-41	553	-630
2/28/2003	6633	28	-126	82	621	-576
3/31/2003	6664	31	-57	72	613	-628
4/30/2003	6694	30	15	42	555	-611
5/31/2003	6725	31	-6	57	578	-629
6/30/2003	6755	30	119	-36	531	-614
7/31/2003	6786	31	104	-50	528	-582
8/31/2003	6817	31	105	-55	528	-578
9/30/2003	6847	30	38	-50	576	-564
10/31/2003	6878	31	6	-42	626	-590
11/30/2003	6908	30	-53	22	602	-571
12/31/2003	6939	31	-92	57	620	-585
1/31/2004	6970	31	42	22	561	-625
2/29/2004	6999	29	-180	90	679	-589
3/31/2004	7030	31	23	0	601	-624
4/30/2004	7060	30	64	-4	548	-608
5/31/2004	7091	31	68	-3	561	-626
6/30/2004	7121	30	71	-9	547	-608
7/31/2004	7152	31	81	-45	533	-569
8/31/2004	7183	31	90	-50	524	-564
9/30/2004	7213	30	94	-55	504	-543
10/31/2004	7244	31	-253	84	733	-564
11/30/2004	7274	30	37	-49	559	-547
12/31/2004	7305	31	-203	85	679	-561
1/31/2005	7336	31	-431	117	899	-584
2/28/2005	7364	28	-362	107	787	-532
3/31/2005	7395	31	-294	89	812	-606
4/30/2005	7425	30	-117	-19	747	-611
5/31/2005	7456	31	-7	-61	712	-644
6/30/2005	7486	30	34	-62	654	-626
7/31/2005	7517	31	-24	-2	654	-629
8/31/2005	7548	31	13	-8	624	-629
9/30/2005	7578	30	19	-17	591	-594
10/31/2005	7609	31	-98	63	658	-623
11/30/2005	7639	30	38	-13	589	-613
12/31/2005	7670	31	44	-7	596	-633
1/31/2006	7701	31	-173	65	712	-604
2/28/2006	7729	28	-126	54	617	-545
3/31/2006	7760	31	-116	59	660	-604
4/30/2006	7790	30	-128	60	654	-585
5/31/2006	7821	31	71	-79	605	-597
6/30/2006	7851	30	115	-109	567	-573
7/31/2006	7882	31	82	-8	599	-672
8/31/2006	7913	31	115	-27	563	-651
9/30/2006	7943	30	98	-27	565	-636
10/31/2006	7974	31	78	-21	600	-657
11/30/2006	8004	30	77	-21	588	-644
12/31/2006	8035	31	66	6	595	-667
1/31/2007	8066	31	-18	27	648	-657

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
2/28/2007	8094	28	14	10	572	-596
3/31/2007	8125	31	121	-56	583	-649
4/30/2007	8155	30	96	-22	553	-626
5/31/2007	8186	31	128	-56	569	-641
6/30/2007	8216	30	132	-59	547	-620
7/31/2007	8247	31	120	-69	507	-558
8/31/2007	8278	31	98	-67	518	-548
9/30/2007	8308	30	31	-43	543	-532
10/31/2007	8339	31	19	-58	592	-553
11/30/2007	8369	30	33	-60	565	-538
12/31/2007	8400	31	-128	47	638	-556
1/31/2008	8431	31	-284	63	770	-548
2/29/2008	8460	29	-85	30	564	-509
3/31/2008	8491	31	32	-60	572	-544
4/30/2008	8521	30	49	-60	543	-531
5/31/2008	8552	31	50	-59	562	-552
6/30/2008	8582	30	60	-63	538	-535
7/31/2008	8613	31	94	-64	569	-599
8/31/2008	8644	31	92	-64	571	-600
9/30/2008	8674	30	33	-61	609	-580
10/31/2008	8705	31	-16	-53	676	-607
11/30/2008	8735	30	-160	49	706	-595
12/31/2008	8766	31	-101	44	671	-614
1/31/2009	8797	31	30	15	581	-626
2/28/2009	8825	28	-185	93	663	-571
3/31/2009	8856	31	-15	21	619	-625
4/30/2009	8886	30	38	16	553	-608
5/31/2009	8917	31	54	13	561	-628
6/30/2009	8947	30	68	5	535	-608
7/31/2009	8978	31	113	-61	547	-599
8/31/2009	9009	31	119	-62	537	-594
9/30/2009	9039	30	89	-62	544	-571
10/31/2009	9070	31	-138	69	662	-592
11/30/2009	9100	30	64	-60	571	-576
12/31/2009	9131	31	-150	81	666	-597
1/31/2010	9162	31	-176	86	657	-567
2/28/2010	9190	28	-127	73	564	-511
3/31/2010	9221	31	6	-6	566	-566
4/30/2010	9251	30	-124	80	597	-554
5/31/2010	9282	31	1	-5	579	-576
6/30/2010	9312	30	35	-16	542	-560
7/31/2010	9343	31	84	-37	557	-604
8/31/2010	9374	31	106	-42	540	-604
9/30/2010	9404	30	104	-46	522	-580
10/31/2010	9435	31	-84	55	629	-600
11/30/2010	9465	30	1	22	559	-581
12/31/2010	9496	31	-233	87	746	-601
1/31/2011	9527	31	59	-26	592	-625
2/28/2011	9555	28	-73	53	595	-576
3/31/2011	9586	31	-166	74	726	-634
4/30/2011	9616	30	-25	-18	658	-615
5/31/2011	9647	31	-5	10	634	-640
6/30/2011	9677	30	43	-21	602	-624

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
7/31/2011	9708	31	51	-38	575	-588
8/31/2011	9739	31	79	-43	545	-582
9/30/2011	9769	30	72	-48	529	-554
10/31/2011	9800	31	-52	28	595	-571
11/30/2011	9830	30	-40	27	575	-561
12/31/2011	9861	31	88	-45	535	-577
1/31/2012	9892	31	15	22	551	-588
2/29/2012	9921	29	122	-54	478	-545
3/31/2012	9952	31	-60	44	600	-584
4/30/2012	9982	30	-34	36	562	-564
5/31/2012	10013	31	113	-50	513	-576
6/30/2012	10043	30	116	-50	489	-556
7/31/2012	10074	31	116	-45	490	-561
8/31/2012	10105	31	122	-47	483	-557
9/30/2012	10135	30	72	-44	509	-537
10/31/2012	10166	31	22	-36	575	-561
11/30/2012	10196	30	-27	14	558	-545
12/31/2012	10227	31	-26	31	555	-560
1/31/2013	10258	31	34	48	552	-634
2/28/2013	10286	28	111	-11	478	-578
3/31/2013	10317	31	84	25	522	-631
4/30/2013	10347	30	104	-4	509	-609
5/31/2013	10378	31	94	-1	531	-624
6/30/2013	10408	30	90	-5	519	-604
7/31/2013	10439	31	95	-31	506	-571
8/31/2013	10470	31	99	-32	497	-565
9/30/2013	10500	30	98	-35	480	-543
10/31/2013	10531	31	97	-33	492	-556
11/30/2013	10561	30	72	-1	464	-536
12/31/2013	10592	31	94	-32	484	-547
1/31/2014	10623	31	82	-25	500	-558
2/28/2014	10651	28	-114	68	552	-506
3/31/2014	10682	31	-43	58	536	-552
4/30/2014	10712	30	107	-29	455	-533
5/31/2014	10743	31	95	-24	479	-549
6/30/2014	10773	30	87	-28	472	-531
7/31/2014	10804	31	66	-21	451	-496
8/31/2014	10835	31	74	-25	440	-489
9/30/2014	10865	30	74	-30	426	-470
10/31/2014	10896	31	75	-28	435	-482
11/30/2014	10926	30	62	-16	415	-462
12/31/2014	10957	31	-181	76	575	-470
1/31/2015	10988	31	-18	49	513	-544
2/28/2015	11016	28	65	5	432	-503
3/31/2015	11047	31	61	10	480	-551
4/30/2015	11077	30	67	-21	489	-535
5/31/2015	11108	31	39	4	509	-551
6/30/2015	11138	30	47	-21	509	-535
7/31/2015	11169	31	28	-31	476	-472
8/31/2015	11200	31	85	-82	466	-469
9/30/2015	11230	30	41	-35	448	-454
10/31/2015	11261	31	80	-83	470	-467
11/30/2015	11291	30	74	-84	460	-450

Flow Budget for Aquifer C in Piru Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet			
			STORAGE	Pumping From Wells	Piru B	Fillmore C
12/31/2015	11322	31	71	-79	471	-462

Flow Budget for Aquifer A in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	Outside	Piru A	Santa Paula	Fillmore B	Net Stream Percolation
1/31/1985	31	31	225	52	-297	1358	-217	15	1005	-285	1357	-3609
2/28/1985	59	28	505	40	-294	1276	-275	18	886	-255	921	-3207
3/31/1985	90	31	496	47	-458	1288	-303	18	990	-280	1120	-3358
4/30/1985	120	30	1813	23	-517	1353	-643	14	937	-273	-100	-3041
5/31/1985	151	31	1696	23	-569	1359	-644	11	953	-284	-135	-2863
6/30/1985	181	30	1678	23	-531	1353	-645	9	895	-276	-290	-2652
7/31/1985	212	31	2098	23	-541	1534	-874	6	874	-283	-848	-2434
8/31/1985	243	31	1883	23	-512	1534	-870	5	842	-283	-930	-2127
9/30/1985	273	30	825	23	-384	1528	-865	2	778	-273	-1092	-951
10/31/1985	304	31	1446	23	-349	1534	-863	0	859	-286	-1161	-1613
11/30/1985	334	30	-2686	335	-256	2841	-95	-13	854	-281	649	-1784
12/31/1985	365	31	497	30	-222	1378	-560	-3	881	-295	-108	-1982
1/31/1986	396	31	-2703	291	-257	2784	-67	-8	892	-296	846	-1894
2/28/1986	424	28	-5291	611	-297	4902	-17	-43	862	-272	142	-1056
3/31/1986	455	31	-2465	320	-483	2961	-58	-41	1016	-298	850	-2225
4/30/1986	485	30	895	38	-555	1283	-344	-8	975	-289	481	-2821
5/31/1986	516	31	2266	23	-619	1382	-687	2	997	-293	-602	-2804
6/30/1986	546	30	2239	23	-554	1376	-686	9	950	-281	-720	-2664
7/31/1986	577	31	1246	23	-530	1389	-692	13	880	-282	-656	-1694
8/31/1986	608	31	1744	23	-531	1389	-687	9	978	-284	-691	-2202
9/30/1986	638	30	631	26	-413	1280	-443	3	972	-278	-17	-1972
10/31/1986	669	31	1310	23	-360	1389	-684	2	979	-290	-729	-1848
11/30/1986	699	30	-957	96	-259	1522	-178	0	960	-281	730	-1830
12/31/1986	730	31	1271	23	-218	1389	-683	4	957	-292	-756	-1886
1/31/1987	761	31	-450	75	-246	1368	-256	1	971	-290	515	-1875
2/28/1987	789	28	146	42	-247	1253	-341	1	844	-262	156	-1754
3/31/1987	820	31	-764	116	-391	1618	-195	1	922	-289	665	-1862
4/30/1987	850	30	2073	23	-444	1445	-797	4	849	-279	-1372	-1661
5/31/1987	881	31	1911	23	-507	1451	-797	3	840	-285	-1447	-1348
6/30/1987	911	30	803	23	-469	1445	-795	-1	763	-272	-1574	-69
7/31/1987	942	31	1560	23	-495	1513	-877	-4	817	-274	-1851	-558
8/31/1987	973	31	1972	23	-482	1513	-876	-5	856	-277	-1807	-1061
9/30/1987	1003	30	1928	23	-368	1507	-874	-5	796	-272	-1902	-966
10/31/1987	1034	31	-632	78	-327	1373	-300	-7	831	-285	127	-998
11/30/1987	1064	30	-989	93	-241	1489	-254	-7	797	-279	247	-988
12/31/1987	1095	31	-2467	228	-211	2555	-105	-11	836	-291	436	-1172
1/31/1988	1126	31	-1943	205	-250	2280	-110	-14	822	-291	459	-1320
2/29/1988	1155	29	-1467	196	-261	2043	-140	-11	762	-271	217	-1207
3/31/1988	1186	31	599	34	-399	1364	-472	-5	816	-287	-719	-1055
4/30/1988	1216	30	-1444	206	-452	2374	-109	-5	768	-274	285	-1524
5/31/1988	1247	31	1525	23	-502	1485	-686	-2	797	-276	-1490	-994
6/30/1988	1277	30	1813	23	-493	1479	-682	-5	821	-260	-1706	-1102
7/31/1988	1308	31	2334	23	-510	1662	-834	-5	838	-272	-2138	-1210
8/31/1988	1339	31	2220	23	-473	1662	-833	-6	812	-278	-2202	-1038
9/30/1988	1369	30	2072	23	-359	1656	-831	-6	751	-273	-2306	-832
10/31/1988	1400	31	1836	23	-302	1662	-830	-6	747	-285	-2331	-621
11/30/1988	1430	30	-301	42	-217	1421	-376	-8	716	-277	-612	-492
12/31/1988	1461	31	-2788	243	-197	2735	-95	-16	737	-289	95	-603
1/31/1989	1492	31	697	23	-229	1225	-487	-11	764	-286	-874	-929
2/28/1989	1520	28	-2118	166	-230	2156	-89	-12	664	-256	123	-529
3/31/1989	1551	31	130	30	-364	1238	-340	-11	763	-280	-313	-956
4/30/1989	1581	30	1267	23	-410	1325	-565	-5	716	-266	-1324	-857
5/31/1989	1612	31	611	23	-458	1331	-565	0	752	-268	-1303	-222
6/30/1989	1642	30	1176	23	-456	1325	-563	-4	740	-259	-1391	-685
7/31/1989	1673	31	1823	23	-461	1599	-697	-4	713	-274	-2027	-791
8/31/1989	1704	31	1843	23	-430	1599	-696	-5	708	-278	-1989	-871
9/30/1989	1734	30	1807	23	-327	1593	-694	-5	659	-271	-2041	-833
10/31/1989	1765	31	1176	23	-284	1478	-569	-5	661	-282	-1446	-843
11/30/1989	1795	30	1737	23	-198	1585	-682	-4	605	-275	-2062	-816
12/31/1989	1826	31	1739	23	-159	1599	-691	-4	601	-285	-2096	-817
1/31/1990	1857	31	-1836	207	-191	2174	-133	-10	629	-285	-113	-572
2/28/1990	1885	28	-1526	162	-206	1907	-153	-11	553	-258	-209	-371
3/31/1990	1916	31	1658	23	-316	1452	-685	-3	607	-279	-2002	-546
4/30/1990	1946	30	1915	23	-333	1445	-685	0	580	-265	-2068	-698
5/31/1990	1977	31	1596	23	-373	1364	-589	0	587	-273	-1638	-785
6/30/1990	2007	30	1889	23	-345	1446	-683	0	549	-263	-2018	-682
7/31/1990	2038	31	1839	23	-340	1424	-759	-2	551	-276	-1920	-626
8/31/1990	2069	31	1784	23	-310	1424	-755	-4	532	-281	-1927	-572
9/30/1990	2099	30	1765	23	-232	1418	-750	-4	490	-274	-1998	-519
10/31/1990	2130	31	1705	23	-196	1424	-749	-4	483	-285	-1991	-494
11/30/1990	2160	30	1710	23	-135	1418	-745	-4	443	-277	-2067	-445
12/31/1990	2191	31	1674	23	-110	1424	-744	-3	437	-287	-2063	-433
1/31/1991	2222	31	107	44	-128	1332	-339	-3	425	-286	-903	-335
2/28/1991	2250	28	-1468	182	-140	2080	-148	-7	364	-258	-531	-181

Flow Budget for Aquifer A in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	Outside	Piru A	Santa Paula	Fillmore B	Net Stream Percolation
3/31/1991	2281	31	-8118	835	-266	6648	-14	-60	433	-292	-1914	2299
4/30/1991	2311	30	1378	23	-332	1495	-703	-27	419	-275	-2850	750
5/31/1991	2342	31	1512	23	-346	1501	-704	1	434	-276	-2669	431
6/30/1991	2372	30	1734	23	-313	1495	-702	2	413	-263	-2580	105
7/31/1991	2403	31	1968	23	-305	1477	-722	2	417	-272	-2350	-326
8/31/1991	2434	31	1958	23	-280	1477	-720	1	410	-272	-2225	-458
9/30/1991	2464	30	1914	23	-210	1471	-719	0	381	-263	-2268	-412
10/31/1991	2495	31	-1267	23	-184	1468	-711	-5	503	-271	-2466	2824
11/30/1991	2525	30	1201	23	-143	1471	-710	-8	529	-262	-2444	264
12/31/1991	2556	31	-2670	276	-123	2766	-74	-16	509	-275	-427	-128
1/31/1992	2587	31	-1950	116	-155	1617	-119	-15	512	-275	-243	415
2/29/1992	2616	29	-8714	744	-204	6023	0	-53	494	-264	-1754	3305
3/31/1992	2647	31	-5622	449	-385	4037	-15	-66	583	-283	-804	1787
4/30/1992	2677	30	675	23	-437	1320	-536	-19	591	-253	-2058	596
5/31/1992	2708	31	768	23	-476	1326	-535	2	664	-245	-1886	265
6/30/1992	2738	30	892	23	-437	1320	-533	1	677	-234	-1812	11
7/31/1992	2769	31	1436	23	-426	1561	-724	-1	720	-259	-2437	14
8/31/1992	2800	31	1572	23	-386	1561	-724	6	742	-272	-2376	-237
9/30/1992	2830	30	658	23	-284	1555	-723	7	723	-267	-2422	645
10/31/1992	2861	31	-3936	134	-307	1625	-179	-5	833	-274	-307	2323
11/30/1992	2891	30	-367	23	-217	1555	-712	-5	819	-264	-2521	1607
12/31/1992	2922	31	-3976	333	-194	2978	-48	-21	930	-274	-241	307
1/31/1993	2953	31	-8790	851	-256	6238	13	-81	1021	-278	-1451	2294
2/28/1993	2981	28	-7341	659	-292	5180	-3	-90	1017	-255	-1308	2044
3/31/1993	3012	31	-3030	266	-478	2620	-66	-45	1194	-277	-73	-353
4/30/1993	3042	30	2075	23	-543	1573	-663	-5	1187	-254	-2165	-1332
5/31/1993	3073	31	2150	23	-548	1579	-671	6	1241	-250	-1968	-1665
6/30/1993	3103	30	1043	23	-566	1386	-543	12	1278	-240	-1180	-1310
7/31/1993	3134	31	1334	23	-543	1006	-711	6	1458	-257	-1064	-1349
8/31/1993	3165	31	1160	23	-517	1006	-707	2	1489	-262	-1005	-1283
9/30/1993	3195	30	1030	23	-415	1000	-705	-1	1455	-257	-1091	-1129
10/31/1993	3226	31	825	23	-363	1006	-702	1	1504	-269	-1062	-1053
11/30/1993	3256	30	-348	32	-259	852	-428	-1	1459	-263	-31	-1097
12/31/1993	3287	31	-1288	59	-228	896	-235	-4	1542	-273	739	-1298
1/31/1994	3318	31	260	23	-268	1266	-580	-3	1436	-264	-766	-1189
2/28/1994	3346	28	-3903	371	-279	3418	-36	-12	1305	-243	153	-1004
3/31/1994	3377	31	-1437	121	-451	1722	-129	-8	1484	-271	673	-1808
4/30/1994	3407	30	1284	23	-515	1287	-626	3	1378	-252	-964	-1702
5/31/1994	3438	31	636	23	-594	1199	-511	5	1387	-253	-433	-1544
6/30/1994	3468	30	1382	23	-571	1287	-635	8	1263	-242	-994	-1599
7/31/1994	3499	31	1895	23	-580	1479	-854	11	1226	-256	-1572	-1452
8/31/1994	3530	31	1654	23	-557	1479	-857	15	1186	-260	-1574	-1188
9/30/1994	3560	30	726	23	-367	1473	-855	15	1004	-251	-1722	-121
10/31/1994	3591	31	-905	57	-316	1310	-395	14	1062	-262	-65	-577
11/30/1994	3621	30	203	23	-240	1314	-556	19	1071	-254	-673	-981
12/31/1994	3652	31	-582	46	-227	1308	-387	18	1248	-266	-72	-1165
1/31/1995	3683	31	-11808	1303	-293	9781	-11	-88	1387	-282	-2072	1483
2/28/1995	3711	28	378	96	-277	1319	-246	-26	1126	-248	100	-2442
3/31/1995	3742	31	-4845	555	-472	4586	-40	-15	1348	-269	48	-1241
4/30/1995	3772	30	2268	23	-547	1210	-626	3	1349	-258	-879	-2642
5/31/1995	3803	31	1792	32	-543	1188	-449	17	1218	-255	41	-3139
6/30/1995	3833	30	1784	23	-584	1254	-657	17	1239	-245	-902	-2017
7/31/1995	3864	31	1909	23	-515	1336	-718	18	1052	-255	-928	-2014
8/31/1995	3895	31	1546	23	-495	1336	-714	26	1068	-256	-981	-1642
9/30/1995	3925	30	1278	23	-382	1330	-710	18	1037	-248	-1088	-1342
10/31/1995	3956	31	956	23	-333	1336	-711	16	1079	-258	-1074	-1118
11/30/1995	3986	30	1067	23	-231	1330	-709	22	1040	-252	-1163	-1206
12/31/1995	4017	31	-586	72	-221	1305	-284	12	1252	-260	128	-1501
1/31/1996	4048	31	-29	23	-266	1147	-417	10	1384	-262	-106	-1567
2/29/1996	4077	29	-3921	517	-292	3230	-47	-14	1399	-251	297	-1145
3/31/1996	4108	31	-698	99	-460	1308	-195	-5	1557	-270	489	-1914
4/30/1996	4138	30	1247	23	-510	1184	-586	12	1475	-261	-684	-1976
5/31/1996	4169	31	1539	23	-576	1240	-622	6	1432	-268	-847	-2007
6/30/1996	4199	30	1601	23	-549	1234	-623	12	1294	-258	-896	-1912
7/31/1996	4230	31	2355	23	-560	1472	-856	17	1281	-283	-1732	-1793
8/31/1996	4261	31	2201	23	-524	1472	-853	14	1237	-294	-1771	-1580
9/30/1996	4291	30	1323	23	-357	1466	-849	16	1008	-287	-1984	-429
10/31/1996	4322	31	-1658	160	-314	1660	-206	8	1052	-285	198	-696
11/30/1996	4352	30	-1109	125	-243	1484	-233	5	1085	-267	61	-986
12/31/1996	4383	31	-4001	451	-244	2886	-76	-15	1335	-276	71	-338
1/31/1997	4414	31	-2998	402	-290	2584	-44	-34	1376	-275	384	-1256
2/28/1997	4442	28	1662	21	-286	1142	-550	-7	1186	-245	-1058	-1936
3/31/1997	4473	31	1060	23	-428	1160	-552	7	1348	-268	-837	-1589
4/30/1997	4503	30	1366	23	-476	1154	-552	13	1250	-259	-836	-1755

Flow Budget for Aquifer A in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	Outside	Piru A	Santa Paula	Fillmore B	Net Stream Percolation
5/31/1997	4534	31	1409	23	-549	1160	-551	11	1253	-268	-733	-1828
6/30/1997	4564	30	1423	23	-524	1154	-550	14	1186	-260	-770	-1765
7/31/1997	4595	31	1872	23	-531	1414	-729	13	1180	-267	-1476	-1571
8/31/1997	4626	31	964	23	-449	1414	-727	10	1006	-263	-1644	-403
9/30/1997	4656	30	1130	23	-355	1408	-724	9	1004	-254	-1787	-519
10/31/1997	4687	31	895	23	-309	1414	-723	8	1046	-263	-1800	-359
11/30/1997	4717	30	-1072	119	-237	1476	-197	4	1110	-257	-9	-1013
12/31/1997	4748	31	-3415	393	-231	2667	-66	-15	1309	-271	236	-756
1/31/1998	4779	31	-1831	161	-273	1619	-138	-16	1396	-272	109	-848
2/28/1998	4807	28	-9582	1266	-300	6612	1	-110	1320	-253	-1580	2181
3/31/1998	4838	31	-1413	241	-477	2010	-106	-56	1499	-276	320	-1917
4/30/1998	4868	30	334	74	-549	1294	-244	-5	1431	-256	-108	-2057
5/31/1998	4899	31	-1578	352	-649	2321	-88	-6	1496	-260	632	-2358
6/30/1998	4929	30	3234	23	-611	1400	-570	6	1312	-245	-1729	-2900
7/31/1998	4960	31	2457	23	-527	1361	-696	13	1168	-253	-1076	-2552
8/31/1998	4991	31	1654	23	-574	1358	-690	19	1271	-256	-1083	-1801
9/30/1998	5021	30	1346	23	-419	1347	-684	19	1175	-250	-1135	-1496
10/31/1998	5052	31	1168	23	-337	1351	-681	13	1070	-255	-1179	-1247
11/30/1998	5082	30	325	24	-238	1263	-457	11	1063	-244	-576	-1243
12/31/1998	5113	31	1080	23	-196	1346	-676	12	1076	-253	-1244	-1240
1/31/1999	5144	31	-992	100	-256	1406	-223	12	1256	-252	290	-1418
2/28/1999	5172	28	129	34	-268	1262	-439	13	1285	-230	-470	-1383
3/31/1999	5203	31	-826	88	-421	1379	-236	14	1496	-256	348	-1661
4/30/1999	5233	30	-920	95	-493	1369	-234	7	1489	-249	219	-1355
5/31/1999	5264	31	1482	23	-575	1393	-754	12	1520	-260	-1317	-1592
6/30/1999	5294	30	1725	23	-544	1389	-753	14	1378	-251	-1398	-1646
7/31/1999	5325	31	1598	23	-557	1360	-643	10	1323	-258	-1209	-1715
8/31/1999	5356	31	1534	23	-527	1358	-641	6	1274	-259	-1252	-1582
9/30/1999	5386	30	646	23	-372	1350	-638	2	1053	-250	-1405	-472
10/31/1999	5417	31	1053	23	-322	1353	-635	1	1080	-258	-1428	-933
11/30/1999	5447	30	961	23	-251	1277	-548	2	1174	-251	-1157	-1290
12/31/1999	5478	31	1129	23	-216	1355	-634	2	1205	-263	-1512	-1152
1/31/2000	5509	31	-526	59	-243	1296	-277	0	1210	-265	-265	-1055
2/29/2000	5538	29	-3850	436	-270	2939	-59	-22	1182	-253	7	-291
3/31/2000	5569	31	-1235	139	-433	1559	-188	-19	1258	-269	-15	-871
4/30/2000	5599	30	-596	91	-493	1401	-226	0	1185	-255	-95	-1083
5/31/2000	5630	31	2076	23	-567	1469	-754	8	1184	-258	-2031	-1217
6/30/2000	5660	30	1906	23	-532	1460	-749	6	1140	-250	-2129	-937
7/31/2000	5691	31	1651	23	-513	1374	-644	1	1125	-264	-1589	-1229
8/31/2000	5722	31	1461	23	-454	1371	-640	-2	1095	-266	-1568	-1083
9/30/2000	5752	30	-228	23	-357	1366	-636	-4	964	-256	-1738	804
10/31/2000	5783	31	-1138	43	-324	1244	-305	-7	1050	-262	-260	-108
11/30/2000	5813	30	1062	23	-229	1363	-631	-5	1044	-252	-1758	-679
12/31/2000	5844	31	1125	23	-197	1368	-632	-5	1155	-262	-1740	-896
1/31/2001	5875	31	-4192	363	-251	3790	-45	-21	1209	-268	56	-861
2/28/2001	5903	28	-5217	522	-279	4451	-33	-48	1135	-247	-384	-177
3/31/2001	5934	31	-3268	250	-468	2793	-89	-40	1263	-273	-133	-222
4/30/2001	5964	30	336	84	-532	1395	-314	-10	1217	-259	15	-2012
5/31/2001	5995	31	2761	23	-600	1581	-877	4	1224	-262	-2044	-1886
6/30/2001	6025	30	2499	23	-543	1570	-869	12	1159	-250	-2161	-1511
7/31/2001	6056	31	1575	23	-525	1410	-732	13	1174	-262	-1399	-1348
8/31/2001	6087	31	1409	23	-481	1410	-728	12	1145	-266	-1360	-1235
9/30/2001	6117	30	-119	23	-370	1398	-721	7	990	-257	-1515	497
10/31/2001	6148	31	362	23	-327	1407	-718	4	1058	-262	-1506	-108
11/30/2001	6178	30	-2222	184	-244	2273	-108	-2	1071	-252	383	-1182
12/31/2001	6209	31	-609	53	-234	1316	-259	0	1257	-262	251	-1585
1/31/2002	6240	31	-161	33	-267	1096	-299	-1	1248	-261	210	-1666
2/28/2002	6268	28	1176	21	-261	1135	-557	1	1061	-233	-963	-1439
3/31/2002	6299	31	982	23	-388	1135	-537	2	1140	-258	-788	-1376
4/30/2002	6329	30	1039	23	-415	1146	-557	5	1065	-250	-910	-1207
5/31/2002	6360	31	1012	23	-464	1152	-557	3	1068	-260	-867	-1174
6/30/2002	6390	30	1071	23	-450	1149	-557	-1	997	-252	-939	-1102
7/31/2002	6421	31	1675	23	-471	1352	-734	-3	988	-257	-1626	-1010
8/31/2002	6452	31	1538	23	-447	1350	-729	-4	953	-256	-1671	-820
9/30/2002	6482	30	-263	23	-353	1340	-719	-6	855	-248	-1867	1178
10/31/2002	6513	31	1369	23	-313	1347	-717	-8	953	-258	-1818	-638
11/30/2002	6543	30	-2648	220	-233	2566	-80	-14	931	-261	212	-814
12/31/2002	6574	31	-2398	207	-205	2438	-88	-18	976	-276	278	-1034
1/31/2003	6605	31	1579	23	-232	1330	-621	-9	979	-267	-1687	-1163
2/28/2003	6633	28	-2619	273	-234	2669	-67	-14	838	-245	-135	-618
3/31/2003	6664	31	-1829	209	-382	2193	-97	-17	951	-273	164	-1031
4/30/2003	6694	30	-123	53	-445	1222	-270	-9	930	-260	-244	-925
5/31/2003	6725	31	-494	94	-525	1358	-196	-7	960	-265	8	-1008
6/30/2003	6755	30	2045	23	-496	1330	-631	-3	912	-245	-1718	-1281

Flow Budget for Aquifer A in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	Outside	Piru A	Santa Paula	Fillmore B	Net Stream Percolation
7/31/2003	6786	31	1952	23	-495	1307	-691	-2	926	-242	-1715	-1128
8/31/2003	6817	31	1716	23	-460	1306	-688	-4	906	-239	-1684	-940
9/30/2003	6847	30	-68	23	-358	1296	-683	-8	832	-229	-1816	950
10/31/2003	6878	31	1047	23	-314	1301	-681	-11	926	-237	-1800	-318
11/30/2003	6908	30	-1074	94	-234	1455	-192	-10	951	-243	72	-887
12/31/2003	6939	31	-1207	102	-202	1474	-192	-10	982	-259	173	-934
1/31/2004	6970	31	453	23	-230	1049	-445	-8	984	-260	-684	-946
2/29/2004	6999	29	-3592	367	-248	3265	-30	-22	900	-252	-155	-451
3/31/2004	7030	31	1188	23	-390	1152	-528	-10	994	-264	-1140	-1094
4/30/2004	7060	30	1282	23	-420	1146	-526	-3	933	-249	-1143	-1105
5/31/2004	7091	31	1165	23	-474	1153	-525	-4	946	-256	-1089	-1003
6/30/2004	7121	30	1127	23	-453	1146	-522	-5	897	-248	-1147	-879
7/31/2004	7152	31	1724	23	-469	1273	-678	-4	901	-262	-1756	-815
8/31/2004	7183	31	1571	23	-443	1273	-674	-6	875	-266	-1769	-646
9/30/2004	7213	30	1597	23	-337	1264	-668	-7	820	-261	-1846	-645
10/31/2004	7244	31	-4545	368	-326	2926	-59	-23	867	-275	-170	1010
11/30/2004	7274	30	1502	23	-241	1265	-675	-14	903	-265	-1867	-698
12/31/2004	7305	31	-4503	400	-205	3691	-36	-25	953	-280	-326	55
1/31/2005	7336	31	-9391	1020	-271	7132	3	-97	1050	-288	-1883	2181
2/28/2005	7364	28	-5459	500	-291	4234	-16	-70	1045	-259	-613	570
3/31/2005	7395	31	-1101	152	-477	2020	-93	-17	1249	-278	463	-2125
4/30/2005	7425	30	1716	23	-528	1107	-393	4	1251	-257	-466	-2547
5/31/2005	7456	31	2060	23	-553	1207	-542	7	1285	-257	-966	-2354
6/30/2005	7486	30	1847	23	-484	1193	-536	7	1125	-240	-1008	-2010
7/31/2005	7517	31	1329	23	-573	1141	-552	13	1284	-245	-785	-1719
8/31/2005	7548	31	1169	23	-548	1135	-550	16	1324	-247	-679	-1725
9/30/2005	7578	30	763	23	-379	1131	-548	11	1038	-235	-889	-991
10/31/2005	7609	31	-194	36	-365	1074	-320	13	1206	-247	68	-1353
11/30/2005	7639	30	728	23	-279	1098	-504	12	1378	-244	-726	-1560
12/31/2005	7670	31	678	23	-229	1118	-535	7	1468	-256	-787	-1562
1/31/2006	7701	31	-2906	251	-274	2417	-110	2	1579	-267	221	-1080
2/28/2006	7729	28	-2620	265	-290	2519	-92	-14	1516	-250	229	-1406
3/31/2006	7760	31	-2493	230	-489	2434	-99	-17	1740	-279	335	-1524
4/30/2006	7790	30	-2862	272	-580	2471	-98	-18	1710	-270	140	-944
5/31/2006	7821	31	1656	28	-652	1305	-474	-3	1707	-275	-588	-2789
6/30/2006	7851	30	3063	23	-589	1531	-810	12	1534	-265	-2233	-2341
7/31/2006	7882	31	1684	23	-594	1209	-535	14	1501	-282	-741	-2356
8/31/2006	7913	31	1569	23	-480	1199	-533	13	1080	-282	-794	-1868
9/30/2006	7943	30	1175	23	-375	1182	-533	10	1047	-273	-966	-1360
10/31/2006	7974	31	914	23	-328	1187	-531	8	1089	-282	-979	-1173
11/30/2006	8004	30	1129	23	-248	1169	-532	5	1155	-276	-1059	-1433
12/31/2006	8035	31	580	23	-225	1062	-454	1	1333	-286	-569	-1534
1/31/2007	8066	31	-1046	75	-259	1237	-146	-4	1379	-280	602	-1632
2/28/2007	8094	28	63	41	-261	1059	-277	-1	1231	-255	-103	-1562
3/31/2007	8125	31	1348	23	-401	1158	-521	-1	1300	-289	-1076	-1608
4/30/2007	8155	30	380	24	-456	1037	-314	-2	1227	-279	-217	-1463
5/31/2007	8186	31	1426	23	-523	1158	-520	-3	1212	-290	-1121	-1426
6/30/2007	8216	30	1370	23	-476	1152	-519	-4	1131	-284	-1224	-1230
7/31/2007	8247	31	1498	23	-505	1411	-562	-4	1080	-305	-1520	-1179
8/31/2007	8278	31	582	23	-456	1411	-558	-5	982	-312	-1595	-135
9/30/2007	8308	30	439	23	-357	1386	-545	-7	924	-302	-1664	45
10/31/2007	8339	31	346	23	-313	1411	-550	-10	977	-312	-1748	114
11/30/2007	8369	30	1164	23	-223	1405	-546	-11	978	-303	-1789	-756
12/31/2007	8400	31	-2260	194	-210	2321	-78	-19	1056	-299	156	-958
1/31/2008	8431	31	-6828	599	-275	5456	-3	-42	1148	-292	-857	713
2/29/2008	8460	29	-1021	104	-298	1615	-133	-28	1074	-267	-108	-1020
3/31/2008	8491	31	1693	23	-423	1381	-553	-5	1115	-277	-1499	-1526
4/30/2008	8521	30	1441	23	-469	1375	-551	6	1092	-265	-1464	-1255
5/31/2008	8552	31	1420	23	-535	1381	-548	8	1128	-274	-1394	-1277
6/30/2008	8582	30	1361	23	-513	1375	-545	3	1084	-266	-1429	-1157
7/31/2008	8613	31	1683	23	-513	1452	-614	0	1101	-283	-1817	-1097
8/31/2008	8644	31	1504	23	-485	1452	-609	-1	1078	-289	-1853	-884
9/30/2008	8674	30	-134	23	-358	1446	-602	-5	941	-280	-2046	953
10/31/2008	8705	31	220	23	-318	1452	-598	-8	1021	-288	-2053	486
11/30/2008	8735	30	-1606	133	-250	1891	-121	-10	1088	-276	45	-973
12/31/2008	8766	31	-1703	141	-226	1866	-121	-13	1223	-285	193	-1156
1/31/2009	8797	31	545	23	-254	1175	-416	-12	1216	-293	-839	-1209
2/28/2009	8825	28	-3527	281	-264	3076	-29	-17	1136	-263	-64	-509
3/31/2009	8856	31	545	23	-419	1180	-382	-13	1269	-292	-680	-1298
4/30/2009	8886	30	1245	23	-464	1266	-487	-11	1177	-287	-1221	-1303
5/31/2009	8917	31	1278	23	-531	1273	-486	-9	1183	-297	-1163	-1336
6/30/2009	8947	30	1192	23	-502	1252	-484	-9	1119	-288	-1224	-1141
7/31/2009	8978	31	1739	23	-501	1488	-603	-9	1121	-305	-1927	-1088
8/31/2009	9009	31	1608	23	-457	1425	-599	-9	1091	-311	-1980	-853

Flow Budget for Aquifer A in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	Outside	Piru A	Santa Paula	Fillmore B	Net Stream Percolation
9/30/2009	9039	30	244	23	-350	1472	-595	-10	959	-302	-2148	648
10/31/2009	9070	31	-2627	233	-317	2300	-94	-19	992	-296	-93	-192
11/30/2009	9100	30	1475	23	-229	1458	-596	-14	1015	-293	-2101	-800
12/31/2009	9131	31	-2509	251	-221	2430	-76	-20	1139	-297	-19	-814
1/31/2010	9162	31	-4097	369	-268	3433	3	-38	1226	-291	-30	-519
2/28/2010	9190	28	-2250	227	-279	2322	-45	-34	1123	-262	-2	-933
3/31/2010	9221	31	1304	23	-429	1294	-481	-10	1263	-294	-1409	-1334
4/30/2010	9251	30	-814	85	-484	1395	-126	-5	1238	-279	163	-1248
5/31/2010	9282	31	1356	23	-566	1294	-481	-7	1287	-290	-1240	-1446
6/30/2010	9312	30	1564	23	-539	1291	-479	-6	1214	-282	-1292	-1558
7/31/2010	9343	31	1808	23	-543	1462	-569	-7	1213	-305	-1778	-1371
8/31/2010	9374	31	1639	23	-497	1462	-565	-7	1184	-315	-1827	-1163
9/30/2010	9404	30	634	23	-370	1459	-561	-9	1061	-308	-1983	-8
10/31/2010	9435	31	-1646	83	-321	1479	-152	-13	1062	-299	-14	-250
11/30/2010	9465	30	-352	56	-235	1324	-243	-13	1061	-284	-370	-1010
12/31/2010	9496	31	-5443	595	-239	4805	13	-43	1299	-291	-510	-535
1/31/2011	9527	31	1501	23	-275	1238	-425	-26	1258	-291	-1256	-1822
2/28/2011	9555	28	-2191	250	-271	2307	-38	-16	1160	-259	53	-1132
3/31/2011	9586	31	-4190	404	-445	3575	8	-36	1371	-287	-243	-418
4/30/2011	9616	30	1410	23	-513	1235	-439	-21	1341	-282	-1254	-1577
5/31/2011	9647	31	944	23	-582	1132	-293	-8	1338	-287	-280	-2064
6/30/2011	9677	30	1308	23	-561	1235	-435	-3	1335	-277	-1048	-1649
7/31/2011	9708	31	1672	23	-577	1219	-463	-1	1332	-292	-1177	-1809
8/31/2011	9739	31	1460	23	-542	1219	-460	6	1306	-295	-1152	-1635
9/30/2011	9769	30	530	23	-391	1216	-459	2	1108	-287	-1299	-510
10/31/2011	9800	31	-770	55	-333	1166	-142	-3	1079	-284	257	-1096
11/30/2011	9830	30	-841	84	-274	1354	-94	-6	1217	-272	449	-1688
12/31/2011	9861	31	1229	23	-232	1219	-456	-8	1309	-291	-1200	-1659
1/31/2012	9892	31	-137	46	-259	1146	-178	-11	1281	-293	57	-1721
2/29/2012	9921	29	1330	22	-266	1251	-466	-10	1147	-281	-1569	-1219
3/31/2012	9952	31	-1874	208	-418	1954	-61	-6	1244	-296	324	-1162
4/30/2012	9982	30	-1354	166	-497	1780	-69	-4	1234	-283	374	-1422
5/31/2012	10013	31	1913	23	-569	1264	-470	2	1198	-300	-1376	-1749
6/30/2012	10043	30	1815	23	-514	1260	-472	-1	1097	-294	-1527	-1448
7/31/2012	10074	31	1736	23	-484	1205	-575	-3	1110	-270	-1514	-1290
8/31/2012	10105	31	1546	23	-457	1204	-569	-6	1080	-252	-1524	-1108
9/30/2012	10135	30	65	23	-354	1198	-564	-8	932	-240	-1695	586
10/31/2012	10166	31	451	23	-313	1202	-557	-11	988	-242	-1681	79
11/30/2012	10196	30	-628	62	-227	1154	-175	-12	1044	-249	-1	-1031
12/31/2012	10227	31	-923	57	-199	1270	-136	-14	1115	-271	323	-1288
1/31/2013	10258	31	-608	62	-227	1106	-160	-16	1109	-263	315	-1382
2/28/2013	10286	28	1296	21	-222	1071	-510	-13	953	-207	-1334	-1109
3/31/2013	10317	31	744	23	-338	982	-402	-13	1028	-224	-823	-1035
4/30/2013	10347	30	1210	23	-381	1086	-506	-11	950	-210	-1327	-890
5/31/2013	10378	31	1197	23	-442	1093	-502	-11	949	-212	-1310	-843
6/30/2013	10408	30	1219	23	-426	1089	-500	-12	881	-204	-1376	-750
7/31/2013	10439	31	1237	23	-441	1161	-478	-12	863	-217	-1505	-688
8/31/2013	10470	31	1234	23	-418	1161	-475	-12	825	-222	-1538	-636
9/30/2013	10500	30	1247	23	-317	1155	-474	-12	766	-215	-1630	-597
10/31/2013	10531	31	1173	23	-272	1159	-472	-12	777	-225	-1640	-569
11/30/2013	10561	30	824	23	-192	1059	-405	-11	745	-221	-1356	-519
12/31/2013	10592	31	1108	23	-159	1158	-470	-10	751	-230	-1719	-510
1/31/2014	10623	31	1789	23	-171	1300	-664	-8	727	-231	-2351	-470
2/28/2014	10651	28	-2118	229	-180	2154	-85	-13	622	-234	-297	-182
3/31/2014	10682	31	-1331	112	-314	1380	-176	-13	711	-273	-405	235
4/30/2014	10712	30	1776	23	-338	1295	-670	-9	656	-240	-2348	-202
5/31/2014	10743	31	1870	23	-365	1301	-666	-9	667	-233	-2349	-297
6/30/2014	10773	30	2048	23	-333	1294	-662	-8	618	-223	-2370	-441
7/31/2014	10804	31	1723	23	-327	1208	-580	-9	641	-236	-2070	-431
8/31/2014	10835	31	1686	23	-294	1208	-577	-9	615	-241	-2067	-403
9/30/2014	10865	30	1691	23	-216	1201	-576	-8	564	-233	-2119	-381
10/31/2014	10896	31	1610	23	-178	1206	-574	-8	563	-242	-2146	-311
11/30/2014	10926	30	1095	23	-123	1074	-449	-7	516	-243	-1705	-234
12/31/2014	10957	31	-2609	198	-120	2241	-54	-11	535	-274	-360	329
1/31/2015	10988	31	-1094	64	-158	1108	-136	-9	559	-278	-266	143
2/28/2015	11016	28	541	21	-153	971	-353	-6	470	-229	-1315	-1
3/31/2015	11047	31	187	24	-229	979	-292	-5	528	-249	-1018	17
4/30/2015	11077	30	1352	23	-247	1089	-469	-5	492	-227	-1976	-88
5/31/2015	11108	31	704	23	-280	985	-325	-5	504	-239	-1237	-188
6/30/2015	11138	30	1590	23	-262	1087	-466	-6	472	-223	-1941	-330
7/31/2015	11169	31	-137	51	-275	1114	-185	-7	461	-246	-470	-364
8/31/2015	11200	31	1717	23	-260	1189	-553	-7	444	-229	-2002	-377
9/30/2015	11230	30	1296	23	-196	1084	-455	-7	415	-219	-1709	-287
10/31/2015	11261	31	1639	23	-164	1186	-548	-7	414	-218	-2115	-266

Flow Budget for Aquifer A in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	Mountain Front Recharge	ET	RECHARGE	Pumping from Wells	Outside	Piru A	Santa Paula	Fillmore B	Net Stream Percolation
11/30/2015	11291	30	1604	23	-109	1182	-545	-6	380	-203	-2219	-161
12/31/2015	11322	31	1548	23	-85	1187	-542	-6	376	-210	-2235	-111

Flow Budget for Aquifer B in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Santa Paula B	Fillmore C
1/31/1985	31	31	270	207	42	-1942	163	-1357	2348	-864	1410
2/28/1985	59	28	269	178	33	-2198	122	-921	2169	-783	1401
3/31/1985	90	31	247	185	30	-2282	118	-1120	2379	-862	1618
4/30/1985	120	30	564	156	7	-3678	101	100	2313	-859	1612
5/31/1985	151	31	457	161	7	-3677	94	135	2381	-891	1665
6/30/1985	181	30	450	156	7	-3682	86	290	2316	-869	1570
7/31/1985	212	31	571	161	8	-4379	82	848	2354	-912	1598
8/31/1985	243	31	541	161	8	-4385	76	930	2349	-923	1566
9/30/1985	273	30	518	156	8	-4397	67	1092	2296	-896	1460
10/31/1985	304	31	393	161	8	-4397	66	1161	2406	-938	1443
11/30/1985	334	30	-1116	631	244	-1395	56	-649	2364	-859	1038
12/31/1985	365	31	278	172	11	-3092	63	108	2399	-933	1271
1/31/1986	396	31	-1013	598	231	-1021	59	-846	2283	-889	893
2/28/1986	424	28	-2221	1218	476	-834	55	-142	2117	-787	423
3/31/1986	455	31	-1050	687	265	-993	73	-850	2317	-868	718
4/30/1986	485	30	310	178	36	-2122	79	-481	2239	-857	865
5/31/1986	516	31	761	161	6	-3677	86	602	2309	-898	888
6/30/1986	546	30	735	156	6	-3688	87	720	2243	-873	831
7/31/1986	577	31	733	161	7	-3801	87	656	2306	-888	947
8/31/1986	608	31	608	161	7	-3802	80	691	2386	-898	926
9/30/1986	638	30	378	169	20	-2838	68	17	2339	-873	843
10/31/1986	669	31	634	161	7	-3802	68	729	2382	-914	852
11/30/1986	699	30	-77	224	64	-1630	60	-730	2334	-862	725
12/31/1986	730	31	655	161	7	-3803	68	756	2357	-918	821
1/31/1987	761	31	39	209	59	-1972	62	-515	2339	-885	766
2/28/1987	789	28	265	177	34	-2315	56	-156	2119	-807	713
3/31/1987	820	31	-59	246	83	-1689	59	-665	2297	-876	697
4/30/1987	850	30	803	156	6	-4411	66	1372	2198	-868	759
5/31/1987	881	31	707	161	6	-4415	67	1447	2251	-895	749
6/30/1987	911	30	665	156	6	-4423	58	1574	2195	-861	702
7/31/1987	942	31	640	161	7	-4745	55	1851	2296	-890	697
8/31/1987	973	31	679	161	7	-4747	55	1807	2321	-901	686
9/30/1987	1003	30	686	156	7	-4752	53	1902	2245	-884	650
10/31/1987	1034	31	10	208	52	-2150	47	-127	2320	-897	602
11/30/1987	1064	30	-64	224	68	-1892	42	-247	2244	-877	564
12/31/1987	1095	31	-787	549	225	-1289	45	-436	2302	-885	398
1/31/1988	1126	31	-468	386	141	-1158	46	-459	2228	-877	248
2/29/1988	1155	29	-341	309	109	-1287	44	-217	2091	-816	178
3/31/1988	1186	31	318	170	11	-2805	49	719	2185	-874	285
4/30/1988	1216	30	-586	463	180	-1146	48	-285	2136	-828	119
5/31/1988	1247	31	808	161	7	-4080	52	1490	2191	-846	274
6/30/1988	1277	30	599	156	7	-4094	48	1706	2194	-811	248
7/31/1988	1308	31	762	161	5	-4762	51	2138	2287	-870	279
8/31/1988	1339	31	694	161	5	-4763	50	2202	2299	-882	284
9/30/1988	1369	30	672	156	5	-4768	47	2306	2232	-864	261
10/31/1988	1400	31	613	161	5	-4767	48	2331	2290	-900	267
11/30/1988	1430	30	72	183	26	-2459	40	612	2216	-866	222
12/31/1988	1461	31	-865	582	225	-1124	33	-95	2260	-879	-28
1/31/1989	1492	31	509	161	5	-3293	37	874	2316	-877	315
2/28/1989	1520	28	-568	391	150	-1305	30	-123	2121	-781	154
3/31/1989	1551	31	294	177	9	-2583	38	313	2308	-866	357
4/30/1989	1581	30	509	156	6	-3778	50	1324	2241	-827	365
5/31/1989	1612	31	443	161	6	-3780	54	1303	2345	-844	357
6/30/1989	1642	30	414	156	6	-3785	48	1391	2288	-818	344
7/31/1989	1673	31	542	161	9	-4823	50	2027	2499	-864	444
8/31/1989	1704	31	578	161	9	-4820	48	1989	2488	-872	461
9/30/1989	1734	30	591	156	9	-4795	46	2041	2393	-850	446
10/31/1989	1765	31	451	161	9	-4111	46	1446	2443	-885	476
11/30/1989	1795	30	592	156	9	-4763	45	2062	2345	-863	457
12/31/1989	1826	31	588	161	9	-4817	47	2096	2391	-896	462
1/31/1990	1857	31	-591	397	149	-1654	35	113	2285	-887	227
2/28/1990	1885	28	-369	330	121	-1777	32	209	2080	-798	232
3/31/1990	1916	31	641	161	8	-4669	46	2002	2314	-878	417
4/30/1990	1946	30	570	156	8	-4671	50	2068	2271	-845	434
5/31/1990	1977	31	540	161	6	-4266	52	1638	2335	-873	448

Flow Budget for Aquifer B in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Santa Paula B	Fillmore C
6/30/1990	2007	30	621	156	8	-4681	50	2018	2272	-846	442
7/31/1990	2038	31	494	161	4	-4170	45	1920	2147	-903	340
8/31/1990	2069	31	548	161	4	-4177	43	1927	2131	-911	313
9/30/1990	2099	30	560	156	4	-4185	41	1998	2060	-888	293
10/31/1990	2130	31	544	161	4	-4186	42	1991	2103	-923	303
11/30/1990	2160	30	549	156	4	-4192	41	2067	2028	-900	283
12/31/1990	2191	31	540	161	4	-4193	44	2063	2067	-934	286
1/31/1991	2222	31	104	187	36	-2606	43	903	2059	-912	225
2/28/1991	2250	28	-508	337	132	-1495	31	531	1851	-816	-1
3/31/1991	2281	31	-3681	1759	729	-827	37	1914	2029	-879	-787
4/30/1991	2311	30	531	156	8	-4595	57	2850	1989	-860	-58
5/31/1991	2342	31	560	161	8	-4600	59	2669	2055	-877	14
6/30/1991	2372	30	582	156	8	-4605	54	2580	2003	-847	115
7/31/1991	2403	31	599	161	9	-4630	52	2350	2098	-869	277
8/31/1991	2434	31	670	161	9	-4626	51	2225	2098	-870	329
9/30/1991	2464	30	674	156	9	-4629	48	2268	2035	-844	327
10/31/1991	2495	31	344	161	9	-4591	38	2466	2162	-870	326
11/30/1991	2525	30	410	156	9	-4636	33	2444	2147	-841	321
12/31/1991	2556	31	-1138	583	223	-1261	26	427	2184	-872	-61
1/31/1992	2587	31	-431	269	91	-1584	24	243	2146	-874	169
2/29/1992	2616	29	-3547	1636	682	-889	25	1754	2029	-800	-615
3/31/1992	2647	31	-2038	992	396	-981	39	804	2179	-855	-308
4/30/1992	2677	30	513	156	7	-4196	51	2058	2185	-798	82
5/31/1992	2708	31	478	161	7	-4200	58	1886	2319	-810	158
6/30/1992	2738	30	465	156	7	-4203	55	1812	2315	-782	229
7/31/1992	2769	31	485	161	5	-5057	55	2437	2530	-877	315
8/31/1992	2800	31	472	161	5	-5055	61	2376	2567	-890	356
9/30/1992	2830	30	474	156	5	-5058	62	2422	2519	-869	339
10/31/1992	2861	31	-540	239	61	-2009	37	307	2610	-865	213
11/30/1992	2891	30	315	156	5	-5061	42	2521	2597	-861	334
12/31/1992	2922	31	-1464	695	272	-1344	31	241	2614	-846	-55
1/31/1993	2953	31	-3617	1679	671	-1096	35	1451	2640	-835	-637
2/28/1993	2981	28	-3070	1378	570	-1149	50	1308	2440	-752	-515
3/31/1993	3012	31	-931	558	216	-1554	66	73	2675	-833	-82
4/30/1993	3042	30	710	156	6	-5214	80	2165	2859	-794	99
5/31/1993	3073	31	679	161	6	-5208	85	1968	2992	-806	188
6/30/1993	3103	30	542	156	5	-4290	81	1180	2907	-783	264
7/31/1993	3134	31	486	161	10	-3725	71	1064	2490	-823	327
8/31/1993	3165	31	516	161	10	-3724	65	1005	2467	-830	388
9/30/1993	3195	30	486	156	10	-3726	59	1091	2379	-811	410
10/31/1993	3226	31	451	161	10	-3725	64	1062	2446	-845	432
11/30/1993	3256	30	136	170	13	-2279	59	31	2332	-830	419
12/31/1993	3287	31	-69	203	47	-1355	56	-739	2380	-855	385
1/31/1994	3318	31	432	161	6	-3379	65	766	2571	-848	277
2/28/1994	3346	28	-1487	825	334	-745	61	-153	2338	-757	-255
3/31/1994	3377	31	-227	285	102	-1181	73	-673	2537	-842	-11
4/30/1994	3407	30	588	156	6	-3512	77	964	2440	-805	136
5/31/1994	3438	31	367	162	7	-2868	84	433	2507	-829	188
6/30/1994	3468	30	495	156	6	-3507	87	994	2416	-800	200
7/31/1994	3499	31	568	161	11	-4530	96	1572	2629	-841	383
8/31/1994	3530	31	521	161	11	-4524	101	1574	2632	-848	420
9/30/1994	3560	30	504	156	11	-4529	99	1722	2483	-818	417
10/31/1994	3591	31	-7	185	18	-2453	95	65	2583	-851	410
11/30/1994	3621	30	185	167	19	-3227	95	673	2550	-818	398
12/31/1994	3652	31	-28	184	32	-2501	94	72	2669	-855	378
1/31/1995	3683	31	-5631	2771	1116	-650	100	2072	2550	-826	-1136
2/28/1995	3711	28	210	190	63	-1678	112	-100	2236	-773	-80
3/31/1995	3742	31	-2036	1217	490	-768	119	-48	2521	-807	-446
4/30/1995	3772	30	731	156	7	-3457	117	879	2461	-834	5
5/31/1995	3803	31	625	176	20	-2556	117	-41	2431	-822	115
6/30/1995	3833	30	711	156	7	-3681	111	902	2479	-815	189
7/31/1995	3864	31	799	161	5	-3932	109	928	2460	-829	357
8/31/1995	3895	31	645	161	5	-3932	107	981	2511	-830	408
9/30/1995	3925	30	570	156	5	-3938	98	1088	2460	-807	422
10/31/1995	3956	31	505	161	5	-3935	99	1074	2544	-837	436

Flow Budget for Aquifer B in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Santa Paula B	Fillmore C
11/30/1995	3986	30	472	156	5	-3938	98	1163	2479	-815	430
12/31/1995	4017	31	-20	208	45	-2349	91	-128	2663	-820	361
1/31/1996	4048	31	219	169	17	-2765	91	106	2636	-840	415
2/29/1996	4077	29	-1440	939	333	-1037	81	-297	2498	-763	-158
3/31/1996	4108	31	-4	235	56	-1808	90	-489	2602	-833	206
4/30/1996	4138	30	529	156	9	-3415	89	684	2504	-840	332
5/31/1996	4169	31	540	161	9	-3687	89	847	2576	-867	381
6/30/1996	4199	30	528	156	9	-3692	91	896	2506	-842	395
7/31/1996	4230	31	680	161	8	-4469	96	1732	2409	-894	325
8/31/1996	4261	31	690	161	8	-4478	95	1771	2406	-908	301
9/30/1996	4291	30	657	156	8	-4486	92	1984	2223	-885	295
10/31/1996	4322	31	-205	260	78	-1637	78	-198	2392	-866	146
11/30/1996	4352	30	-157	245	73	-1811	70	-61	2352	-825	160
12/31/1996	4383	31	-1396	805	287	-991	74	-71	2501	-840	-226
1/31/1997	4414	31	-995	648	225	-1108	75	-384	2566	-832	-87
2/28/1997	4442	28	465	145	6	-3481	76	1058	2317	-784	243
3/31/1997	4473	31	432	161	6	-3477	87	837	2557	-867	312
4/30/1997	4503	30	461	156	6	-3480	85	836	2477	-844	349
5/31/1997	4534	31	451	161	6	-3479	87	733	2554	-872	404
6/30/1997	4564	30	462	156	6	-3483	86	770	2487	-846	405
7/31/1997	4595	31	649	161	7	-4220	89	1476	2489	-882	274
8/31/1997	4626	31	615	161	7	-4231	84	1644	2408	-875	230
9/30/1997	4656	30	515	156	7	-4239	78	1787	2389	-849	195
10/31/1997	4687	31	444	161	7	-4239	78	1800	2478	-879	191
11/30/1997	4717	30	-244	240	77	-1788	64	9	2467	-824	46
12/31/1997	4748	31	-1026	659	230	-1070	65	-236	2556	-841	-230
1/31/1998	4779	31	-326	295	98	-1523	63	-109	2496	-864	-71
2/28/1998	4807	28	-4174	2180	797	-613	63	1580	2256	-724	-1086
3/31/1998	4838	31	-183	417	143	-1295	97	-320	2478	-829	-372
4/30/1998	4868	30	201	197	47	-2118	96	108	2416	-807	-85
5/31/1998	4899	31	-528	523	191	-1092	95	-632	2498	-796	-159
6/30/1998	4929	30	921	156	7	-4537	101	1729	2428	-868	101
7/31/1998	4960	31	704	161	6	-3980	106	1076	2502	-832	310
8/31/1998	4991	31	531	161	6	-3981	105	1083	2628	-838	356
9/30/1998	5021	30	578	156	6	-3973	99	1135	2487	-812	375
10/31/1998	5052	31	518	161	6	-3987	96	1179	2498	-839	415
11/30/1998	5082	30	311	164	17	-3161	90	576	2447	-793	394
12/31/1998	5113	31	418	161	6	-3990	95	1244	2517	-837	432
1/31/1999	5144	31	-196	232	59	-2061	88	-290	2671	-795	339
2/28/1999	5172	28	165	171	18	-2995	83	470	2495	-741	375
3/31/1999	5203	31	-107	230	66	-2133	87	-348	2718	-807	339
4/30/1999	5233	30	-115	217	58	-2130	79	-219	2615	-783	321
5/31/1999	5264	31	508	161	7	-4338	90	1317	2690	-845	452
6/30/1999	5294	30	500	156	7	-4347	91	1398	2614	-823	444
7/31/1999	5325	31	487	161	7	-3869	89	1209	2508	-844	292
8/31/1999	5356	31	510	161	7	-3877	83	1252	2504	-849	251
9/30/1999	5386	30	544	156	7	-3884	74	1405	2326	-822	234
10/31/1999	5417	31	440	161	7	-3887	71	1428	2443	-847	224
11/30/1999	5447	30	333	156	6	-3506	69	1157	2447	-818	195
12/31/1999	5478	31	336	161	7	-3888	72	1512	2502	-864	201
1/31/2000	5509	31	-14	210	36	-2572	66	265	2608	-854	295
2/29/2000	5538	29	-1234	800	271	-1261	57	-7	2466	-780	-186
3/31/2000	5569	31	-232	260	74	-2012	64	15	2577	-842	139
4/30/2000	5599	30	-83	227	64	-2220	66	95	2486	-804	210
5/31/2000	5630	31	583	161	8	-4886	77	2031	2582	-874	358
6/30/2000	5660	30	515	156	8	-4900	74	2129	2544	-855	368
7/31/2000	5691	31	390	161	6	-4083	69	1589	2476	-853	284
8/31/2000	5722	31	460	161	6	-4089	65	1568	2457	-855	267
9/30/2000	5752	30	412	156	6	-4097	57	1738	2343	-825	247
10/31/2000	5783	31	-42	188	39	-2256	50	260	2460	-835	178
11/30/2000	5813	30	335	156	6	-4099	53	1758	2414	-813	229
12/31/2000	5844	31	280	161	6	-4099	57	1740	2519	-849	224
1/31/2001	5875	31	-1573	910	360	-834	46	-56	2496	-836	-357
2/28/2001	5903	28	-1991	1127	445	-783	42	384	2270	-749	-549
3/31/2001	5934	31	-1325	686	277	-1021	58	133	2456	-827	-303

Flow Budget for Aquifer B in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Santa Paula B	Fillmore C
4/30/2001	5964	30	98	219	60	-1943	66	-15	2373	-809	4
5/31/2001	5995	31	841	161	8	-4821	82	2044	2472	-863	127
6/30/2001	6025	30	712	156	8	-4837	85	2161	2431	-838	170
7/31/2001	6056	31	424	161	6	-4061	84	1399	2582	-871	323
8/31/2001	6087	31	443	161	6	-4058	83	1360	2563	-878	366
9/30/2001	6117	30	406	156	6	-4067	75	1515	2430	-847	371
10/31/2001	6148	31	313	161	6	-4067	70	1506	2543	-868	380
11/30/2001	6178	30	-646	412	141	-1329	56	-383	2492	-798	125
12/31/2001	6209	31	-45	197	43	-2001	57	-251	2596	-843	294
1/31/2002	6240	31	68	182	18	-1858	59	-210	2415	-852	223
2/28/2002	6268	28	365	145	5	-3059	59	963	2169	-791	182
3/31/2002	6299	31	320	161	5	-2995	68	788	2366	-874	203
4/30/2002	6329	30	332	156	5	-3058	69	910	2279	-850	196
5/31/2002	6360	31	340	161	5	-3056	69	867	2332	-879	201
6/30/2002	6390	30	355	156	5	-3060	62	939	2249	-855	187
7/31/2002	6421	31	485	161	6	-4025	61	1626	2371	-880	234
8/31/2002	6452	31	467	161	6	-4031	58	1671	2361	-890	235
9/30/2002	6482	30	371	156	6	-4046	51	1867	2285	-865	214
10/31/2002	6513	31	336	161	6	-4045	50	1818	2402	-901	212
11/30/2002	6543	30	-804	556	201	-989	40	-212	2310	-842	-170
12/31/2002	6574	31	-701	517	191	-1035	39	-278	2357	-870	-131
1/31/2003	6605	31	708	161	5	-3985	47	1687	2275	-914	58
2/28/2003	6633	28	-1029	608	229	-839	40	135	2061	-778	-316
3/31/2003	6664	31	-596	444	158	-1024	45	-164	2249	-857	-176
4/30/2003	6694	30	81	189	43	-1886	41	244	2184	-838	-13
5/31/2003	6725	31	-108	213	60	-1515	41	-8	2239	-859	-16
6/30/2003	6755	30	675	156	5	-3984	53	1718	2181	-852	90
7/31/2003	6786	31	441	161	6	-4010	57	1715	2308	-829	194
8/31/2003	6817	31	441	161	6	-4010	54	1684	2314	-833	225
9/30/2003	6847	30	371	156	6	-4018	44	1816	2257	-804	211
10/31/2003	6878	31	293	161	6	-4018	40	1800	2375	-831	214
11/30/2003	6908	30	-299	213	75	-1491	34	-72	2308	-812	86
12/31/2003	6939	31	-218	216	73	-1485	35	-173	2345	-847	99
1/31/2004	6970	31	242	161	5	-2639	44	684	2275	-878	146
2/29/2004	6999	29	-1468	854	330	-627	38	155	2134	-792	-468
3/31/2004	7030	31	438	161	5	-3127	50	1140	2274	-871	-25
4/30/2004	7060	30	413	156	5	-3137	54	1143	2202	-843	50
5/31/2004	7091	31	373	161	5	-3135	55	1089	2271	-871	95
6/30/2004	7121	30	356	156	5	-3141	52	1147	2204	-846	108
7/31/2004	7152	31	439	161	6	-3984	54	1756	2301	-903	211
8/31/2004	7183	31	425	161	6	-3986	52	1769	2296	-914	233
9/30/2004	7213	30	428	156	6	-3996	49	1846	2221	-897	226
10/31/2004	7244	31	-1382	810	297	-870	37	170	2319	-872	-346
11/30/2004	7274	30	498	156	6	-3983	40	1867	2259	-897	97
12/31/2004	7305	31	-1773	980	382	-762	39	326	2328	-877	-444
1/31/2005	7336	31	-4420	2267	858	-492	54	1883	2296	-853	-1256
2/28/2005	7364	28	-2159	1226	467	-591	71	613	2132	-762	-744
3/31/2005	7395	31	-249	345	122	-994	90	-463	2378	-846	-208
4/30/2005	7425	30	571	159	6	-2688	88	466	2339	-833	-40
5/31/2005	7456	31	718	161	5	-3485	91	966	2425	-864	48
6/30/2005	7486	30	728	156	5	-3493	88	1008	2285	-823	108
7/31/2005	7517	31	485	161	6	-3291	90	785	2490	-835	170
8/31/2005	7548	31	546	161	6	-3286	90	679	2471	-844	236
9/30/2005	7578	30	510	156	6	-3291	83	889	2257	-812	256
10/31/2005	7609	31	98	180	28	-2093	83	-68	2434	-828	221
11/30/2005	7639	30	342	156	5	-3135	81	726	2453	-827	250
12/31/2005	7670	31	329	161	6	-3225	81	787	2528	-867	252
1/31/2006	7701	31	-969	576	208	-1234	73	-221	2578	-854	-32
2/28/2006	7729	28	-804	537	201	-1154	61	-229	2335	-780	-57
3/31/2006	7760	31	-829	558	205	-1201	68	-335	2548	-859	-33
4/30/2006	7790	30	-983	586	218	-1201	67	-140	2479	-825	-66
5/31/2006	7821	31	477	182	23	-3215	76	588	2534	-862	254
6/30/2006	7851	30	872	156	8	-5175	84	2233	2459	-870	285
7/31/2006	7882	31	497	161	6	-3165	88	741	2451	-937	211
8/31/2006	7913	31	649	161	6	-3165	87	794	2211	-929	239

Flow Budget for Aquifer B in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Santa Paula B	Fillmore C
9/30/2006	7943	30	503	156	6	-3173	79	966	2204	-900	208
10/31/2006	7974	31	415	161	6	-3172	78	979	2292	-927	218
11/30/2006	8004	30	336	156	6	-3176	71	1059	2310	-907	191
12/31/2006	8035	31	240	161	4	-2707	69	569	2437	-923	196
1/31/2007	8066	31	-136	226	62	-1218	59	-602	2413	-877	121
2/28/2007	8094	28	136	168	32	-1935	56	103	2167	-824	138
3/31/2007	8125	31	454	161	6	-3347	65	1076	2355	-939	212
4/30/2007	8155	30	208	166	8	-2205	62	217	2277	-891	199
5/31/2007	8186	31	446	161	6	-3350	62	1121	2325	-943	214
6/30/2007	8216	30	432	156	6	-3359	59	1224	2247	-919	195
7/31/2007	8247	31	475	161	6	-4091	61	1520	2581	-995	323
8/31/2007	8278	31	439	161	6	-4093	57	1595	2533	-1001	344
9/30/2007	8308	30	342	156	6	-4012	49	1664	2482	-971	322
10/31/2007	8339	31	286	161	6	-4102	45	1748	2575	-1001	322
11/30/2007	8369	30	288	156	6	-4110	41	1789	2542	-979	304
12/31/2007	8400	31	-688	434	146	-1471	33	-156	2633	-909	44
1/31/2008	8431	31	-2723	1484	569	-1124	46	857	2662	-871	-639
2/29/2008	8460	29	-288	239	73	-1752	52	108	2477	-827	-30
3/31/2008	8491	31	517	161	5	-4081	64	1499	2626	-897	156
4/30/2008	8521	30	466	156	5	-4067	69	1464	2576	-868	246
5/31/2008	8552	31	450	161	5	-4089	74	1394	2669	-898	280
6/30/2008	8582	30	454	156	5	-4071	68	1429	2590	-873	286
7/31/2008	8613	31	450	161	6	-4291	67	1817	2548	-959	244
8/31/2008	8644	31	461	161	6	-4299	65	1853	2530	-969	235
9/30/2008	8674	30	402	156	6	-4311	55	2046	2401	-939	226
10/31/2008	8705	31	300	161	6	-4313	51	2053	2525	-966	225
11/30/2008	8735	30	-488	291	101	-1547	37	-45	2541	-872	34
12/31/2008	8766	31	-394	295	100	-1549	35	-193	2618	-904	47
1/31/2009	8797	31	241	161	3	-3028	43	839	2528	-945	200
2/28/2009	8825	28	-1272	722	268	-929	39	64	2326	-799	-288
3/31/2009	8856	31	262	163	5	-2762	41	680	2510	-935	80
4/30/2009	8886	30	416	156	5	-3445	42	1221	2433	-928	143
5/31/2009	8917	31	380	161	5	-3445	48	1163	2505	-955	181
6/30/2009	8947	30	365	156	5	-3450	48	1224	2435	-926	186
7/31/2009	8978	31	487	161	7	-4395	50	1927	2563	-997	237
8/31/2009	9009	31	446	161	7	-4398	49	1980	2561	-1007	242
9/30/2009	9039	30	401	156	7	-4407	44	2148	2441	-982	232
10/31/2009	9070	31	-754	432	162	-1448	32	93	2530	-907	-58
11/30/2009	9100	30	455	156	7	-4401	34	2101	2495	-971	165
12/31/2009	9131	31	-897	525	194	-1344	32	19	2599	-907	-117
1/31/2010	9162	31	-1506	838	326	-924	28	30	2587	-884	-341
2/28/2010	9190	28	-843	505	190	-1172	31	2	2357	-800	-169
3/31/2010	9221	31	466	161	4	-3782	49	1409	2584	-936	93
4/30/2010	9251	30	-227	218	68	-1629	45	-163	2529	-867	77
5/31/2010	9282	31	502	161	4	-3785	48	1240	2621	-932	187
6/30/2010	9312	30	460	156	4	-3801	51	1292	2573	-904	213
7/31/2010	9343	31	495	161	7	-4266	53	1778	2623	-1002	196
8/31/2010	9374	31	483	161	7	-4277	53	1827	2611	-1015	193
9/30/2010	9404	30	462	156	7	-4291	48	1983	2486	-994	185
10/31/2010	9435	31	-235	231	71	-1794	35	14	2559	-918	81
11/30/2010	9465	30	-32	183	38	-2282	32	370	2508	-912	136
12/31/2010	9496	31	-2344	1306	511	-878	35	510	2660	-878	-675
1/31/2011	9527	31	478	161	5	-3363	45	1256	2510	-944	-99
2/28/2011	9555	28	-864	497	196	-955	39	-53	2304	-801	-258
3/31/2011	9586	31	-1795	929	376	-717	40	243	2513	-874	-527
4/30/2011	9616	30	499	156	5	-3361	45	1254	2416	-909	-51
5/31/2011	9647	31	382	168	7	-2448	53	280	2503	-917	26
6/30/2011	9677	30	520	156	5	-3367	58	1048	2460	-905	76
7/31/2011	9708	31	517	161	6	-3630	66	1177	2536	-957	175
8/31/2011	9739	31	500	161	6	-3629	74	1152	2531	-962	216
9/30/2011	9769	30	481	156	6	-3637	68	1299	2368	-934	239
10/31/2011	9800	31	-45	203	32	-1692	57	-257	2435	-899	212
11/30/2011	9830	30	-185	223	60	-1402	47	-449	2467	-870	154
12/31/2011	9861	31	435	161	6	-3628	51	1200	2530	-960	250
1/31/2012	9892	31	30	191	29	-1952	48	-57	2510	-941	187

Flow Budget for Aquifer B in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Piru B	Santa Paula B	Fillmore C
2/29/2012	9921	29	484	151	6	-3826	52	1569	2330	-931	206
3/31/2012	9952	31	-541	344	120	-1161	58	-324	2495	-919	-13
4/30/2012	9982	30	-355	302	98	-1213	57	-374	2408	-890	18
5/31/2012	10013	31	625	161	6	-3808	65	1376	2426	-989	179
6/30/2012	10043	30	527	156	6	-3823	64	1527	2351	-962	194
7/31/2012	10074	31	423	161	7	-3838	61	1514	2386	-902	228
8/31/2012	10105	31	427	161	7	-3845	57	1524	2375	-899	234
9/30/2012	10135	30	378	156	7	-3858	48	1695	2258	-870	225
10/31/2012	10166	31	282	161	7	-3860	43	1681	2365	-856	217
11/30/2012	10196	30	-187	201	47	-1692	35	1	2358	-856	133
12/31/2012	10227	31	-156	237	58	-1478	34	-323	2422	-891	139
1/31/2013	10258	31	-79	204	45	-1279	30	-315	2273	-869	31
2/28/2013	10286	28	421	145	6	-3240	32	1334	2022	-739	53
3/31/2013	10317	31	249	161	5	-2673	39	823	2211	-829	51
4/30/2013	10347	30	368	156	6	-3240	41	1327	2118	-787	46
5/31/2013	10378	31	360	161	6	-3241	43	1310	2169	-813	43
6/30/2013	10408	30	374	156	6	-3251	40	1376	2088	-787	34
7/31/2013	10439	31	406	161	5	-3591	41	1505	2233	-827	103
8/31/2013	10470	31	387	161	5	-3593	40	1538	2220	-835	114
9/30/2013	10500	30	373	156	5	-3603	39	1630	2141	-812	106
10/31/2013	10531	31	345	161	5	-3602	40	1640	2187	-847	107
11/30/2013	10561	30	271	156	5	-3174	38	1356	2113	-831	101
12/31/2013	10592	31	332	161	5	-3608	43	1719	2142	-860	101
1/31/2014	10623	31	416	161	7	-4219	46	2351	2085	-883	73
2/28/2014	10651	28	-650	449	162	-1039	33	297	1912	-819	-267
3/31/2014	10682	31	-260	235	78	-1497	32	405	2083	-916	-112
4/30/2014	10712	30	512	156	7	-4204	37	2348	1986	-860	54
5/31/2014	10743	31	484	161	7	-4213	40	2349	2037	-883	56
6/30/2014	10773	30	519	156	7	-4223	39	2370	1968	-857	56
7/31/2014	10804	31	522	161	7	-4059	40	2070	2064	-911	143
8/31/2014	10835	31	519	161	7	-4054	40	2067	2046	-917	167
9/30/2014	10865	30	529	156	7	-4058	40	2119	1971	-891	163
10/31/2014	10896	31	486	161	7	-4056	41	2146	2011	-925	167
11/30/2014	10926	30	400	156	5	-3464	41	1705	1937	-904	160
12/31/2014	10957	31	-823	530	179	-1031	33	360	1999	-937	-215
1/31/2015	10988	31	-89	215	51	-1267	31	266	1826	-929	-63
2/28/2015	11016	28	285	150	7	-2583	36	1315	1632	-811	5
3/31/2015	11047	31	172	171	9	-2272	43	1018	1792	-899	4
4/30/2015	11077	30	461	156	6	-3498	43	1976	1729	-839	3
5/31/2015	11108	31	260	167	7	-2565	44	1237	1785	-893	-5
6/30/2015	11138	30	513	156	6	-3503	40	1941	1725	-835	-6
7/31/2015	11169	31	-15	201	18	-1794	36	470	1939	-902	85
8/31/2015	11200	31	598	161	8	-3949	37	2002	1924	-857	112
9/30/2015	11230	30	420	156	5	-3418	37	1709	1869	-836	94
10/31/2015	11261	31	527	161	8	-3965	38	2115	1909	-847	91
11/30/2015	11291	30	491	156	8	-3977	38	2219	1840	-816	77
12/31/2015	11322	31	467	161	8	-3978	40	2235	1876	-846	74

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
1/31/1985	31	31	1047	131	7	-220	429	-1410	405	-289
2/28/1985	59	28	1116	118	6	-215	361	-1401	371	-259
3/31/1985	90	31	1304	130	6	-224	375	-1618	416	-286
4/30/1985	120	30	1406	125	0	-310	346	-1612	409	-271
5/31/1985	151	31	1479	129	0	-311	340	-1665	426	-279
6/30/1985	181	30	1405	125	0	-304	314	-1570	413	-270
7/31/1985	212	31	1395	129	0	-266	310	-1598	423	-279
8/31/1985	243	31	1375	129	0	-264	297	-1566	422	-279
9/30/1985	273	30	1280	125	0	-257	276	-1460	412	-269
10/31/1985	304	31	1256	129	0	-259	273	-1443	433	-280
11/30/1985	334	30	514	389	23	-146	251	-1038	416	-286
12/31/1985	365	31	1075	129	0	-213	250	-1271	430	-295
1/31/1986	396	31	594	354	21	-393	244	-893	491	-301
2/28/1986	424	28	-194	708	43	-356	213	-423	445	-282
3/31/1986	455	31	390	410	25	-382	228	-718	489	-316
4/30/1986	485	30	917	126	7	-497	217	-865	489	-296
5/31/1986	516	31	1048	129	0	-644	223	-888	518	-290
6/30/1986	546	30	985	125	0	-633	213	-831	511	-277
7/31/1986	577	31	893	129	0	-385	211	-947	484	-291
8/31/1986	608	31	879	129	0	-389	205	-926	489	-294
9/30/1986	638	30	735	125	5	-307	191	-843	473	-291
10/31/1986	669	31	816	129	0	-392	194	-852	489	-296
11/30/1986	699	30	564	129	9	-241	179	-725	471	-298
12/31/1986	730	31	800	129	0	-392	184	-821	486	-300
1/31/1987	761	31	565	133	9	-180	175	-766	462	-310
2/28/1987	789	28	585	118	6	-207	155	-713	415	-282
3/31/1987	820	31	496	138	12	-169	167	-697	456	-317
4/30/1987	850	30	722	125	0	-321	162	-759	443	-295
5/31/1987	881	31	692	129	0	-317	165	-749	458	-301
6/30/1987	911	30	648	125	0	-312	157	-702	446	-289
7/31/1987	942	31	644	129	0	-335	159	-697	471	-296
8/31/1987	973	31	632	129	0	-335	157	-686	473	-297
9/30/1987	1003	30	606	125	0	-332	150	-650	457	-286
10/31/1987	1034	31	410	133	7	-179	148	-602	466	-309
11/30/1987	1064	30	389	130	9	-175	140	-564	450	-307
12/31/1987	1095	31	-4	326	21	-139	140	-398	464	-328
1/31/1988	1126	31	307	196	16	-598	144	-248	588	-328
2/29/1988	1155	29	274	154	14	-589	133	-178	565	-304
3/31/1988	1186	31	477	129	0	-678	142	-285	598	-317
4/30/1988	1216	30	82	265	21	-576	134	-119	582	-316
5/31/1988	1247	31	558	129	0	-785	141	-274	609	-312
6/30/1988	1277	30	512	125	0	-774	135	-248	607	-296
7/31/1988	1308	31	523	129	0	-770	137	-279	629	-308
8/31/1988	1339	31	531	129	0	-771	135	-284	628	-308
9/30/1988	1369	30	517	125	0	-767	130	-261	611	-296
10/31/1988	1400	31	514	129	0	-769	132	-267	626	-306
11/30/1988	1430	30	371	125	6	-643	123	-222	604	-306
12/31/1988	1461	31	-127	326	20	-584	123	28	614	-331
1/31/1989	1492	31	352	129	0	-440	121	-315	538	-326
2/28/1989	1520	28	22	191	16	-304	105	-154	487	-305
3/31/1989	1551	31	367	129	0	-397	116	-357	534	-336
4/30/1989	1581	30	443	125	0	-468	114	-365	521	-316

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
5/31/1989	1612	31	414	129	0	-466	116	-357	543	-324
6/30/1989	1642	30	408	125	0	-464	111	-344	529	-314
7/31/1989	1673	31	383	129	0	-296	112	-444	495	-326
8/31/1989	1704	31	409	129	0	-298	111	-461	490	-327
9/30/1989	1734	30	404	125	0	-296	107	-446	471	-316
10/31/1989	1765	31	399	129	0	-263	108	-476	481	-328
11/30/1989	1795	30	423	125	0	-295	105	-457	463	-316
12/31/1989	1826	31	420	129	0	-296	108	-462	476	-326
1/31/1990	1857	31	-51	212	18	-118	103	-227	461	-342
2/28/1990	1885	28	27	174	16	-122	92	-232	412	-315
3/31/1990	1916	31	385	129	0	-276	105	-417	459	-336
4/30/1990	1946	30	394	125	0	-267	102	-434	446	-320
5/31/1990	1977	31	381	129	0	-245	104	-448	460	-334
6/30/1990	2007	30	402	125	0	-266	101	-442	446	-320
7/31/1990	2038	31	439	129	0	-484	106	-340	524	-328
8/31/1990	2069	31	409	129	0	-480	105	-313	522	-327
9/30/1990	2099	30	396	125	0	-477	101	-293	506	-315
10/31/1990	2130	31	399	129	0	-477	104	-303	518	-326
11/30/1990	2160	30	389	125	0	-474	100	-283	501	-315
12/31/1990	2191	31	385	129	0	-475	103	-286	513	-325
1/31/1991	2222	31	247	131	7	-383	101	-225	504	-336
2/28/1991	2250	28	-67	182	14	-317	89	1	454	-312
3/31/1991	2281	31	-1741	1113	68	-282	96	787	478	-363
4/30/1991	2311	30	149	125	0	-516	99	58	472	-341
5/31/1991	2342	31	176	129	0	-511	103	-14	502	-344
6/30/1991	2372	30	272	125	0	-508	100	-115	496	-330
7/31/1991	2403	31	261	129	0	-297	99	-277	470	-343
8/31/1991	2434	31	323	129	0	-303	98	-329	466	-343
9/30/1991	2464	30	329	125	0	-302	94	-327	450	-330
10/31/1991	2495	31	308	129	0	-301	96	-326	474	-341
11/30/1991	2525	30	309	125	0	-303	92	-321	470	-332
12/31/1991	2556	31	-400	333	20	-169	90	61	475	-361
1/31/1992	2587	31	45	148	11	-173	90	-169	461	-368
2/29/1992	2616	29	-1624	1061	66	-118	82	615	422	-357
3/31/1992	2647	31	-870	602	37	-129	87	308	448	-393
4/30/1992	2677	30	139	125	0	-324	89	-82	461	-367
5/31/1992	2708	31	170	129	0	-321	92	-158	500	-373
6/30/1992	2738	30	234	125	0	-320	90	-229	497	-359
7/31/1992	2769	31	280	129	0	-299	92	-315	519	-368
8/31/1992	2800	31	319	129	0	-301	92	-356	521	-366
9/30/1992	2830	30	309	125	0	-299	88	-339	505	-352
10/31/1992	2861	31	35	133	9	-165	86	-213	535	-378
11/30/1992	2891	30	299	125	0	-306	85	-334	528	-361
12/31/1992	2922	31	-544	430	26	-145	83	55	546	-390
1/31/1993	2953	31	-1698	1074	65	-141	83	637	537	-409
2/28/1993	2981	28	-1384	903	55	-134	75	515	480	-381
3/31/1993	3012	31	-423	337	21	-163	83	82	541	-424
4/30/1993	3042	30	151	125	0	-384	86	-99	551	-393
5/31/1993	3073	31	200	129	0	-382	90	-188	586	-398
6/30/1993	3103	30	228	125	0	-333	86	-264	578	-385
7/31/1993	3134	31	210	129	0	-255	86	-327	589	-397
8/31/1993	3165	31	280	129	0	-260	86	-388	586	-396

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
9/30/1993	3195	30	314	125	0	-260	83	-410	564	-382
10/31/1993	3226	31	328	129	0	-263	86	-432	581	-393
11/30/1993	3256	30	261	125	0	-188	81	-419	560	-386
12/31/1993	3287	31	182	131	8	-155	82	-385	579	-405
1/31/1994	3318	31	445	129	0	-635	88	-277	679	-395
2/28/1994	3346	28	-587	506	31	-476	78	255	626	-366
3/31/1994	3377	31	19	151	12	-511	86	11	682	-409
4/30/1994	3407	30	307	125	0	-630	87	-136	662	-382
5/31/1994	3438	31	306	129	0	-589	89	-188	677	-390
6/30/1994	3468	30	364	125	0	-625	87	-200	655	-375
7/31/1994	3499	31	309	129	0	-293	87	-383	567	-384
8/31/1994	3530	31	354	129	0	-296	88	-420	560	-383
9/30/1994	3560	30	363	125	0	-293	85	-417	536	-368
10/31/1994	3591	31	238	129	0	-174	85	-410	553	-389
11/30/1994	3621	30	285	125	4	-226	83	-398	538	-379
12/31/1994	3652	31	207	130	6	-177	84	-378	557	-395
1/31/1995	3683	31	-2763	1759	109	-271	84	1136	603	-421
2/28/1995	3711	28	-71	121	11	-334	78	80	537	-382
3/31/1995	3742	31	-1128	760	47	-278	85	446	599	-429
4/30/1995	3772	30	119	125	0	-487	87	-5	597	-401
5/31/1995	3803	31	141	129	6	-418	90	-115	613	-410
6/30/1995	3833	30	281	125	0	-489	89	-189	604	-390
7/31/1995	3864	31	265	129	0	-258	90	-357	560	-398
8/31/1995	3895	31	319	129	0	-261	90	-408	559	-396
9/30/1995	3925	30	339	125	0	-260	87	-422	542	-380
10/31/1995	3956	31	341	129	0	-262	89	-436	561	-392
11/30/1995	3986	30	343	125	0	-260	86	-430	543	-378
12/31/1995	4017	31	152	133	6	-150	86	-361	569	-401
1/31/1996	4048	31	302	129	4	-247	86	-415	572	-399
2/29/1996	4077	29	-751	527	32	-114	78	158	529	-387
3/31/1996	4108	31	40	133	8	-175	84	-206	566	-415
4/30/1996	4138	30	280	125	0	-292	84	-332	551	-386
5/31/1996	4169	31	352	129	0	-339	89	-381	571	-392
6/30/1996	4199	30	367	125	0	-332	87	-395	552	-375
7/31/1996	4230	31	442	129	0	-548	92	-325	619	-379
8/31/1996	4261	31	408	129	0	-543	92	-301	618	-375
9/30/1996	4291	30	414	125	0	-539	90	-295	592	-359
10/31/1996	4322	31	67	136	11	-346	88	-146	610	-387
11/30/1996	4352	30	110	133	9	-358	85	-160	593	-380
12/31/1996	4383	31	-644	477	29	-321	86	226	614	-403
1/31/1997	4414	31	-501	334	20	-122	83	87	554	-412
2/28/1997	4442	28	210	116	0	-273	79	-243	499	-360
3/31/1997	4473	31	236	129	0	-275	87	-312	557	-393
4/30/1997	4503	30	276	125	0	-272	85	-349	541	-378
5/31/1997	4534	31	321	129	0	-275	87	-404	559	-389
6/30/1997	4564	30	329	125	0	-272	84	-405	540	-375
7/31/1997	4595	31	470	129	0	-655	93	-274	641	-376
8/31/1997	4626	31	409	129	0	-646	93	-230	642	-369
9/30/1997	4656	30	372	125	0	-641	90	-195	631	-355
10/31/1997	4687	31	353	129	0	-643	93	-191	653	-367
11/30/1997	4717	30	20	143	10	-444	85	-46	631	-370
12/31/1997	4748	31	-476	343	20	-410	85	230	645	-396

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
1/31/1998	4779	31	-58	168	10	-512	86	71	667	-398
2/28/1998	4807	28	-2095	1247	76	-458	78	1086	606	-373
3/31/1998	4838	31	-390	219	13	-501	86	372	655	-415
4/30/1998	4868	30	4	129	7	-536	85	85	651	-394
5/31/1998	4899	31	-285	277	18	-495	87	159	683	-408
6/30/1998	4929	30	295	125	0	-663	89	-101	662	-380
7/31/1998	4960	31	201	129	0	-281	88	-310	586	-387
8/31/1998	4991	31	250	129	0	-287	89	-356	589	-387
9/30/1998	5021	30	283	125	0	-285	86	-375	566	-373
10/31/1998	5052	31	320	129	0	-288	89	-415	574	-382
11/30/1998	5082	30	266	126	3	-248	85	-394	559	-370
12/31/1998	5113	31	333	129	0	-290	88	-432	578	-380
1/31/1999	5144	31	100	133	8	-141	85	-339	573	-389
2/28/1999	5172	28	210	116	5	-177	77	-375	522	-353
3/31/1999	5203	31	109	134	9	-151	84	-339	579	-395
4/30/1999	5233	30	103	129	8	-149	81	-321	561	-383
5/31/1999	5264	31	323	129	0	-250	85	-452	576	-385
6/30/1999	5294	30	320	125	0	-242	83	-444	552	-369
7/31/1999	5325	31	413	129	0	-608	89	-292	669	-374
8/31/1999	5356	31	357	129	0	-602	89	-251	672	-369
9/30/1999	5386	30	352	125	0	-597	87	-234	646	-354
10/31/1999	5417	31	326	129	0	-598	89	-224	667	-365
11/30/1999	5447	30	289	125	0	-580	86	-195	654	-354
12/31/1999	5478	31	302	129	0	-598	88	-201	670	-365
1/31/2000	5509	31	84	131	5	-167	83	-295	563	-377
2/29/2000	5538	29	-707	436	27	-111	76	186	516	-368
3/31/2000	5569	31	-59	136	8	-152	81	-139	548	-394
4/30/2000	5599	30	24	130	8	-157	79	-210	531	-378
5/31/2000	5630	31	278	129	0	-282	85	-358	550	-377
6/30/2000	5660	30	284	125	0	-273	83	-368	534	-360
7/31/2000	5691	31	331	129	0	-488	87	-284	622	-372
8/31/2000	5722	31	307	129	0	-486	87	-267	624	-369
9/30/2000	5752	30	293	125	0	-482	84	-247	606	-355
10/31/2000	5783	31	141	131	8	-413	85	-178	630	-377
11/30/2000	5813	30	272	125	0	-485	83	-229	615	-358
12/31/2000	5844	31	252	129	0	-484	85	-224	636	-369
1/31/2001	5875	31	-874	530	34	-300	81	357	625	-390
2/28/2001	5903	28	-1144	661	41	-293	73	549	560	-365
3/31/2001	5934	31	-669	421	27	-312	81	303	610	-409
4/30/2001	5964	30	-35	128	10	-356	80	-4	596	-390
5/31/2001	5995	31	202	129	0	-500	86	-127	621	-386
6/30/2001	6025	30	235	125	0	-491	84	-170	607	-367
7/31/2001	6056	31	165	129	0	-213	83	-323	565	-382
8/31/2001	6087	31	223	129	0	-220	83	-366	558	-383
9/30/2001	6117	30	239	125	0	-218	80	-371	536	-368
10/31/2001	6148	31	235	129	0	-220	82	-380	560	-380
11/30/2001	6178	30	-180	194	15	-113	77	-125	545	-383
12/31/2001	6209	31	87	131	7	-150	79	-294	564	-397
1/31/2002	6240	31	271	129	4	-499	83	-223	651	-390
2/28/2002	6268	28	281	116	0	-524	76	-182	597	-343
3/31/2002	6299	31	270	129	0	-527	84	-203	649	-379
4/30/2002	6329	30	276	125	0	-526	81	-196	628	-365

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
5/31/2002	6360	31	273	129	0	-528	84	-201	643	-377
6/30/2002	6390	30	269	125	0	-524	81	-187	622	-363
7/31/2002	6421	31	273	129	0	-466	83	-234	609	-372
8/31/2002	6452	31	277	129	0	-465	83	-235	605	-371
9/30/2002	6482	30	260	125	0	-460	80	-214	588	-357
10/31/2002	6513	31	245	129	0	-462	82	-212	611	-371
11/30/2002	6543	30	-397	288	18	-340	78	170	588	-376
12/31/2002	6574	31	-330	276	18	-349	80	131	601	-396
1/31/2003	6605	31	239	129	0	-620	84	-58	630	-380
2/28/2003	6633	28	-510	349	22	-437	75	316	576	-353
3/31/2003	6664	31	-241	227	16	-460	82	176	628	-397
4/30/2003	6694	30	71	127	9	-504	80	13	611	-380
5/31/2003	6725	31	32	133	10	-483	82	16	629	-392
6/30/2003	6755	30	269	125	0	-611	83	-90	614	-367
7/31/2003	6786	31	211	129	0	-414	83	-194	582	-374
8/31/2003	6817	31	249	129	0	-417	83	-225	578	-374
9/30/2003	6847	30	238	125	0	-414	80	-211	564	-359
10/31/2003	6878	31	225	129	0	-417	82	-214	590	-372
11/30/2003	6908	30	-2	129	13	-298	77	-86	571	-375
12/31/2003	6939	31	17	139	12	-313	79	-99	585	-391
1/31/2004	6970	31	259	129	0	-547	81	-146	625	-379
2/29/2004	6999	29	-834	520	32	-420	75	468	589	-369
3/31/2004	7030	31	105	129	0	-554	82	25	624	-385
4/30/2004	7060	30	172	125	0	-547	80	-50	608	-367
5/31/2004	7091	31	207	129	0	-549	82	-95	626	-378
6/30/2004	7121	30	227	125	0	-545	79	-108	608	-365
7/31/2004	7152	31	207	129	0	-376	80	-211	569	-375
8/31/2004	7183	31	236	129	0	-378	80	-233	564	-375
9/30/2004	7213	30	237	125	0	-374	78	-226	543	-362
10/31/2004	7244	31	-846	526	33	-242	78	346	564	-394
11/30/2004	7274	30	122	125	0	-380	77	-97	547	-371
12/31/2004	7305	31	-1050	646	41	-239	78	444	561	-401
1/31/2005	7336	31	-2561	1518	95	-344	79	1256	584	-420
2/28/2005	7364	28	-1337	775	49	-341	72	744	532	-388
3/31/2005	7395	31	-240	169	14	-378	80	208	606	-426
4/30/2005	7425	30	50	125	0	-483	79	40	611	-399
5/31/2005	7456	31	153	129	0	-534	83	-48	644	-403
6/30/2005	7486	30	216	125	0	-531	82	-108	626	-386
7/31/2005	7517	31	159	129	0	-409	83	-170	629	-397
8/31/2005	7548	31	232	129	0	-416	83	-236	629	-398
9/30/2005	7578	30	273	125	0	-413	80	-256	594	-381
10/31/2005	7609	31	153	130	6	-346	82	-221	623	-401
11/30/2005	7639	30	245	125	0	-407	79	-250	613	-383
12/31/2005	7670	31	245	129	0	-418	81	-252	633	-394
1/31/2006	7701	31	-467	358	24	-172	78	32	604	-413
2/28/2006	7729	28	-411	297	21	-164	70	57	545	-380
3/31/2006	7760	31	-424	336	22	-183	77	33	604	-425
4/30/2006	7790	30	-485	372	23	-177	74	66	585	-412
5/31/2006	7821	31	196	129	6	-312	79	-254	597	-413
6/30/2006	7851	30	335	125	0	-426	80	-285	573	-379
7/31/2006	7882	31	309	129	0	-566	84	-211	672	-394
8/31/2006	7913	31	354	129	0	-567	85	-239	651	-390

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
9/30/2006	7943	30	320	125	0	-560	82	-208	636	-373
10/31/2006	7974	31	318	129	0	-562	84	-218	657	-384
11/30/2006	8004	30	292	125	0	-558	81	-191	644	-371
12/31/2006	8035	31	256	129	0	-526	82	-196	667	-390
1/31/2007	8066	31	98	132	10	-429	80	-121	657	-401
2/28/2007	8094	28	177	119	7	-451	73	-138	596	-359
3/31/2007	8125	31	295	129	0	-531	82	-212	649	-389
4/30/2007	8155	30	243	125	0	-473	78	-199	626	-379
5/31/2007	8186	31	299	129	0	-528	81	-214	641	-386
6/30/2007	8216	30	285	125	0	-521	79	-195	620	-372
7/31/2007	8247	31	242	129	0	-279	79	-323	558	-384
8/31/2007	8278	31	275	129	0	-282	80	-344	548	-384
9/30/2007	8308	30	256	125	0	-277	77	-322	532	-370
10/31/2007	8339	31	245	129	0	-280	79	-322	553	-384
11/30/2007	8369	30	233	125	0	-276	76	-304	538	-372
12/31/2007	8400	31	-226	202	19	-149	77	-44	556	-404
1/31/2008	8431	31	-1578	926	60	-133	76	639	548	-418
2/29/2008	8460	29	-177	133	10	-157	71	30	509	-391
3/31/2008	8491	31	95	129	0	-265	79	-156	544	-403
4/30/2008	8521	30	177	125	0	-257	77	-246	531	-386
5/31/2008	8552	31	201	129	0	-261	80	-280	552	-398
6/30/2008	8582	30	213	125	0	-258	77	-286	535	-384
7/31/2008	8613	31	288	129	0	-440	81	-244	599	-391
8/31/2008	8644	31	271	129	0	-435	81	-235	600	-389
9/30/2008	8674	30	267	125	0	-431	79	-226	580	-374
10/31/2008	8705	31	251	129	0	-434	81	-225	607	-387
11/30/2008	8735	30	-87	151	14	-296	76	-34	595	-392
12/31/2008	8766	31	-69	158	13	-308	78	-47	614	-410
1/31/2009	8797	31	226	129	0	-435	79	-200	626	-402
2/28/2009	8825	28	-644	427	28	-315	71	288	571	-375
3/31/2009	8856	31	95	129	0	-415	78	-80	625	-410
4/30/2009	8886	30	197	125	0	-456	77	-143	608	-387
5/31/2009	8917	31	222	129	0	-457	79	-181	628	-398
6/30/2009	8947	30	233	125	0	-453	77	-186	608	-383
7/31/2009	8978	31	245	129	0	-400	79	-237	599	-393
8/31/2009	9009	31	253	129	0	-400	79	-242	594	-392
9/30/2009	9039	30	252	125	0	-395	77	-232	571	-377
10/31/2009	9070	31	-300	239	23	-250	77	58	592	-408
11/30/2009	9100	30	193	125	0	-401	76	-165	576	-382
12/31/2009	9131	31	-429	310	21	-247	77	117	597	-413
1/31/2010	9162	31	-763	500	31	-280	76	341	567	-413
2/28/2010	9190	28	-392	293	18	-261	69	169	511	-375
3/31/2010	9221	31	159	129	0	-416	78	-93	566	-400
4/30/2010	9251	30	16	132	12	-291	75	-77	554	-395
5/31/2010	9282	31	237	129	0	-413	78	-187	576	-398
6/30/2010	9312	30	254	125	0	-399	76	-213	560	-382
7/31/2010	9343	31	319	129	0	-528	80	-196	604	-387
8/31/2010	9374	31	308	129	0	-521	80	-193	604	-385
9/30/2010	9404	30	303	125	0	-511	78	-185	580	-370
10/31/2010	9435	31	60	134	10	-378	78	-81	600	-398
11/30/2010	9465	30	152	126	10	-399	76	-136	581	-385
12/31/2010	9496	31	-1387	832	51	-333	77	675	601	-414

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
1/31/2011	9527	31	88	129	0	-595	80	99	625	-402
2/28/2011	9555	28	-385	296	21	-434	72	258	576	-371
3/31/2011	9586	31	-935	598	37	-448	79	527	634	-421
4/30/2011	9616	30	130	125	0	-583	78	51	615	-393
5/31/2011	9647	31	144	129	0	-541	81	-26	640	-405
6/30/2011	9677	30	237	125	0	-582	80	-76	624	-386
7/31/2011	9708	31	201	129	0	-406	80	-175	588	-395
8/31/2011	9739	31	250	129	0	-410	80	-216	582	-394
9/30/2011	9769	30	284	125	0	-402	78	-239	554	-378
10/31/2011	9800	31	154	129	7	-302	79	-212	571	-403
11/30/2011	9830	30	85	129	9	-286	75	-154	561	-395
12/31/2011	9861	31	296	129	0	-414	79	-250	577	-396
1/31/2012	9892	31	176	130	5	-364	78	-187	588	-403
2/29/2012	9921	29	305	120	0	-454	75	-206	545	-366
3/31/2012	9952	31	-109	166	14	-313	79	13	584	-407
4/30/2012	9982	30	-37	143	13	-315	76	-18	564	-398
5/31/2012	10013	31	277	129	0	-467	81	-179	576	-394
6/30/2012	10043	30	282	125	0	-451	79	-194	556	-376
7/31/2012	10074	31	269	129	0	-405	81	-228	561	-386
8/31/2012	10105	31	278	129	0	-405	81	-234	557	-385
9/30/2012	10135	30	272	125	0	-396	78	-225	537	-370
10/31/2012	10166	31	251	129	0	-401	80	-217	561	-382
11/30/2012	10196	30	65	128	9	-281	76	-133	545	-384
12/31/2012	10227	31	76	132	9	-287	77	-139	560	-403
1/31/2013	10258	31	159	132	8	-556	80	-31	634	-401
2/28/2013	10286	28	274	116	0	-623	74	-53	578	-347
3/31/2013	10317	31	221	129	0	-603	81	-51	631	-387
4/30/2013	10347	30	251	125	0	-628	79	-46	609	-369
5/31/2013	10378	31	239	129	0	-630	82	-43	624	-380
6/30/2013	10408	30	236	125	0	-622	79	-34	604	-367
7/31/2013	10439	31	204	129	0	-480	79	-103	571	-379
8/31/2013	10470	31	223	129	0	-480	78	-114	565	-380
9/30/2013	10500	30	222	125	0	-472	74	-106	543	-366
10/31/2013	10531	31	221	129	0	-475	76	-107	556	-379
11/30/2013	10561	30	205	125	0	-449	72	-101	536	-367
12/31/2013	10592	31	222	129	0	-471	74	-101	547	-379
1/31/2014	10623	31	209	129	0	-503	75	-73	558	-375
2/28/2014	10651	28	-390	242	17	-326	66	267	506	-356
3/31/2014	10682	31	-100	147	13	-373	73	112	552	-397
4/30/2014	10712	30	223	125	0	-512	74	-54	533	-368
5/31/2014	10743	31	204	129	0	-507	77	-56	549	-376
6/30/2014	10773	30	209	125	0	-502	75	-56	531	-362
7/31/2014	10804	31	151	129	0	-311	75	-143	496	-377
8/31/2014	10835	31	190	129	0	-319	76	-167	489	-377
9/30/2014	10865	30	194	125	0	-316	74	-163	470	-363
10/31/2014	10896	31	195	129	0	-320	77	-167	482	-375
11/30/2014	10926	30	172	125	0	-287	74	-160	462	-367
12/31/2014	10957	31	-469	297	19	-180	75	215	470	-395
1/31/2015	10988	31	68	132	8	-474	77	63	544	-394
2/28/2015	11016	28	186	116	0	-510	71	-5	503	-344
3/31/2015	11047	31	153	129	0	-503	78	-4	551	-383
4/30/2015	11077	30	211	125	0	-563	76	-3	535	-363

Flow Budget for Aquifer C in Fillmore Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore B	Piru C	Santa Paula C
5/31/2015	11108	31	151	129	0	-513	78	5	551	-381
6/30/2015	11138	30	200	125	0	-561	76	6	535	-362
7/31/2015	11169	31	47	129	0	-230	75	-85	472	-388
8/31/2015	11200	31	238	129	0	-407	77	-112	469	-374
9/30/2015	11230	30	161	125	0	-338	75	-94	454	-363
10/31/2015	11261	31	201	129	0	-396	78	-91	467	-369
11/30/2015	11291	30	186	125	0	-388	76	-77	450	-354
12/31/2015	11322	31	178	129	0	-389	78	-74	462	-365

Flow Budget for Aquifer A in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet										
			STORAGE	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Mound L1	Santa Paula B	Mound L2 L3	Oxnard UAS	Net Stream Percolation
1/31/1985	31	31	-767.669	-304.624	761.267	-97.55	9.296	285.224	0	1188.338	-6.826	-133.471	-999
2/28/1985	59	28	-324.688	-309.207	718.499	-122.167	-2.066	254.704	0	770.114	-5.636	-114.554	-921
3/31/1985	90	31	-179.593	-482.616	751.405	-138.698	-5.775	279.698	0	836.732	-5.982	-127.215	-990
4/30/1985	120	30	773.954	-536.856	753.588	-288.091	-10.857	273.253	0	10.854	-5.056	-127.116	-899
5/31/1985	151	31	796.715	-568.553	769.44	-287.282	-12.822	283.853	0	-47.992	-4.67	-144.776	-840
6/30/1985	181	30	758.973	-502.095	758.048	-287.281	-13.005	276.003	0	-135.398	-4.281	-153.671	-750
7/31/1985	212	31	934.515	-482.598	831.723	-312.747	-14.772	282.658	0	-397.243	-3.823	-175.009	-716
8/31/1985	243	31	868.286	-421.464	831.803	-311.737	-14.994	282.939	0	-423.491	-3.421	-192.091	-668
9/30/1985	273	30	682.613	-304.276	818.591	-311.388	-32.569	272.833	0	-502.653	-3.168	-195.646	-473
10/31/1985	304	31	717.66	-258.004	829.141	-310.623	-27.911	286.467	0	-469.655	-3.229	-202.614	-610
11/30/1985	334	30	-1566.246	-207.348	1616.857	-36.204	3.152	281.495	0	764.64	-4.832	-204.099	-695
12/31/1985	365	31	208.955	-195.732	739.825	-235.355	-5.059	294.513	0	74.945	-4.549	-212.834	-716
1/31/1986	396	31	-1527.827	-239.91	1532.037	-31.313	6.308	295.717	0	888.133	-5.576	-215.208	-755
2/28/1986	424	28	-2666.1	-279.024	2863.259	-5.257	12.898	271.85	0.314	768.145	-7.564	-193.543	-815
3/31/1986	455	31	-1634.748	-475.133	1759.161	-22.314	18.626	298.191	0.042	1216.599	-8.083	-187.219	-1017
4/30/1986	485	30	1.803	-562.17	759.1	-123.7	8.264	289.248	0	709.232	-5.752	-125.01	-1007
5/31/1986	516	31	1081.732	-643.534	791.892	-261.516	-10.016	292.87	0	-226.586	-4.073	-85.177	-987
6/30/1986	546	30	1123.071	-577.352	782.754	-261.912	-17.332	280.673	0	-401.406	-3.002	-76.242	-896
7/31/1986	577	31	832.803	-547.973	809.63	-266.353	-37.192	281.738	0	-270.645	-3.287	-85.338	-757
8/31/1986	608	31	789.999	-487.682	809.83	-264.875	-23.452	284.402	0	-271.884	-3.596	-88.581	-786
9/30/1986	638	30	236.587	-375.331	772.826	-177.264	-13.231	277.784	0	107.601	-3.849	-114.105	-752
10/31/1986	669	31	634.025	-323.047	806.91	-265.082	-14.902	289.551	0	-272.337	-3.815	-144.717	-746
11/30/1986	699	30	-474.199	-237.598	788.555	-85.436	-7.532	280.503	0	592.187	-3.829	-162.484	-731
12/31/1986	730	31	559.275	-204.739	792.09	-266.188	-14.889	292.051	0	-258.775	-3.68	-185.99	-748
1/31/1987	761	31	-491.394	-231.386	876.676	-92.008	-9.474	289.84	0	580.613	-3.388	-204.996	-758
2/28/1987	789	28	-50.792	-237.474	746.008	-136.475	-8.809	261.68	0	279.951	-2.919	-197.836	-691
3/31/1987	820	31	-543.781	-378.162	954.366	-75.834	-5.454	288.52	0	691.068	-3.406	-226.944	-745
4/30/1987	850	30	970.524	-409.052	799.143	-295.682	-14.801	278.734	0	-471.026	-1.782	-217.001	-676
5/31/1987	881	31	980.19	-410.575	818.15	-294.932	-18.88	285.162	0	-552.168	-0.479	-221.987	-621
6/30/1987	911	30	847.54	-342.644	808.003	-294.721	-29.804	271.686	0	-632.482	-0.09	-211.432	-451
7/31/1987	942	31	851.842	-318.783	869.258	-323.863	-48.174	274.144	0	-697.942	-1.072	-204.574	-436
8/31/1987	973	31	863.936	-285.444	869.399	-323.021	-30	276.831	0	-697.371	-2.108	-193.164	-513
9/30/1987	1003	30	840.643	-208.946	855.652	-322.95	-21.683	272.119	0	-738.894	-2.211	-199.889	-506
10/31/1987	1034	31	-345.216	-188.044	825.019	-129.178	-10.238	284.79	0	282.902	-3.149	-227.42	-526
11/30/1987	1064	30	-140.068	-143.604	761.558	-146.838	-7.16	279.263	0	112.781	-3.214	-234.84	-515
12/31/1987	1095	31	-1545.38	-145.334	1570.151	-38.905	4.398	290.827	0	633.396	-4.457	-256.283	-558
1/31/1988	1126	31	-1088.701	-206.175	1182.435	-57.032	5.988	291.264	0	731.524	-5.05	-258.709	-641
2/29/1988	1155	29	-519.578	-231.045	808.863	-89.149	-2.856	270.972	0	556.743	-3.949	-238.393	-589
3/31/1988	1186	31	548.096	-339.542	755.398	-242.811	-22.922	287.063	0	-209.199	-2.937	-247.978	-562
4/30/1988	1216	30	-943.12	-385.79	1334.528	-50.159	-4.366	274.036	0	571.245	-3.349	-220.378	-616
5/31/1988	1247	31	839.861	-434.968	849.019	-289.47	-27.509	276.052	0	-494.476	-3.026	-201.864	-549
6/30/1988	1277	30	914.725	-358.539	838.291	-288.459	-39.938	259.989	0	-665.455	-1.945	-174.585	-516
7/31/1988	1308	31	1030.42	-328.135	899.322	-339.69	-26.409	272.472	0	-815.559	-0.657	-181.979	-542
8/31/1988	1339	31	959.383	-277.684	901.672	-338.658	-21.521	278.089	0	-831.763	-0.019	-198.966	-502
9/30/1988	1369	30	907.947	-198.534	888.479	-338.221	-19.294	273.255	0	-873.052	-0.067	-213.238	-457
10/31/1988	1400	31	839.04	-163.104	904.202	-337.725	-18.519	285.404	0	-854.04	-0.309	-239.523	-446
11/30/1988	1430	30	-86.922	-118.161	792.043	-163.19	-11.26	277.467	0	-31.729	-1.791	-248.853	-440
12/31/1988	1461	31	-1468.774	-119.468	1467.817	-41.887	6.069	288.961	0	557.715	-4.464	-277.742	-449
1/31/1989	1492	31	347.574	-143.011	747.977	-253.878	-4.37	285.854	0	-219.864	-3.064	-280.209	-511
2/28/1989	1520	28	-1203.341	-149.102	1307.187	-39.23	1.118	255.77	0	504.816	-3.337	-254.607	-457
3/31/1989	1551	31	0.388	-249.824	712.633	-164.72	-10.521	280.251	0	206.545	-3.614	-270.095	-536
4/30/1989	1581	30	568.954	-252.075	744.901	-255.659	-19.799	265.916	0	-344.407	-2.104	-248.534	-488
5/31/1989	1612	31	564.71	-255.622	760.857	-255.375	-29.558	268.32	0	-388.33	-1.6	-258.494	-436
6/30/1989	1642	30	582.831	-229.274	753.067	-255.196	-25.564	259.012	0	-435.72	-1.337	-258.347	-419
7/31/1989	1673	31	796.933	-223.62	844.397	-335.648	-24.531	273.602	0	-683.462	-0.069	-274.791	-402
8/31/1989	1704	31	761.725	-197.792	844.666	-334.403	-23.308	277.664	0	-699.983	0.557	-283.796	-374
9/30/1989	1734	30	737.695	-145.834	829.159	-333.969	-21.312	270.785	0	-738.629	0.42	-283.618	-342
10/31/1989	1765	31	681.66	-122.311	837.269	-333.493	-20.263	281.814	0	-716.04	0.148	-301.531	-335
11/30/1989	1795	30	643.901	-83.364	803.725	-323.203	-18.738	274.686	0	-706.621	-0.388	-298.167	-318
12/31/1989	1826	31	631.418	-66.488	816.59	-333.074	-18.773	285.106	0	-711.735	-0.428	-313.433	-316
1/31/1990	1857	31	-884.111	-79.558	1063.091	-77.83	-4.071	285.152	0	320.922	-2.658	-319.025	-333
2/28/1990	1885	28	-902.87	-92.476	1098.502	-78.545	1.068	257.822	0	307.968	-4.28	-288.466	-327
3/31/1990	1916	31	846.203	-136.07	922.106	-358.995	-14.722	279.348	0	-913.714	-2.826	-313.968	-336
4/30/1990	1946	30	969.885	-126.798	912.76	-358.764	-22.098	264.906	0	-1085.545	-0.831	-304.24	-275
5/31/1990	1977	31	516.199	-132.52	840.484	-269.442	-21.71	272.507	0	-656.549	-1.174	-318.824	-257
6/30/1990	2007	30	948.567	-120.5	917.926	-359.294	-21.861	262.976	0	-1120.974	-1.05	-312.457	-218
7/31/1990	2038	31	801.941	-116.539	855.585	-358.493	-23.126	276.444	0	-937.012	-0.529	-325.876	-198
8/31/1990	2069	31	756.011	-106.43	852.761	-357.276	-21.949	280.738	0	-913.893	-0.434	-329.673	-185
9/30/1990	2099	30	753.183	-79.097	838.727	-356.792	-20.193	273.772	0	-933.942	-0.41	-323.089	-176
10/31/1990	2130	31	713.575	-65.237	839.634	-356.23	-19.656	284.502	0	-905.308	0.568	-338.299	-178
11/30/1990	2160	30	720.274	-44.338	821.07	-355.444	-18.33	276.663	0	-924.96	0.649	-332.089	-167
12/31/1990	2191	31	692.929	-36.407	828.438	-355.77	-18.458	287.026	0	-903.073	0.346	-346.601	-173
1/31/1991	2222	31	-258.65	-40.679	748.414	-183.671	-11.646	285.737	0	-43.346	-1.703	-352.042	-171
2/28/1991	2250	28	-994.179	-41.085	1052.514	-80.997	-1.297	258.152	0	273.399	-4.004	-323.145	-163
3/31/1991	2281	31	-3532.168	-86.709	3965.445	-5.846	6.669	291.972	1.365	-106.298	-6.837	-349.537	-220
4/30/1991	2311	30	360.846	-121.969	802.926	-361.688	1.132	275.216	0.308	-481.2	-5.379	-287.612	-213
5/31/1991	2342	31	542.766	-121.63	826.437	-363.226	-21.393	275.553	0	-673.583	-2.682	-261.426	-228
6/30/1991	2372	30	650.676	-107.742	823.904	-364.254	-26.859	263.207	0	-787.442	-1.72	-246.115	-229
7/31/1991	2403	31	632.197	-105.33	842.686	-326.535	-25.875	271.907	0	-809.795	-0.893	-261.702	-242
8/31/1991	2434	31	633.345	-97.228	845.431	-326.803	-24.024	272.163	0	-829.258	-0.603	-273.926	-224
9/30/1991	2464	30	649.747	-73.228	835.63	-327.102	-22.162	263.431	0	-870.029	-0.69	-278.507	-201
10/31/1991	2495	31	309.393	-63.582	847.365	-326.878	-35.183	270.821	0	-880.519	-1.043	-298.876	154
11/30/1991	2525	30	584.212	-44.342	832.06	-326.969	-41.7	261.939	0	-910.867	-1.154	-297.405	-79
12/31/1991	2556	31	-1456.407	-38.587	1543.823	-45.191	-5.493	274.905	0	248.794	-3.737	-320.792	-227
1/31/1992	2587	31	-1076.882	-49.641	1025.015	-73.214	0.137	275.109	0	435.5	-5.912	-319.273	-240

Flow Budget for Aquifer A in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Mound L1	Santa Paula B	Mound L2 L3	Oxnard UAS	Net Stream Percolation
2/29/1992	2616	29	-3100.834	-79.291	3381.551	-8.454	5.149	264.005	0.275	31.977	-6.972	-283.267	-243
3/31/1992	2647	31	-2427.694	-203.131	2259.715	-18.194	8.713	282.784	0.03	588.831	-8.307	-252.866	-283
4/30/1992	2677	30	343.863	-234.057	756.016	-285.573	-21.852	252.588	0	-408.582	-5.514	-180.834	-248
5/31/1992	2708	31	613.054	-207.069	775.752	-288.147	-38.617	245.169	0	-618.165	-2.608	-168.343	-341
6/30/1992	2738	30	682.898	-171.155	775.104	-289.175	-33.442	233.507	0	-725.01	-1.762	-160.309	-339
7/31/1992	2769	31	951.119	-158.492	846.393	-321.203	-33.978	258.664	0	-1069.486	2.137	-173.667	-328
8/31/1992	2800	31	925.079	-135.555	854.452	-320.037	-30.612	271.805	0	-1094.394	3.398	-190.147	-310
9/30/1992	2830	30	843.068	-96.003	832.707	-319.467	-28.469	267.148	0	-1135.893	2.95	-205.035	-186
10/31/1992	2861	31	-816.415	-92.097	834.628	-107.228	-46.027	273.633	0	5.386	-1.182	-217.472	138
11/30/1992	2891	30	573.859	-67.866	817.365	-319.132	-59.793	264.394	0	-1075.451	-0.499	-177.233	20
12/31/1992	2922	31	-1603.528	-69.199	1714.833	-36.813	-23.643	273.536	0	186.59	-3.254	-156.612	-315
1/31/1993	2953	31	-2994.583	-134.045	3201.054	-10.598	5.361	277.72	0.206	151.486	-6.036	-155.165	-382
2/28/1993	2981	28	-2983.183	-208.525	3070.581	-9.868	11.241	254.61	0.71	306.149	-6.534	-138.049	-341
3/31/1993	3012	31	-1475.049	-393.478	1550.024	-47.533	5.467	277.378	0.117	687.894	-7.751	-148.838	-497
4/30/1993	3042	30	1061.946	-436.741	823.853	-338.337	-26.21	253.744	0	-806.794	-2.452	-114.223	-447
5/31/1993	3073	31	1142.246	-411.786	842.691	-340.805	-48.363	249.68	0	-1019.857	3.195	-77.92	-370
6/30/1993	3103	30	953.914	-328.927	767.381	-285.684	-38.267	239.649	0	-857.371	3.055	-95.374	-388
7/31/1993	3134	31	935.378	-292.324	857.927	-324.761	-30.11	257.363	0	-927.234	0.346	-121.054	-383
8/31/1993	3165	31	875.743	-239.89	848.855	-323.675	-27.181	262.214	0	-934.287	-1.342	-139.705	-348
9/30/1993	3195	30	812.07	-171.777	836.608	-323.204	-27.956	256.894	0	-972.567	-1.394	-135.142	-299
10/31/1993	3226	31	752.111	-138.848	836.827	-322.811	-29.111	268.639	0	-966.845	-1.371	-119.947	-305
11/30/1993	3256	30	209.76	-96.331	735.01	-217.913	-25.393	263.303	0	-452.99	-1.947	-105.877	-334
12/31/1993	3287	31	-521.857	-87.342	812.478	-114.522	-15.714	273.014	0	143.983	-2.97	-116.407	-399
1/31/1994	3318	31	384.081	-100.992	737.095	-254.833	-21.533	263.866	0	-536.328	-3.588	-124.754	-371
2/28/1994	3346	28	-1903.253	-119.813	2103.163	-21.235	0.862	242.745	0	158.849	-3.926	-123.14	-374
3/31/1994	3377	31	-1105.378	-239.967	1098.877	-55.329	4.04	271.316	0	604.541	-5.557	-146.776	-457
4/30/1994	3407	30	549.422	-260.93	751.01	-264.477	-15.337	252.233	0	-480.061	-4.796	-136.576	-419
5/31/1994	3438	31	623.08	-253.365	774.072	-265.283	-23.266	252.88	0	-594.864	-3.652	-131.344	-406
6/30/1994	3468	30	638.498	-215.478	764.276	-265.235	-24.964	242.155	0	-659.218	-2.93	-120.004	-383
7/31/1994	3499	31	824.941	-200.628	872.771	-330.073	-28.35	255.775	0	-902.199	-3.005	-133.504	-381
8/31/1994	3530	31	780.886	-174.481	878.219	-329.33	-29.637	260.213	0	-928.007	-3.033	-150.937	-329
9/30/1994	3560	30	598.68	-123.167	860.869	-328.849	-39.209	251.263	0	-979.732	-2.66	-164.075	-97
10/31/1994	3591	31	26.613	-104.25	768.698	-225.322	-50.047	262.008	0	-430.247	-2.629	-188.296	-83
11/30/1994	3621	30	-143.915	-77.2	773.268	-171.725	-39.745	254.385	0	-178.275	-3.28	-197.42	-241
12/31/1994	3652	31	-112.993	-70.021	761.623	-179.584	-22.866	265.946	0	-130.116	-4.059	-217.135	-318
1/31/1995	3683	31	-4802.07	-151.331	5655.98	8.173	9.347	281.768	3.345	-582.586	-5.761	-219.669	-277
2/28/1995	3711	28	-830.227	-231.579	685.059	-96.135	-27.183	248.219	1.385	369.374	-4.728	-161.059	9
3/31/1995	3742	31	-2651.37	-402.446	2998.781	-3.994	-13.139	268.542	0.636	412.126	-5.873	-145.245	-503
4/30/1995	3772	30	835.22	-482.043	699.029	-226.726	-17.558	257.565	0.062	-438.771	-2.35	-118.753	-540
5/31/1995	3803	31	199.385	-513.036	710.194	-132.114	-54.314	255.088	0	54.362	0.001	-93.55	-459
6/30/1995	3833	30	950.503	-446.293	720.025	-229.922	-40.135	245.167	0	-677.937	0.959	-95.259	-457
7/31/1995	3864	31	903.377	-395.935	805.919	-311.268	-45.984	254.513	0	-813.347	1.065	-103.446	-323
8/31/1995	3895	31	826.651	-333.594	802.31	-309.762	-55.621	255.538	0	-846.354	0.457	-110.919	-256
9/30/1995	3925	30	755.46	-237.557	787.514	-309.278	-56.472	248.29	0	-896.32	0.515	-108.168	-210
10/31/1995	3956	31	667.426	-196.902	787.376	-308.768	-60.849	257.899	0	-890.671	0.5	-105.331	-177
11/30/1995	3986	30	674.75	-134.116	766.736	-308.56	-58.176	251.574	0	-911.384	0.523	-93.021	-213
12/31/1995	4017	31	-707.676	-120.347	988.49	-87.476	-24.903	260.308	0	214.485	-1.502	-98.806	-449
1/31/1996	4048	31	-196.694	-150.932	724.878	-136.372	-12.984	261.578	0	48.797	-3.168	-107.67	-456
2/29/1996	4077	29	-2221.731	-195.198	2513.969	-13.184	10.974	251.058	0	226.451	-4.063	-103.888	-507
3/31/1996	4108	31	-677.623	-349.037	866.459	-70.599	15.118	270.247	0	585.873	-4.925	-91.298	-579
4/30/1996	4138	30	757.446	-377.63	729.998	-250.787	-6.207	261.252	0	-535.789	-3.539	-78.263	-525
5/31/1996	4169	31	932.699	-366.835	774.398	-262.346	-16.55	267.977	0	-767.822	-1.89	-83.446	-504
6/30/1996	4199	30	932.688	-299.491	764.193	-262.699	-20.666	258.312	0	-846.687	-0.394	-96.061	-455
7/31/1996	4230	31	1503.499	-261.776	918.682	-436.169	-26.511	282.544	0	-1470.794	0.953	-113.588	-422
8/31/1996	4261	31	1443.504	-201.466	916.441	-434.547	-28.088	293.637	0	-1514.314	1.903	-127.229	-375
9/30/1996	4291	30	1249.984	-128.246	900.835	-433.636	-37.19	286.909	0	-1561.907	2.305	-135.232	-168
10/31/1996	4322	31	-675.977	-113.289	930.537	-122.976	-37.559	285.282	0	-47.652	-0.088	-150.439	-96
11/30/1996	4352	30	-927.226	-97.692	1150.838	-99.617	-26.031	267.29	0	155.08	-2.141	-145.205	-301
12/31/1996	4383	31	-2045.847	-117.119	2175.557	-35.767	2.78	275.94	0	261.576	-4.011	-147.193	-413
1/31/1997	4414	31	-2066.2	-190.849	1986.072	-21.981	8.639	275.042	0	575.545	-5.201	-106.616	-500
2/28/1997	4442	28	577.735	-202.405	697.849	-281.245	-9.923	244.709	0	-486.259	-3.534	-62.543	-503
3/31/1997	4473	31	658.115	-262.537	729.649	-282.363	-20.325	268.441	0	-577.776	-1.152	-64.231	-476
4/30/1997	4503	30	723.192	-254.497	728.811	-283.055	-20.465	259.437	0	-655.357	0.195	-61.607	-463
5/31/1997	4534	31	716.056	-257.374	752.254	-283.474	-22.948	268.111	0	-666.951	0.394	-78.549	-455
6/30/1997	4564	30	712.164	-219.923	740.868	-283.512	-23.614	260.013	0	-711.987	0.463	-96.46	-404
7/31/1997	4595	31	1008.555	-201.141	875.5	-365.179	-27.628	266.933	0	-1105.198	-0.252	-120.378	-356
8/31/1997	4626	31	819.708	-166.622	875.468	-364.187	-45.395	263.386	0	-1157.517	-0.594	-140.721	-108
9/30/1997	4656	30	819.08	-118.65	861.312	-363.514	-54.661	254.089	0	-1199.758	-0.299	-155.657	-65
10/31/1997	4687	31	745.439	-95.617	863.701	-363.087	-59.025	263.018	0	-1188.857	-0.118	-176.314	-13
11/30/1997	4717	30	-756.112	-73.225	1057.414	-93.351	-27.099	257.494	0	74.947	-1.695	-181.212	-282
12/31/1997	4748	31	-2220.961	-90.831	2354.037	-27.594	5.074	271.193	0	255.404	-3.721	-198.3	-386
1/31/1998	4779	31	-1377.161	-139.548	1418.769	-60.587	10.392	271.859	0	458.41	-4.795	-179.969	-426
2/28/1998	4807	28	-5305.748	-228.155	6350.723	7.609	17.61	252.91	3.566	-512.125	-5.632	-136.139	-575
3/31/1998	4838	31	-1311.341	-440.836	1459.567	-48.477	23.817	275.553	2.5	935.443	-8.023	-120.224	-817
4/30/1998	4868	30	-315.765	-526.557	850.708	-111.998	2.362	255.733	0.023	575.58	-6.198	-70.335	-688
5/31/1998	4899	31	-1062.325	-640.659	1553.445	-44.999	5.789	260.045	0	760.82	-6.133	-52.186	-809
6/30/1998	4929	30	1542.862	-610.692	799.21	-350.628	-25.215	244.511	0	-870.725	-2.533	-37.281	-722
7/31/1998	4960	31	1070.518	-536.41	792.519	-280.078	-59.924	252.704	0	-526.914	-0.641	-42.7	-699
8/31/1998	4991	31	841.322	-454.02	790.492	-279.318	-36.547	255.891	0	-558.839	-1.489	-70.871	-516
9/30/1998	5021	30	633.285	-333.007	760.419	-273.287	-28.745	249.955	0	-532.59	-1.554	-78.363	-424
10/31/1998	5052	31	621.049	-279.318	781.538	-279.083	-54.789	254.867	0	-629.354	-1.623	-68.66	-373
11/30/1998	5082	30	71.087	-198.959	742.126	-184.355	-53.811	244.259	0	-205.211	-2.757	-37.289	-403
12/31/1998	5113	31	464.53	-164.947	744.265	-268.301	-57.763	253.167	0	-553.147	-3.198	-28.519	-414
1/31/1999	5144	31	-615.834	-193.57	985.578	-91.239	-27.738	251.553	0	278.964	-3.917	-36.052	-577
2/28/1999	5172	28	12.161	-203.83	733.722	-161.516	-11.545	229.915	0	-34.26	-3.032	-52.23	-537

Flow Budget for Aquifer A in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet										
			STORAGE	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Mound L1	Santa Paula B	Mound L2 L3	Oxnard UAS	Net Stream Percolation
3/31/1999	5203	31	-809.536	-330.302	1268.454	-76.726	-0.595	256.426	0	358.571	-3.997	-70.534	-619
4/30/1999	5233	30	-645.634	-405.914	1085.806	-82.576	4.023	249.44	0	433.781	-5.04	-68.325	-594
5/31/1999	5264	31	1102.5	-445.106	821.818	-346.359	-10.751	259.601	0	-764.438	-2.733	-58.907	-584
6/30/1999	5294	30	1170.12	-354.98	807.719	-346.776	-19.176	250.964	0	-939.237	-0.149	-69.661	-525
7/31/1999	5325	31	1047.199	-313.523	816.571	-332.927	-23.757	257.736	0	-879.605	0.843	-94.019	-505
8/31/1999	5356	31	958.22	-264.704	813.111	-331.99	-24.678	258.64	0	-865.068	1.567	-115.801	-455
9/30/1999	5386	30	722.798	-188.373	799.428	-331.425	-36.509	250.474	0	-904.877	1.445	-128.45	-209
10/31/1999	5417	31	738.183	-155.506	808.255	-330.818	-53.821	257.862	0	-903.055	0.872	-137.948	-249
11/30/1999	5447	30	325.699	-107.605	753.61	-238.102	-30.179	251.228	0	-442.085	-0.459	-134.901	-402
12/31/1999	5478	31	755.657	-89.509	800.721	-331.253	-24.571	262.866	0	-844.607	-0.615	-151.201	-402
1/31/2000	5509	31	-438.363	-101.707	900.642	-118.955	-12.408	265.398	0	52.176	-1.12	-164.689	-408
2/29/2000	5538	29	-2248.383	-134.151	2671.128	-25.468	6.782	253.083	0.249	32.379	-3.454	-167.108	-422
3/31/2000	5569	31	-991.008	-247.025	1217.237	-83.007	7.659	268.537	0.049	463.863	-5.603	-160.695	-500
4/30/2000	5599	30	-927.608	-310.805	1351.164	-81.566	-0.051	255.061	0	342.395	-5.333	-114.948	-535
5/31/2000	5630	31	1292.087	-330.73	924.163	-381.893	-19.624	257.923	0	-1155.322	-1.496	-107.979	-504
6/30/2000	5660	30	1356.492	-258.727	916.689	-382.726	-25.353	249.834	0	-1379.004	2.905	-115.674	-389
7/31/2000	5691	31	871.742	-233.556	820.219	-324.299	-24.884	264.224	0	-838.122	1.522	-131.387	-431
8/31/2000	5722	31	800.362	-204.287	818.686	-323.503	-24.335	265.837	0	-805.841	-0.061	-148.891	-403
9/30/2000	5752	30	501.231	-149.106	798.178	-322.944	-40.337	255.754	0	-858.621	-0.294	-157.072	-51
10/31/2000	5783	31	-661.386	-137.859	826.212	-124.886	-58.993	262.464	0	63.654	-1.647	-153.686	-41
11/30/2000	5813	30	602.02	-101.305	780.128	-322.928	-57.309	251.728	0	-781.781	-2.004	-116.498	-276
12/31/2000	5844	31	716.638	-81.092	788.056	-323.244	-35.137	262.429	0	-823.699	-0.97	-117.722	-410
1/31/2001	5875	31	-2006.568	-110.94	2276.409	-16.543	1.933	268.076	0	132.807	-2.529	-141.776	-444
2/28/2001	5903	28	-2464.565	-160.008	2590.869	-10.336	10.519	246.716	0.118	304.202	-4.763	-139.966	-414
3/31/2001	5934	31	-2060.084	-346.293	2219.317	-19.487	8.977	273.023	0.089	488.135	-7.576	-138.804	-464
4/30/2001	5964	30	-231.965	-412.151	828.901	-103.356	-1.538	259.495	0	348.643	-5.694	-105.308	-610
5/31/2001	5995	31	1307.74	-416.891	878.031	-305.879	-21.61	262.241	0	-1071.82	-0.852	-97.425	-562
6/30/2001	6025	30	1361.74	-310.764	869.519	-305.493	-29.802	249.694	0	-1289.52	2.982	-100.83	-473
7/31/2001	6056	31	886.69	-275.679	769.483	-254.897	-29.605	262.09	0	-810.941	2.939	-120.795	-456
8/31/2001	6087	31	811.467	-239.258	769.473	-254.607	-27.575	266.332	0	-782.123	2.129	-138.485	-433
9/30/2001	6117	30	488.284	-176.154	754.045	-254.318	-45.375	256.787	0	-832.25	1.901	-142.42	-75
10/31/2001	6148	31	458.646	-153.538	759.207	-253.574	-71.79	262.401	0	-844.375	1.79	-125.183	-59
11/30/2001	6178	30	-1212.537	-123.109	1388.138	-40.748	-39.382	252.372	0	196.251	-1.151	-91.58	-353
12/31/2001	6209	31	-431.475	-123.023	753.839	-105.761	-19.323	262.098	0	224.276	-2.995	-101.243	-485
1/31/2002	6240	31	-283.046	-145.725	696.127	-110.137	-19.144	261.045	0	181.67	-3.351	-119.845	-485
2/28/2002	6268	28	513.975	-136.897	653.691	-211.273	-24.03	233.215	0	-504.361	-2.382	-120.297	-425
3/31/2002	6299	31	526.979	-189.946	692.826	-210.888	-28.409	257.791	0	-496.065	-1.231	-148.407	-428
4/30/2002	6329	30	547.004	-196.698	688.175	-210.845	-26.921	250.309	0	-530.244	-0.583	-157.158	-387
5/31/2002	6360	31	527.518	-210.332	706.394	-210.871	-27.034	259.728	0	-516.134	-0.324	-174.169	-380
6/30/2002	6390	30	520.305	-189.615	701.261	-210.996	-25.757	252.267	0	-544.98	-0.167	-179.451	-347
7/31/2002	6421	31	1008.152	-179.243	876.638	-343.557	-29.437	256.856	0	-1094.51	-0.801	-195.132	-322
8/31/2002	6452	31	1008.456	-147.803	863.515	-341.518	-30.09	256.446	0	-1128.63	-1.247	-203.931	-298
9/30/2002	6482	30	673.359	-105.272	853.894	-340.244	-45.223	247.948	0	-1179.02	-1.174	-205.587	80
10/31/2002	6513	31	971.656	-84.076	852.28	-339.252	-44.705	258.362	0	-1159.578	-0.928	-219.16	-257
11/30/2002	6543	30	-1510.855	-68.153	1753.687	-37.079	-3.64	261.195	0	114.482	-2.383	-219.649	-315
12/31/2002	6574	31	-1589.971	-82.594	1639.137	-42.547	6.486	276.239	0	369.813	-4.549	-227.558	-371
1/31/2003	6605	31	369.093	-99.33	755.436	-209.865	-10.632	266.742	0	-498.002	-4.922	-218.549	-376
2/28/2003	6633	28	-1525.974	-106.406	1692.582	-22.583	2.317	244.892	0	230.254	-4.39	-202.272	-336
3/31/2003	6664	31	-1485.216	-204.157	1513.585	-28.802	5.517	272.959	0	539.152	-6.638	-218.874	-412
4/30/2003	6694	30	-408.437	-251.385	746.75	-90.455	-5.418	260.115	0	306.51	-6.279	-211.307	-368
5/31/2003	6725	31	-496.466	-291.731	886.725	-75.399	-18.221	264.707	0	304.546	-5.939	-210.902	-384
6/30/2003	6755	30	687.559	-256.932	764.831	-214.177	-30.019	245.21	0	-623.302	-4.764	-194.536	-399
7/31/2003	6786	31	953.184	-230.427	838.671	-255.805	-34.994	242.286	0	-942.728	-1.941	-205.352	-385
8/31/2003	6817	31	943.296	-194.643	841.97	-254.114	-33.554	239.22	0	-987.973	0.022	-213.987	-362
9/30/2003	6847	30	632.097	-137.555	825.661	-252.94	-47.966	229.383	0	-1049.321	0.347	-216.523	-4
10/31/2003	6878	31	801.863	-111.694	827.492	-251.875	-61.799	236.5	0	-1051.022	0.222	-233.427	-178
11/30/2003	6908	30	-683.404	-83.798	1088.782	-61.265	-23.047	242.936	0	65.371	-2.876	-235.152	-328
12/31/2003	6939	31	-505.464	-83.288	849.779	-90.848	-13.565	259.05	0	159.007	-4.597	-253.972	-342
1/31/2004	6970	31	411.656	-95.792	702.08	-194.582	-20.428	259.882	0	-497.746	-2.486	-259.524	-327
2/29/2004	6999	29	-1874.359	-114.139	2216.828	-14.118	2.318	251.574	0	80.918	-3.827	-244.875	-337
3/31/2004	7030	31	52.758	-192.881	775.44	-157.377	-8.207	263.517	0	-131.908	-3.414	-253.684	-370
4/30/2004	7060	30	670.045	-194.352	739.728	-211.145	-23.048	249.087	0	-659.511	0.355	-232.21	-362
5/31/2004	7091	31	700.096	-195.619	766.659	-212.544	-27.968	256.145	0	-732.715	1.216	-235.591	-343
6/30/2004	7121	30	711.567	-168.073	755.974	-213.016	-27.389	248.096	0	-790.404	0.984	-232.564	-307
7/31/2004	7152	31	1109.503	-154.013	866.258	-312.449	-30.544	261.687	0	-1225.199	2.45	-246.263	-293
8/31/2004	7183	31	1067.838	-128.581	873.723	-309.818	-29.66	266.343	0	-1248.531	3.306	-252.923	-263
9/30/2004	7213	30	1050.041	-90.259	853.842	-308.686	-27.023	260.647	0	-1274.617	3.255	-251.488	-236
10/31/2004	7244	31	-1731.22	-93.575	1898.744	-29.576	-10.551	274.562	0	-9.947	-1.561	-271.6	-60
11/30/2004	7274	30	875.691	-73.076	827.336	-308.066	-19.012	265	0	-1049.777	-1.457	-259.291	-280
12/31/2004	7305	31	-1904.093	-71.941	2188.665	-19.591	3.245	279.828	0	70.446	-2.89	-273.353	-312
1/31/2005	7336	31	-3969.874	-154.16	4456.521	7.727	9.432	287.976	0.274	-156.795	-5.843	-261.592	-285
2/28/2005	7364	28	-2964.775	-223.35	3046.349	1.692	14.155	259.282	0.302	480.886	-7.225	-197.271	-441
3/31/2005	7395	31	-1276.652	-400.868	1375.193	-36.825	1.673	277.663	0.021	812.83	-8.81	-174.886	-604
4/30/2005	7425	30	459.519	-448.861	707.706	-166.204	-29.828	256.934	0	-124.182	-4.623	-117.108	-564
5/31/2005	7456	31	955.346	-464.681	763.77	-227.268	-57	257.002	0	-722.782	0.513	-82.455	-451
6/30/2005	7486	30	973.246	-366.76	748.846	-227.469	-87.683	239.997	0	-872.191	2.308	-60.531	-377
7/31/2005	7517	31	764.975	-338.821	806.517	-217.228	-59.884	245.41	0	-788.922	0.131	-69.419	-369
8/31/2005	7548	31	692.957	-296.692	810.764	-217.263	-35.208	247.017	0	-797.654	-1.858	-70.022	-358
9/30/2005	7578	30	527.647	-219.554	796.946	-216.991	-56.737	235.367	0	-871.187	-2.009	-78.383	-139
10/31/2005	7609	31	-85.47	-199.648	765.724	-119.561	-52.678	246.51	0	-189.892	-2.997	-72.57	-317
11/30/2005	7639	30	572.878	-143.733	745.779	-203.378	-29.114	243.849	0	-697.922	-3.09	-76.977	-433
12/31/2005	7670	31	648.825	-113.59	783.983	-217.224	-26.442	255.765	0	-826.628	-2.375	-102.957	-424
1/31/2006	7701	31	-1043.339	-137.175	1472.181	-56.137	-2.325	267.14	0	28.23	-3.603	-125.288	-430
2/28/2006	7729	28	-767.538	-159.863	1101.288	-67.748	5.991	249.579	0	151.031	-4.938	-116.749	-419
3/31/2006	7760	31	-1378.594	-287.358	1804.299	-42.77	7.914	279.248	0	225.433	-7.042	-123.486	-512

Flow Budget for Aquifer A in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Mound L1	Santa Paula B	Mound L2 L3	Oxnard UAS	Net Stream Percolation
4/30/2006	7790	30	-1224.082	-392.965	1667	-47.318	5.263	269.865	0	287.985	-7.526	-87.289	-505
5/31/2006	7821	31	74.258	-469.02	901.795	-142.908	-12.432	275.244	0	-0.524	-6.661	-51.934	-598
6/30/2006	7851	30	1648.768	-381.979	943.286	-349.021	-29.359	265.298	0	-1563.468	-2.483	-39.565	-517
7/31/2006	7882	31	876.432	-315.756	786.155	-250.968	-32.794	281.804	0	-840.366	-1.056	-58.234	-471
8/31/2006	7913	31	631.341	-272.256	785.223	-249.485	-51.671	282.114	0	-796.413	-2.086	-85.81	-266
9/30/2006	7943	30	567.277	-198.29	769.853	-249.063	-61.408	272.865	0	-829.402	-1.925	-100.229	-194
10/31/2006	7974	31	494.637	-168.624	774.889	-248.346	-69.376	282.131	0	-826.304	-1.933	-99.813	-162
11/30/2006	8004	30	676.56	-115.202	754.375	-248.283	-51.001	275.718	0	-844.836	-1.732	-88.618	-381
12/31/2006	8035	31	255.182	-96.2	719.924	-181.932	-29.57	285.826	0	-455.663	-2.575	-106.562	-414
1/31/2007	8066	31	-772.889	-117.568	995.937	-59.883	-11.7	280.186	0	220.197	-4.281	-124.949	-430
2/28/2007	8094	28	10.053	-122.836	704.287	-137.846	-14.141	255.21	0	-204.204	-3.831	-125.024	-386
3/31/2007	8125	31	599.051	-175.643	756.37	-227.194	-25.388	288.947	0	-688.825	-2.904	-146.467	-403
4/30/2007	8155	30	152.075	-184.385	725.232	-155.724	-24.238	278.919	0	-289.616	-3.162	-149.593	-373
5/31/2007	8186	31	630.098	-199.784	759.008	-227.557	-27.106	290.459	0	-714.311	-2.859	-164.538	-367
6/30/2007	8216	30	660.718	-173.489	753.559	-227.797	-27.572	283.67	0	-789.922	-1.512	-169.835	-331
7/31/2007	8247	31	837.798	-161.864	813.692	-283.611	-29.858	305.118	0	-1004.378	-0.546	-186.437	-313
8/31/2007	8278	31	659.957	-137.614	813.027	-282.307	-35.987	311.654	0	-1028.344	0.016	-198.34	-125
9/30/2007	8308	30	515.271	-102.234	794.717	-279.046	-55.42	301.741	0	-1052.854	-0.388	-199.748	56
10/31/2007	8339	31	480.757	-86.491	807.376	-280.369	-66.587	311.708	0	-1076.745	-0.492	-199.752	88
11/30/2007	8369	30	753.9	-57.128	800.714	-280.668	-50.471	303.493	0	-1087.853	-0.254	-181.289	-222
12/31/2007	8400	31	-1231.04	-53.87	1413.572	-42.467	-9.266	298.722	0	112.362	-2.973	-192.283	-313
1/31/2008	8431	31	-3078.26	-103.392	3456.396	0.444	7.273	291.596	0.011	-90.278	-6.329	-184.825	-328
2/29/2008	8460	29	-1023.654	-147.001	906.698	-59.543	-0.95	267.141	0	459.587	-6.616	-136.465	-289
3/31/2008	8491	31	332.365	-202.471	834.794	-210.553	-30.679	277.493	0	-523.3	-4.837	-96.623	-403
4/30/2008	8521	30	516.416	-206.923	834.772	-212.873	-32.45	264.814	0	-712.228	-2.577	-81.345	-392
5/31/2008	8552	31	561.007	-219.863	833.283	-213.739	-30.915	273.879	0	-743.162	-1.877	-100.615	-382
6/30/2008	8582	30	644.956	-191.326	762.412	-213.407	-28.05	265.902	0	-792.549	-1.551	-125.227	-345
7/31/2008	8613	31	967.282	-171.296	881.009	-282.98	-30.001	283.431	0	-1187.639	-0.866	-155.689	-326
8/31/2008	8644	31	978.906	-136.831	855.612	-281.675	-29.239	289.275	0	-1227.07	-0.483	-179.768	-291
9/30/2008	8674	30	608.55	-94.523	841.555	-280.303	-47.384	279.722	0	-1285.609	-0.377	-190.594	148
10/31/2008	8705	31	524.274	-80.388	891.024	-279.452	-72.084	288.202	0	-1304.25	-0.639	-191.831	203
11/30/2008	8735	30	-664.056	-59.518	1026.996	-62.812	-34.912	275.839	0	-34.918	-3.192	-160.5	-304
12/31/2008	8766	31	-906.46	-60.122	1083.932	-67.508	-10.084	284.907	0	177.149	-5.426	-178.148	-342
1/31/2009	8797	31	64.994	-73.122	659.598	-169.912	-17.205	292.759	0	-256.5	-5.16	-195.187	-325
2/28/2009	8825	28	-1707.706	-87.613	1866.842	-18.447	1.258	263.301	0	171.276	-5.309	-193.83	-318
3/31/2009	8856	31	36.45	-151.65	722.919	-169.026	-8.978	292.457	0	-186.18	-5.702	-220.917	-336
4/30/2009	8886	30	398.958	-153.966	759.883	-213.933	-22.624	287.266	0	-553.572	-4.255	-216.57	-304
5/31/2009	8917	31	393.793	-161.708	808.653	-214.544	-27.565	297.352	0	-588.942	-3.627	-229.355	-298
6/30/2009	8947	30	432.808	-144.851	781.533	-214.749	-27.286	287.711	0	-637.212	-3.124	-228.909	-268
7/31/2009	8978	31	941.132	-135.576	892.611	-286.131	-30.67	305.402	0	-1214.756	-0.254	-242.785	-251
8/31/2009	9009	31	940.1	-115.531	890.34	-285.092	-30.569	310.526	0	-1261.147	1.562	-249.919	-222
9/30/2009	9039	30	697.404	-85.411	871.884	-284.236	-37.774	301.793	0	-1305.157	1.6	-249.672	69
10/31/2009	9070	31	-1190.862	-81.687	1223.593	-55.697	-43.314	295.67	0	-37.175	-2.436	-265.607	136
11/30/2009	9100	30	865.323	-56.387	786.98	-282.378	-42.602	292.977	0	-1147.309	-1.569	-250.72	-187
12/31/2009	9131	31	-1172.314	-48.476	1406.507	-43.416	-8.244	296.996	0	74.768	-3.328	-257.423	-266
1/31/2010	9162	31	-2309.138	-87.55	2483.658	-14.295	5.9	290.814	0	180.969	-6.307	-241.053	-343
2/28/2010	9190	28	-1397.721	-123.799	1459.299	-43.281	6.345	261.562	0	359.482	-6.572	-200.719	-339
3/31/2010	9221	31	572.768	-185.343	750.937	-287.531	-11.344	293.832	0	-591.067	-5.461	-210.128	-353
4/30/2010	9251	30	-444.333	-188.299	802.973	-103.068	-12.625	279.185	0	183.451	-4.846	-204.947	-332
5/31/2010	9282	31	688.37	-202.565	782.75	-287.114	-22.206	289.943	0	-722.671	-3.794	-219.411	-329
6/30/2010	9312	30	787.26	-162.984	752.644	-281.528	-27.917	282.198	0	-854.523	-1.941	-219.588	-297
7/31/2010	9343	31	1066.405	-141.001	827.734	-297.351	-33.796	305.309	0	-1236.43	-2.2	-236.933	-274
8/31/2010	9374	31	1052.727	-117.116	823.706	-295.53	-33.194	314.585	0	-1272.11	-2.338	-247.514	-245
9/30/2010	9404	30	864.003	-80.877	806.092	-294.764	-35.412	307.749	0	-1319.456	-2.021	-249.822	-16
10/31/2010	9435	31	-956.233	-76.9	953.349	-67.318	-46.582	298.63	0	-21.77	-4.342	-266.882	166
11/30/2010	9465	30	-73.195	-58.83	755.252	-149.879	-46.346	283.799	0	-372.928	-4.324	-258.741	-99
12/31/2010	9496	31	-2613.662	-72.066	3049.387	-2.941	-1.193	291.461	0	-88.988	-6.208	-269.088	-323
1/31/2011	9527	31	278.256	-100.126	721.158	-182.592	-11.527	290.844	0	-465.276	-5.847	-236.607	-317
2/28/2011	9555	28	-1162.429	-103.206	1335.287	-24.744	-4.54	259.296	0	189.572	-4.989	-183.34	-325
3/31/2011	9586	31	-1983.284	-219.175	2092.151	-3.633	5.566	286.77	0	386.358	-6.029	-189.595	-410
4/30/2011	9616	30	457.114	-257.444	728.636	-185.065	-9.423	281.501	0	-490.683	-4.753	-163.216	-385
5/31/2011	9647	31	194.729	-254.707	702.398	-134.487	-24.499	286.653	0	-248.215	-4.015	-140.968	-403
6/30/2011	9677	30	620.722	-227.625	726.936	-188.184	-27.228	276.83	0	-695.657	-3.445	-145.06	-361
7/31/2011	9708	31	814.911	-211.739	800.9	-236.763	-30.135	292.115	0	-924.864	-2.397	-164.069	-361
8/31/2011	9739	31	800.302	-181.519	794.701	-235.248	-30.072	295.491	0	-946.888	-1.814	-181.743	-336
9/30/2011	9769	30	544.637	-129.726	769.386	-234.623	-39.468	286.585	0	-990.86	-1.453	-188.849	-38
10/31/2011	9800	31	-401.073	-117.012	741.418	-95.501	-59.186	283.922	0	-169.339	-2.791	-196.595	-9
11/30/2011	9830	30	-169.991	-88.828	726.527	-96.326	-33.63	271.813	0	-125.274	-3.573	-176.248	-329
12/31/2011	9861	31	686.109	-73.239	761.9	-236.202	-30.64	291.09	0	-899.352	-2.808	-185.264	-335
1/31/2012	9892	31	311.845	-74.941	718.904	-169.883	-27.135	292.915	0	-558.23	-2.949	-195.934	-319
2/29/2012	9921	29	735.513	-68.198	757.203	-242.808	-28.441	281.157	0	-988.025	-2.096	-193.48	-272
3/31/2012	9952	31	-766.323	-106.104	1120.779	-59.677	-15.25	296.017	0	30.675	-3.678	-221.142	-297
4/30/2012	9982	30	-699.036	-143.047	953.206	-61.799	-9.424	283.189	0	180.415	-4.139	-224.478	-299
5/31/2012	10013	31	662.985	-159.367	771.744	-241.112	-24.413	300.117	0	-802.302	-3.256	-232.87	-295
6/30/2012	10043	30	747.636	-129.796	763.146	-241.026	-29.871	294.32	0	-940.257	-2.292	-228.513	-255
7/31/2012	10074	31	956.924	-119.821	879.878	-248.45	-32.28	269.592	0	-1244.273	-0.632	-240.602	-240
8/31/2012	10105	31	990.518	-105.468	869.317	-247.643	-31.911	251.727	0	-1280.954	0.354	-244.004	-221
9/30/2012	10135	30	678.596	-79.439	845.448	-246.536	-44.66	240.061	0	-1331.986	0.398	-241.219	161
10/31/2012	10166	31	99.848	-70.506	741.516	-156.093	-63.897	242.032	0	-761.748	0.23	-252.258	202
11/30/2012	10196	30	-349.401	-50.145	804.728	-76.577	-34.11	248.534	0	-93.509	-2.465	-243.76	-224
12/31/2012	10227	31	-832.112	-44.793	1049.841	-56.163	-12.538	270.531	0	134.508	-4.77	-260.029	-265
1/31/2013	10258	31	-586.849	-55.746	797.787	-60.227	-12.029	263.441	0	175.384	-5.409	-267.136	-271
2/28/2013	10286	28	456.409	-54.809	788.306	-166.334	-21.617	206.599	0	-751.448	-3.58	-244.75	-224
3/31/2013	10317	31	86.773	-80.237	719.545	-111.021	-25.044	224.428	0	-319.795	-3.47	-274.767	-235
4/30/2013	10347	30	514.275	-86.676	795.812	-165.826	-25.575	210.047	0	-774.605	-2.656	-269.013	-212

Flow Budget for Aquifer A in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	ET	RECHARGE	Pumping from Wells	OUTSIDE	Fillmore A	Mound L1	Santa Paula B	Mound L2 L3	Oxnard UAS	Net Stream Percolation
5/31/2013	10378	31	535.787	-97.603	815.557	-165.67	-26.754	212.071	0	-808.049	-2.036	-280.883	-199
6/30/2013	10408	30	533.233	-92.658	826.624	-165.7	-25.312	203.851	0	-838.938	-1.779	-274.719	-181
7/31/2013	10439	31	601.477	-94.841	837.68	-172.288	-26.268	216.842	0	-913.777	-2.595	-287.307	-175
8/31/2013	10470	31	607.247	-90.163	822.517	-171.994	-25.853	221.596	0	-919.753	-3.041	-290.968	-166
9/30/2013	10500	30	601.213	-69.655	822.827	-172.042	-24.571	215.253	0	-943.947	-2.807	-285.767	-156
10/31/2013	10531	31	571.274	-60.138	833.392	-171.505	-24.539	224.644	0	-927.881	-2.769	-300.156	-158
11/30/2013	10561	30	481.693	-42.003	776.838	-158.203	-22.695	221.316	0	-819.264	-2.724	-295.456	-155
12/31/2013	10592	31	565.958	-34.652	798.577	-170.925	-23.648	229.658	0	-911.824	-2.67	-309.411	-156
1/31/2014	10623	31	828.861	-38.529	898.789	-210.329	-25.419	230.629	0	-1240.726	-1.185	-312.055	-144
2/28/2014	10651	28	-1105.505	-39.284	1416.684	-27.709	-3.364	234.319	0	-44.77	-3.077	-287.764	-153
3/31/2014	10682	31	-536.306	-63.527	814.513	-67.743	-8.163	273.121	0	11.76	-4.001	-320.489	-121
4/30/2014	10712	30	737.93	-72.302	894.861	-210.996	-21.99	239.724	0	-1132.722	-1.707	-308.063	-141
5/31/2014	10743	31	845.286	-84.026	906.309	-210.313	-28.269	233.219	0	-1222.735	-0.419	-315.605	-138
6/30/2014	10773	30	884.688	-81.305	886.569	-210.089	-27.087	222.873	0	-1258.184	-0.068	-306.078	-125
7/31/2014	10804	31	783.568	-86.196	848.318	-187.792	-25.412	236.482	0	-1137.764	1	-316.628	-130
8/31/2014	10835	31	735.287	-83.691	856.547	-187.253	-23.679	240.855	0	-1108.925	1.569	-318.332	-127
9/30/2014	10865	30	743.214	-65.399	827.276	-187.348	-22.396	233.396	0	-1114.825	1.568	-310.43	-119
10/31/2014	10896	31	708.883	-57.047	835.387	-186.654	-22.429	242.357	0	-1095.457	1.469	-323.821	-117
11/30/2014	10926	30	234.485	-40.198	750.625	-129.967	-18.605	242.639	0	-627.113	0.104	-318.354	-109
12/31/2014	10957	31	-1392.118	-33.482	1529.218	-17.667	-1.449	273.736	0	78.584	-3.239	-340.665	-109
1/31/2015	10988	31	-853.681	-37.82	808.501	-32.413	-1.254	277.529	0	301.092	-4.744	-342.964	-137
2/28/2015	11016	28	219.294	-37.518	687.701	-112.841	-15.069	229.132	0	-564.671	-2.065	-305.444	-114
3/31/2015	11047	31	-10.979	-58.925	702.021	-86.778	-21.6	249.089	0	-338.385	-1.002	-334.838	-116
4/30/2015	11077	30	387.425	-68.374	762.337	-128.345	-24.356	227.082	0	-734.092	-0.305	-320.616	-116
5/31/2015	11108	31	325.042	-81.812	707.745	-108.092	-24.457	238.548	0	-638.409	0.248	-331.803	-104
6/30/2015	11138	30	459.704	-80.991	750.58	-129.235	-24.466	222.797	0	-784.424	0.385	-320.329	-109
7/31/2015	11169	31	289.782	-86.196	661.499	-87.269	-22.134	245.921	0	-589.559	2.632	-330.335	-102
8/31/2015	11200	31	679.642	-83.691	824.669	-159.479	-25.681	229.228	0	-1055.379	4.326	-329.81	-98
9/30/2015	11230	30	410.725	-65.399	714.474	-113.835	-23.578	218.786	0	-755.975	4.491	-321.122	-84
10/31/2015	11261	31	671.084	-57.047	810.233	-157.633	-25.248	217.985	0	-1053.314	4.313	-333.787	-90
11/30/2015	11291	30	679.733	-40.198	819.617	-156.919	-25.038	203.383	0	-1089.284	4.034	-324.654	-84
12/31/2015	11322	31	659.528	-33.482	825.36	-155.966	-24.633	209.784	0	-1077.088	3.993	-337.375	-84

Flow Budget for Aquifer B in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)												
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula A	Fillmore B	Mound L2-4	Oxnard UAS	Santa Paula C	Mound L5	Oxnard LAS	Mound L6 L7
1/31/1985	31	31	470	63	134	-648	73	-1188	864	-1	0	440	-27	0	-180
2/28/1985	59	28	367	55	134	-885	55	-770	783	-1	0	449	-26	0	-161
3/31/1985	90	31	346	46	125	-907	46	-837	862	-1	0	529	-30	0	-178
4/30/1985	120	30	635	16	95	-2033	89	-11	859	-1	0	552	-27	0	-173
5/31/1985	151	31	550	16	95	-2028	85	48	891	-1	0	556	-29	0	-181
6/30/1985	181	30	516	16	95	-2035	83	135	869	-1	0	529	-29	0	-177
7/31/1985	212	31	498	16	114	-2359	101	397	912	-1	0	539	-31	0	-186
8/31/1985	243	31	483	16	114	-2361	99	423	923	-1	0	525	-31	0	-190
9/30/1985	273	30	469	16	114	-2369	92	503	896	-1	0	497	-31	0	-186
10/31/1985	304	31	452	16	114	-2359	98	470	938	-1	0	500	-32	-1	-194
11/30/1985	334	30	-933	364	636	-212	59	-765	859	-1	0	211	-38	-1	-185
12/31/1985	365	31	584	16	88	-1840	78	-75	933	-1	0	443	-35	-1	-189
1/31/1986	396	31	-739	337	567	-219	55	-888	889	-1	0	232	-41	-1	-192
2/28/1986	424	28	-1940	769	1296	-27	147	-768	787	-1	0	-60	-40	-1	-169
3/31/1986	455	31	-650	430	710	-166	138	-1217	868	-2	0	102	-42	-1	-182
4/30/1986	485	30	508	49	150	-1047	96	-709	857	-2	0	318	-37	0	-178
5/31/1986	516	31	796	16	101	-2324	120	227	898	-2	0	403	-36	0	-197
6/30/1986	546	30	661	16	101	-2328	108	401	873	-2	0	407	-35	0	-200
7/31/1986	577	31	511	16	100	-2037	79	271	888	-2	0	417	-39	0	-204
8/31/1986	608	31	491	16	100	-2039	89	272	898	-2	0	415	-39	0	-203
9/30/1986	638	30	259	33	115	-1385	65	-108	873	-2	0	384	-39	0	-196
10/31/1986	669	31	482	16	100	-2040	81	272	914	-2	0	413	-39	0	-201
11/30/1986	699	30	16	77	155	-648	24	-592	862	-2	0	341	-39	0	-194
12/31/1986	730	31	500	16	100	-2040	78	259	918	-2	0	407	-39	0	-200
1/31/1987	761	31	-76	93	203	-630	22	-581	885	-2	0	324	-40	-1	-198
2/28/1987	789	28	178	53	145	-1041	41	-280	807	-2	0	310	-36	0	-177
3/31/1987	820	31	-101	125	239	-517	25	-691	876	-2	0	285	-40	-1	-196
4/30/1987	850	30	616	16	99	-2300	90	471	868	-2	0	365	-35	-1	-189
5/31/1987	881	31	511	16	99	-2297	86	552	895	-2	0	371	-35	-1	-198
6/30/1987	911	30	487	16	99	-2304	82	632	861	-2	0	355	-34	-1	-194
7/31/1987	942	31	422	16	118	-2361	97	698	890	-2	0	365	-38	-1	-208
8/31/1987	973	31	415	16	118	-2364	105	697	901	-2	0	361	-38	-1	-212
9/30/1987	1003	30	404	16	118	-2370	103	739	884	-2	0	351	-37	-1	-209
10/31/1987	1034	31	-38	72	177	-886	36	-283	897	-2	0	283	-42	-1	-216
11/30/1987	1064	30	263	46	134	-1296	38	-113	877	-2	0	300	-40	-1	-208
12/31/1987	1095	31	-820	339	604	-211	54	-633	885	-2	0	51	-44	-1	-212
1/31/1988	1126	31	-257	203	344	-377	53	-732	877	-2	0	154	-45	-1	-212
2/29/1988	1155	29	99	99	192	-658	36	-557	816	-2	0	217	-41	-1	-201
3/31/1988	1186	31	489	16	88	-1818	73	209	874	-2	0	333	-42	-1	-220
4/30/1988	1216	30	-494	254	421	-322	46	-571	828	-2	0	98	-42	-1	-210
5/31/1988	1247	31	597	16	105	-2215	103	494	846	-2	0	316	-42	-1	-221
6/30/1988	1277	30	473	16	105	-2221	99	665	811	-2	0	310	-39	-1	-218
7/31/1988	1308	31	461	16	120	-2442	105	816	870	-2	0	314	-38	-1	-222
8/31/1988	1339	31	434	16	120	-2443	103	832	882	-2	0	318	-38	-1	-223
9/30/1988	1369	30	422	16	120	-2448	100	873	864	-2	0	308	-37	-1	-217
10/31/1988	1400	31	408	16	120	-2445	96	854	900	-2	0	316	-39	-1	-226
11/30/1988	1430	30	91	41	119	-1206	40	32	866	-2	0	281	-40	-1	-221
12/31/1988	1461	31	-701	321	548	-275	61	-558	879	-2	0	2	-44	-1	-226
1/31/1989	1492	31	520	16	87	-1814	82	220	877	-2	0	287	-42	-1	-229
2/28/1989	1520	28	-583	267	444	-227	42	-505	781	-2	0	38	-40	-1	-207
3/31/1989	1551	31	362	28	70	-1181	51	-207	866	-2	0	288	-44	-1	-230
4/30/1989	1581	30	454	16	87	-1819	66	344	827	-2	0	293	-40	-1	-226
5/31/1989	1612	31	391	16	87	-1816	62	388	844	-2	0	308	-41	-1	-236
6/30/1989	1642	30	375	16	87	-1821	65	436	818	-2	0	297	-40	-1	-231
7/31/1989	1673	31	398	16	116	-2185	83	683	864	-2	0	300	-38	-1	-237
8/31/1989	1704	31	380	16	116	-2187	83	700	872	-2	0	298	-39	-1	-237
9/30/1989	1734	30	373	16	116	-2192	82	739	850	-1	0	286	-38	-1	-231
10/31/1989	1765	31	364	16	116	-2189	79	716	885	-1	0	294	-40	-1	-240
11/30/1989	1795	30	370	16	114	-2158	78	707	863	-1	0	286	-39	-1	-235
12/31/1989	1826	31	369	16	116	-2191	76	712	896	-1	0	293	-40	-1	-244
1/31/1990	1857	31	-311	183	297	-578	23	-321	887	-1	0	113	-44	-1	-245
2/28/1990	1885	28	-289	178	321	-550	35	-308	798	-1	0	77	-41	-1	-220
3/31/1990	1916	31	695	16	114	-2692	90	914	878	-1	0	276	-40	-1	-247
4/30/1990	1946	30	555	16	114	-2696	83	1086	845	-1	0	282	-38	-1	-244
5/31/1990	1977	31	356	19	90	-2037	54	657	873	-1	0	289	-41	-1	-255
6/30/1990	2007	30	533	16	114	-2696	80	1121	846	-1	0	277	-38	-1	-249
7/31/1990	2038	31	351	16	115	-2388	85	937	903	-1	0	278	-39	-1	-255
8/31/1990	2069	31	368	16	115	-2390	84	914	911	-1	0	278	-39	-1	-254
9/30/1990	2099	30	377	16	115	-2395	84	934	888	-1	0	267	-38	-1	-246
10/31/1990	2130	31	375	16	115	-2393	82	905	923	-1	0	273	-39	-1	-255

Flow Budget for Aquifer B in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)												
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula A	Fillmore B	Mound L2-4	Oxnard UAS	Santa Paula C	Mound L5	Oxnard LAS	Mound L6 L7
11/30/1990	2160	30	385	16	115	-2396	82	925	900	-1	0	263	-38	-1	-248
12/31/1990	2191	31	377	16	115	-2395	79	903	934	-1	0	270	-39	-1	-257
1/31/1991	2222	31	35	48	136	-1102	19	43	912	-1	0	220	-42	-1	-263
2/28/1991	2250	28	-384	193	323	-457	23	-273	816	-1	0	37	-39	-1	-235
3/31/1991	2281	31	-3274	1110	1962	-21	180	106	879	-1	0	-641	-43	-1	-250
4/30/1991	2311	30	970	16	99	-2302	146	481	860	-1	0	5	-32	-1	-239
5/31/1991	2342	31	693	16	99	-2294	102	674	877	-1	0	123	-31	-1	-253
6/30/1991	2372	30	561	16	99	-2295	83	787	847	-1	0	187	-31	-1	-248
7/31/1991	2403	31	473	16	112	-2284	77	810	869	-1	0	217	-34	-1	-252
8/31/1991	2434	31	442	16	112	-2283	76	829	870	-1	0	229	-37	-1	-250
9/30/1991	2464	30	423	16	112	-2286	75	870	844	-1	0	228	-37	-1	-242
10/31/1991	2495	31	384	16	112	-2283	67	881	870	-1	0	247	-38	-1	-251
11/30/1991	2525	30	381	16	112	-2286	70	911	841	-1	0	240	-37	-1	-244
12/31/1991	2556	31	-913	356	575	-265	54	-249	872	-1	0	-131	-42	-1	-251
1/31/1992	2587	31	-190	155	278	-486	41	-436	874	-1	0	59	-43	-1	-248
2/29/1992	2616	29	-2667	994	1628	-39	167	-32	800	-1	0	-576	-41	-1	-227
3/31/1992	2647	31	-1215	576	973	-118	170	-589	855	-1	0	-358	-42	-1	-235
4/30/1992	2677	30	976	16	85	-2201	137	409	798	-1	0	47	-35	-1	-226
5/31/1992	2708	31	718	16	85	-2193	98	618	810	-1	0	127	-36	-1	-239
6/30/1992	2738	30	593	16	85	-2193	85	725	782	-1	0	182	-35	-1	-233
7/31/1992	2769	31	552	16	100	-2676	106	1069	877	-1	0	214	-30	-1	-225
8/31/1992	2800	31	501	16	100	-2677	99	1094	890	-1	0	231	-30	-1	-222
9/30/1992	2830	30	481	16	100	-2680	95	1136	869	-1	0	228	-29	-1	-213
10/31/1992	2861	31	-135	77	157	-867	14	-5	865	0	0	170	-38	-1	-232
11/30/1992	2891	30	533	16	100	-2680	96	1075	861	0	0	244	-31	0	-212
12/31/1992	2922	31	-1096	418	655	-259	68	-187	846	0	0	-169	-40	-1	-230
1/31/1993	2953	31	-2394	936	1489	-84	186	-151	835	-1	0	-538	-42	-1	-225
2/28/1993	2981	28	-2133	896	1446	-105	212	-306	752	-1	0	-519	-38	0	-198
3/31/1993	3012	31	-393	356	620	-381	156	-688	833	-1	0	-237	-38	0	-214
4/30/1993	3042	30	1113	16	93	-2822	150	807	794	-1	0	63	-22	0	-186
5/31/1993	3073	31	844	16	93	-2813	118	1020	806	-1	0	135	-22	0	-192
6/30/1993	3103	30	621	16	81	-2409	97	857	783	-1	0	172	-24	0	-189
7/31/1993	3134	31	518	16	109	-2461	104	927	823	0	0	202	-30	0	-206
8/31/1993	3165	31	487	16	109	-2461	100	934	830	0	0	223	-30	0	-206
9/30/1993	3195	30	465	16	109	-2464	96	973	811	0	0	225	-28	0	-200
10/31/1993	3226	31	431	16	109	-2460	92	967	845	0	0	239	-29	0	-207
11/30/1993	3256	30	210	24	84	-1658	58	453	830	0	0	237	-29	0	-204
12/31/1993	3287	31	-109	76	169	-810	31	-144	855	0	0	184	-33	0	-214
1/31/1994	3318	31	428	16	82	-2010	74	536	848	0	0	271	-31	0	-210
2/28/1994	3346	28	-1520	542	916	-113	89	-159	757	0	0	-275	-31	0	-191
3/31/1994	3377	31	-171	179	297	-377	76	-605	842	0	0	4	-34	0	-206
4/30/1994	3407	30	587	16	85	-2043	101	480	805	0	0	198	-28	0	-195
5/31/1994	3438	31	428	16	85	-2039	82	595	829	0	0	239	-27	0	-204
6/30/1994	3468	30	385	16	85	-2041	77	659	800	0	0	247	-25	0	-197
7/31/1994	3499	31	401	16	114	-2383	98	902	841	0	0	255	-27	0	-214
8/31/1994	3530	31	378	16	114	-2384	97	928	848	0	0	255	-27	0	-220
9/30/1994	3560	30	367	16	114	-2388	92	980	818	0	0	247	-26	0	-216
10/31/1994	3591	31	156	22	84	-1584	46	430	851	0	0	257	-27	0	-227
11/30/1994	3621	30	13	43	119	-1193	51	178	818	0	0	226	-29	0	-220
12/31/1994	3652	31	103	35	117	-1259	49	130	855	0	0	231	-30	0	-225
1/31/1995	3683	31	-5133	1757	2939	0	293	583	826	-1	0	-986	-22	-1	-218
2/28/1995	3711	28	635	59	148	-1058	152	-369	773	-1	0	-146	-3	0	-184
3/31/1995	3742	31	-2009	843	1399	-83	197	-412	807	-1	0	-509	-10	0	-213
4/30/1995	3772	30	1073	16	79	-2442	178	439	834	-1	0	14	2	0	-185
5/31/1995	3803	31	493	37	103	-1340	91	-54	822	-1	0	63	-5	0	-202
6/30/1995	3833	30	736	16	79	-2398	130	678	815	-1	0	148	-5	0	-191
7/31/1995	3864	31	560	16	94	-2386	115	813	829	-1	0	179	-13	0	-204
8/31/1995	3895	31	498	16	94	-2386	111	846	830	-1	0	213	-17	0	-202
9/30/1995	3925	30	456	16	94	-2389	110	896	807	0	0	226	-18	0	-194
10/31/1995	3956	31	426	16	94	-2386	107	891	837	0	0	240	-21	0	-200
11/30/1995	3986	30	423	16	94	-2389	107	911	815	0	0	240	-20	0	-193
12/31/1995	4017	31	-345	137	268	-582	53	-214	820	0	0	103	-28	0	-208
1/31/1996	4048	31	148	42	120	-1158	75	-49	840	0	0	222	-29	0	-204
2/29/1996	4077	29	-1793	704	1147	-104	135	-226	763	0	0	-395	-30	0	-188
3/31/1996	4108	31	189	125	203	-649	105	-586	833	-1	0	8	-30	0	-193
4/30/1996	4138	30	611	16	87	-2193	131	536	840	-1	0	189	-25	0	-184
5/31/1996	4169	31	537	16	92	-2409	109	768	867	-1	0	236	-21	0	-190
6/30/1996	4199	30	484	16	92	-2411	98	847	842	0	0	240	-19	0	-184
7/31/1996	4230	31	611	16	124	-3295	136	1471	894	0	0	258	-18	0	-194
8/31/1996	4261	31	560	16	124	-3296	134	1514	908	0	0	259	-18	0	-198

Flow Budget for Aquifer B in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)											
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula A	Fillmore B	Mound L2-4	Oxnard UAS	Santa Paula C	Mound L5	Oxnard LAS	Mound L6 L7
9/30/1996	4291	30	549	16	124	-3300	129	1562	885	0	0	250	-18	0	-194
10/31/1996	4322	31	-314	124	259	-865	20	48	866	0	0	102	-25	0	-209
11/30/1996	4352	30	-360	176	323	-682	50	-155	825	0	0	56	-29	0	-202
12/31/1996	4383	31	-1429	576	973	-223	111	-262	840	-1	0	-334	-33	0	-203
1/31/1997	4414	31	-1100	522	866	-139	134	-576	832	-1	0	-295	-34	0	-196
2/28/1997	4442	28	771	15	80	-2179	127	486	784	-1	0	103	-22	0	-160
3/31/1997	4473	31	541	16	80	-2167	102	578	867	-1	0	192	-22	0	-181
4/30/1997	4503	30	470	16	80	-2168	85	655	844	-1	0	220	-20	0	-176
5/31/1997	4534	31	419	16	80	-2164	77	667	872	0	0	243	-20	0	-183
6/30/1997	4564	30	402	16	80	-2166	75	712	846	0	0	237	-20	0	-176
7/31/1997	4595	31	454	16	110	-2712	111	1105	882	0	0	248	-22	0	-188
8/31/1997	4626	31	421	16	110	-2713	103	1158	875	0	0	247	-22	0	-190
9/30/1997	4656	30	412	16	110	-2717	104	1200	849	0	0	238	-22	0	-185
10/31/1997	4687	31	388	16	110	-2715	106	1189	879	0	0	247	-23	0	-192
11/30/1997	4717	30	-453	176	316	-630	37	-75	824	0	0	30	-28	0	-193
12/31/1997	4748	31	-1550	586	988	-153	113	-255	841	0	0	-324	-33	0	-196
1/31/1998	4779	31	-450	288	488	-503	112	-458	864	-1	0	-113	-33	0	-191
2/28/1998	4807	28	-5325	1918	3171	-28	329	512	724	-1	0	-1014	-23	0	-175
3/31/1998	4838	31	1	333	528	-455	227	-935	829	-1	0	-310	-12	0	-193
4/30/1998	4868	30	568	98	189	-949	142	-576	807	-1	0	-77	-10	0	-187
5/31/1998	4899	31	-302	354	519	-347	123	-761	796	-1	0	-165	-15	0	-198
6/30/1998	4929	30	1105	16	91	-3060	197	871	868	-1	0	104	-7	0	-177
7/31/1998	4960	31	624	16	91	-2127	106	527	832	-1	0	146	-15	0	-195
8/31/1998	4991	31	545	16	91	-2126	114	559	838	-1	0	180	-19	0	-194
9/30/1998	5021	30	453	16	85	-1992	96	533	812	-1	0	210	-20	0	-187
10/31/1998	5052	31	439	16	91	-2123	97	629	839	-1	0	234	-23	0	-194
11/30/1998	5082	30	191	33	115	-1389	71	205	793	-1	0	204	-27	0	-190
12/31/1998	5113	31	393	16	86	-2009	103	553	837	-1	0	246	-27	0	-194
1/31/1999	5144	31	-235	141	253	-606	55	-279	795	-1	0	106	-28	0	-196
2/28/1999	5172	28	196	47	119	-1207	79	34	741	-1	0	196	-22	0	-178
3/31/1999	5203	31	-409	209	367	-486	64	-359	807	-1	0	33	-28	0	-196
4/30/1999	5233	30	-176	153	274	-533	66	-434	783	-1	0	86	-27	0	-187
5/31/1999	5264	31	664	16	104	-2570	140	764	845	-1	0	253	-21	0	-190
6/30/1999	5294	30	524	16	104	-2573	123	939	823	-1	0	252	-19	0	-184
7/31/1999	5325	31	395	16	104	-2378	96	880	844	-1	0	255	-19	0	-188
8/31/1999	5356	31	408	16	104	-2379	96	865	849	-1	0	255	-20	0	-189
9/30/1999	5386	30	407	16	104	-2383	91	905	822	-1	0	247	-20	0	-184
10/31/1999	5417	31	382	16	104	-2381	89	903	847	-1	0	257	-22	0	-191
11/30/1999	5447	30	159	27	89	-1635	72	442	818	-1	0	247	-25	0	-187
12/31/1999	5478	31	416	16	104	-2381	98	845	864	-1	0	258	-24	0	-192
1/31/2000	5509	31	-134	98	197	-929	40	-52	854	-1	0	161	-28	0	-199
2/29/2000	5538	29	-1998	722	1269	-166	108	-32	780	-1	0	-461	-31	0	-182
3/31/2000	5569	31	-71	190	336	-639	98	-464	842	-1	0	-66	-32	0	-190
4/30/2000	5599	30	-292	212	405	-597	76	-342	804	-1	0	-43	-31	0	-187
5/31/2000	5630	31	920	16	116	-3197	153	1155	874	-1	0	184	-22	0	-193
6/30/2000	5660	30	704	16	116	-3198	138	1379	855	-1	0	208	-20	0	-194
7/31/2000	5691	31	397	16	103	-2275	81	838	853	-1	0	220	-24	0	-202
8/31/2000	5722	31	410	16	103	-2276	84	806	855	-1	0	236	-25	0	-203
9/30/2000	5752	30	392	16	103	-2279	79	859	825	-1	0	235	-24	0	-197
10/31/2000	5783	31	-150	70	167	-787	12	-64	835	-1	0	164	-31	0	-210
11/30/2000	5813	30	462	16	103	-2279	97	782	813	-1	0	238	-26	0	-199
12/31/2000	5844	31	376	16	103	-2276	99	824	849	-1	0	248	-26	0	-206
1/31/2001	5875	31	-1612	619	995	-187	103	-133	836	-1	0	-365	-34	0	-203
2/28/2001	5903	28	-1671	715	1149	-152	174	-304	749	-1	0	-436	-34	0	-175
3/31/2001	5934	31	-1252	582	1038	-208	161	-488	827	-1	0	-416	-39	0	-189
4/30/2001	5964	30	481	79	165	-1060	114	-349	809	-1	0	-13	-31	0	-188
5/31/2001	5995	31	960	16	111	-3088	167	1072	863	-1	0	126	-19	0	-203
6/30/2001	6025	30	730	16	111	-3090	149	1290	838	-1	0	178	-15	0	-201
7/31/2001	6056	31	449	16	89	-2306	95	811	871	-1	0	204	-17	0	-205
8/31/2001	6087	31	456	16	89	-2305	92	782	878	-1	0	221	-18	0	-203
9/30/2001	6117	30	436	16	89	-2308	83	832	847	-1	0	225	-17	0	-196
10/31/2001	6148	31	394	16	89	-2305	81	844	868	-1	0	241	-19	0	-203
11/30/2001	6178	30	-745	265	465	-336	45	-196	798	-1	0	-65	-30	0	-196
12/31/2001	6209	31	87	59	152	-902	60	-224	843	-1	0	163	-30	0	-200
1/31/2002	6240	31	116	40	92	-959	52	-182	852	-1	0	228	-31	0	-200
2/28/2002	6268	28	392	15	79	-1895	87	504	791	-1	0	233	-21	0	-178
3/31/2002	6299	31	312	16	79	-1886	76	496	874	-1	0	260	-22	0	-198
4/30/2002	6329	30	310	16	79	-1889	74	530	850	-1	0	249	-20	0	-191
5/31/2002	6360	31	295	16	79	-1886	70	516	879	-1	0	256	-21	0	-197
6/30/2002	6390	30	297	16	79	-1890	70	545	855	0	0	246	-20	0	-191

Flow Budget for Aquifer B in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)											
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula A	Fillmore B	Mound L2-4	Oxnard UAS	Santa Paula C	Mound L5	Oxnard LAS	Mound L6 L7
7/31/2002	6421	31	415	16	121	-2654	117	1095	880	0	0	246	-24	0	-205
8/31/2002	6452	31	381	16	121	-2657	114	1129	890	0	0	245	-25	0	-209
9/30/2002	6482	30	371	16	121	-2662	107	1179	865	0	0	237	-24	0	-205
10/31/2002	6513	31	354	16	121	-2660	111	1160	901	0	0	243	-25	0	-214
11/30/2002	6543	30	-1143	399	709	-270	58	-114	842	0	0	-240	-32	0	-200
12/31/2002	6574	31	-808	343	626	-298	81	-370	870	-1	0	-201	-36	-1	-201
1/31/2003	6605	31	646	16	83	-2218	126	498	914	-1	0	187	-34	0	-210
2/28/2003	6633	28	-1028	410	691	-210	65	-230	778	-1	0	-247	-33	0	-187
3/31/2003	6664	31	-556	310	498	-278	80	-539	857	-1	0	-129	-38	-1	-202
4/30/2003	6694	30	252	59	131	-905	54	-307	838	-1	0	124	-34	0	-203
5/31/2003	6725	31	-40	93	213	-711	41	-305	859	-1	0	104	-35	0	-213
6/30/2003	6755	30	568	16	83	-2216	109	623	852	-1	0	215	-30	0	-212
7/31/2003	6786	31	464	16	113	-2446	106	943	829	-1	0	224	-25	0	-218
8/31/2003	6817	31	408	16	113	-2448	106	988	833	-1	0	232	-24	0	-218
9/30/2003	6847	30	385	16	113	-2452	100	1049	804	-1	0	227	-24	0	-212
10/31/2003	6878	31	354	16	113	-2450	101	1051	831	-1	0	235	-25	0	-220
11/30/2003	6908	30	-482	117	278	-509	21	-65	812	-1	0	75	-32	-1	-211
12/31/2003	6939	31	-95	92	213	-788	38	-159	847	-1	0	108	-34	-1	-216
1/31/2004	6970	31	410	16	82	-1959	82	498	878	-1	0	243	-27	-1	-215
2/29/2004	6999	29	-1605	577	1003	-125	78	-81	792	-1	0	-396	-33	-1	-194
3/31/2004	7030	31	436	31	94	-1514	103	132	871	-1	0	85	-29	-1	-202
4/30/2004	7060	30	560	16	89	-2217	90	660	843	-1	0	191	-24	0	-201
5/31/2004	7091	31	447	16	89	-2212	79	733	871	-1	0	220	-25	0	-211
6/30/2004	7121	30	405	16	89	-2214	78	790	846	-1	0	227	-24	0	-205
7/31/2004	7152	31	447	16	120	-2815	110	1225	903	-1	0	229	-21	0	-209
8/31/2004	7183	31	418	16	120	-2818	109	1249	914	-1	0	228	-21	-1	-210
9/30/2004	7213	30	414	16	120	-2823	108	1275	897	-1	0	224	-21	0	-204
10/31/2004	7244	31	-1359	490	811	-267	46	10	872	-1	0	-342	-36	-1	-210
11/30/2004	7274	30	701	16	120	-2825	134	1050	897	-1	0	133	-25	-1	-196
12/31/2004	7305	31	-1595	583	1012	-184	81	-70	877	-1	0	-441	-38	-1	-207
1/31/2005	7336	31	-3553	1331	2218	-41	230	157	853	-1	0	-923	-38	-1	-202
2/28/2005	7364	28	-1880	853	1430	-104	234	-481	762	-1	0	-611	-28	-1	-181
3/31/2005	7395	31	72	223	402	-452	157	-813	846	-1	0	-199	-26	-1	-204
4/30/2005	7425	30	957	18	70	-1923	132	124	833	-1	0	10	-11	0	-202
5/31/2005	7456	31	880	16	88	-2564	133	723	864	-1	0	90	-7	0	-215
6/30/2005	7486	30	727	16	88	-2563	115	872	823	-1	0	149	-8	0	-212
7/31/2005	7517	31	524	16	97	-2290	108	789	835	-1	0	167	-18	0	-221
8/31/2005	7548	31	470	16	97	-2290	109	798	844	-1	0	200	-21	0	-218
9/30/2005	7578	30	432	16	97	-2292	97	871	812	-1	0	205	-21	0	-210
10/31/2005	7609	31	53	41	126	-1214	54	190	828	-1	0	173	-28	0	-215
11/30/2005	7639	30	433	16	90	-2142	101	698	827	-1	0	214	-23	0	-207
12/31/2005	7670	31	392	16	97	-2287	100	827	867	0	0	230	-22	0	-215
1/31/2006	7701	31	-749	321	539	-584	61	-28	854	-1	0	-161	-30	0	-215
2/28/2006	7729	28	-180	224	338	-798	75	-151	780	0	0	-64	-29	0	-191
3/31/2006	7760	31	-906	359	681	-418	90	-225	859	-1	0	-190	-33	0	-209
4/30/2006	7790	30	-727	347	659	-461	91	-288	825	-1	0	-207	-32	0	-197
5/31/2006	7821	31	335	56	159	-1387	104	1	862	-1	0	111	-29	0	-204
6/30/2006	7851	30	935	16	140	-3688	185	1563	870	-1	0	211	-16	0	-210
7/31/2006	7882	31	326	16	96	-2286	98	840	937	-1	0	219	-20	0	-220
8/31/2006	7913	31	372	16	96	-2287	89	796	929	-1	0	234	-20	0	-219
9/30/2006	7943	30	363	16	96	-2290	92	829	900	-1	0	231	-20	0	-212
10/31/2006	7974	31	335	16	96	-2287	94	826	927	-1	0	240	-21	0	-220
11/30/2006	8004	30	327	16	96	-2290	102	845	907	-1	0	236	-20	0	-214
12/31/2006	8035	31	162	20	79	-1706	69	456	923	-1	0	247	-23	0	-218
1/31/2007	8066	31	-383	144	277	-554	31	-220	877	-1	0	75	-28	0	-214
2/28/2007	8094	28	161	40	138	-1385	67	204	824	-1	0	171	-22	0	-191
3/31/2007	8125	31	405	16	94	-2246	97	689	939	-1	0	250	-22	0	-214
4/30/2007	8155	30	96	29	79	-1440	55	290	891	-1	0	237	-25	0	-205
5/31/2007	8186	31	384	16	94	-2246	89	714	943	-1	0	249	-23	0	-213
6/30/2007	8216	30	341	16	94	-2250	86	790	919	-1	0	241	-21	0	-209
7/31/2007	8247	31	359	16	103	-2583	104	1004	995	-1	0	247	-21	0	-216
8/31/2007	8278	31	338	16	103	-2587	96	1028	1001	-1	0	249	-21	0	-217
9/30/2007	8308	30	317	16	101	-2551	91	1053	971	-1	0	243	-23	0	-212
10/31/2007	8339	31	302	16	103	-2589	92	1077	1001	-1	0	249	-23	0	-219
11/30/2007	8369	30	308	16	103	-2592	102	1088	979	-1	0	240	-23	0	-213
12/31/2007	8400	31	-818	238	433	-375	29	-112	909	-1	0	-49	-32	0	-218
1/31/2008	8431	31	-2809	997	1713	-46	151	90	871	-1	0	-716	-37	0	-208
2/29/2008	8460	29	200	98	209	-640	93	-460	827	-1	0	-99	-31	0	-190
3/31/2008	8491	31	703	16	85	-2204	113	523	897	-1	0	109	-25	0	-209
4/30/2008	8521	30	488	16	85	-2203	93	712	868	-1	0	180	-23	0	-207

Flow Budget for Aquifer B in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)											
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula A	Fillmore B	Mound L2-4	Oxnard UAS	Santa Paula C	Mound L5	Oxnard LAS	Mound L6 L7
5/31/2008	8552	31	414	16	85	-2198	83	743	898	-1	0	210	-26	0	-217
6/30/2008	8582	30	389	16	85	-2201	80	793	873	-1	0	209	-25	0	-211
7/31/2008	8613	31	459	16	112	-2826	113	1188	959	-1	0	228	-25	0	-217
8/31/2008	8644	31	413	16	112	-2829	110	1227	969	-1	0	232	-25	0	-218
9/30/2008	8674	30	398	16	112	-2834	101	1286	939	-1	0	225	-24	0	-213
10/31/2008	8705	31	350	16	112	-2832	97	1304	966	-1	0	239	-25	0	-221
11/30/2008	8735	30	-561	158	301	-612	23	35	872	-1	0	35	-32	0	-214
12/31/2008	8766	31	-354	149	286	-646	45	-177	904	-1	0	53	-35	0	-218
1/31/2009	8797	31	309	16	65	-1643	65	257	945	-1	0	247	-33	0	-220
2/28/2009	8825	28	-1203	459	734	-152	66	-171	799	-1	0	-297	-33	0	-194
3/31/2009	8856	31	503	16	65	-1694	82	186	935	-1	0	160	-32	0	-212
4/30/2009	8886	30	366	16	78	-1993	85	554	928	-1	0	216	-29	0	-212
5/31/2009	8917	31	292	16	78	-1989	73	589	955	-1	0	243	-29	-1	-220
6/30/2009	8947	30	278	16	78	-1992	72	637	926	-1	0	235	-28	-1	-213
7/31/2009	8978	31	420	16	116	-2864	113	1215	997	-1	0	234	-23	-1	-217
8/31/2009	9009	31	373	16	116	-2868	110	1261	1007	-1	0	232	-23	-1	-218
9/30/2009	9039	30	366	16	116	-2872	105	1305	982	-1	0	224	-23	-1	-212
10/31/2009	9070	31	-700	232	368	-555	11	37	907	-1	0	-42	-33	-1	-222
11/30/2009	9100	30	526	16	116	-2873	129	1147	971	-1	0	213	-26	-1	-212
12/31/2009	9131	31	-861	299	520	-426	46	-75	907	-1	0	-153	-35	-1	-221
1/31/2010	9162	31	-1577	584	1024	-134	101	-181	884	-1	0	-432	-39	-1	-212
2/28/2010	9190	28	-638	319	578	-322	89	-359	800	-1	0	-239	-36	0	-186
3/31/2010	9221	31	739	16	78	-2361	123	591	936	-1	0	120	-33	-1	-206
4/30/2010	9251	30	-119	105	212	-716	29	-183	867	-1	0	52	-34	-1	-206
5/31/2010	9282	31	587	16	80	-2394	98	723	932	-1	0	201	-31	-1	-212
6/30/2010	9312	30	473	16	80	-2402	89	855	904	-1	0	204	-28	-1	-207
7/31/2010	9343	31	460	16	118	-2928	130	1236	1002	-1	0	220	-30	-1	-218
8/31/2010	9374	31	414	16	118	-2932	126	1272	1015	-1	0	226	-30	-1	-220
9/30/2010	9404	30	397	16	118	-2935	122	1319	994	-1	0	218	-29	-1	-214
10/31/2010	9435	31	-404	138	245	-745	18	22	918	-1	0	70	-34	-1	-220
11/30/2010	9465	30	136	35	132	-1573	61	373	912	-1	0	176	-31	-1	-213
12/31/2010	9496	31	-2339	816	1394	-117	128	89	878	-1	0	-587	-37	-1	-212
1/31/2011	9527	31	781	16	81	-2204	141	465	944	-1	0	21	-33	-1	-204
2/28/2011	9555	28	-680	281	492	-340	48	-190	801	-1	0	-185	-33	0	-189
3/31/2011	9586	31	-1233	569	889	-145	102	-386	874	-1	0	-410	-39	-1	-206
4/30/2011	9616	30	719	16	81	-2203	132	491	909	-1	0	91	-33	0	-195
5/31/2011	9647	31	328	20	66	-1568	67	248	917	-1	0	172	-32	0	-208
6/30/2011	9677	30	458	16	81	-2197	92	696	905	-1	0	190	-29	0	-203
7/31/2011	9708	31	385	16	101	-2433	97	925	957	-1	0	194	-25	0	-209
8/31/2011	9739	31	342	16	101	-2435	96	947	962	-1	0	212	-25	0	-210
9/30/2011	9769	30	327	16	101	-2438	91	991	934	-1	0	212	-24	0	-203
10/31/2011	9800	31	-2	48	89	-1170	16	169	899	-1	0	201	-30	0	-211
11/30/2011	9830	30	62	60	118	-1201	41	125	870	-1	0	165	-29	0	-201
12/31/2011	9861	31	325	16	99	-2408	114	899	960	-1	0	235	-26	0	-207
1/31/2012	9892	31	198	18	94	-1849	65	558	941	-1	0	221	-30	0	-209
2/29/2012	9921	29	326	15	99	-2458	105	988	931	-1	0	222	-24	0	-196
3/31/2012	9952	31	-534	164	307	-612	18	-31	919	-1	0	16	-31	-1	-211
4/30/2012	9982	30	-278	118	246	-648	27	-180	890	-1	0	65	-31	-1	-201
5/31/2012	10013	31	448	16	99	-2455	110	802	989	-1	0	235	-27	0	-209
6/30/2012	10043	30	355	16	99	-2459	100	940	962	-1	0	226	-25	0	-205
7/31/2012	10074	31	359	16	136	-2758	122	1244	902	-1	0	223	-25	-1	-214
8/31/2012	10105	31	334	16	136	-2762	121	1281	899	-1	0	221	-25	-1	-216
9/30/2012	10135	30	325	16	136	-2767	115	1332	870	-1	0	213	-24	-1	-211
10/31/2012	10166	31	97	16	106	-1855	53	762	856	-1	0	217	-26	-1	-220
11/30/2012	10196	30	-193	85	172	-929	39	94	856	-1	0	130	-30	-1	-214
12/31/2012	10227	31	-363	152	260	-667	51	-135	891	-1	0	70	-34	-1	-218
1/31/2013	10258	31	-83	66	155	-763	36	-175	869	-1	0	156	-35	-1	-218
2/28/2013	10286	28	367	15	107	-2045	92	751	739	-1	0	202	-27	-1	-196
3/31/2013	10317	31	51	27	86	-1326	47	320	829	-1	0	221	-32	-1	-217
4/30/2013	10347	30	304	16	107	-2041	83	775	787	-1	0	213	-29	-1	-209
5/31/2013	10378	31	250	16	107	-2040	79	808	813	-1	0	218	-29	-1	-217
6/30/2013	10408	30	250	16	107	-2043	80	839	787	-1	0	210	-28	-1	-211
7/31/2013	10439	31	239	16	116	-2162	94	914	827	-1	0	215	-31	-1	-222
8/31/2013	10470	31	232	16	116	-2164	91	920	835	-1	0	215	-32	-1	-224
9/30/2013	10500	30	235	16	116	-2167	91	944	812	-1	0	207	-31	-1	-218
10/31/2013	10531	31	222	16	116	-2165	87	928	847	-1	0	214	-32	-1	-227
11/30/2013	10561	30	188	16	108	-1988	79	819	831	-1	0	208	-32	-1	-222
12/31/2013	10592	31	233	16	116	-2166	83	912	860	-1	0	215	-33	-1	-231
1/31/2014	10623	31	339	16	142	-2676	109	1241	883	-1	0	213	-30	-1	-233
2/28/2014	10651	28	-864	294	477	-417	38	45	819	-1	0	-151	-32	-1	-208

Flow Budget for Aquifer B in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)											
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula A	Fillmore B	Mound L2-4	Oxnard UAS	Santa Paula C	Mound L5	Oxnard LAS	Mound L6 L7
3/31/2014	10682	31	-10	81	198	-996	35	-12	916	-1	0	60	-35	-1	-229
4/30/2014	10712	30	467	16	142	-2676	122	1133	860	-1	0	198	-30	-1	-225
5/31/2014	10743	31	370	16	142	-2678	112	1223	883	-1	0	202	-31	-1	-235
6/30/2014	10773	30	368	16	142	-2681	110	1258	857	-1	0	194	-30	-1	-230
7/31/2014	10804	31	279	16	126	-2495	92	1138	911	-1	0	202	-28	-1	-234
8/31/2014	10835	31	301	16	126	-2494	91	1109	917	-1	0	203	-28	-1	-234
9/30/2014	10865	30	318	16	126	-2497	93	1115	891	-1	0	199	-27	-1	-227
10/31/2014	10896	31	311	16	126	-2501	90	1095	925	-1	0	208	-29	-1	-236
11/30/2014	10926	30	97	25	100	-1739	52	627	904	0	0	202	-31	-1	-229
12/31/2014	10957	31	-964	344	571	-338	29	-79	937	0	0	-228	-38	-1	-232
1/31/2015	10988	31	-96	90	162	-611	23	-301	929	-1	0	84	-38	-1	-231
2/28/2015	11016	28	377	15	94	-1869	63	565	811	0	0	189	-29	-1	-210
3/31/2015	11047	31	170	18	76	-1460	24	338	899	0	0	212	-33	-1	-236
4/30/2015	11077	30	301	16	105	-1994	61	734	839	0	0	201	-30	-1	-227
5/31/2015	11108	31	273	16	90	-1889	41	638	893	0	0	210	-31	-1	-235
6/30/2015	11138	30	255	16	105	-1993	62	784	835	0	0	200	-30	-1	-227
7/31/2015	11169	31	268	16	78	-1824	15	590	902	0	0	216	-25	-1	-226
8/31/2015	11200	31	292	16	127	-2382	83	1055	857	0	0	204	-24	-1	-223
9/30/2015	11230	30	226	16	93	-1922	40	756	836	0	0	199	-23	-1	-213
10/31/2015	11261	31	307	16	127	-2385	83	1053	847	0	0	201	-25	-1	-219
11/30/2015	11291	30	308	16	127	-2389	83	1089	816	0	0	192	-24	-1	-212
12/31/2015	11322	31	295	16	127	-2388	80	1077	846	0	0	197	-26	-1	-219

Flow Budget for Aquifer C in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
1/31/1985	31	31	597	0	22	-183	-9	-440	289	-2	-211
2/28/1985	59	28	605	0	19	-167	-8	-449	259	-1	-202
3/31/1985	90	31	715	0	17	-186	-9	-529	286	-2	-233
4/30/1985	120	30	771	0	0	-190	-8	-552	271	-1	-235
5/31/1985	151	31	790	0	0	-196	-8	-556	279	-2	-252
6/30/1985	181	30	761	0	0	-189	-8	-529	270	-2	-251
7/31/1985	212	31	787	0	0	-197	-8	-539	279	-2	-267
8/31/1985	243	31	779	0	0	-196	-8	-525	279	-2	-276
9/30/1985	273	30	748	0	0	-188	-8	-497	269	-2	-274
10/31/1985	304	31	759	0	0	-192	-8	-500	280	-2	-288
11/30/1985	334	30	306	1	118	-166	-9	-211	286	-2	-273
12/31/1985	365	31	668	0	0	-184	-8	-443	295	-2	-276
1/31/1986	396	31	332	1	100	-168	-9	-232	301	-2	-271
2/28/1986	424	28	-111	3	208	-146	-8	60	282	-1	-228
3/31/1986	455	31	109	2	132	-159	-8	-102	316	-2	-226
4/30/1986	485	30	435	0	22	-160	-7	-318	296	-1	-214
5/31/1986	516	31	588	0	0	-177	-7	-403	290	-1	-241
6/30/1986	546	30	605	0	0	-172	-7	-407	277	-1	-250
7/31/1986	577	31	620	0	0	-176	-7	-417	291	-1	-265
8/31/1986	608	31	618	0	0	-176	-7	-415	294	-1	-269
9/30/1986	638	30	556	0	15	-162	-8	-384	291	-1	-264
10/31/1986	669	31	623	0	0	-175	-7	-413	296	-1	-279
11/30/1986	699	30	495	0	30	-158	-8	-341	298	-1	-273
12/31/1986	730	31	616	0	0	-173	-7	-407	300	-2	-285
1/31/1987	761	31	475	0	36	-160	-8	-324	310	-2	-286
2/28/1987	789	28	460	0	18	-147	-7	-310	282	-1	-256
3/31/1987	820	31	416	0	43	-157	-8	-285	317	-2	-282
4/30/1987	850	30	562	0	0	-167	-6	-365	295	-2	-277
5/31/1987	881	31	582	0	0	-171	-7	-371	301	-2	-293
6/30/1987	911	30	567	0	0	-165	-6	-355	289	-2	-290
7/31/1987	942	31	588	0	0	-170	-7	-365	296	-2	-303
8/31/1987	973	31	585	0	0	-169	-7	-361	297	-2	-307
9/30/1987	1003	30	572	0	0	-163	-7	-351	286	-2	-300
10/31/1987	1034	31	452	0	26	-151	-8	-283	309	-2	-307
11/30/1987	1064	30	455	0	28	-152	-7	-300	307	-2	-293
12/31/1987	1095	31	103	1	102	-143	-8	-51	328	-2	-290
1/31/1988	1126	31	224	1	67	-143	-7	-154	328	-2	-273
2/29/1988	1155	29	299	0	47	-136	-6	-217	304	-2	-251
3/31/1988	1186	31	492	0	0	-155	-6	-333	317	-2	-277
4/30/1988	1216	30	127	1	102	-135	-7	-98	316	-2	-266
5/31/1988	1247	31	482	0	0	-159	-5	-316	312	-2	-275
6/30/1988	1277	30	485	0	0	-154	-6	-310	296	-1	-277
7/31/1988	1308	31	501	0	0	-161	-6	-314	308	-2	-292
8/31/1988	1339	31	509	0	0	-161	-6	-318	308	-2	-298
9/30/1988	1369	30	500	0	0	-157	-6	-308	296	-2	-293
10/31/1988	1400	31	517	0	0	-160	-6	-316	306	-2	-307
11/30/1988	1430	30	433	0	15	-136	-7	-281	306	-2	-297
12/31/1988	1461	31	34	1	103	-129	-7	-2	331	-2	-295
1/31/1989	1492	31	428	0	0	-139	-6	-287	326	-2	-288
2/28/1989	1520	28	69	1	74	-114	-6	-38	305	-2	-257
3/31/1989	1551	31	405	0	0	-132	-6	-288	336	-2	-281
4/30/1989	1581	30	427	0	0	-133	-5	-293	316	-2	-280
5/31/1989	1612	31	455	0	0	-136	-6	-308	324	-2	-298
6/30/1989	1642	30	444	0	0	-131	-6	-297	314	-2	-294
7/31/1989	1673	31	460	0	0	-140	-6	-300	326	-2	-309
8/31/1989	1704	31	459	0	0	-140	-6	-298	327	-2	-313

Flow Budget for Aquifer C in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
9/30/1989	1734	30	446	0	0	-135	-6	-286	316	-2	-306
10/31/1989	1765	31	458	0	0	-138	-6	-294	328	-2	-318
11/30/1989	1795	30	448	0	0	-134	-6	-286	316	-2	-310
12/31/1989	1826	31	461	0	0	-137	-6	-293	326	-2	-322
1/31/1990	1857	31	166	1	79	-120	-7	-113	342	-2	-317
2/28/1990	1885	28	110	1	70	-107	-6	-77	315	-2	-276
3/31/1990	1916	31	418	0	0	-138	-5	-276	336	-2	-306
4/30/1990	1946	30	430	0	0	-132	-5	-282	320	-2	-304
5/31/1990	1977	31	435	0	0	-129	-6	-289	334	-2	-318
6/30/1990	2007	30	434	0	0	-133	-5	-277	320	-2	-313
7/31/1990	2038	31	439	0	0	-133	-6	-278	328	-2	-325
8/31/1990	2069	31	439	0	0	-132	-6	-278	327	-2	-323
9/30/1990	2099	30	424	0	0	-128	-6	-267	315	-2	-314
10/31/1990	2130	31	435	0	0	-130	-6	-273	326	-2	-326
11/30/1990	2160	30	421	0	0	-126	-6	-263	315	-2	-317
12/31/1990	2191	31	432	0	0	-129	-6	-270	325	-2	-328
1/31/1991	2222	31	329	0	28	-114	-6	-220	336	-2	-327
2/28/1991	2250	28	90	1	51	-100	-6	-37	312	-2	-286
3/31/1991	2281	31	-912	4	327	-99	-7	641	363	-2	-280
4/30/1991	2311	30	56	0	0	-112	-5	-5	341	-2	-245
5/31/1991	2342	31	198	0	0	-118	-5	-123	344	-2	-269
6/30/1991	2372	30	275	0	0	-116	-5	-187	330	-2	-272
7/31/1991	2403	31	316	0	0	-121	-6	-217	343	-2	-291
8/31/1991	2434	31	334	0	0	-121	-6	-229	343	-2	-297
9/30/1991	2464	30	337	0	0	-118	-5	-228	330	-2	-292
10/31/1991	2495	31	363	0	0	-121	-6	-247	341	-2	-306
11/30/1991	2525	30	353	0	0	-118	-5	-240	332	-2	-299
12/31/1991	2556	31	-155	1	97	-104	-7	131	361	-2	-297
1/31/1992	2587	31	56	1	49	-102	-6	-59	368	-2	-280
2/29/1992	2616	29	-889	4	323	-90	-6	576	357	-2	-240
3/31/1992	2647	31	-572	2	179	-93	-6	358	393	-2	-224
4/30/1992	2677	30	28	0	0	-100	-5	-47	367	-2	-214
5/31/1992	2708	31	134	0	0	-106	-5	-127	373	-2	-242
6/30/1992	2738	30	208	0	0	-105	-5	-182	359	-1	-251
7/31/1992	2769	31	276	0	0	-127	-5	-214	368	-1	-274
8/31/1992	2800	31	308	0	0	-129	-5	-231	366	-1	-285
9/30/1992	2830	30	311	0	0	-125	-5	-228	352	-1	-282
10/31/1992	2861	31	197	0	28	-111	-6	-170	378	-2	-291
11/30/1992	2891	30	317	0	0	-125	-5	-244	361	-1	-281
12/31/1992	2922	31	-266	2	123	-104	-6	169	390	-1	-280
1/31/1993	2953	31	-874	4	316	-97	-6	538	409	-1	-251
2/28/1993	2981	28	-865	3	280	-83	-5	519	381	-1	-192
3/31/1993	3012	31	-451	1	104	-94	-5	237	424	-1	-179
4/30/1993	3042	30	9	0	0	-120	-4	-63	393	-1	-185
5/31/1993	3073	31	117	0	0	-126	-5	-135	398	-1	-221
6/30/1993	3103	30	170	0	0	-120	-5	-172	385	-1	-232
7/31/1993	3134	31	232	0	0	-142	-5	-202	397	-1	-254
8/31/1993	3165	31	268	0	0	-142	-5	-223	396	-1	-268
9/30/1993	3195	30	280	0	0	-139	-5	-225	382	-1	-268
10/31/1993	3226	31	302	0	0	-143	-5	-239	393	-1	-283
11/30/1993	3256	30	280	0	0	-122	-6	-237	386	-1	-277
12/31/1993	3287	31	188	0	25	-118	-6	-184	405	-1	-285
1/31/1994	3318	31	318	0	0	-127	-5	-271	395	-1	-285
2/28/1994	3346	28	-416	2	145	-95	-6	275	366	-1	-246
3/31/1994	3377	31	-64	1	50	-107	-6	-4	409	-1	-250
4/30/1994	3407	30	209	0	0	-123	-5	-198	382	-1	-241

Flow Budget for Aquifer C in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
5/31/1994	3438	31	262	0	0	-126	-5	-239	390	-1	-258
6/30/1994	3468	30	284	0	0	-123	-5	-247	375	-1	-260
7/31/1994	3499	31	297	0	0	-118	-5	-255	384	-1	-279
8/31/1994	3530	31	303	0	0	-117	-5	-255	383	-1	-286
9/30/1994	3560	30	300	0	0	-112	-5	-247	368	-1	-281
10/31/1994	3591	31	301	0	0	-111	-6	-257	389	-1	-295
11/30/1994	3621	30	254	0	11	-107	-6	-226	379	-1	-283
12/31/1994	3652	31	249	0	17	-110	-6	-231	395	-1	-291
1/31/1995	3683	31	-1586	7	572	-93	-7	986	421	-1	-255
2/28/1995	3711	28	-255	0	40	-88	-5	146	382	-1	-188
3/31/1995	3742	31	-855	3	242	-91	-6	509	429	-1	-195
4/30/1995	3772	30	-63	0	0	-111	-4	-14	401	-1	-180
5/31/1995	3803	31	-12	0	15	-106	-5	-63	410	-1	-212
6/30/1995	3833	30	129	0	0	-115	-5	-148	390	-1	-225
7/31/1995	3864	31	195	0	0	-134	-5	-179	398	-1	-249
8/31/1995	3895	31	243	0	0	-134	-5	-213	396	-1	-263
9/30/1995	3925	30	267	0	0	-130	-5	-226	380	-1	-263
10/31/1995	3956	31	288	0	0	-134	-5	-240	392	-1	-277
11/30/1995	3986	30	292	0	0	-130	-5	-240	378	-1	-273
12/31/1995	4017	31	87	0	34	-112	-6	-103	401	-1	-276
1/31/1996	4048	31	220	0	16	-114	-5	-222	399	-1	-269
2/29/1996	4077	29	-640	2	225	-95	-6	395	387	-1	-236
3/31/1996	4108	31	-73	0	40	-108	-6	-8	415	-1	-229
4/30/1996	4138	30	173	0	0	-117	-5	-189	386	-1	-225
5/31/1996	4169	31	242	0	0	-125	-5	-236	392	-1	-244
6/30/1996	4199	30	263	0	0	-121	-5	-240	375	-1	-250
7/31/1996	4230	31	299	0	0	-122	-5	-258	379	-1	-270
8/31/1996	4261	31	312	0	0	-121	-5	-259	375	-1	-279
9/30/1996	4291	30	312	0	0	-117	-5	-250	359	-1	-276
10/31/1996	4322	31	75	1	60	-108	-6	-102	387	-1	-281
11/30/1996	4352	30	18	1	54	-105	-6	-56	380	-1	-261
12/31/1996	4383	31	-559	2	209	-102	-6	334	403	-1	-249
1/31/1997	4414	31	-494	2	144	-99	-6	295	412	-1	-220
2/28/1997	4442	28	70	0	0	-108	-4	-103	360	-1	-190
3/31/1997	4473	31	171	0	0	-119	-5	-192	393	-1	-223
4/30/1997	4503	30	215	0	0	-117	-5	-220	378	-1	-229
5/31/1997	4534	31	252	0	0	-121	-5	-243	389	-1	-250
6/30/1997	4564	30	258	0	0	-118	-5	-237	375	-1	-251
7/31/1997	4595	31	294	0	0	-128	-5	-248	376	-1	-267
8/31/1997	4626	31	305	0	0	-127	-5	-247	369	-1	-273
9/30/1997	4656	30	299	0	0	-123	-5	-238	355	-1	-268
10/31/1997	4687	31	310	0	0	-125	-5	-247	367	-1	-277
11/30/1997	4717	30	-9	1	65	-105	-6	-30	370	-1	-263
12/31/1997	4748	31	-479	2	142	-102	-6	324	396	-1	-249
1/31/1998	4779	31	-226	1	74	-101	-6	113	398	-1	-226
2/28/1998	4807	28	-1666	6	560	-79	-6	1014	373	-1	-160
3/31/1998	4838	31	-590	1	100	-85	-5	310	415	-1	-106
4/30/1998	4868	30	-250	0	39	-92	-5	77	394	-1	-132
5/31/1998	4899	31	-391	1	113	-94	-5	165	408	-1	-165
6/30/1998	4929	30	47	0	0	-109	-4	-104	380	-1	-183
7/31/1998	4960	31	129	0	0	-125	-5	-146	387	-1	-214
8/31/1998	4991	31	180	0	0	-125	-5	-180	387	-1	-232
9/30/1998	5021	30	225	0	0	-122	-5	-210	373	-1	-237
10/31/1998	5052	31	260	0	0	-125	-5	-234	382	-1	-254
11/30/1998	5082	30	214	0	12	-115	-5	-204	370	-1	-248
12/31/1998	5113	31	278	0	0	-123	-5	-246	380	-1	-260

Flow Budget for Aquifer C in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
1/31/1999	5144	31	67	0	49	-110	-6	-106	389	-1	-258
2/28/1999	5172	28	189	0	19	-103	-5	-196	353	-1	-234
3/31/1999	5203	31	-28	1	60	-109	-6	-33	395	-1	-253
4/30/1999	5233	30	34	0	41	-106	-5	-86	383	-1	-235
5/31/1999	5264	31	265	0	0	-121	-5	-253	385	-1	-247
6/30/1999	5294	30	276	0	0	-117	-5	-252	369	-1	-249
7/31/1999	5325	31	286	0	0	-115	-5	-255	374	-1	-262
8/31/1999	5356	31	295	0	0	-115	-5	-255	369	-1	-267
9/30/1999	5386	30	293	0	0	-111	-5	-247	354	-1	-263
10/31/1999	5417	31	308	0	0	-114	-5	-257	365	-1	-275
11/30/1999	5447	30	291	0	0	-107	-5	-247	354	-1	-265
12/31/1999	5478	31	308	0	0	-113	-5	-258	365	-1	-276
1/31/2000	5509	31	163	0	28	-108	-6	-161	377	-1	-272
2/29/2000	5538	29	-683	2	215	-94	-6	461	368	-1	-234
3/31/2000	5569	31	-148	1	48	-104	-6	66	394	-1	-223
4/30/2000	5599	30	-134	1	49	-100	-5	43	378	-1	-207
5/31/2000	5630	31	175	0	0	-115	-5	-184	377	-1	-224
6/30/2000	5660	30	224	0	0	-112	-5	-208	360	-1	-238
7/31/2000	5691	31	244	0	0	-113	-5	-220	372	-1	-257
8/31/2000	5722	31	271	0	0	-113	-5	-236	369	-1	-265
9/30/2000	5752	30	276	0	0	-109	-5	-235	355	-1	-262
10/31/2000	5783	31	157	0	35	-106	-6	-164	377	-1	-270
11/30/2000	5813	30	279	0	0	-109	-5	-238	358	-1	-264
12/31/2000	5844	31	292	0	0	-112	-5	-248	369	-1	-276
1/31/2001	5875	31	-542	2	179	-101	-6	365	390	-1	-259
2/28/2001	5903	28	-674	2	199	-88	-6	436	365	-1	-206
3/31/2001	5934	31	-665	2	167	-94	-6	416	409	-1	-196
4/30/2001	5964	30	-129	0	36	-99	-5	13	390	-1	-179
5/31/2001	5995	31	91	0	0	-112	-4	-126	386	-1	-211
6/30/2001	6025	30	173	0	0	-109	-5	-178	367	-1	-226
7/31/2001	6056	31	207	0	0	-113	-5	-204	382	-1	-244
8/31/2001	6087	31	234	0	0	-114	-5	-221	383	-1	-256
9/30/2001	6117	30	248	0	0	-110	-5	-225	368	-1	-256
10/31/2001	6148	31	271	0	0	-113	-5	-241	380	-1	-271
11/30/2001	6178	30	-137	1	69	-100	-6	65	383	-1	-252
12/31/2001	6209	31	128	0	23	-107	-6	-163	397	-1	-250
1/31/2002	6240	31	213	0	10	-108	-5	-228	390	-1	-251
2/28/2002	6268	28	249	0	0	-102	-4	-233	343	-1	-233
3/31/2002	6299	31	281	0	0	-112	-5	-260	379	-1	-263
4/30/2002	6329	30	276	0	0	-108	-5	-249	365	-1	-259
5/31/2002	6360	31	283	0	0	-111	-5	-256	377	-1	-268
6/30/2002	6390	30	276	0	0	-107	-5	-246	363	-1	-262
7/31/2002	6421	31	290	0	0	-116	-5	-246	372	-1	-276
8/31/2002	6452	31	294	0	0	-115	-5	-245	371	-1	-280
9/30/2002	6482	30	288	0	0	-111	-5	-237	357	-1	-274
10/31/2002	6513	31	296	0	0	-113	-5	-243	371	-1	-286
11/30/2002	6543	30	-333	1	100	-96	-6	240	376	-1	-261
12/31/2002	6574	31	-321	1	96	-99	-6	201	396	-1	-244
1/31/2003	6605	31	181	0	0	-107	-5	-187	380	-1	-241
2/28/2003	6633	28	-378	1	107	-89	-5	247	353	-1	-214
3/31/2003	6664	31	-255	1	76	-98	-6	129	397	-1	-220
4/30/2003	6694	30	51	0	33	-100	-5	-124	380	-1	-214
5/31/2003	6725	31	26	0	41	-102	-5	-104	392	-1	-227
6/30/2003	6755	30	213	0	0	-106	-4	-215	367	-1	-234
7/31/2003	6786	31	238	0	0	-107	-5	-224	374	-1	-256
8/31/2003	6817	31	254	0	0	-107	-5	-232	374	-1	-264

Flow Budget for Aquifer C in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
9/30/2003	6847	30	254	0	0	-103	-5	-227	359	-1	-260
10/31/2003	6878	31	266	0	0	-106	-5	-235	372	-1	-274
11/30/2003	6908	30	38	0	44	-96	-6	-75	375	-1	-261
12/31/2003	6939	31	61	0	47	-100	-6	-108	391	-1	-264
1/31/2004	6970	31	263	0	0	-110	-5	-243	379	-1	-265
2/29/2004	6999	29	-582	2	171	-91	-6	396	369	-1	-236
3/31/2004	7030	31	69	0	0	-103	-5	-85	385	-1	-240
4/30/2004	7060	30	193	0	0	-107	-5	-191	367	-1	-240
5/31/2004	7091	31	232	0	0	-110	-5	-220	378	-1	-256
6/30/2004	7121	30	247	0	0	-107	-5	-227	365	-1	-257
7/31/2004	7152	31	257	0	0	-107	-5	-229	375	-1	-273
8/31/2004	7183	31	261	0	0	-106	-5	-228	375	-1	-278
9/30/2004	7213	30	260	0	0	-103	-5	-224	362	-1	-274
10/31/2004	7244	31	-523	2	179	-97	-7	342	394	-1	-267
11/30/2004	7274	30	138	0	0	-103	-5	-133	371	-1	-248
12/31/2004	7305	31	-678	2	203	-95	-6	441	401	-1	-243
1/31/2005	7336	31	-1541	6	526	-86	-6	923	420	-1	-198
2/28/2005	7364	28	-1009	3	250	-73	-5	611	388	-1	-126
3/31/2005	7395	31	-433	1	57	-86	-5	199	426	-1	-128
4/30/2005	7425	30	-96	0	0	-103	-4	-10	399	-1	-161
5/31/2005	7456	31	27	0	0	-105	-4	-90	403	-1	-208
6/30/2005	7486	30	125	0	0	-110	-4	-149	386	-1	-227
7/31/2005	7517	31	167	0	0	-122	-5	-167	397	-1	-248
8/31/2005	7548	31	210	0	0	-121	-5	-200	398	-1	-260
9/30/2005	7578	30	227	0	0	-117	-5	-205	381	-1	-260
10/31/2005	7609	31	160	0	19	-111	-6	-173	401	-1	-269
11/30/2005	7639	30	235	0	0	-115	-5	-214	383	-1	-264
12/31/2005	7670	31	261	0	0	-120	-5	-230	394	-1	-279
1/31/2006	7701	31	-290	1	118	-104	-6	161	413	-1	-268
2/28/2006	7729	28	-183	1	92	-99	-5	64	380	-1	-225
3/31/2006	7760	31	-350	1	105	-105	-6	190	425	-1	-233
4/30/2006	7790	30	-386	1	105	-100	-5	207	412	-1	-208
5/31/2006	7821	31	33	0	19	-113	-5	-111	413	-1	-211
6/30/2006	7851	30	208	0	0	-121	-4	-211	379	-1	-229
7/31/2006	7882	31	221	0	0	-118	-5	-219	394	-1	-253
8/31/2006	7913	31	250	0	0	-118	-5	-234	390	-1	-263
9/30/2006	7943	30	259	0	0	-114	-5	-231	373	-1	-262
10/31/2006	7974	31	274	0	0	-117	-5	-240	384	-1	-277
11/30/2006	8004	30	274	0	0	-113	-5	-236	371	-1	-272
12/31/2006	8035	31	276	0	0	-112	-6	-247	390	-1	-281
1/31/2007	8066	31	39	0	43	-107	-6	-75	401	-1	-273
2/28/2007	8094	28	158	0	23	-103	-5	-171	359	-1	-242
3/31/2007	8125	31	280	0	0	-122	-5	-250	389	-1	-272
4/30/2007	8155	30	255	0	0	-109	-5	-237	379	-1	-264
5/31/2007	8186	31	284	0	0	-120	-5	-249	386	-1	-276
6/30/2007	8216	30	281	0	0	-116	-5	-241	372	-1	-272
7/31/2007	8247	31	289	0	0	-118	-5	-247	384	-1	-284
8/31/2007	8278	31	290	0	0	-116	-5	-249	384	-1	-286
9/30/2007	8308	30	287	0	0	-112	-5	-243	370	-1	-279
10/31/2007	8339	31	293	0	0	-114	-5	-249	384	-1	-289
11/30/2007	8369	30	283	0	0	-111	-5	-240	372	-1	-282
12/31/2007	8400	31	-129	1	82	-99	-7	49	404	-1	-281
1/31/2008	8431	31	-1096	4	336	-93	-7	716	418	-1	-247
2/29/2008	8460	29	-199	0	32	-92	-5	99	391	-1	-202
3/31/2008	8491	31	68	0	0	-109	-5	-109	403	-1	-227
4/30/2008	8521	30	160	0	0	-107	-5	-180	386	-1	-236

Flow Budget for Aquifer C in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
5/31/2008	8552	31	203	0	0	-110	-5	-210	398	-1	-256
6/30/2008	8582	30	213	0	0	-107	-5	-209	384	-1	-257
7/31/2008	8613	31	248	0	0	-116	-5	-228	391	-1	-272
8/31/2008	8644	31	258	0	0	-114	-5	-232	389	-1	-277
9/30/2008	8674	30	256	0	0	-110	-5	-225	374	-1	-272
10/31/2008	8705	31	273	0	0	-113	-5	-239	387	-1	-285
11/30/2008	8735	30	-14	1	48	-97	-6	-35	392	-1	-270
12/31/2008	8766	31	-5	1	44	-102	-6	-53	410	-1	-268
1/31/2009	8797	31	241	0	0	-105	-5	-247	402	-1	-267
2/28/2009	8825	28	-466	2	138	-88	-6	297	375	-1	-232
3/31/2009	8856	31	130	0	0	-107	-5	-160	410	-1	-247
4/30/2009	8886	30	202	0	0	-105	-5	-216	387	-1	-246
5/31/2009	8917	31	240	0	0	-108	-5	-243	398	-1	-264
6/30/2009	8947	30	239	0	0	-104	-5	-235	383	-1	-262
7/31/2009	8978	31	257	0	0	-117	-5	-234	393	-1	-277
8/31/2009	9009	31	258	0	0	-114	-5	-232	392	-1	-281
9/30/2009	9039	30	254	0	0	-110	-5	-224	377	-1	-276
10/31/2009	9070	31	-153	1	104	-96	-7	42	408	-1	-279
11/30/2009	9100	30	234	0	0	-112	-5	-213	382	-1	-267
12/31/2009	9131	31	-279	1	100	-96	-6	153	413	-1	-266
1/31/2010	9162	31	-644	2	162	-93	-6	432	413	-1	-241
2/28/2010	9190	28	-399	1	91	-84	-5	239	375	-1	-197
3/31/2010	9221	31	72	0	0	-107	-5	-120	400	-1	-220
4/30/2010	9251	30	-52	0	50	-94	-5	-52	395	-1	-222
5/31/2010	9282	31	175	0	0	-110	-5	-201	398	-1	-239
6/30/2010	9312	30	195	0	0	-106	-5	-204	382	-1	-244
7/31/2010	9343	31	237	0	0	-120	-5	-220	387	-2	-261
8/31/2010	9374	31	250	0	0	-118	-5	-226	385	-2	-268
9/30/2010	9404	30	249	0	0	-114	-5	-218	370	-2	-265
10/31/2010	9435	31	27	0	39	-101	-6	-70	398	-2	-270
11/30/2010	9465	30	148	0	28	-104	-5	-176	385	-2	-257
12/31/2010	9496	31	-879	3	248	-92	-6	587	414	-2	-248
1/31/2011	9527	31	-24	0	0	-101	-5	-21	402	-1	-229
2/28/2011	9555	28	-338	1	98	-84	-5	185	371	-1	-207
3/31/2011	9586	31	-686	2	191	-91	-6	410	421	-1	-214
4/30/2011	9616	30	31	0	0	-101	-4	-91	393	-1	-205
5/31/2011	9647	31	120	0	0	-103	-5	-172	405	-1	-226
6/30/2011	9677	30	160	0	0	-102	-5	-190	386	-1	-232
7/31/2011	9708	31	181	0	0	-108	-5	-194	395	-1	-251
8/31/2011	9739	31	207	0	0	-107	-5	-212	394	-1	-259
9/30/2011	9769	30	215	0	0	-103	-5	-212	378	-1	-256
10/31/2011	9800	31	175	0	16	-104	-6	-201	403	-1	-265
11/30/2011	9830	30	124	0	26	-101	-5	-165	395	-1	-254
12/31/2011	9861	31	231	0	0	-104	-5	-235	396	-1	-265
1/31/2012	9892	31	198	0	14	-105	-6	-221	403	-1	-266
2/29/2012	9921	29	230	0	0	-101	-4	-222	366	-1	-253
3/31/2012	9952	31	-66	1	64	-98	-6	-16	407	-1	-266
4/30/2012	9982	30	-16	1	51	-96	-6	-65	398	-1	-247
5/31/2012	10013	31	229	0	0	-107	-5	-235	394	-1	-258
6/30/2012	10043	30	231	0	0	-102	-5	-226	376	-1	-258
7/31/2012	10074	31	250	0	0	-119	-5	-223	386	-1	-272
8/31/2012	10105	31	249	0	0	-115	-5	-221	385	-1	-276
9/30/2012	10135	30	247	0	0	-112	-5	-213	370	-1	-271
10/31/2012	10166	31	247	0	0	-110	-5	-217	382	-1	-282
11/30/2012	10196	30	104	0	31	-97	-6	-130	384	-1	-271
12/31/2012	10227	31	24	0	35	-99	-6	-70	403	-1	-271

Flow Budget for Aquifer C in Santa Paula Basin

Date	Stress	days in month	influx(+) outflux(-)								
			STORAGE	Mountain Front Recharge	RECHARGE	Pumping from Wells	Outside	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
1/31/2013	10258	31	117	0	22	-98	-5	-156	401	-1	-264
2/28/2013	10286	28	211	0	0	-98	-4	-202	347	-1	-242
3/31/2013	10317	31	223	0	0	-100	-5	-221	387	-1	-270
4/30/2013	10347	30	228	0	0	-102	-4	-213	369	-1	-264
5/31/2013	10378	31	236	0	0	-104	-5	-218	380	-1	-276
6/30/2013	10408	30	231	0	0	-100	-5	-210	367	-1	-270
7/31/2013	10439	31	247	0	0	-112	-5	-215	379	-2	-281
8/31/2013	10470	31	245	0	0	-109	-5	-215	380	-2	-283
9/30/2013	10500	30	239	0	0	-106	-5	-207	366	-1	-275
10/31/2013	10531	31	246	0	0	-108	-5	-214	379	-2	-286
11/30/2013	10561	30	238	0	0	-103	-5	-208	367	-1	-278
12/31/2013	10592	31	249	0	0	-107	-5	-215	379	-2	-288
1/31/2014	10623	31	255	0	0	-109	-5	-213	375	-2	-291
2/28/2014	10651	28	-241	1	84	-79	-6	151	356	-1	-251
3/31/2014	10682	31	-5	1	51	-95	-6	-60	397	-2	-266
4/30/2014	10712	30	221	0	0	-109	-4	-198	368	-2	-262
5/31/2014	10743	31	229	0	0	-108	-5	-202	376	-2	-278
6/30/2014	10773	30	227	0	0	-105	-5	-194	362	-2	-274
7/31/2014	10804	31	227	0	0	-99	-5	-202	377	-2	-286
8/31/2014	10835	31	231	0	0	-100	-5	-203	377	-2	-287
9/30/2014	10865	30	230	0	0	-97	-5	-199	363	-2	-280
10/31/2014	10896	31	236	0	0	-94	-5	-208	375	-2	-291
11/30/2014	10926	30	219	0	0	-86	-6	-202	367	-2	-281
12/31/2014	10957	31	-335	1	88	-79	-7	228	395	-2	-275
1/31/2015	10988	31	25	0	28	-82	-6	-84	394	-2	-260
2/28/2015	11016	28	180	0	0	-78	-4	-189	344	-1	-241
3/31/2015	11047	31	204	0	0	-83	-5	-212	383	-2	-275
4/30/2015	11077	30	209	0	0	-83	-5	-201	363	-2	-272
5/31/2015	11108	31	214	0	0	-85	-5	-210	381	-2	-284
6/30/2015	11138	30	214	0	0	-83	-5	-200	362	-2	-277
7/31/2015	11169	31	224	0	0	-93	-6	-216	388	-2	-287
8/31/2015	11200	31	233	0	0	-99	-4	-204	374	-2	-287
9/30/2015	11230	30	219	0	0	-90	-5	-199	363	-2	-277
10/31/2015	11261	31	232	0	0	-98	-5	-201	369	-2	-287
11/30/2015	11291	30	224	0	0	-94	-5	-192	354	-2	-279
12/31/2015	11322	31	230	0	0	-96	-5	-197	365	-2	-288

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
1/31/1985	31	31	132.853	-21.088	-42.979	193.805	0	117.426	-30.351	-159.679	-190
2/28/1985	59	28	48.931	-13.46	-38.663	222.715	0	117.543	-18.346	-149.066	-170
3/31/1985	90	31	54.262	-10.858	-56.496	200.733	0	135.815	-16.62	-135.146	-172
4/30/1985	120	30	38.022	-7.895	-61.318	176.59	0	140.274	-11.956	-92.614	-181
5/31/1985	151	31	32.054	-6.484	-68.559	178.744	0	152.652	-9.7	-91.957	-187
6/30/1985	181	30	22.721	-5.045	-64.225	176.606	0	151.385	-8.883	-90.897	-182
7/31/1985	212	31	38.032	-4.097	-64.775	162.333	0	155.377	-8.896	-92.3	-186
8/31/1985	243	31	27.396	-3.214	-60.119	162.34	0	151.916	-9.509	-91.982	-177
9/30/1985	273	30	17.242	-2.689	-45.865	160.191	0	142.599	-9.467	-90.618	-171
10/31/1985	304	31	10.711	-2.804	-39.92	162.232	0	142.038	-12.172	-93.427	-167
11/30/1985	334	30	-164.307	-4.03	-30.062	477.606	0	130.446	-18.467	-234.519	-153
12/31/1985	365	31	13.749	-6.278	-27.317	159.59	0	127.298	-25.865	-107.724	-133
1/31/1986	396	31	-173.501	-7.757	-32.965	431.364	0	115.344	-32.361	-221.855	-75
2/28/1986	424	28	-473.782	-19.771	-43.634	784.221	-0.314	77.663	-60.073	-341.369	90
3/31/1986	455	31	-167.149	-31.6	-80.112	540.057	-0.042	83.853	-69.373	-273.106	3
4/30/1986	485	30	124.146	-24.947	-84.189	270.052	0	100.89	-42.161	-176.652	-167
5/31/1986	516	31	118.664	-14.89	-85.934	195.408	0	127.098	-28.962	-129.727	-182
6/30/1986	546	30	80.305	-8.987	-76.882	193.353	0	135.095	-24.712	-115.646	-183
7/31/1986	577	31	112.602	-6.307	-74.078	146.538	0	144.264	-18.168	-98.06	-207
8/31/1986	608	31	64.357	-5.285	-68.077	146.539	0	141.856	-22.418	-89.114	-168
9/30/1986	638	30	52.387	-4.746	-51.991	176.008	0	131.203	-21.506	-113.408	-168
10/31/1986	669	31	48.349	-4.83	-44.867	146.516	0	131.879	-22.942	-85.776	-168
11/30/1986	699	30	28.993	-5.052	-31.92	180.542	0	120.811	-23.727	-114.765	-155
12/31/1986	730	31	30.755	-5.874	-27.185	146.498	0	120.49	-26.278	-85.519	-153
1/31/1987	761	31	-0.639	-6.447	-31.421	245.496	0	118.708	-26.67	-142.866	-156
2/28/1987	789	28	10.119	-5.893	-31.26	221.844	0	107.995	-22.332	-131.484	-149
3/31/1987	820	31	1.367	-6.421	-49.03	254.687	0	120.123	-25.176	-142.331	-153
4/30/1987	850	30	34.648	-5.269	-54.789	172.777	0	124.15	-19.53	-85.063	-167
5/31/1987	881	31	32.015	-4.272	-62.327	174.904	0	135.283	-18.058	-88.63	-169
6/30/1987	911	30	28.963	-3.123	-58.959	172.799	0	133.745	-15.805	-88.268	-169
7/31/1987	942	31	29.022	-2.457	-60.671	178.693	0	138.532	-16.816	-95.983	-170
8/31/1987	973	31	30.874	-1.941	-57.979	178.703	0	137.767	-17.297	-97.608	-173
9/30/1987	1003	30	21.131	-1.788	-45.144	176.585	0	124.527	-18.675	-96.875	-160
10/31/1987	1034	31	4.657	-2.243	-39.801	223.276	0	122.595	-22.051	-137.394	-149
11/30/1987	1064	30	13.532	-2.715	-28.489	192.222	0	114.714	-21.916	-116.737	-151
12/31/1987	1095	31	-152.387	-5.353	-26.39	404.073	0	99.768	-38.322	-211.36	-67
1/31/1988	1126	31	0.626	-7.226	-32.686	277.021	0	92.609	-35.243	-171.226	-123
2/29/1988	1155	29	11.638	-6.317	-32.902	200.087	0	93.365	-28.441	-127.71	-110
3/31/1988	1186	31	47.685	-7.96	-52.534	168.995	0	101.331	-33.658	-97.348	-127
4/30/1988	1216	30	-63.561	-6.079	-57.376	379.705	0	99.615	-27.205	-199.372	-123
5/31/1988	1247	31	84.975	-5.013	-65.353	172.627	0	108.128	-21.184	-109.448	-165
6/30/1988	1277	30	52.864	-3.405	-60.119	170.414	0	111.946	-18.207	-99.191	-154
7/31/1988	1308	31	4.225	-2.789	-61.53	189.257	0	117.117	-22.906	-93.075	-130
8/31/1988	1339	31	17.648	-3.147	-60.922	189.26	0	111.939	-25.376	-94.009	-135
9/30/1988	1369	30	35.702	-2.098	-45.978	187.032	0	99.17	-19.072	-92.538	-162
10/31/1988	1400	31	20.236	-1.91	-39.758	189.235	0	97.716	-21.847	-95.948	-148
11/30/1988	1430	30	25.869	-1.773	-27.963	196.969	0	91.029	-20.738	-113.126	-150
12/31/1988	1461	31	-167.512	-4.769	-25.775	395.673	0	76.895	-44.001	-199.043	-29
1/31/1989	1492	31	86.755	-5.579	-30.66	157.001	0	83.173	-27.67	-101.051	-162
2/28/1989	1520	28	-58.908	-4.786	-29.772	331.077	0	80.456	-26.576	-179.835	-109
3/31/1989	1551	31	69.108	-4.701	-45.638	172.98	0	95.029	-24.87	-115.763	-146
4/30/1989	1581	30	64.019	-3.233	-49.85	154.709	0	99.979	-19.524	-90.932	-155
5/31/1989	1612	31	73.365	-1.884	-57.1	156.931	0	103.749	-16.957	-93.879	-164

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
6/30/1989	1642	30	55.799	-0.949	-54.996	154.725	0	96.95	-18.493	-92.018	-141
7/31/1989	1673	31	33.328	-0.287	-57.385	190.043	0	94.344	-19.052	-94.722	-146
8/31/1989	1704	31	36.105	0	-54.624	190.041	0	88.594	-18.868	-95.566	-146
9/30/1989	1734	30	24.3	0	-42.101	187.81	0	79.915	-18.443	-94.047	-137
10/31/1989	1765	31	20.91	0	-36.61	190.024	0	76.536	-20.59	-97.316	-133
11/30/1989	1795	30	16.038	0	-25.882	187.221	0	68.61	-20.289	-95.059	-131
12/31/1989	1826	31	20.035	0	-21.624	190.051	0	66.948	-21.027	-98.896	-135
1/31/1990	1857	31	24.228	0	-24.623	228.06	0	63.448	-22.691	-143.207	-125
2/28/1990	1885	28	-9.55	-0.207	-24.909	211.433	0	59.539	-24.666	-131.862	-80
3/31/1990	1916	31	38.445	-0.069	-38.864	185.795	0	67.437	-21.866	-97.02	-134
4/30/1990	1946	30	35.134	0	-42.123	183.996	0	66.879	-18.405	-95.354	-130
5/31/1990	1977	31	53.11	0	-46.752	165.106	0	69.756	-18.226	-91.375	-132
6/30/1990	2007	30	31.533	0	-43.531	183.961	0	66.632	-17.95	-96.564	-124
7/31/1990	2038	31	43.453	0	-43.977	171.354	0	67.418	-18.558	-93.001	-127
8/31/1990	2069	31	39.753	0	-40.939	171.362	0	65.423	-18.966	-93.662	-123
9/30/1990	2099	30	32.537	0	-31.442	169.579	0	60.594	-18.393	-92.169	-121
10/31/1990	2130	31	33.057	0	-27.123	171.417	0	60.012	-19.013	-95.211	-123
11/30/1990	2160	30	22.577	0	-19.163	169.575	0	55.005	-18.888	-93.614	-115
12/31/1990	2191	31	28.844	0	-15.975	171.421	0	54.461	-18.952	-96.602	-123
1/31/1991	2222	31	41.332	0	-17.652	175.826	0	52.856	-19.418	-115.834	-117
2/28/1991	2250	28	-61.556	0	-17.773	308.925	0	42.199	-22.838	-170.855	-78
3/31/1991	2281	31	-806.199	-3.031	-40.941	1207.797	-1.365	35.004	-74.542	-468.672	155
4/30/1991	2311	30	239.854	-5.057	-56.373	163.158	-0.308	41.751	-38.59	-184.139	-160
5/31/1991	2342	31	149.079	-0.773	-53.589	164.499	0	58.689	-20.558	-139.611	-158
6/30/1991	2372	30	101.173	0	-46.322	163.124	0	58.151	-18.097	-117.738	-140
7/31/1991	2403	31	90.6	0	-44.667	146.766	0	58.206	-20.558	-100.231	-130
8/31/1991	2434	31	80.157	0	-40.071	146.77	0	56.175	-20.423	-91.58	-131
9/30/1991	2464	30	63.183	0	-29.675	145.389	0	52.272	-19.343	-86.284	-126
10/31/1991	2495	31	63.041	0	-24.67	146.772	0	52.138	-18.114	-87.886	-131
11/30/1991	2525	30	50.424	0	-16.859	145.409	0	48.148	-17.665	-85.991	-123
12/31/1991	2556	31	-158.794	0	-16.024	423.239	0	42.041	-35.02	-216.201	-37
1/31/1992	2587	31	-2.554	0	-21.326	255.764	0	36.924	-37.599	-163.156	-68
2/29/1992	2616	29	-646.23	-8.328	-37.727	863.788	-0.275	17.787	-93.039	-358.938	277
3/31/1992	2647	31	-237.185	-17.435	-68.427	521.143	-0.03	18.167	-90.591	-274.747	156
4/30/1992	2677	30	256.078	-15.261	-78.592	165.092	0	57.585	-52.297	-136.456	-196
5/31/1992	2708	31	123.046	-3.13	-62.455	166.581	0	78.005	-20.91	-118.052	-163
6/30/1992	2738	30	93.06	-0.799	-56.148	165.052	0	71.211	-20.998	-104.781	-147
7/31/1992	2769	31	89.546	-0.001	-54.185	163.142	0	69.418	-22.826	-105.807	-139
8/31/1992	2800	31	79.329	0	-48.502	163.137	0	65.747	-22.041	-100.661	-137
9/30/1992	2830	30	65.426	0	-35.987	161.691	0	60.777	-19.646	-97.183	-135
10/31/1992	2861	31	48.933	0	-30.407	187.045	0	58.58	-22.597	-126.293	-115
11/30/1992	2891	30	51.004	0	-21.825	161.656	0	53.808	-21.303	-95.109	-128
12/31/1992	2922	31	-185.603	-0.089	-20.683	457.302	0	51.67	-37.377	-229.951	-31
1/31/1993	2953	31	-677.488	-15.271	-45.835	799.357	-0.206	22.615	-115.928	-346.415	392
2/28/1993	2981	28	-855.098	-42.646	-75.743	804.676	-0.71	-5.172	-163.535	-343.832	696
3/31/1993	3012	31	-232.296	-70.836	-153.201	501.155	-0.117	9.072	-158.313	-257.207	367
4/30/1993	3042	30	251.694	-59.724	-160.953	175.722	0	54.687	-109.787	-145.681	-6
5/31/1993	3073	31	236.156	-30.021	-110.908	177.355	0	133.905	-63.378	-131.439	-212
6/30/1993	3103	30	72.738	-18.266	-93.389	171.096	0	116.519	-57.54	-117.604	-74
7/31/1993	3134	31	134.646	-13.646	-91.273	178.56	0	105.162	-49.951	-116.04	-147
8/31/1993	3165	31	128.474	-6.97	-75.989	178.557	0	107.268	-35.323	-111.132	-185
9/30/1993	3195	30	75.88	-5.187	-54.585	176.942	0	99.796	-30.041	-103.369	-159
10/31/1993	3226	31	64.648	-4.747	-45.903	178.542	0	99.158	-30.711	-101.218	-160

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
11/30/1993	3256	30	45.684	-4.487	-31.858	161.993	0	93.582	-30.819	-88.879	-145
12/31/1993	3287	31	24.459	-5.883	-27.657	207.222	0	88.049	-38.179	-121.4	-127
1/31/1994	3318	31	33.549	-6.415	-31.97	169.994	0	88.548	-36.033	-88.204	-129
2/28/1994	3346	28	-332.356	-11.392	-37.012	564.151	0	71.675	-57.98	-247.765	59
3/31/1994	3377	31	26.8	-19.187	-65.945	256.976	0	77.476	-60.004	-152.246	-64
4/30/1994	3407	30	95.15	-15.171	-72.98	169.589	0	85.967	-43.965	-94.721	-124
5/31/1994	3438	31	85.557	-9.163	-77.993	171.318	0	100.592	-33.996	-91.116	-145
6/30/1994	3468	30	93.53	-6.218	-70.012	169.601	0	105.618	-24.247	-86.865	-181
7/31/1994	3499	31	63.178	-4.672	-68.291	198.486	0	107.449	-22.894	-96.928	-176
8/31/1994	3530	31	63.942	-3.246	-61.851	198.49	0	104.277	-20.021	-98.488	-183
9/30/1994	3560	30	45.864	-2.354	-46.793	196.738	0	97.534	-19.47	-97.737	-174
10/31/1994	3591	31	39.113	-2.334	-40.563	187.652	0	96.043	-23.06	-95.908	-161
11/30/1994	3621	30	26.183	-2.734	-28.905	211.554	0	87.803	-24.587	-119.983	-149
12/31/1994	3652	31	-20.848	-4.622	-25.528	196.268	0	84.938	-36.226	-109.373	-85
1/31/1995	3683	31	-1565.612	-32.8	-62.296	1619.005	-3.345	54.159	-139.918	-547.601	537
2/28/1995	3711	28	313.634	-42.945	-70.402	190.493	-1.385	129.085	-84.256	-223.446	-211
3/31/1995	3742	31	-718.92	-46.585	-117.172	942.175	-0.636	128.222	-116.385	-342.558	287
4/30/1995	3772	30	224.082	-46.224	-132.574	185.959	-0.062	120.875	-87.896	-159.893	-104
5/31/1995	3803	31	356.34	-21.994	-98.371	197.757	0	196.73	-44.512	-145.793	-440
6/30/1995	3833	30	42.719	-9.722	-80.684	185.968	0	174.767	-40.256	-115.566	-157
7/31/1995	3864	31	100.401	-7.69	-79.858	200.873	0	157.748	-35.526	-114.666	-221
8/31/1995	3895	31	81.162	-6.38	-73.329	200.892	0	148.498	-31.853	-109.299	-210
9/30/1995	3925	30	63.235	-5.88	-56.246	199.22	0	137.776	-30.553	-103.159	-204
10/31/1995	3956	31	44.996	-6.55	-49.609	200.794	0	138.843	-35.349	-102.501	-191
11/30/1995	3986	30	10.74	-7.824	-36.818	199.117	0	128.345	-40.413	-97.412	-156
12/31/1995	4017	31	-47.046	-12.981	-33.808	292.753	0	118.723	-48.805	-147.387	-121
1/31/1996	4048	31	12.738	-17.131	-40.88	200.713	0	112.97	-51.58	-114.697	-102
2/29/1996	4077	29	-359.181	-23.733	-47.19	670.094	0	87.198	-59.719	-251.532	-6
3/31/1996	4108	31	70.56	-29.869	-76.563	208.281	0	94.63	-61.268	-130.6	-75
4/30/1996	4138	30	87.473	-24.674	-84.358	186.764	0	103.868	-51.037	-102.003	-116
5/31/1996	4169	31	120.72	-19.647	-92.959	178.211	0	127.387	-44.153	-90.666	-179
6/30/1996	4199	30	125.154	-12.362	-82.566	176.481	0	143.922	-33.417	-85.447	-232
7/31/1996	4230	31	63.117	-7.942	-79.566	216.068	0	156.44	-28.286	-95.303	-225
8/31/1996	4261	31	50.195	-6.525	-72.791	216.069	0	155.48	-25.768	-97.48	-219
9/30/1996	4291	30	37.567	-5.675	-55.061	214.306	0	147.974	-23.892	-97.266	-218
10/31/1996	4322	31	-20.221	-7.06	-49.961	208.803	0	141.261	-38.618	-113.696	-121
11/30/1996	4352	30	-52.24	-9.175	-38.05	328.609	0	135.478	-37.54	-148.053	-178
12/31/1996	4383	31	-330.511	-20.564	-37.634	595.916	0	116.914	-62.08	-233.239	-21
1/31/1997	4414	31	-240.739	-30.9	-50.027	542.516	0	115.46	-70.715	-215.898	-44
2/28/1997	4442	28	138.702	-29.263	-50.598	167.779	0	118.719	-50.935	-96.372	-198
3/31/1997	4473	31	34.348	-25.048	-72.224	173.19	0	128.398	-50.949	-94.912	-93
4/30/1997	4503	30	113.415	-20.575	-79.334	171.404	0	132.347	-41.68	-86.552	-189
5/31/1997	4534	31	131.547	-14.03	-85.008	173.204	0	154.638	-34.211	-85.327	-241
6/30/1997	4564	30	95.61	-8.341	-76.095	171.416	0	155.93	-26.709	-81.829	-230
7/31/1997	4595	31	59.417	-6.815	-75.969	208.583	0	158.952	-24.556	-93.994	-226
8/31/1997	4626	31	58.915	-5.81	-70.649	208.58	0	158.058	-23.014	-96.726	-229
9/30/1997	4656	30	43.559	-5.226	-53.932	206.782	0	149.303	-22.95	-96.522	-221
10/31/1997	4687	31	37.335	-5.521	-47.011	208.57	0	150.006	-25.595	-100.336	-217
11/30/1997	4717	30	-63.41	-6.541	-34.72	328.268	0	136.362	-31.506	-146.382	-182
12/31/1997	4748	31	-451.831	-17.889	-35.9	765.908	0	112.576	-59.467	-269.374	-35
1/31/1998	4779	31	-103.5	-27.493	-46.83	381.481	0	98.232	-62.54	-179.092	-57
2/28/1998	4807	28	-2054.347	-66.588	-85.104	1979.34	-3.566	37.63	-170.418	-513.916	655
3/31/1998	4838	31	269.024	-79.589	-150.345	362.14	-2.5	71.81	-123.616	-280.897	-64

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
4/30/1998	4868	30	105.783	-68.371	-172.412	227.917	-0.023	85.769	-132.854	-188.463	143
5/31/1998	4899	31	196.573	-64.314	-195.174	282.828	0	101.649	-118.383	-181.569	-20
6/30/1998	4929	30	372.167	-38.57	-126.482	210.962	0	156.54	-67.186	-130.118	-377
7/31/1998	4960	31	271.301	-22.744	-104.173	163.228	0	188.548	-60.857	-115.063	-320
8/31/1998	4991	31	84.528	-15.2	-91.379	163.217	0	169.665	-52.856	-105.14	-153
9/30/1998	5021	30	132.613	-13.636	-69.297	160.751	0	152.706	-46.065	-95.253	-222
10/31/1998	5052	31	100.233	-13.053	-58.99	163.233	0	155.15	-47.283	-91.688	-208
11/30/1998	5082	30	33.201	-15.149	-43.041	176.02	0	141.555	-51.842	-99.666	-141
12/31/1998	5113	31	29.419	-21.802	-39.151	156.746	0	129.052	-57.747	-82.599	-114
1/31/1999	5144	31	-36.121	-25.6	-46.599	264.007	0	122.206	-61.819	-129.867	-86
2/28/1999	5172	28	42.693	-28.323	-49.88	166.904	0	108.476	-59.535	-87.839	-92
3/31/1999	5203	31	-64.388	-30.248	-77.373	357.762	0	126.624	-62.933	-148.111	-100
4/30/1999	5233	30	-27.474	-31.197	-91.763	281.028	0	113.984	-64.236	-128.126	-52
5/31/1999	5264	31	91.255	-29.774	-106.878	170.696	0	125.509	-59.739	-85.605	-105
6/30/1999	5294	30	134.087	-23.22	-98.206	168.815	0	140.578	-48.148	-82.803	-191
7/31/1999	5325	31	156.394	-15.907	-92.789	177.406	0	167.483	-38.798	-82.619	-271
8/31/1999	5356	31	100.078	-9.993	-81.296	177.422	0	175.111	-34.377	-83.562	-243
9/30/1999	5386	30	63.965	-7.97	-61.036	175.523	0	167.202	-30.411	-83.055	-224
10/31/1999	5417	31	63.61	-8.038	-52.497	177.404	0	171.781	-29.748	-86.328	-236
11/30/1999	5447	30	36.338	-8.431	-37.504	188.598	0	161.231	-31.883	-97.853	-210
12/31/1999	5478	31	39.214	-10.032	-32.022	177.383	0	163.115	-32.726	-87.283	-218
1/31/2000	5509	31	19.415	-11.105	-36.776	235.734	0	162.79	-32.478	-119.88	-218
2/29/2000	5538	29	-566.035	-19.642	-43.718	854.328	-0.249	128.075	-57.149	-273.908	-9
3/31/2000	5569	31	43.141	-30.858	-76.836	303.734	-0.049	133.119	-60.761	-166.566	-144
4/30/2000	5599	30	-22.768	-23.126	-81.96	391.005	0	140.627	-46.365	-163.418	-191
5/31/2000	5630	31	93.351	-19.457	-92.099	213.538	0	149.942	-43.046	-112.84	-189
6/30/2000	5660	30	-7.579	-18.786	-90.672	211.594	0	133.195	-49.403	-108.988	-69
7/31/2000	5691	31	170.281	-16.12	-92.23	182.135	0	154.032	-38.949	-96.483	-263
8/31/2000	5722	31	117.952	-9.415	-80.136	182.138	0	162.118	-31.902	-93.913	-247
9/30/2000	5752	30	86.105	-7.204	-59.29	180.165	0	154.523	-26.711	-91.019	-237
10/31/2000	5783	31	64.593	-7.352	-50.968	193.158	0	157.379	-30.882	-107.155	-219
11/30/2000	5813	30	39.79	-7.907	-36.76	180.155	0	148.451	-33.296	-89.577	-201
12/31/2000	5844	31	45.515	-8.832	-31.279	182.109	0	151.175	-33.423	-93.318	-212
1/31/2001	5875	31	-338.08	-15.631	-39.394	678.061	0	135.003	-49.298	-239.954	-123
2/28/2001	5903	28	-388.067	-22.348	-44.819	692.996	-0.118	114.524	-60.391	-240.964	-41
3/31/2001	5934	31	-320.812	-43.916	-101.193	677.399	-0.089	109.531	-93.38	-243.793	25
4/30/2001	5964	30	197.609	-31.886	-92.446	191.524	0	130.672	-56.587	-128.128	-211
5/31/2001	5995	31	160.394	-21.536	-96.418	192.023	0	150.06	-46.416	-109.486	-229
6/30/2001	6025	30	143.362	-13.645	-84.793	190.307	0	154.75	-36.523	-100.541	-253
7/31/2001	6056	31	137.538	-9.061	-82.295	164.715	0	164.422	-34.523	-94.401	-246
8/31/2001	6087	31	110.565	-7.4	-75.885	164.703	0	160.861	-32.092	-90.374	-230
9/30/2001	6117	30	98.789	-6.472	-57.332	162.989	0	152.609	-26.88	-86.755	-237
10/31/2001	6148	31	74.916	-6.537	-49.253	164.698	0	158.58	-29.617	-88.42	-224
11/30/2001	6178	30	-95.241	-8.325	-37.052	368.391	0	143.957	-39.691	-154.051	-176
12/31/2001	6209	31	39.825	-12.318	-33.241	187.078	0	140.284	-42.341	-105.261	-174
1/31/2002	6240	31	77.413	-13.163	-38.177	157.458	0	141.253	-38.3	-90.192	-196
2/28/2002	6268	28	78.806	-10.577	-37.021	133.965	0	133.952	-29.654	-69.169	-200
3/31/2002	6299	31	79.999	-9.56	-55.965	139.356	0	153.704	-30.031	-74.585	-203
4/30/2002	6329	30	80.619	-7.902	-62.42	137.553	0	152.377	-26.253	-72.321	-202
5/31/2002	6360	31	91.666	-6.856	-70.947	139.369	0	158.768	-23.655	-74.256	-214
6/30/2002	6390	30	78.178	-5.663	-67.21	137.577	0	151.462	-22.119	-72.908	-199
7/31/2002	6421	31	45.455	-5.159	-69.446	187.926	0	152.677	-22.784	-86.463	-202
8/31/2002	6452	31	52.83	-4.629	-65.714	187.949	0	149.238	-22.332	-89.467	-208

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
9/30/2002	6482	30	41.931	-4.128	-50.315	186.152	0	140.677	-20.322	-89.545	-204
10/31/2002	6513	31	29.638	-4.622	-44.259	187.894	0	139.033	-25.139	-93.605	-189
11/30/2002	6543	30	-275.586	-7.656	-35.652	578.619	0	122.849	-39.391	-196.508	-141
12/31/2002	6574	31	-175.204	-13.783	-33.658	435.516	0	116.657	-48.161	-177.825	-99
1/31/2003	6605	31	124.018	-14.238	-38.648	154.11	0	130.213	-35.709	-98.896	-221
2/28/2003	6633	28	-284.129	-16.003	-40.375	544.923	0	106.041	-46.114	-199.243	-59
3/31/2003	6664	31	-81.672	-22.698	-68.492	393.896	0	115.263	-54.269	-169.17	-110
4/30/2003	6694	30	49.412	-22.512	-80.678	156.324	0	104.893	-53.489	-103.629	-50
5/31/2003	6725	31	139.672	-20.249	-93.317	196.855	0	123.95	-45.308	-108.872	-193
6/30/2003	6755	30	128.544	-10.122	-79.306	152.28	0	138.475	-29.621	-82.519	-218
7/31/2003	6786	31	106.165	-6.959	-76.324	165.354	0	143.979	-25.001	-88.386	-219
8/31/2003	6817	31	93.178	-5.559	-69.273	165.354	0	139.116	-23.954	-89.885	-209
9/30/2003	6847	30	73.313	-4.719	-52.168	163.489	0	128.893	-23.186	-89.013	-197
10/31/2003	6878	31	56.999	-4.92	-45.284	165.3	0	128.451	-27.276	-92.941	-180
11/30/2003	6908	30	0.033	-5.797	-33.261	238.202	0	117.726	-31.874	-122.662	-162
12/31/2003	6939	31	-1.77	-7.533	-29.327	194.811	0	115.444	-40.587	-111.656	-119
1/31/2004	6970	31	16.051	-9.182	-35.413	172.617	0	109.457	-40.255	-92.375	-121
2/29/2004	6999	29	-360.061	-14.092	-40.207	638.679	0	88.432	-51.688	-223.925	-29
3/31/2004	7030	31	96.57	-19.579	-65.845	161.187	0	96.675	-52.929	-105.433	-111
4/30/2004	7060	30	143.429	-10.767	-67.318	173.278	0	111.52	-30.561	-97.143	-222
5/31/2004	7091	31	104.935	-6.541	-70.547	175.324	0	119.464	-24.457	-97.035	-201
6/30/2004	7121	30	79.865	-4.73	-64.659	173.283	0	112.599	-23.273	-94.739	-178
7/31/2004	7152	31	85.079	-3.756	-65.232	182.679	0	113.805	-23.714	-105.498	-183
8/31/2004	7183	31	75.93	-3.016	-60.969	182.682	0	111.4	-24.534	-108.155	-173
9/30/2004	7213	30	64.573	-2.605	-46.997	180.658	0	103.649	-24.237	-107.46	-168
10/31/2004	7244	31	-236.278	-5.232	-45.595	498.601	0	94.383	-48.025	-202.712	-50
11/30/2004	7274	30	98.556	-6.312	-34.436	180.611	0	86.882	-33.998	-115.205	-176
12/31/2004	7305	31	-339.946	-10.027	-31.342	601.6	0	77.201	-58.718	-239.383	9
1/31/2005	7336	31	-1036.274	-65.819	-86.275	1033.396	-0.274	8.018	-196.304	-376.57	699
2/28/2005	7364	28	-763.008	-77.244	-89.359	858.823	-0.302	18.716	-184.524	-286.969	537
3/31/2005	7395	31	163.1	-85.33	-159.329	336.323	-0.021	65.095	-144.53	-196.398	24
4/30/2005	7425	30	338.159	-50.947	-132.433	167.16	0	119.636	-83.134	-133.298	-225
5/31/2005	7456	31	327.084	-29.611	-109.751	165.01	0	163.976	-60.818	-118.844	-337
6/30/2005	7486	30	328.395	-7.542	-74.281	163.274	0	206.687	-19.896	-107.279	-489
7/31/2005	7517	31	3.445	-4.96	-69.415	151.388	0	185.691	-42.729	-101.485	-122
8/31/2005	7548	31	82.713	-6.241	-72.508	151.333	0	145.418	-44.846	-95.519	-160
9/30/2005	7578	30	80.597	-6.443	-57.734	149.557	0	126.482	-41.861	-88.587	-162
10/31/2005	7609	31	6.803	-9.63	-54.462	178.69	0	107.98	-54.894	-102.585	-72
11/30/2005	7639	30	68.079	-13.144	-41.413	147.749	0	97.2	-50.508	-80.835	-127
12/31/2005	7670	31	73.055	-13.903	-34.749	149.276	0	103.492	-48.538	-81.257	-147
1/31/2006	7701	31	-144.328	-19.886	-42.779	351.489	0	81.516	-61.7	-144.339	-18
2/28/2006	7729	28	-93.642	-23.625	-46.45	315.745	0	62.97	-59.042	-131.101	-24
3/31/2006	7760	31	-126.238	-29.674	-76.677	421.436	0	74.093	-67.899	-156.382	-36
4/30/2006	7790	30	-211.674	-35.323	-104.129	486.648	0	72.83	-82.461	-171.067	50
5/31/2006	7821	31	148.412	-30.377	-108.145	213.588	0	105.861	-63.417	-112.883	-153
6/30/2006	7851	30	106.65	-20.303	-95.087	215.181	0	125.093	-49.492	-98.203	-184
7/31/2006	7882	31	107.783	-15.788	-93.07	157.456	0	140.323	-49.464	-83.264	-164
8/31/2006	7913	31	134.14	-10.288	-82.354	157.457	0	149.983	-38.566	-77.89	-232
9/30/2006	7943	30	83.867	-7.216	-59.408	155.791	0	148.291	-32.612	-74.479	-214
10/31/2006	7974	31	56.188	-7.253	-50.813	157.417	0	151.208	-33.861	-75.995	-197
11/30/2006	8004	30	27.532	-8.058	-36.974	155.807	0	141.584	-37.514	-74.133	-168
12/31/2006	8035	31	31.892	-9.291	-31.8	172.774	0	145.077	-37.747	-83.797	-187
1/31/2007	8066	31	-55.407	-11.152	-37.077	284.15	0	140.157	-39.862	-114.858	-166

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
2/28/2007	8094	28	0.771	-11.674	-37.866	202.102	0	125.872	-36.701	-85.497	-157
3/31/2007	8125	31	20.26	-11.043	-57.778	215.302	0	149.863	-35.263	-81.781	-200
4/30/2007	8155	30	28.326	-8.601	-64.402	206.191	0	149.53	-32.531	-91.265	-187
5/31/2007	8186	31	29.61	-7.472	-73.472	215.322	0	157.979	-29.548	-81.468	-211
6/30/2007	8216	30	21.662	-6.036	-69.159	213.62	0	152.8	-26.731	-81.779	-204
7/31/2007	8247	31	76.423	-5.275	-70.684	166.418	0	154.601	-26.473	-83.241	-212
8/31/2007	8278	31	71.901	-4.579	-66.538	166.411	0	151.012	-25.414	-84.355	-208
9/30/2007	8308	30	54.133	-4.367	-51.573	164.267	0	140.991	-25.96	-83.902	-194
10/31/2007	8339	31	50.694	-4.881	-45.503	166.377	0	141.031	-28.483	-87.34	-192
11/30/2007	8369	30	44.198	-5.321	-32.733	164.691	0	131.324	-28.296	-86.341	-188
12/31/2007	8400	31	-64.325	-7.514	-29.455	276.844	0	124.142	-40.368	-132.051	-126
1/31/2008	8431	31	-672.177	-20.635	-44.314	854.21	-0.011	101.907	-79.337	-264.747	139
2/29/2008	8460	29	92.308	-32.827	-56.662	197.721	0	103.361	-71.811	-124.499	-108
3/31/2008	8491	31	180.761	-25.36	-72.97	146.86	0	139.649	-49.463	-93.375	-226
4/30/2008	8521	30	82.425	-15.745	-73.998	145.234	0	136.848	-41.39	-87.221	-146
5/31/2008	8552	31	134.248	-10.883	-80.703	146.884	0	144.821	-32.43	-86.15	-216
6/30/2008	8582	30	84.815	-7.447	-73.96	145.26	0	139.058	-29.75	-83.018	-175
7/31/2008	8613	31	78.958	-6.423	-74.628	171.987	0	142.896	-27.194	-88.359	-197
8/31/2008	8644	31	52.078	-5.769	-70.073	171.975	0	139.068	-29.514	-89.225	-169
9/30/2008	8674	30	63.532	-5.206	-53.685	170.318	0	127.405	-26.226	-88.125	-188
10/31/2008	8705	31	63.711	-5.035	-45.742	171.954	0	125.945	-26.357	-91.426	-193
11/30/2008	8735	30	-38.839	-6.251	-33.939	254.27	0	115.65	-35.808	-123.767	-131
12/31/2008	8766	31	-34.041	-8.994	-31.027	244.246	0	106.027	-42.816	-121.76	-112
1/31/2009	8797	31	69.396	-10.365	-36.358	134.747	0	107.427	-38.381	-81.513	-145
2/28/2009	8825	28	-306.265	-15.52	-40.092	516.136	0	79.527	-51.489	-176.098	-1
3/31/2009	8856	31	105.208	-21.184	-67.442	134.999	0	92.041	-52.345	-87.567	-104
4/30/2009	8886	30	125.539	-13.345	-70.477	136.722	0	107.388	-34.348	-78.919	-173
5/31/2009	8917	31	141.864	-7.831	-74.426	138.276	0	116.398	-25.325	-78.546	-210
6/30/2009	8947	30	109.663	-5.303	-66.388	136.722	0	111.387	-20.325	-75.938	-190
7/31/2009	8978	31	70.348	-4.037	-65.772	183.494	0	113.741	-20.233	-88.667	-189
8/31/2009	9009	31	61.251	-3.102	-60.924	183.488	0	111.064	-21.04	-91.495	-179
9/30/2009	9039	30	44.695	-2.597	-46.903	181.916	0	103.025	-21.277	-91.544	-167
10/31/2009	9070	31	11.891	-3.691	-42.273	198.929	0	97.357	-32.212	-114.39	-116
11/30/2009	9100	30	34.901	-4.118	-30.575	181.901	0	90.623	-27.283	-93.678	-152
12/31/2009	9131	31	-130.512	-7.001	-28.41	316.788	0	78.483	-48.079	-143.635	-37
1/31/2010	9162	31	-373.387	-15.232	-39.23	639.476	0	62.334	-61.162	-219.649	14
2/28/2010	9190	28	-197.421	-22.453	-45.247	477.201	0	52.16	-62.889	-174.262	-23
3/31/2010	9221	31	43.581	-23.726	-70.703	205.717	0	68.504	-59.399	-105.19	-59
4/30/2010	9251	30	30.391	-19.323	-78.219	210.877	0	67.013	-54.718	-114.215	-42
5/31/2010	9282	31	79.279	-15.487	-87.865	206.247	0	75.578	-47.777	-92.235	-118
6/30/2010	9312	30	109.468	-7.93	-75.644	204.746	0	92.266	-32.662	-87.355	-203
7/31/2010	9343	31	135.326	-4.842	-70.012	151.678	0	98.599	-25.918	-88.606	-196
8/31/2010	9374	31	117.589	-3.2	-62.611	151.704	0	96.068	-24.901	-90.322	-184
9/30/2010	9404	30	94.949	-2.251	-47.433	150.223	0	88.714	-24.32	-89.36	-171
10/31/2010	9435	31	17.461	-2.417	-41.289	261.12	0	84.711	-29.024	-129.179	-161
11/30/2010	9465	30	63.455	-3.126	-29.606	154.715	0	75.864	-32.577	-98.317	-130
12/31/2010	9496	31	-552.061	-8.985	-30.057	852.817	0	68.171	-63.37	-269.502	15
1/31/2011	9527	31	201.741	-11.955	-37.526	141.743	0	80.078	-43.693	-108.692	-222
2/28/2011	9555	28	-99.199	-8.872	-35.519	284.623	0	70.137	-45.67	-134.042	-29
3/31/2011	9586	31	-235.391	-18.395	-65.137	471.633	0	57.833	-71.143	-186.973	53
4/30/2011	9616	30	100.632	-21.842	-81.445	140.052	0	55.577	-62.312	-95.446	-35
5/31/2011	9647	31	139.119	-15.51	-88.184	136.491	0	82.404	-51.327	-88.312	-115
6/30/2011	9677	30	89.695	-10.651	-80.889	140.05	0	83.988	-45.637	-80.754	-96

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
7/31/2011	9708	31	152.367	-6.721	-76.167	146.099	0	94.477	-30.86	-83.122	-196
8/31/2011	9739	31	108.462	-4.417	-65.767	146.059	0	97.472	-26.007	-82.531	-173
9/30/2011	9769	30	94.247	-3.046	-48.395	144.592	0	92.657	-22.105	-80.192	-178
10/31/2011	9800	31	48.856	-2.958	-41.705	176.707	0	95.103	-27.459	-98.858	-150
11/30/2011	9830	30	-1.352	-3.761	-30.002	197.594	0	89.761	-31.458	-99.358	-121
12/31/2011	9861	31	30.112	-4.873	-25.893	146.063	0	90.967	-33.378	-79.632	-123
1/31/2012	9892	31	27.594	-5.139	-29.604	205.091	0	89.337	-29.39	-100.281	-158
2/29/2012	9921	29	32.254	-4.637	-29.963	161.656	0	84.191	-25.918	-77.314	-140
3/31/2012	9952	31	-69.06	-6.135	-47.732	241.942	0	85.969	-41.036	-114.021	-50
4/30/2012	9982	30	-44.394	-8.101	-61.649	241.683	0	73.558	-43.683	-108.202	-49
5/31/2012	10013	31	106.186	-6.578	-69.867	164.772	0	86.632	-28.972	-81.284	-171
6/30/2012	10043	30	76.917	-3.918	-61.31	163.216	0	92.248	-19.563	-78.483	-169
7/31/2012	10074	31	71.152	-2.569	-61.864	163.871	0	97.677	-19.318	-85.821	-163
8/31/2012	10105	31	65.832	-1.641	-58.357	163.883	0	98.205	-18.98	-88.342	-161
9/30/2012	10135	30	52.198	-1.019	-44.759	162.318	0	93.217	-17.609	-88.139	-156
10/31/2012	10166	31	49.301	-0.946	-38.816	157.136	0	93.145	-19.861	-90.752	-149
11/30/2012	10196	30	28.42	-1.496	-27.742	171.49	0	83.645	-22.498	-98.991	-133
12/31/2012	10227	31	-39.521	-2.561	-23.722	273.081	0	79.33	-25.896	-127.753	-133
1/31/2013	10258	31	59.141	-3.03	-27.14	147.627	0	81.555	-24.042	-92.922	-141
2/28/2013	10286	28	43.084	-2.569	-26.781	134.904	0	76.416	-19.189	-75.616	-130
3/31/2013	10317	31	55.881	-2.409	-41.539	157.115	0	85.991	-19.977	-94.132	-141
4/30/2013	10347	30	63.034	-1.635	-47.247	138.127	0	85.293	-17.082	-80.658	-140
5/31/2013	10378	31	68.319	-0.803	-55.011	139.724	0	90.221	-16.183	-84.01	-142
6/30/2013	10408	30	62.851	-0.08	-52.003	138.141	0	87.17	-14.448	-82.756	-139
7/31/2013	10439	31	50.033	0	-52.786	158.082	0	89.11	-14.602	-91.168	-139
8/31/2013	10470	31	48.802	0	-49.411	158.072	0	87.115	-14.291	-93.121	-137
9/30/2013	10500	30	36.31	0	-38.233	156.487	0	80.643	-14.377	-92.493	-128
10/31/2013	10531	31	34.347	0	-33.497	158.061	0	79.033	-16.074	-96.533	-125
11/30/2013	10561	30	26.24	0	-24.108	153.558	0	71.627	-16.867	-94.923	-116
12/31/2013	10592	31	29.973	0	-20.475	158.051	0	70.11	-17.31	-98.977	-121
1/31/2014	10623	31	41.667	0	-22.94	155.596	0	69.715	-15.577	-101.117	-127
2/28/2014	10651	28	-184.019	-0.309	-23.909	419.336	0	59.498	-22.034	-166.158	-80
3/31/2014	10682	31	16.044	-3.462	-42.327	177.85	0	60.096	-37.741	-121.106	-49
4/30/2014	10712	30	84.35	-0.824	-44.14	154.112	0	68.448	-13.772	-102.357	-146
5/31/2014	10743	31	74.744	0	-47.381	155.608	0	74.669	-11.651	-105.4	-141
6/30/2014	10773	30	57.959	0	-43.209	154.137	0	71.75	-12.071	-103.525	-125
7/31/2014	10804	31	58.582	0	-42.74	162.696	0	73.954	-11.47	-102.554	-138
8/31/2014	10835	31	51.333	0	-38.73	162.665	0	73.592	-11.39	-103.398	-134
9/30/2014	10865	30	37.932	0	-29.189	161.215	0	68.547	-11.41	-101.375	-126
10/31/2014	10896	31	37.196	0	-24.975	162.718	0	67.561	-12.405	-104.944	-125
11/30/2014	10926	30	24.002	0	-17.641	177.759	0	58.547	-14.053	-116.253	-112
12/31/2014	10957	31	-223.164	0	-17.369	443.817	0	50.347	-32.863	-186.945	-31
1/31/2015	10988	31	61.738	0	-21.784	159.653	0	46.127	-26.99	-122.362	-96
2/28/2015	11016	28	81.533	0	-20.504	120.439	0	45.465	-14.278	-91.239	-121
3/31/2015	11047	31	88.265	0	-29.104	118.521	0	54.955	-13.263	-95.177	-124
4/30/2015	11077	30	77.17	0	-30.233	127.099	0	55.154	-10.498	-93.075	-126
5/31/2015	11108	31	68.11	0	-32.911	121.667	0	57.665	-12.328	-92.904	-109
6/30/2015	11138	30	70.203	0	-29.651	127.195	0	55.317	-9.815	-90.65	-123
7/31/2015	11169	31	60.34	0	-28.426	132.537	0	57.625	-9.598	-90.297	-122
8/31/2015	11200	31	44.201	0	-25.364	149.204	0	57.577	-9.239	-94.115	-122
9/30/2015	11230	30	47.935	0	-19.146	123.897	0	53.54	-9.788	-88.904	-108
10/31/2015	11261	31	33.837	0	-16.373	149.18	0	53.464	-9.561	-96.032	-115
11/30/2015	11291	30	26.395	0	-11.448	147.887	0	50.385	-8.957	-95.721	-109

Flow Budget for Layer 1 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Tile Drains	ET	RECHARGE	Santa Paula A	Oxnard L1	Offshore	Mound L2-L4	Net Stream Percolation
12/31/2015	11322	31	27.984	0	-9.453	149.191	0	50.429	-9.369	-99.806	-109

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
1/31/1985	31	31	-390	19	-3	7	160	1	153	1	53
2/28/1985	59	28	-432	23	-3	6	149	1	178	-1	78
3/31/1985	90	31	-408	20	-3	6	135	1	180	0	68
4/30/1985	120	30	-136	13	-6	5	93	1	81	6	-56
5/31/1985	151	31	64	13	-6	5	92	1	-5	6	-170
6/30/1985	181	30	209	13	-6	4	91	1	-63	7	-256
7/31/1985	212	31	277	12	-5	4	92	1	-65	2	-318
8/31/1985	243	31	302	12	-5	3	92	1	-82	2	-326
9/30/1985	273	30	313	12	-5	3	91	1	-89	3	-329
10/31/1985	304	31	292	12	-5	3	93	1	-83	4	-318
11/30/1985	334	30	11	37	-1	5	235	1	-33	-1	-255
12/31/1985	365	31	123	12	-5	5	108	1	-39	2	-207
1/31/1986	396	31	-100	35	-2	6	222	1	1	0	-164
2/28/1986	424	28	-301	64	-1	8	341	1	37	-2	-180
3/31/1986	455	31	-359	45	-1	8	273	2	82	-3	-49
4/30/1986	485	30	-384	25	-4	6	177	2	140	-1	40
5/31/1986	516	31	-271	13	-8	4	130	2	132	7	-10
6/30/1986	546	30	-85	13	-8	3	116	2	67	9	-117
7/31/1986	577	31	1	11	-3	3	98	2	34	6	-152
8/31/1986	608	31	5	11	-2	4	89	2	32	6	-147
9/30/1986	638	30	12	18	-1	4	113	2	20	2	-170
10/31/1986	669	31	142	11	-1	4	86	2	-33	6	-216
11/30/1986	699	30	87	19	-1	4	115	2	-24	2	-204
12/31/1986	730	31	137	11	-1	4	86	2	-46	6	-198
1/31/1987	761	31	-25	24	-2	3	143	2	-2	1	-144
2/28/1987	789	28	-90	23	-2	3	131	2	12	1	-79
3/31/1987	820	31	-158	24	-2	3	142	2	44	-1	-54
4/30/1987	850	30	-8	12	-6	2	85	2	-2	7	-91
5/31/1987	881	31	134	12	-6	0	89	2	-53	9	-187
6/30/1987	911	30	233	12	-6	0	88	2	-86	10	-253
7/31/1987	942	31	253	12	-5	1	96	2	-96	11	-273
8/31/1987	973	31	212	12	-5	2	98	2	-87	12	-245
9/30/1987	1003	30	229	11	-5	2	97	2	-97	12	-252
10/31/1987	1034	31	103	22	-3	3	137	2	-52	4	-216
11/30/1987	1064	30	93	18	-3	3	117	2	-54	5	-181
12/31/1987	1095	31	-60	33	-1	4	211	2	-24	2	-170
1/31/1988	1126	31	-142	26	-2	5	171	2	5	2	-68
2/29/1988	1155	29	-174	21	-3	4	128	2	31	5	-13
3/31/1988	1186	31	-90	12	-5	3	97	2	18	9	-46
4/30/1988	1216	30	-230	31	-2	3	199	2	59	1	-65
5/31/1988	1247	31	-64	12	-5	3	109	2	11	9	-76
6/30/1988	1277	30	-11	12	-5	2	99	2	2	10	-111
7/31/1988	1308	31	75	12	-6	1	93	2	-2	9	-184
8/31/1988	1339	31	152	12	-6	0	94	2	-32	10	-232
9/30/1988	1369	30	202	12	-5	0	93	2	-57	10	-256
10/31/1988	1400	31	227	12	-5	0	96	2	-70	11	-272
11/30/1988	1430	30	157	18	-5	2	113	2	-60	8	-235
12/31/1988	1461	31	-4	32	-3	4	199	2	-31	3	-204
1/31/1989	1492	31	110	12	-4	3	101	2	-69	10	-164
2/28/1989	1520	28	-58	29	-3	3	180	2	-19	3	-140
3/31/1989	1551	31	-40	17	-4	4	116	2	-26	8	-76
4/30/1989	1581	30	27	12	-4	2	91	2	-31	10	-108

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
5/31/1989	1612	31	82	12	-4	2	94	2	-45	11	-153
6/30/1989	1642	30	103	12	-4	1	92	2	-56	11	-161
7/31/1989	1673	31	146	12	-4	0	95	2	-54	12	-208
8/31/1989	1704	31	157	12	-4	-1	96	2	-58	12	-216
9/30/1989	1734	30	164	12	-3	0	94	1	-63	13	-218
10/31/1989	1765	31	167	12	-3	0	97	1	-66	13	-222
11/30/1989	1795	30	148	11	-3	0	95	1	-64	13	-203
12/31/1989	1826	31	141	12	-2	0	99	1	-66	14	-199
1/31/1990	1857	31	14	22	-2	3	143	1	-38	8	-151
2/28/1990	1885	28	-12	20	-2	4	132	1	-38	8	-114
3/31/1990	1916	31	67	10	-2	3	97	1	-56	14	-135
4/30/1990	1946	30	100	10	-2	1	95	1	-63	14	-157
5/31/1990	1977	31	107	10	-2	1	91	1	-67	15	-157
6/30/1990	2007	30	135	10	-2	1	97	1	-74	15	-183
7/31/1990	2038	31	151	10	-1	1	93	1	-74	15	-196
8/31/1990	2069	31	154	10	-1	0	94	1	-76	16	-197
9/30/1990	2099	30	155	10	-1	0	92	1	-78	16	-196
10/31/1990	2130	31	142	10	-1	-1	95	1	-77	16	-186
11/30/1990	2160	30	136	10	-1	-1	94	1	-77	17	-179
12/31/1990	2191	31	125	10	-1	0	97	1	-77	17	-171
1/31/1991	2222	31	66	14	0	2	116	1	-68	15	-145
2/28/1991	2250	28	-59	24	0	4	171	1	-23	9	-126
3/31/1991	2281	31	-285	96	0	7	469	1	-3	7	-417
4/30/1991	2311	30	-134	8	-1	5	184	1	-26	15	-52
5/31/1991	2342	31	-155	8	-1	3	140	1	18	16	-29
6/30/1991	2372	30	-55	8	-1	2	118	1	-7	15	-80
7/31/1991	2403	31	34	8	-2	1	100	1	-20	16	-138
8/31/1991	2434	31	84	8	-2	1	92	1	-37	16	-162
9/30/1991	2464	30	112	8	-1	1	86	1	-50	16	-172
10/31/1991	2495	31	118	8	-1	1	88	1	-56	16	-174
11/30/1991	2525	30	97	8	-1	1	86	1	-55	16	-152
12/31/1991	2556	31	-121	32	-1	4	216	1	2	9	-143
1/31/1992	2587	31	-104	23	-1	6	163	1	-7	9	-90
2/29/1992	2616	29	-329	70	-1	7	359	1	41	6	-224
3/31/1992	2647	31	-496	44	-2	8	275	1	153	6	9
4/30/1992	2677	30	-368	8	-3	6	136	1	185	15	20
5/31/1992	2708	31	-229	9	-4	3	118	1	152	15	-63
6/30/1992	2738	30	-128	8	-4	2	105	1	93	14	-91
7/31/1992	2769	31	-30	8	-4	-2	106	1	56	12	-146
8/31/1992	2800	31	43	8	-4	-3	101	1	18	12	-176
9/30/1992	2830	30	86	8	-4	-3	97	1	-11	12	-185
10/31/1992	2861	31	-40	20	-4	1	126	0	1	11	-115
11/30/1992	2891	30	-192	8	-4	0	95	0	102	11	-21
12/31/1992	2922	31	-508	35	-4	3	230	0	241	3	-3
1/31/1993	2953	31	-642	62	-3	6	346	1	308	0	-100
2/28/1993	2981	28	-662	63	-2	7	344	1	330	-1	-134
3/31/1993	3012	31	-627	40	-3	8	257	1	357	-2	-33
4/30/1993	3042	30	-382	9	-8	2	146	1	281	7	-55
5/31/1993	3073	31	-452	9	-8	-3	131	1	319	7	-4
6/30/1993	3103	30	-237	9	-9	-3	118	1	223	7	-109
7/31/1993	3134	31	-56	9	-9	0	116	0	124	5	-190
8/31/1993	3165	31	65	9	-8	1	111	0	38	6	-222

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
9/30/1993	3195	30	13	9	-8	1	103	0	35	6	-160
10/31/1993	3226	31	-199	9	-8	1	101	0	126	6	-37
11/30/1993	3256	30	-359	9	-6	2	89	0	213	5	48
12/31/1993	3287	31	-462	18	-4	3	121	0	260	-2	65
1/31/1994	3318	31	-277	10	-8	4	88	0	174	5	4
2/28/1994	3346	28	-431	46	-2	4	248	0	191	-4	-54
3/31/1994	3377	31	-337	23	-3	6	152	0	175	-4	-12
4/30/1994	3407	30	-93	9	-8	5	95	0	74	5	-87
5/31/1994	3438	31	-5	10	-8	4	91	0	42	5	-139
6/30/1994	3468	30	98	9	-8	3	87	0	2	6	-198
7/31/1994	3499	31	209	10	-8	3	97	0	-27	5	-290
8/31/1994	3530	31	291	10	-8	3	98	0	-58	5	-343
9/30/1994	3560	30	274	10	-7	3	98	0	-63	6	-320
10/31/1994	3591	31	147	10	-8	3	96	0	-30	6	-225
11/30/1994	3621	30	-107	19	-4	3	120	0	54	0	-86
12/31/1994	3652	31	-142	16	-5	4	109	0	86	0	-69
1/31/1995	3683	31	-610	131	-1	6	548	1	180	-6	-385
2/28/1995	3711	28	-667	17	-6	5	223	1	281	-2	149
3/31/1995	3742	31	-823	77	-2	6	343	1	338	-7	20
4/30/1995	3772	30	-407	9	-10	2	160	1	239	1	5
5/31/1995	3803	31	-497	16	-8	0	146	1	298	-1	45
6/30/1995	3833	30	-216	9	-11	-1	116	1	185	1	-84
7/31/1995	3864	31	-266	9	-6	-1	115	1	207	0	-58
8/31/1995	3895	31	-314	9	-6	0	109	1	237	-1	-35
9/30/1995	3925	30	-258	9	-6	-1	103	0	213	-1	-61
10/31/1995	3956	31	-215	9	-6	-1	103	0	200	-1	-89
11/30/1995	3986	30	-162	9	-5	-1	97	0	174	-1	-111
12/31/1995	4017	31	-296	25	-2	2	147	0	211	-7	-80
1/31/1996	4048	31	-230	19	-4	3	115	0	179	-7	-76
2/29/1996	4077	29	-370	51	-1	4	252	0	180	-9	-109
3/31/1996	4108	31	-378	20	-3	5	131	1	235	-8	-2
4/30/1996	4138	30	-244	13	-5	4	102	1	181	-3	-49
5/31/1996	4169	31	-3	9	-7	2	91	1	87	-3	-177
6/30/1996	4199	30	184	9	-7	0	85	0	1	-2	-272
7/31/1996	4230	31	374	9	-7	-1	95	0	-63	-2	-406
8/31/1996	4261	31	468	9	-7	-2	97	0	-102	-2	-463
9/30/1996	4291	30	484	9	-7	-2	97	0	-120	-1	-461
10/31/1996	4322	31	372	18	-4	0	114	0	-87	-4	-410
11/30/1996	4352	30	107	26	-2	2	148	0	-9	-6	-267
12/31/1996	4383	31	-243	46	-1	4	233	1	100	-8	-135
1/31/1997	4414	31	-570	44	-1	5	216	1	265	-8	47
2/28/1997	4442	28	-440	8	-5	4	96	1	275	-3	64
3/31/1997	4473	31	-329	9	-5	1	95	1	252	-3	-20
4/30/1997	4503	30	-127	9	-5	0	87	1	157	-3	-117
5/31/1997	4534	31	106	9	-5	0	85	0	48	-3	-240
6/30/1997	4564	30	267	9	-5	0	82	0	-30	-2	-319
7/31/1997	4595	31	415	10	-6	0	94	0	-109	1	-405
8/31/1997	4626	31	479	10	-6	1	97	0	-139	2	-443
9/30/1997	4656	30	418	9	-6	0	97	0	-125	2	-397
10/31/1997	4687	31	340	10	-6	0	100	0	-99	2	-348
11/30/1997	4717	30	124	27	-2	2	146	0	-29	-4	-265
12/31/1997	4748	31	-103	56	-1	4	269	0	15	-7	-235

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
1/31/1998	4779	31	-194	28	-3	5	179	1	69	-4	-84
2/28/1998	4807	28	-721	153	-1	6	514	1	224	-7	-299
3/31/1998	4838	31	-637	30	-3	8	281	1	260	-5	64
4/30/1998	4868	30	-800	20	-5	6	188	1	391	-3	202
5/31/1998	4899	31	-799	24	-3	6	182	1	420	-5	174
6/30/1998	4929	30	-387	9	-12	3	130	1	237	7	12
7/31/1998	4960	31	-283	8	-2	1	115	1	226	-6	-59
8/31/1998	4991	31	-76	8	-1	1	105	1	131	-7	-163
9/30/1998	5021	30	66	8	-1	2	95	1	62	-6	-227
10/31/1998	5052	31	30	8	0	2	92	1	83	-6	-209
11/30/1998	5082	30	-219	15	0	3	100	1	182	-8	-74
12/31/1998	5113	31	-359	8	0	3	83	1	273	-8	0
1/31/1999	5144	31	-418	24	0	4	130	1	266	-9	3
2/28/1999	5172	28	-141	14	0	3	88	1	131	-4	-92
3/31/1999	5203	31	-187	29	0	4	148	1	145	-10	-130
4/30/1999	5233	30	-166	24	0	5	128	1	134	-10	-116
5/31/1999	5264	31	21	9	0	3	86	1	76	-6	-190
6/30/1999	5294	30	236	9	0	0	83	1	-21	-4	-303
7/31/1999	5325	31	360	9	0	-1	83	1	-69	-4	-377
8/31/1999	5356	31	440	9	0	-2	84	1	-106	-4	-421
9/30/1999	5386	30	463	9	0	-1	83	1	-121	-3	-429
10/31/1999	5417	31	406	9	0	-1	86	1	-104	-3	-394
11/30/1999	5447	30	270	15	0	0	98	1	-62	-4	-318
12/31/1999	5478	31	352	9	0	1	87	1	-90	-2	-357
1/31/2000	5509	31	279	21	0	1	120	1	-73	-4	-345
2/29/2000	5538	29	-5	68	0	3	274	1	-23	-7	-353
3/31/2000	5569	31	-113	25	0	6	167	1	48	-6	-127
4/30/2000	5599	30	-373	30	0	5	163	1	170	-6	9
5/31/2000	5630	31	-182	9	0	1	113	1	134	0	-77
6/30/2000	5660	30	105	9	0	-3	109	1	19	1	-241
7/31/2000	5691	31	269	9	0	-2	96	1	-47	0	-326
8/31/2000	5722	31	347	9	0	0	94	1	-83	1	-368
9/30/2000	5752	30	333	9	0	0	91	1	-86	2	-348
10/31/2000	5783	31	104	18	0	2	107	1	-11	-2	-219
11/30/2000	5813	30	-28	9	0	2	90	1	50	1	-124
12/31/2000	5844	31	14	9	0	1	93	1	48	1	-167
1/31/2001	5875	31	-141	53	0	3	240	1	63	-6	-214
2/28/2001	5903	28	-300	52	0	5	241	1	109	-6	-103
3/31/2001	5934	31	-648	53	0	8	244	1	278	-8	70
4/30/2001	5964	30	-632	17	0	6	128	1	341	-4	144
5/31/2001	5995	31	-370	8	0	1	109	1	260	-1	-8
6/30/2001	6025	30	-23	8	0	-3	101	1	100	0	-183
7/31/2001	6056	31	198	8	0	-3	94	1	-6	-1	-290
8/31/2001	6087	31	324	8	0	-2	90	1	-66	-1	-354
9/30/2001	6117	30	340	8	0	-2	87	1	-80	0	-353
10/31/2001	6148	31	145	8	0	-2	88	1	-4	0	-236
11/30/2001	6178	30	-282	30	0	1	154	1	157	-6	-56
12/31/2001	6209	31	-356	17	0	3	105	1	219	-6	17
1/31/2002	6240	31	-306	15	0	3	90	1	205	-6	-1
2/28/2002	6268	28	-91	7	0	2	69	1	108	-4	-93
3/31/2002	6299	31	78	8	0	1	75	1	37	-4	-195
4/30/2002	6329	30	232	8	0	1	72	1	-34	-4	-276

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
5/31/2002	6360	31	327	8	0	0	74	1	-73	-3	-334
6/30/2002	6390	30	361	8	0	0	73	0	-91	-2	-349
7/31/2002	6421	31	412	8	0	1	86	0	-110	0	-398
8/31/2002	6452	31	420	8	0	1	89	0	-115	1	-405
9/30/2002	6482	30	374	8	0	1	90	0	-103	1	-371
10/31/2002	6513	31	285	8	0	1	94	0	-75	2	-314
11/30/2002	6543	30	80	44	0	2	197	0	-29	-4	-292
12/31/2002	6574	31	31	33	0	5	178	1	-10	-5	-234
1/31/2003	6605	31	130	8	0	5	99	1	-19	1	-225
2/28/2003	6633	28	-71	41	0	4	199	1	17	-4	-190
3/31/2003	6664	31	-187	30	0	7	169	1	66	-5	-84
4/30/2003	6694	30	-141	14	0	6	104	1	80	-1	-63
5/31/2003	6725	31	-238	18	0	6	109	1	127	-4	-19
6/30/2003	6755	30	-102	8	0	5	83	1	93	0	-87
7/31/2003	6786	31	133	8	0	2	88	1	23	0	-256
8/31/2003	6817	31	290	8	0	0	90	1	-38	1	-351
9/30/2003	6847	30	356	8	0	0	89	1	-63	2	-392
10/31/2003	6878	31	354	8	0	0	93	1	-70	2	-387
11/30/2003	6908	30	150	23	0	3	123	1	-39	-1	-259
12/31/2003	6939	31	119	18	0	5	112	1	-25	-2	-227
1/31/2004	6970	31	201	9	0	2	92	1	-20	2	-287
2/29/2004	6999	29	-119	49	0	4	224	1	19	-3	-177
3/31/2004	7030	31	-9	9	0	3	105	1	48	0	-158
4/30/2004	7060	30	11	9	0	0	97	1	65	2	-184
5/31/2004	7091	31	127	9	0	-1	97	1	20	2	-255
6/30/2004	7121	30	203	9	0	-1	95	1	-12	3	-298
7/31/2004	7152	31	257	9	0	-2	105	1	-57	5	-319
8/31/2004	7183	31	299	9	0	-3	108	1	-75	6	-345
9/30/2004	7213	30	300	9	0	-3	107	1	-83	7	-337
10/31/2004	7244	31	39	44	0	2	203	1	-39	0	-252
11/30/2004	7274	30	163	9	0	1	115	1	-52	6	-243
12/31/2004	7305	31	-75	51	0	3	239	1	-8	0	-213
1/31/2005	7336	31	-344	81	0	6	377	1	72	-2	-317
2/28/2005	7364	28	-563	64	0	7	287	1	193	-3	-51
3/31/2005	7395	31	-772	28	0	9	196	1	365	-3	174
4/30/2005	7425	30	-826	13	0	5	133	1	448	-1	228
5/31/2005	7456	31	-812	8	0	-1	119	1	467	1	217
6/30/2005	7486	30	-768	8	0	-2	107	1	473	1	181
7/31/2005	7517	31	-454	8	0	0	101	1	334	-3	13
8/31/2005	7548	31	-315	8	0	2	96	1	264	-4	-51
9/30/2005	7578	30	-227	8	0	2	89	1	218	-4	-86
10/31/2005	7609	31	-379	16	0	3	103	1	277	-6	-13
11/30/2005	7639	30	-256	8	0	3	81	1	240	-5	-71
12/31/2005	7670	31	-110	8	0	2	81	0	172	-5	-149
1/31/2006	7701	31	-165	27	0	4	144	1	151	-7	-157
2/28/2006	7729	28	-185	24	0	5	131	0	149	-6	-120
3/31/2006	7760	31	-334	30	0	7	156	1	217	-8	-71
4/30/2006	7790	30	-646	36	0	8	171	1	356	-9	81
5/31/2006	7821	31	-493	18	0	7	113	1	334	-6	27
6/30/2006	7851	30	-99	7	0	2	98	1	200	0	-210
7/31/2006	7882	31	32	7	0	1	83	1	128	-5	-247
8/31/2006	7913	31	168	7	0	2	78	1	60	-5	-311

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
9/30/2006	7943	30	226	7	0	2	74	1	27	-5	-333
10/31/2006	7974	31	169	7	0	2	76	1	55	-5	-305
11/30/2006	8004	30	146	7	0	2	74	1	65	-4	-290
12/31/2006	8035	31	132	13	0	3	84	1	58	-5	-286
1/31/2007	8066	31	64	22	0	4	115	1	62	-8	-260
2/28/2007	8094	28	122	14	0	4	85	1	45	-5	-266
3/31/2007	8125	31	178	8	0	3	82	1	46	-3	-314
4/30/2007	8155	30	196	15	0	3	91	1	17	-6	-316
5/31/2007	8186	31	376	8	0	3	81	1	-41	-2	-426
6/30/2007	8216	30	477	7	0	2	82	1	-81	-1	-486
7/31/2007	8247	31	523	8	0	1	83	1	-108	-1	-506
8/31/2007	8278	31	536	8	0	0	84	1	-117	-1	-511
9/30/2007	8308	30	458	8	0	0	84	1	-98	0	-453
10/31/2007	8339	31	312	8	0	0	87	1	-49	0	-360
11/30/2007	8369	30	235	8	0	0	86	1	-19	1	-312
12/31/2007	8400	31	114	25	0	3	132	1	1	-3	-273
1/31/2008	8431	31	-117	68	0	6	265	1	38	-5	-345
2/29/2008	8460	29	-203	18	0	7	124	1	119	-4	-62
3/31/2008	8491	31	-313	7	0	5	93	1	219	0	-13
4/30/2008	8521	30	-265	7	0	3	87	1	218	1	-52
5/31/2008	8552	31	-57	7	0	2	86	1	132	0	-171
6/30/2008	8582	30	147	7	0	2	83	1	33	1	-273
7/31/2008	8613	31	270	8	0	1	88	1	-15	0	-353
8/31/2008	8644	31	366	8	0	0	89	1	-53	1	-412
9/30/2008	8674	30	382	7	0	0	88	1	-64	2	-416
10/31/2008	8705	31	298	8	0	1	91	1	-42	2	-359
11/30/2008	8735	30	-2	21	0	3	124	1	38	-2	-184
12/31/2008	8766	31	-58	22	0	5	122	1	57	-3	-147
1/31/2009	8797	31	-19	7	0	5	82	1	49	-1	-124
2/28/2009	8825	28	-168	38	0	5	176	1	72	-4	-122
3/31/2009	8856	31	-124	7	0	6	88	1	93	-2	-68
4/30/2009	8886	30	-38	7	0	4	79	1	65	-1	-117
5/31/2009	8917	31	98	7	0	4	79	1	12	-1	-199
6/30/2009	8947	30	210	7	0	3	76	1	-31	-1	-266
7/31/2009	8978	31	382	7	0	0	89	1	-54	1	-427
8/31/2009	9009	31	406	7	0	-2	91	1	-67	3	-439
9/30/2009	9039	30	393	7	0	-2	92	1	-74	3	-420
10/31/2009	9070	31	245	19	0	2	114	1	-67	1	-315
11/30/2009	9100	30	301	7	0	2	94	1	-56	4	-353
12/31/2009	9131	31	92	26	0	3	144	1	-30	0	-237
1/31/2010	9162	31	-82	47	0	6	220	1	12	-1	-204
2/28/2010	9190	28	-151	32	0	7	174	1	49	-1	-113
3/31/2010	9221	31	-105	7	0	5	105	1	101	3	-118
4/30/2010	9251	30	-214	18	0	5	114	1	131	0	-56
5/31/2010	9282	31	-49	7	0	4	92	1	104	2	-160
6/30/2010	9312	30	58	6	0	2	87	1	56	3	-214
7/31/2010	9343	31	165	7	0	2	89	1	-13	4	-254
8/31/2010	9374	31	226	7	0	2	90	1	-44	5	-287
9/30/2010	9404	30	250	7	0	2	89	1	-60	5	-294
10/31/2010	9435	31	63	21	0	4	129	1	-24	1	-195
11/30/2010	9465	30	-1	13	0	4	98	1	2	2	-120
12/31/2010	9496	31	-277	63	0	6	270	1	77	-2	-166

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
1/31/2011	9527	31	-205	7	0	6	109	1	132	1	-50
2/28/2011	9555	28	-382	25	0	5	134	1	185	-2	33
3/31/2011	9586	31	-574	36	0	6	187	1	287	-4	59
4/30/2011	9616	30	-533	6	0	5	95	1	333	-1	93
5/31/2011	9647	31	-540	7	0	4	88	1	354	-1	87
6/30/2011	9677	30	-202	6	0	3	81	1	198	-1	-87
7/31/2011	9708	31	-59	7	0	2	83	1	111	-1	-144
8/31/2011	9739	31	83	7	0	2	83	1	40	-1	-214
9/30/2011	9769	30	165	6	0	1	80	1	-4	0	-249
10/31/2011	9800	31	22	16	0	3	99	1	27	-3	-164
11/30/2011	9830	30	-165	18	0	4	99	1	100	-4	-52
12/31/2011	9861	31	-84	7	0	3	80	1	97	-2	-101
1/31/2012	9892	31	-78	17	0	3	100	1	90	-4	-129
2/29/2012	9921	29	100	7	0	2	77	1	43	-2	-228
3/31/2012	9952	31	26	21	0	4	114	1	32	-4	-193
4/30/2012	9982	30	18	21	0	4	108	1	27	-5	-175
5/31/2012	10013	31	109	7	0	3	81	1	29	-2	-228
6/30/2012	10043	30	202	7	0	2	78	1	-1	-1	-288
7/31/2012	10074	31	284	7	0	1	86	1	-44	0	-335
8/31/2012	10105	31	329	7	0	0	88	1	-66	1	-360
9/30/2012	10135	30	337	7	0	0	88	1	-75	2	-360
10/31/2012	10166	31	281	7	0	0	91	1	-67	2	-315
11/30/2012	10196	30	110	15	0	2	99	1	-24	0	-204
12/31/2012	10227	31	55	25	0	5	128	1	-16	-2	-195
1/31/2013	10258	31	62	13	0	5	93	1	-8	-1	-165
2/28/2013	10286	28	119	7	0	4	76	1	-18	1	-188
3/31/2013	10317	31	104	13	0	3	94	1	-18	-1	-197
4/30/2013	10347	30	155	7	0	3	81	1	-33	1	-214
5/31/2013	10378	31	176	7	0	2	84	1	-43	2	-229
6/30/2013	10408	30	188	7	0	2	83	1	-49	2	-233
7/31/2013	10439	31	243	7	0	3	91	1	-57	4	-291
8/31/2013	10470	31	231	7	0	3	93	1	-58	4	-282
9/30/2013	10500	30	220	7	0	3	92	1	-59	5	-270
10/31/2013	10531	31	214	7	0	3	97	1	-62	5	-265
11/30/2013	10561	30	210	7	0	3	95	1	-62	6	-259
12/31/2013	10592	31	212	7	0	3	99	1	-63	6	-265
1/31/2014	10623	31	192	7	0	1	101	1	-67	6	-242
2/28/2014	10651	28	33	30	0	3	166	1	-40	2	-197
3/31/2014	10682	31	65	17	0	4	121	1	-44	4	-168
4/30/2014	10712	30	113	7	0	2	102	1	-46	6	-185
5/31/2014	10743	31	138	7	0	0	105	1	-52	7	-207
6/30/2014	10773	30	154	7	0	0	104	1	-57	7	-216
7/31/2014	10804	31	175	7	0	-1	103	1	-62	9	-232
8/31/2014	10835	31	174	7	0	-2	103	1	-61	10	-232
9/30/2014	10865	30	160	7	0	-2	101	1	-59	10	-218
10/31/2014	10896	31	148	7	0	-1	105	1	-59	11	-211
11/30/2014	10926	30	91	15	0	0	116	0	-50	8	-180
12/31/2014	10957	31	-1	32	0	3	187	0	-33	5	-196
1/31/2015	10988	31	15	15	0	5	122	1	-29	5	-133
2/28/2015	11016	28	67	5	0	2	91	0	-34	8	-140
3/31/2015	11047	31	79	6	0	1	95	0	-36	9	-154
4/30/2015	11077	30	88	6	0	0	93	0	-37	9	-160

Flow Budget for Layers 2 to 4 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	RECHARGE	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Offshore	Mound L5
5/31/2015	11108	31	99	6	0	0	93	0	-40	9	-168
6/30/2015	11138	30	104	6	0	0	91	0	-41	9	-168
7/31/2015	11169	31	117	6	0	-3	90	0	-51	10	-171
8/31/2015	11200	31	121	6	0	-4	94	0	-54	10	-173
9/30/2015	11230	30	110	6	0	-4	89	0	-53	10	-157
10/31/2015	11261	31	120	6	0	-4	96	0	-58	10	-171
11/30/2015	11291	30	115	6	0	-4	96	0	-57	10	-166
12/31/2015	11322	31	111	6	0	-4	100	0	-58	11	-166

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
1/31/1985	31	31	-27	-112	27	-53	205	-12	-28
2/28/1985	59	28	-96	-63	26	-78	252	-28	-12
3/31/1985	90	31	-88	-98	30	-68	246	-23	0
4/30/1985	120	30	-4	-199	27	56	80	24	16
5/31/1985	151	31	30	-200	29	170	-74	27	17
6/30/1985	181	30	69	-200	29	256	-206	35	18
7/31/1985	212	31	67	-184	31	318	-251	5	13
8/31/1985	243	31	110	-184	31	326	-308	10	14
9/30/1985	273	30	130	-185	31	329	-338	20	13
10/31/1985	304	31	148	-185	32	318	-350	25	12
11/30/1985	334	30	43	-26	38	255	-245	-31	-33
12/31/1985	365	31	139	-178	35	207	-233	18	13
1/31/1986	396	31	12	-48	41	164	-126	-21	-24
2/28/1986	424	28	-103	-20	40	180	-8	-33	-56
3/31/1986	455	31	-78	-32	42	49	89	-38	-33
4/30/1986	485	30	-72	-71	37	-40	179	-20	-12
5/31/1986	516	31	21	-267	36	10	126	63	11
6/30/1986	546	30	48	-269	35	117	-13	74	8
7/31/1986	577	31	16	-139	39	152	-95	25	4
8/31/1986	608	31	26	-139	39	147	-100	21	6
9/30/1986	638	30	-16	-75	39	170	-106	-8	-4
10/31/1986	669	31	45	-138	39	216	-193	21	10
11/30/1986	699	30	10	-68	39	204	-178	-6	-2
12/31/1986	730	31	65	-138	39	198	-201	24	12
1/31/1987	761	31	-13	-54	40	144	-93	-16	-9
2/28/1987	789	28	-16	-68	36	79	-16	-8	-7
3/31/1987	820	31	-70	-53	40	54	59	-25	-7
4/30/1987	850	30	28	-180	35	91	-30	41	15
5/31/1987	881	31	76	-181	35	187	-177	50	11
6/30/1987	911	30	133	-182	34	253	-305	59	8
7/31/1987	942	31	173	-184	38	273	-373	67	6
8/31/1987	973	31	205	-184	38	245	-382	74	4
9/30/1987	1003	30	210	-184	37	252	-397	81	2
10/31/1987	1034	31	126	-68	42	216	-314	16	-19
11/30/1987	1064	30	138	-103	40	181	-274	28	-10
12/31/1987	1095	31	47	-36	44	170	-189	2	-37
1/31/1988	1126	31	-2	-45	45	68	-49	4	-21
2/29/1988	1155	29	-50	-82	41	13	63	24	-9
3/31/1988	1186	31	-35	-155	42	46	41	59	3
4/30/1988	1216	30	-124	-33	42	65	95	-6	-40
5/31/1988	1247	31	10	-157	42	76	-22	55	-3
6/30/1988	1277	30	24	-159	39	111	-75	65	-5
7/31/1988	1308	31	73	-245	38	184	-118	77	-9
8/31/1988	1339	31	110	-246	38	232	-203	81	-11
9/30/1988	1369	30	148	-247	37	256	-269	87	-12
10/31/1988	1400	31	179	-247	39	272	-320	92	-14

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
11/30/1988	1430	30	153	-177	40	235	-301	71	-22
12/31/1988	1461	31	80	-50	44	204	-244	16	-49
1/31/1989	1492	31	165	-158	42	164	-275	73	-11
2/28/1989	1520	28	31	-37	40	140	-150	20	-43
3/31/1989	1551	31	59	-117	44	76	-102	58	-17
4/30/1989	1581	30	75	-159	40	108	-131	77	-10
5/31/1989	1612	31	98	-160	41	153	-200	82	-15
6/30/1989	1642	30	120	-161	40	161	-228	85	-17
7/31/1989	1673	31	175	-275	38	208	-239	110	-18
8/31/1989	1704	31	187	-275	39	216	-261	114	-20
9/30/1989	1734	30	195	-275	38	218	-274	118	-20
10/31/1989	1765	31	206	-276	40	222	-293	123	-22
11/30/1989	1795	30	210	-274	39	203	-283	127	-22
12/31/1989	1826	31	218	-272	40	199	-292	132	-24
1/31/1990	1857	31	128	-100	44	151	-253	73	-43
2/28/1990	1885	28	103	-109	41	114	-193	77	-33
3/31/1990	1916	31	144	-244	40	135	-192	133	-17
4/30/1990	1946	30	133	-242	38	157	-199	137	-24
5/31/1990	1977	31	141	-209	41	157	-233	135	-31
6/30/1990	2007	30	167	-241	38	183	-258	143	-34
7/31/1990	2038	31	188	-237	39	196	-294	147	-39
8/31/1990	2069	31	197	-235	39	197	-310	151	-38
9/30/1990	2099	30	197	-234	38	196	-313	153	-36
10/31/1990	2130	31	208	-234	39	186	-320	159	-38
11/30/1990	2160	30	206	-234	38	179	-313	161	-36
12/31/1990	2191	31	219	-234	39	171	-325	168	-38
1/31/1991	2222	31	182	-139	42	145	-328	142	-45
2/28/1991	2250	28	87	-44	39	126	-238	87	-57
3/31/1991	2281	31	-237	-15	43	417	-140	78	-145
4/30/1991	2311	30	-31	-177	32	52	30	145	-54
5/31/1991	2342	31	-101	-177	31	29	114	149	-47
6/30/1991	2372	30	-14	-177	31	80	-23	145	-45
7/31/1991	2403	31	26	-208	34	138	-105	153	-38
8/31/1991	2434	31	56	-208	37	162	-168	155	-34
9/30/1991	2464	30	79	-207	37	172	-210	155	-25
10/31/1991	2495	31	89	-208	38	174	-233	160	-22
11/30/1991	2525	30	81	-207	37	152	-202	159	-21
12/31/1991	2556	31	-52	-39	42	143	-120	90	-64
1/31/1992	2587	31	-34	-58	43	90	-93	98	-45
2/29/1992	2616	29	-298	-18	41	224	83	74	-106
3/31/1992	2647	31	-422	-29	42	-9	425	76	-84
4/30/1992	2677	30	-421	-190	35	-20	502	134	-40
5/31/1992	2708	31	-349	-191	36	63	343	131	-33
6/30/1992	2738	30	-212	-191	35	91	180	125	-30
7/31/1992	2769	31	-156	-147	30	146	55	104	-31
8/31/1992	2800	31	-88	-148	30	176	-44	105	-30

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
9/30/1992	2830	30	-31	-149	29	185	-112	105	-28
10/31/1992	2861	31	-75	-77	38	115	-52	89	-37
11/30/1992	2891	30	-215	-148	31	21	237	97	-24
12/31/1992	2922	31	-458	-34	40	3	486	35	-72
1/31/1993	2953	31	-599	-37	42	100	592	18	-117
2/28/1993	2981	28	-621	-47	38	134	607	7	-118
3/31/1993	3012	31	-515	-74	38	33	624	2	-109
4/30/1993	3042	30	-292	-246	22	55	467	56	-63
5/31/1993	3073	31	-251	-260	22	4	485	48	-48
6/30/1993	3103	30	-218	-245	24	109	330	42	-41
7/31/1993	3134	31	-180	-200	30	190	171	31	-41
8/31/1993	3165	31	-73	-190	30	222	20	32	-41
9/30/1993	3195	30	-8	-190	28	160	16	34	-40
10/31/1993	3226	31	-48	-190	29	37	186	29	-44
11/30/1993	3256	30	-116	-178	29	-48	335	21	-44
12/31/1993	3287	31	-202	-71	33	-65	404	-28	-70
1/31/1994	3318	31	-103	-151	31	-4	271	12	-56
2/28/1994	3346	28	-195	-18	31	54	289	-50	-111
3/31/1994	3377	31	-121	-40	34	12	264	-51	-99
4/30/1994	3407	30	-12	-150	28	87	105	1	-60
5/31/1994	3438	31	1	-151	27	139	37	-1	-51
6/30/1994	3468	30	29	-152	25	198	-58	3	-45
7/31/1994	3499	31	61	-198	27	290	-139	9	-50
8/31/1994	3530	31	76	-199	27	343	-207	16	-57
9/30/1994	3560	30	96	-199	26	320	-209	25	-60
10/31/1994	3591	31	89	-199	27	225	-102	25	-64
11/30/1994	3621	30	-15	-87	29	86	93	-22	-84
12/31/1994	3652	31	-38	-113	30	69	161	-21	-88
1/31/1995	3683	31	-431	-8	22	385	307	-68	-207
2/28/1995	3711	28	-43	-98	3	-149	443	-31	-125
3/31/1995	3742	31	-215	-13	10	-20	497	-79	-180
4/30/1995	3772	30	1	-198	-2	-5	332	-18	-111
5/31/1995	3803	31	-49	-133	5	-45	381	-41	-117
6/30/1995	3833	30	-2	-198	5	84	231	-23	-97
7/31/1995	3864	31	-20	-191	13	58	269	-31	-98
8/31/1995	3895	31	-44	-191	17	35	324	-37	-103
9/30/1995	3925	30	-42	-191	18	61	294	-37	-104
10/31/1995	3956	31	-42	-191	21	89	276	-42	-110
11/30/1995	3986	30	-33	-191	20	111	239	-40	-107
12/31/1995	4017	31	-111	-52	28	80	286	-93	-138
1/31/1996	4048	31	-68	-60	29	76	239	-88	-128
2/29/1996	4077	29	-101	-12	30	109	240	-107	-159
3/31/1996	4108	31	-55	-51	30	2	303	-102	-127
4/30/1996	4138	30	-17	-108	25	49	225	-74	-99
5/31/1996	4169	31	3	-139	21	177	100	-73	-89
6/30/1996	4199	30	22	-140	19	272	-22	-67	-83

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
7/31/1996	4230	31	62	-214	18	406	-135	-54	-84
8/31/1996	4261	31	78	-214	18	463	-213	-44	-87
9/30/1996	4291	30	112	-215	18	461	-257	-32	-87
10/31/1996	4322	31	62	-104	25	410	-220	-70	-104
11/30/1996	4352	30	33	-49	29	267	-85	-83	-112
12/31/1996	4383	31	-24	-22	33	135	115	-100	-136
1/31/1997	4414	31	-80	-17	34	-47	347	-108	-129
2/28/1997	4442	28	-20	-155	22	-64	338	-52	-69
3/31/1997	4473	31	-50	-157	22	20	297	-66	-66
4/30/1997	4503	30	-30	-157	20	117	175	-64	-61
5/31/1997	4534	31	1	-157	20	240	23	-67	-61
6/30/1997	4564	30	36	-157	20	319	-104	-59	-56
7/31/1997	4595	31	82	-167	22	405	-247	-40	-55
8/31/1997	4626	31	102	-168	22	443	-313	-32	-54
9/30/1997	4656	30	112	-168	22	397	-287	-23	-51
10/31/1997	4687	31	107	-168	23	348	-233	-24	-53
11/30/1997	4717	30	15	-39	28	265	-113	-81	-76
12/31/1997	4748	31	-27	-11	33	235	-23	-98	-109
1/31/1998	4779	31	-9	-42	33	84	93	-82	-77
2/28/1998	4807	28	-354	-3	23	299	307	-98	-174
3/31/1998	4838	31	-56	-44	12	-64	343	-94	-98
4/30/1998	4868	30	-61	-73	10	-202	483	-84	-73
5/31/1998	4899	31	-110	-59	15	-174	506	-102	-77
6/30/1998	4929	30	16	-211	7	-12	282	-26	-55
7/31/1998	4960	31	-36	-159	15	59	277	-91	-64
8/31/1998	4991	31	-6	-158	19	163	141	-93	-66
9/30/1998	5021	30	9	-158	20	227	51	-86	-63
10/31/1998	5052	31	10	-158	23	209	70	-90	-64
11/30/1998	5082	30	-31	-88	27	74	193	-107	-68
12/31/1998	5113	31	-28	-149	27	0	311	-102	-58
1/31/1999	5144	31	-91	-31	28	-3	311	-134	-80
2/28/1999	5172	28	-17	-96	22	92	150	-94	-57
3/31/1999	5203	31	-79	-24	28	130	180	-146	-89
4/30/1999	5233	30	-52	-28	27	116	157	-141	-79
5/31/1999	5264	31	18	-116	21	190	56	-111	-57
6/30/1999	5294	30	31	-117	19	303	-77	-102	-57
7/31/1999	5325	31	48	-131	19	377	-154	-98	-61
8/31/1999	5356	31	60	-131	20	421	-219	-91	-60
9/30/1999	5386	30	70	-131	20	429	-252	-80	-57
10/31/1999	5417	31	87	-131	22	394	-236	-78	-58
11/30/1999	5447	30	63	-78	25	318	-175	-91	-62
12/31/1999	5478	31	98	-130	24	357	-226	-71	-52
1/31/2000	5509	31	60	-74	28	345	-206	-90	-64
2/29/2000	5538	29	-34	-16	31	353	-110	-104	-121
3/31/2000	5569	31	40	-50	32	127	30	-101	-79
4/30/2000	5599	30	-19	-39	31	-9	214	-103	-76

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
5/31/2000	5630	31	40	-198	22	77	155	-47	-48
6/30/2000	5660	30	51	-202	20	241	-18	-36	-55
7/31/2000	5691	31	57	-157	24	326	-143	-47	-61
8/31/2000	5722	31	78	-156	25	368	-215	-41	-59
9/30/2000	5752	30	92	-155	24	348	-223	-32	-55
10/31/2000	5783	31	46	-82	31	219	-90	-60	-63
11/30/2000	5813	30	62	-153	26	124	23	-31	-50
12/31/2000	5844	31	35	-155	26	167	15	-32	-56
1/31/2001	5875	31	-63	-25	34	214	42	-91	-111
2/28/2001	5903	28	-74	-22	34	103	147	-88	-101
3/31/2001	5934	31	-125	-22	39	-70	387	-106	-103
4/30/2001	5964	30	-74	-112	31	-144	433	-73	-61
5/31/2001	5995	31	-40	-195	19	8	306	-44	-54
6/30/2001	6025	30	-5	-197	15	183	101	-37	-60
7/31/2001	6056	31	8	-141	17	290	-52	-57	-66
8/31/2001	6087	31	43	-140	18	354	-159	-54	-62
9/30/2001	6117	30	62	-139	17	353	-191	-45	-57
10/31/2001	6148	31	58	-139	19	236	-71	-46	-57
11/30/2001	6178	30	-50	-34	30	56	181	-95	-87
12/31/2001	6209	31	-69	-67	30	-17	283	-94	-66
1/31/2002	6240	31	-77	-79	31	1	273	-91	-59
2/28/2002	6268	28	-27	-112	21	93	139	-67	-47
3/31/2002	6299	31	-9	-113	22	195	37	-77	-55
4/30/2002	6329	30	27	-113	20	276	-87	-70	-53
5/31/2002	6360	31	52	-114	21	334	-171	-68	-53
6/30/2002	6390	30	69	-113	20	349	-216	-59	-50
7/31/2002	6421	31	101	-174	24	398	-259	-38	-52
8/31/2002	6452	31	112	-175	25	405	-281	-31	-55
9/30/2002	6482	30	115	-175	24	371	-260	-20	-55
10/31/2002	6513	31	107	-175	25	314	-193	-19	-59
11/30/2002	6543	30	3	-26	32	292	-123	-75	-103
12/31/2002	6574	31	13	-33	36	234	-88	-76	-87
1/31/2003	6605	31	105	-229	34	225	-77	-12	-46
2/28/2003	6633	28	-29	-31	33	190	-14	-63	-86
3/31/2003	6664	31	-25	-45	38	84	96	-73	-75
4/30/2003	6694	30	23	-189	34	63	137	-26	-43
5/31/2003	6725	31	-57	-92	35	19	207	-61	-51
6/30/2003	6755	30	15	-229	30	87	153	-17	-39
7/31/2003	6786	31	40	-280	25	256	29	-23	-48
8/31/2003	6817	31	71	-280	24	351	-103	-14	-48
9/30/2003	6847	30	90	-277	24	392	-179	-4	-46
10/31/2003	6878	31	121	-280	25	387	-209	1	-47
11/30/2003	6908	30	52	-98	32	259	-153	-32	-61
12/31/2003	6939	31	55	-119	34	227	-112	-35	-49
1/31/2004	6970	31	140	-382	27	287	-66	21	-27
2/29/2004	6999	29	-58	-39	33	177	12	-43	-83

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
3/31/2004	7030	31	71	-342	29	158	106	8	-29
4/30/2004	7060	30	39	-383	24	184	133	26	-23
5/31/2004	7091	31	71	-383	25	255	28	30	-25
6/30/2004	7121	30	111	-383	24	298	-64	38	-24
7/31/2004	7152	31	117	-285	21	319	-185	42	-28
8/31/2004	7183	31	153	-286	21	345	-252	48	-30
9/30/2004	7213	30	192	-286	21	337	-291	56	-29
10/31/2004	7244	31	70	-41	36	252	-225	-13	-80
11/30/2004	7274	30	176	-284	25	243	-183	50	-27
12/31/2004	7305	31	-6	-32	38	213	-116	-14	-84
1/31/2005	7336	31	-311	-11	38	317	118	-31	-121
2/28/2005	7364	28	-278	-12	28	51	347	-35	-101
3/31/2005	7395	31	-289	-40	26	-174	587	-40	-70
4/30/2005	7425	30	-229	-131	11	-228	652	-18	-58
5/31/2005	7456	31	-163	-189	7	-217	625	-2	-61
6/30/2005	7486	30	-171	-190	8	-181	608	-6	-67
7/31/2005	7517	31	-142	-184	18	-13	436	-36	-80
8/31/2005	7548	31	-104	-184	21	51	347	-45	-86
9/30/2005	7578	30	-80	-185	21	86	291	-47	-87
10/31/2005	7609	31	-122	-90	28	13	352	-78	-103
11/30/2005	7639	30	-70	-184	23	71	309	-59	-91
12/31/2005	7670	31	-59	-180	22	149	232	-64	-100
1/31/2006	7701	31	-84	-96	30	157	212	-90	-129
2/28/2006	7729	28	-61	-98	29	120	210	-83	-115
3/31/2006	7760	31	-86	-78	33	71	298	-105	-133
4/30/2006	7790	30	-96	-63	32	-81	454	-111	-135
5/31/2006	7821	31	-35	-170	29	-27	399	-88	-109
6/30/2006	7851	30	55	-401	16	210	243	-38	-85
7/31/2006	7882	31	-14	-226	20	247	158	-79	-107
8/31/2006	7913	31	6	-226	20	311	84	-81	-115
9/30/2006	7943	30	21	-225	20	333	38	-73	-114
10/31/2006	7974	31	23	-226	21	305	71	-74	-120
11/30/2006	8004	30	29	-225	20	290	71	-67	-117
12/31/2006	8035	31	12	-194	23	286	71	-74	-124
1/31/2007	8066	31	-27	-121	28	260	85	-93	-133
2/28/2007	8094	28	27	-236	22	266	76	-56	-100
3/31/2007	8125	31	67	-376	22	314	87	-25	-89
4/30/2007	8155	30	9	-213	25	316	25	-63	-98
5/31/2007	8186	31	99	-376	23	426	-73	-18	-81
6/30/2007	8216	30	105	-374	21	486	-160	-5	-74
7/31/2007	8247	31	83	-255	21	506	-238	-34	-82
8/31/2007	8278	31	109	-255	21	511	-277	-28	-81
9/30/2007	8308	30	120	-254	23	453	-248	-18	-74
10/31/2007	8339	31	109	-254	23	360	-147	-16	-76
11/30/2007	8369	30	94	-254	23	312	-93	-10	-72
12/31/2007	8400	31	7	-73	32	273	-84	-55	-100

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
1/31/2008	8431	31	-119	-22	37	345	-20	-72	-148
2/29/2008	8460	29	32	-90	31	62	112	-53	-93
3/31/2008	8491	31	64	-243	25	13	232	-21	-71
4/30/2008	8521	30	-3	-245	23	52	254	-18	-64
5/31/2008	8552	31	-13	-246	26	171	149	-23	-65
6/30/2008	8582	30	16	-246	25	273	13	-19	-62
7/31/2008	8613	31	36	-255	25	353	-76	-13	-69
8/31/2008	8644	31	66	-256	25	412	-166	-8	-72
9/30/2008	8674	30	87	-256	24	416	-200	0	-71
10/31/2008	8705	31	111	-256	25	359	-166	3	-75
11/30/2008	8735	30	19	-76	32	184	-28	-38	-92
12/31/2008	8766	31	-4	-79	35	147	34	-43	-90
1/31/2009	8797	31	4	-133	33	124	65	-24	-69
2/28/2009	8825	28	-97	-21	33	122	118	-53	-102
3/31/2009	8856	31	-29	-132	32	68	166	-32	-73
4/30/2009	8886	30	-27	-133	29	117	113	-29	-70
5/31/2009	8917	31	3	-134	29	199	7	-30	-74
6/30/2009	8947	30	39	-134	28	266	-105	-23	-71
7/31/2009	8978	31	135	-346	23	427	-179	3	-64
8/31/2009	9009	31	166	-346	23	439	-234	14	-62
9/30/2009	9039	30	203	-345	23	420	-265	24	-58
10/31/2009	9070	31	147	-138	33	315	-286	-3	-68
11/30/2009	9100	30	233	-343	26	353	-253	32	-47
12/31/2009	9131	31	127	-84	35	237	-229	-13	-73
1/31/2010	9162	31	45	-45	39	204	-130	-23	-90
2/28/2010	9190	28	-8	-61	36	113	2	-18	-64
3/31/2010	9221	31	8	-364	33	118	180	52	-28
4/30/2010	9251	30	-124	-168	34	56	238	6	-42
5/31/2010	9282	31	-40	-365	31	160	195	45	-27
6/30/2010	9312	30	0	-364	28	214	101	52	-31
7/31/2010	9343	31	48	-255	30	254	-73	34	-37
8/31/2010	9374	31	111	-256	30	287	-174	40	-38
9/30/2010	9404	30	159	-256	29	294	-236	46	-36
10/31/2010	9435	31	61	-69	34	195	-161	-5	-56
11/30/2010	9465	30	57	-180	31	120	-7	17	-38
12/31/2010	9496	31	-202	-20	37	166	159	-27	-113
1/31/2011	9527	31	-63	-254	33	50	265	18	-50
2/28/2011	9555	28	-186	-62	33	-33	324	-20	-57
3/31/2011	9586	31	-308	-35	39	-59	476	-41	-71
4/30/2011	9616	30	-192	-254	33	-93	536	1	-31
5/31/2011	9647	31	-184	-255	32	-87	527	-2	-33
6/30/2011	9677	30	-116	-256	29	87	294	-3	-35
7/31/2011	9708	31	-93	-178	25	144	161	-17	-43
8/31/2011	9739	31	-38	-179	25	214	46	-19	-48
9/30/2011	9769	30	9	-180	24	249	-38	-16	-49
10/31/2011	9800	31	-30	-78	30	164	20	-44	-62

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
11/30/2011	9830	30	-48	-67	29	52	148	-52	-63
12/31/2011	9861	31	-9	-179	26	101	141	-30	-50
1/31/2012	9892	31	-56	-114	30	129	136	-56	-67
2/29/2012	9921	29	32	-286	24	228	70	-17	-50
3/31/2012	9952	31	-44	-84	31	193	38	-56	-79
4/30/2012	9982	30	-22	-84	31	175	33	-57	-75
5/31/2012	10013	31	50	-286	27	228	53	-21	-52
6/30/2012	10043	30	52	-287	25	288	-15	-11	-52
7/31/2012	10074	31	56	-209	25	335	-134	-11	-61
8/31/2012	10105	31	106	-209	25	360	-214	-6	-62
9/30/2012	10135	30	136	-209	24	360	-253	3	-61
10/31/2012	10166	31	159	-209	26	315	-235	7	-62
11/30/2012	10196	30	90	-111	30	204	-126	-20	-67
12/31/2012	10227	31	50	-58	34	195	-111	-33	-77
1/31/2013	10258	31	56	-102	35	165	-75	-23	-56
2/28/2013	10286	28	71	-157	27	188	-86	-1	-43
3/31/2013	10317	31	50	-103	32	197	-102	-18	-55
4/30/2013	10347	30	102	-157	29	214	-143	2	-46
5/31/2013	10378	31	130	-158	29	229	-188	6	-48
6/30/2013	10408	30	144	-158	28	233	-214	12	-47
7/31/2013	10439	31	184	-247	31	291	-241	27	-46
8/31/2013	10470	31	197	-247	32	282	-254	35	-43
9/30/2013	10500	30	207	-246	31	270	-262	41	-41
10/31/2013	10531	31	231	-247	32	265	-287	47	-41
11/30/2013	10561	30	230	-246	32	259	-288	52	-39
12/31/2013	10592	31	234	-246	33	265	-302	58	-40
1/31/2014	10623	31	216	-187	30	242	-311	55	-44
2/28/2014	10651	28	100	-33	32	197	-244	16	-69
3/31/2014	10682	31	136	-94	35	168	-226	30	-49
4/30/2014	10712	30	145	-185	30	185	-194	56	-37
5/31/2014	10743	31	159	-186	31	207	-229	63	-43
6/30/2014	10773	30	177	-187	30	216	-257	67	-46
7/31/2014	10804	31	220	-240	28	232	-289	94	-45
8/31/2014	10835	31	212	-240	28	232	-290	100	-43
9/30/2014	10865	30	212	-239	27	218	-280	102	-41
10/31/2014	10896	31	217	-239	29	211	-282	107	-42
11/30/2014	10926	30	154	-134	31	180	-261	79	-49
12/31/2014	10957	31	53	-39	38	196	-227	49	-70
1/31/2015	10988	31	69	-72	38	133	-181	53	-41
2/28/2015	11016	28	95	-161	29	140	-150	73	-25
3/31/2015	11047	31	96	-163	33	154	-174	82	-29
4/30/2015	11077	30	103	-163	30	160	-181	83	-32
5/31/2015	11108	31	106	-163	31	168	-196	87	-33
6/30/2015	11138	30	110	-163	30	168	-200	88	-34
7/31/2015	11169	31	117	-148	25	171	-236	103	-31
8/31/2015	11200	31	119	-147	24	173	-240	104	-32

Flow Budget for Layer 5 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Offshore	Mound L6-L7
9/30/2015	11230	30	105	-117	23	157	-235	96	-29
10/31/2015	11261	31	118	-145	25	171	-247	107	-28
11/30/2015	11291	30	118	-146	24	166	-242	107	-28
12/31/2015	11322	31	124	-146	26	166	-252	111	-29

Flow Budget for Layers 6 to 7 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Santa Paula B	Mound L5	Oxnard LAS	Offshore	Mound L8-L11
1/31/1985	31	31	364	34	41	-226	180	28	-340	-156	75
2/28/1985	59	28	82	59	58	-137	161	12	-310	-110	187
3/31/1985	90	31	100	36	47	-192	178	0	-386	-103	319
4/30/1985	120	30	349	0	15	-400	173	-16	-498	-67	444
5/31/1985	151	31	354	0	15	-399	181	-17	-518	-57	441
6/30/1985	181	30	353	0	15	-399	177	-18	-515	-49	436
7/31/1985	212	31	467	0	14	-607	186	-13	-483	-41	478
8/31/1985	243	31	460	0	14	-606	190	-14	-475	-37	468
9/30/1985	273	30	462	0	14	-606	186	-13	-466	-30	453
10/31/1985	304	31	459	0	14	-606	194	-12	-477	-28	456
11/30/1985	334	30	-234	380	136	-91	185	33	-294	-71	-47
12/31/1985	365	31	415	0	14	-575	189	-13	-439	-45	454
1/31/1986	396	31	-132	298	119	-161	192	24	-311	-71	40
2/28/1986	424	28	-785	777	267	-73	169	56	-253	-79	-58
3/31/1986	455	31	-420	481	170	-118	182	33	-283	-90	43
4/30/1986	485	30	114	63	68	-283	178	12	-335	-74	256
5/31/1986	516	31	721	0	18	-934	197	-11	-535	-15	558
6/30/1986	546	30	693	0	18	-932	200	-8	-523	11	543
7/31/1986	577	31	246	0	17	-408	204	-4	-445	-17	406
8/31/1986	608	31	252	0	17	-409	203	-6	-452	-28	423
9/30/1986	638	30	40	19	43	-206	196	4	-353	-48	305
10/31/1986	669	31	267	0	17	-410	201	-10	-459	-37	430
11/30/1986	699	30	52	52	45	-198	194	2	-359	-49	261
12/31/1986	730	31	284	0	17	-410	200	-12	-459	-35	417
1/31/1987	761	31	6	91	63	-205	198	9	-314	-54	205
2/28/1987	789	28	31	63	60	-225	177	7	-288	-49	224
3/31/1987	820	31	-17	106	65	-196	196	7	-296	-61	197
4/30/1987	850	30	451	0	9	-662	189	-15	-432	-15	475
5/31/1987	881	31	462	0	9	-661	198	-11	-447	0	449
6/30/1987	911	30	464	0	9	-661	194	-8	-447	8	441
7/31/1987	942	31	435	0	16	-584	208	-6	-516	10	437
8/31/1987	973	31	437	0	16	-584	212	-4	-531	11	442
9/30/1987	1003	30	444	0	15	-584	209	-2	-530	14	433
10/31/1987	1034	31	37	91	58	-220	216	19	-366	-27	193
11/30/1987	1064	30	155	55	42	-345	208	10	-397	-26	298
12/31/1987	1095	31	-185	312	116	-108	212	37	-308	-48	-28
1/31/1988	1126	31	-63	170	80	-193	212	21	-305	-51	130
2/29/1988	1155	29	105	94	56	-345	201	9	-343	-31	254
3/31/1988	1186	31	424	0	16	-700	220	-3	-448	2	489
4/30/1988	1216	30	-172	215	101	-138	210	40	-259	-30	33
5/31/1988	1247	31	405	0	16	-716	221	3	-436	3	505
6/30/1988	1277	30	420	0	15	-715	218	5	-430	22	465
7/31/1988	1308	31	365	0	16	-707	222	9	-395	31	459
8/31/1988	1339	31	360	0	16	-706	223	11	-398	32	463
9/30/1988	1369	30	365	0	16	-706	217	12	-396	35	457
10/31/1988	1400	31	353	0	16	-706	226	14	-407	36	466
11/30/1988	1430	30	146	17	38	-456	221	22	-350	19	342
12/31/1988	1461	31	-243	305	109	-139	226	49	-258	-20	-30
1/31/1989	1492	31	351	0	13	-548	229	11	-470	14	401
2/28/1989	1520	28	-173	219	96	-119	207	43	-256	-9	-8
3/31/1989	1551	31	175	0	14	-389	230	17	-410	6	357
4/30/1989	1581	30	338	0	13	-548	226	10	-455	30	387
5/31/1989	1612	31	329	0	13	-547	236	15	-464	40	378
6/30/1989	1642	30	330	0	13	-547	231	17	-458	44	370
7/31/1989	1673	31	327	0	13	-653	237	18	-402	53	407
8/31/1989	1704	31	317	0	13	-653	237	20	-396	54	408
9/30/1989	1734	30	321	0	13	-653	231	20	-389	56	402
10/31/1989	1765	31	309	0	13	-653	240	22	-397	59	406
11/30/1989	1795	30	315	0	12	-655	235	22	-390	62	400
12/31/1989	1826	31	301	0	13	-657	244	24	-397	65	408
1/31/1990	1857	31	-91	143	66	-258	245	43	-298	29	122
2/28/1990	1885	28	-39	146	64	-280	220	33	-291	22	125
3/31/1990	1916	31	470	0	10	-831	247	17	-453	68	471
4/30/1990	1946	30	483	0	10	-833	244	24	-448	87	432

Flow Budget for Layers 6 to 7 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Santa Paula B	Mound L5	Oxnard LAS	Offshore	Mound L8-L11
5/31/1990	1977	31	328	0	9	-653	255	31	-440	82	388
6/30/1990	2007	30	462	0	10	-835	249	34	-455	94	441
7/31/1990	2038	31	255	0	11	-644	255	39	-402	86	401
8/31/1990	2069	31	244	0	11	-645	254	38	-401	81	419
9/30/1990	2099	30	257	0	11	-647	246	36	-394	81	410
10/31/1990	2130	31	247	0	11	-647	255	38	-402	85	413
11/30/1990	2160	30	257	0	11	-648	248	36	-394	85	405
12/31/1990	2191	31	244	0	11	-648	257	38	-400	89	409
1/31/1991	2222	31	41	40	36	-443	263	45	-314	73	261
2/28/1991	2250	28	-229	181	83	-134	235	57	-215	32	-11
3/31/1991	2281	31	-1281	1294	436	-21	250	145	-203	11	-509
4/30/1991	2311	30	509	0	9	-612	239	54	-309	56	55
5/31/1991	2342	31	313	0	9	-612	253	47	-317	74	232
6/30/1991	2372	30	196	0	9	-612	248	45	-311	78	347
7/31/1991	2403	31	123	0	10	-603	252	38	-274	71	382
8/31/1991	2434	31	116	0	10	-603	250	34	-274	70	396
9/30/1991	2464	30	139	0	10	-604	242	25	-271	70	388
10/31/1991	2495	31	127	0	10	-604	251	22	-281	73	391
11/30/1991	2525	30	130	0	10	-604	244	21	-278	72	385
12/31/1991	2556	31	-381	362	123	-91	251	64	-215	34	-148
1/31/1992	2587	31	-245	159	75	-210	248	45	-194	25	96
2/29/1992	2616	29	-1019	963	309	-48	227	106	-168	10	-324
3/31/1992	2647	31	-574	534	180	-93	235	84	-167	7	-210
4/30/1992	2677	30	348	0	9	-794	226	40	-155	50	277
5/31/1992	2708	31	257	0	9	-792	239	33	-148	64	335
6/30/1992	2738	30	133	0	9	-792	233	30	-137	67	451
7/31/1992	2769	31	-10	0	10	-624	225	31	-137	64	425
8/31/1992	2800	31	-1	0	10	-622	222	30	-143	61	429
9/30/1992	2830	30	26	0	10	-622	213	28	-145	61	417
10/31/1992	2861	31	-224	69	57	-261	232	37	-169	38	220
11/30/1992	2891	30	53	0	10	-623	212	24	-159	53	418
12/31/1992	2922	31	-465	383	135	-74	230	72	-152	16	-147
1/31/1993	2953	31	-988	807	269	3	225	117	-151	-1	-272
2/28/1993	2981	28	-1015	841	278	12	198	118	-127	-7	-255
3/31/1993	3012	31	-656	457	161	10	214	109	-141	-10	-146
4/30/1993	3042	30	40	0	8	-244	186	63	-243	22	168
5/31/1993	3073	31	23	0	9	-230	192	48	-260	30	188
6/30/1993	3103	30	14	0	8	-234	189	41	-261	31	212
7/31/1993	3134	31	62	0	10	-492	206	41	-201	34	340
8/31/1993	3165	31	54	0	10	-503	206	41	-195	34	353
9/30/1993	3195	30	71	0	9	-504	200	40	-194	35	342
10/31/1993	3226	31	59	0	10	-504	207	44	-200	36	349
11/30/1993	3256	30	9	0	9	-445	204	44	-183	32	330
12/31/1993	3287	31	-232	58	49	-190	214	70	-157	4	183
1/31/1994	3318	31	1	0	9	-466	210	56	-178	21	346
2/28/1994	3346	28	-627	558	194	-52	191	111	-127	-9	-244
3/31/1994	3377	31	-218	119	65	-131	206	99	-135	-17	12
4/30/1994	3407	30	42	0	9	-467	195	60	-165	12	313
5/31/1994	3438	31	42	0	9	-465	204	51	-181	20	320
6/30/1994	3468	30	60	0	9	-465	197	45	-183	23	315
7/31/1994	3499	31	325	0	10	-779	214	50	-249	43	387
8/31/1994	3530	31	317	0	10	-779	220	57	-246	55	366
9/30/1994	3560	30	314	0	10	-779	216	60	-241	59	362
10/31/1994	3591	31	295	0	10	-778	227	64	-246	62	366
11/30/1994	3621	30	-96	10	44	-322	220	84	-176	27	209
12/31/1994	3652	31	-32	20	35	-435	225	88	-187	21	263
1/31/1995	3683	31	-1834	1870	608	-24	218	207	-128	-13	-624
2/28/1995	3711	28	206	61	44	-394	184	125	-165	4	-65
3/31/1995	3742	31	-1121	929	329	-46	213	180	-125	-21	-306
4/30/1995	3772	30	350	0	9	-735	185	111	-189	27	242
5/31/1995	3803	31	18	14	41	-419	202	117	-173	19	180
6/30/1995	3833	30	281	0	9	-734	191	97	-196	38	316
7/31/1995	3864	31	106	0	10	-574	204	98	-192	36	313
8/31/1995	3895	31	63	0	10	-575	202	103	-180	33	345

Flow Budget for Layers 6 to 7 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Santa Paula B	Mound L5	Oxnard LAS	Offshore	Mound L8-L11
9/30/1995	3925	30	75	0	10	-575	194	104	-173	33	332
10/31/1995	3956	31	58	0	10	-575	200	110	-174	33	338
11/30/1995	3986	30	69	0	10	-576	193	107	-170	34	333
12/31/1995	4017	31	-343	154	84	-147	208	138	-120	-8	34
1/31/1996	4048	31	-222	24	46	-259	204	128	-129	-15	222
2/29/1996	4077	29	-900	713	227	-55	188	159	-95	-30	-215
3/31/1996	4108	31	-122	98	58	-260	193	127	-123	-25	54
4/30/1996	4138	30	59	0	12	-438	184	99	-158	-2	243
5/31/1996	4169	31	138	0	10	-595	190	89	-168	14	323
6/30/1996	4199	30	143	0	10	-594	184	83	-166	20	320
7/31/1996	4230	31	350	0	12	-857	194	84	-223	43	397
8/31/1996	4261	31	352	0	12	-856	198	87	-228	54	381
9/30/1996	4291	30	360	0	11	-856	194	87	-230	59	375
10/31/1996	4322	31	-76	98	53	-376	209	104	-175	24	138
11/30/1996	4352	30	-249	158	85	-192	202	112	-151	-7	41
12/31/1996	4383	31	-672	589	195	-94	203	136	-139	-27	-197
1/31/1997	4414	31	-678	536	179	-45	196	129	-132	-38	-151
2/28/1997	4442	28	140	0	9	-363	160	69	-182	-3	169
3/31/1997	4473	31	77	0	10	-361	181	66	-202	3	226
4/30/1997	4503	30	48	0	10	-361	176	61	-202	6	263
5/31/1997	4534	31	41	0	10	-361	183	61	-213	5	274
6/30/1997	4564	30	60	0	10	-361	176	56	-214	6	268
7/31/1997	4595	31	166	0	11	-448	188	55	-273	20	282
8/31/1997	4626	31	187	0	11	-448	190	54	-285	25	266
9/30/1997	4656	30	205	0	11	-448	185	51	-286	27	255
10/31/1997	4687	31	206	0	11	-448	192	53	-297	27	255
11/30/1997	4717	30	-179	188	90	-106	193	76	-201	-15	-47
12/31/1997	4748	31	-641	607	226	-37	196	109	-173	-40	-254
1/31/1998	4779	31	-225	278	105	-102	191	77	-208	-37	-81
2/28/1998	4807	28	-2155	2070	698	-15	175	174	-140	-46	-409
3/31/1998	4838	31	-297	309	110	-113	193	98	-206	-45	-48
4/30/1998	4868	30	1	89	58	-176	187	73	-228	-31	29
5/31/1998	4899	31	-243	225	81	-131	198	77	-198	-36	27
6/30/1998	4929	30	431	0	9	-499	177	55	-405	15	217
7/31/1998	4960	31	211	0	10	-444	195	64	-255	7	212
8/31/1998	4991	31	164	0	10	-445	194	66	-241	-1	253
9/30/1998	5021	30	123	0	9	-446	187	63	-238	0	302
10/31/1998	5052	31	123	0	10	-446	194	64	-244	0	300
11/30/1998	5082	30	-56	32	35	-256	190	68	-200	-17	204
12/31/1998	5113	31	76	0	9	-406	194	58	-217	-10	295
1/31/1999	5144	31	-207	125	74	-225	196	80	-116	-37	110
2/28/1999	5172	28	180	8	31	-700	178	57	-92	-14	353
3/31/1999	5203	31	-282	203	96	-183	196	89	-100	-40	21
4/30/1999	5233	30	-232	123	73	-219	187	79	-97	-45	130
5/31/1999	5264	31	274	0	10	-872	190	57	-84	-13	437
6/30/1999	5294	30	291	0	10	-871	184	57	-73	2	399
7/31/1999	5325	31	195	0	11	-650	188	61	-147	8	336
8/31/1999	5356	31	204	0	11	-650	189	60	-162	11	338
9/30/1999	5386	30	225	0	11	-651	184	57	-168	14	329
10/31/1999	5417	31	226	0	11	-651	191	58	-181	14	330
11/30/1999	5447	30	17	0	14	-372	187	62	-159	-4	255
12/31/1999	5478	31	228	0	11	-651	192	52	-192	7	353
1/31/2000	5509	31	-4	83	59	-388	199	64	-166	-11	163
2/29/2000	5538	29	-889	863	292	-79	182	121	-141	-34	-285
3/31/2000	5569	31	-14	153	77	-285	190	79	-160	-37	-3
4/30/2000	5599	30	-164	211	101	-235	187	76	-149	-37	9
5/31/2000	5630	31	649	0	12	-1175	193	48	-194	16	451
6/30/2000	5660	30	605	0	11	-1172	194	55	-182	42	448
7/31/2000	5691	31	244	0	11	-705	202	61	-192	32	346
8/31/2000	5722	31	232	0	11	-706	203	59	-197	26	372
9/30/2000	5752	30	249	0	11	-707	197	55	-198	27	365
10/31/2000	5783	31	-35	45	43	-368	210	63	-186	4	224
11/30/2000	5813	30	252	0	11	-708	199	50	-207	20	384
12/31/2000	5844	31	246	0	11	-707	206	56	-209	26	371

Flow Budget for Layers 6 to 7 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Santa Paula B	Mound L5	Oxnard LAS	Offshore	Mound L8-L11
1/31/2001	5875	31	-658	601	213	-98	203	111	-137	-19	-223
2/28/2001	5903	28	-730	618	219	-89	175	101	-121	-34	-147
3/31/2001	5934	31	-814	688	225	-99	189	103	-130	-45	-124
4/30/2001	5964	30	202	58	45	-654	188	61	-132	-17	249
5/31/2001	5995	31	536	0	11	-1136	203	54	-134	20	448
6/30/2001	6025	30	500	0	10	-1135	201	60	-128	35	456
7/31/2001	6056	31	104	0	10	-637	205	66	-141	17	376
8/31/2001	6087	31	103	0	10	-638	203	62	-152	11	400
9/30/2001	6117	30	136	0	10	-639	196	57	-156	10	386
10/31/2001	6148	31	141	0	10	-639	203	57	-167	10	384
11/30/2001	6178	30	-335	271	111	-118	196	87	-145	-22	-44
12/31/2001	6209	31	-141	65	47	-306	200	66	-143	-27	240
1/31/2002	6240	31	-105	10	32	-281	200	59	-166	-24	275
2/28/2002	6268	28	120	0	8	-502	178	47	-171	-6	326
3/31/2002	6299	31	106	0	9	-500	198	55	-188	-3	324
4/30/2002	6329	30	110	0	9	-501	191	53	-186	0	324
5/31/2002	6360	31	105	0	9	-500	197	53	-194	1	329
6/30/2002	6390	30	122	0	9	-501	191	50	-193	3	319
7/31/2002	6421	31	298	0	11	-747	205	52	-218	23	376
8/31/2002	6452	31	307	0	11	-747	209	55	-225	30	360
9/30/2002	6482	30	319	0	11	-747	205	55	-230	35	352
10/31/2002	6513	31	314	0	11	-746	214	59	-244	37	354
11/30/2002	6543	30	-460	500	178	-81	200	103	-183	-10	-250
12/31/2002	6574	31	-357	379	129	-114	201	87	-183	-28	-116
1/31/2003	6605	31	470	0	10	-721	210	46	-329	10	304
2/28/2003	6633	28	-474	448	163	-78	187	86	-162	-13	-161
3/31/2003	6664	31	-313	279	111	-122	202	75	-171	-30	-32
4/30/2003	6694	30	273	44	34	-554	203	43	-265	0	221
5/31/2003	6725	31	-52	73	48	-299	213	51	-203	-6	175
6/30/2003	6755	30	348	0	10	-722	212	39	-281	21	373
7/31/2003	6786	31	248	0	11	-794	218	48	-160	34	395
8/31/2003	6817	31	229	0	11	-794	218	48	-151	33	405
9/30/2003	6847	30	235	0	11	-797	212	46	-151	36	408
10/31/2003	6878	31	225	0	11	-794	220	47	-160	39	412
11/30/2003	6908	30	-179	105	74	-259	211	61	-148	8	127
12/31/2003	6939	31	-126	89	51	-329	216	49	-154	-1	206
1/31/2004	6970	31	161	0	10	-687	215	27	-154	15	413
2/29/2004	6999	29	-633	580	199	-61	194	83	-134	-13	-221
3/31/2004	7030	31	231	0	10	-615	202	29	-150	2	290
4/30/2004	7060	30	219	0	11	-701	201	23	-148	16	379
5/31/2004	7091	31	188	0	11	-700	211	25	-155	21	399
6/30/2004	7121	30	192	0	11	-700	205	24	-154	24	398
7/31/2004	7152	31	175	0	12	-487	209	28	-284	30	317
8/31/2004	7183	31	208	0	12	-488	210	30	-309	35	301
9/30/2004	7213	30	235	0	12	-488	204	29	-317	37	287
10/31/2004	7244	31	-478	542	181	-62	210	80	-218	-2	-256
11/30/2004	7274	30	315	0	12	-488	196	27	-313	17	234
12/31/2004	7305	31	-679	690	217	-46	207	84	-214	-11	-253
1/31/2005	7336	31	-1257	1255	377	-40	202	121	-191	-32	-286
2/28/2005	7364	28	-1002	860	286	-52	181	101	-165	-36	-123
3/31/2005	7395	31	-189	218	100	-171	204	70	-207	-34	9
4/30/2005	7425	30	346	0	11	-605	202	58	-278	0	266
5/31/2005	7456	31	532	0	9	-821	215	61	-354	36	321
6/30/2005	7486	30	519	0	9	-820	212	67	-346	50	309
7/31/2005	7517	31	197	0	11	-554	221	80	-276	35	286
8/31/2005	7548	31	138	0	11	-553	218	86	-263	28	335
9/30/2005	7578	30	150	0	11	-552	210	87	-255	28	322
10/31/2005	7609	31	-158	32	38	-264	215	103	-188	4	217
11/30/2005	7639	30	136	0	11	-535	207	91	-249	17	322
12/31/2005	7670	31	145	0	11	-547	215	100	-253	25	303
1/31/2006	7701	31	-308	332	106	-237	215	129	-175	2	-64
2/28/2006	7729	28	-199	206	84	-257	191	115	-158	-6	24
3/31/2006	7760	31	-401	321	115	-201	209	133	-147	-17	-13
4/30/2006	7790	30	-561	423	145	-159	197	135	-126	-25	-31

Flow Budget for Layers 6 to 7 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Santa Paula B	Mound L5	Oxnard LAS	Offshore	Mound L8-L11
5/31/2006	7821	31	111	22	48	-459	204	109	-229	-3	198
6/30/2006	7851	30	734	0	12	-1181	210	85	-367	62	445
7/31/2006	7882	31	204	0	11	-586	220	107	-264	51	259
8/31/2006	7913	31	156	0	11	-586	219	115	-254	39	299
9/30/2006	7943	30	172	0	10	-586	212	114	-253	38	292
10/31/2006	7974	31	156	0	11	-585	220	120	-257	39	298
11/30/2006	8004	30	166	0	10	-586	214	117	-255	39	295
12/31/2006	8035	31	-20	0	14	-433	218	124	-204	31	270
1/31/2007	8066	31	-321	126	73	-147	214	133	-135	-5	62
2/28/2007	8094	28	-39	40	39	-373	191	100	-169	5	205
3/31/2007	8125	31	207	0	12	-633	214	89	-243	38	306
4/30/2007	8155	30	-101	0	14	-290	205	98	-151	15	210
5/31/2007	8186	31	212	0	12	-633	213	81	-239	41	304
6/30/2007	8216	30	243	0	11	-636	209	74	-240	52	270
7/31/2007	8247	31	195	0	13	-586	216	82	-231	42	268
8/31/2007	8278	31	187	0	13	-586	217	81	-233	44	277
9/30/2007	8308	30	203	0	12	-586	212	74	-234	46	272
10/31/2007	8339	31	192	0	13	-586	219	76	-239	49	276
11/30/2007	8369	30	205	0	13	-587	213	72	-238	50	272
12/31/2007	8400	31	-302	205	92	-132	218	100	-136	16	-62
1/31/2008	8431	31	-1074	1017	309	-27	208	148	-112	-11	-383
2/29/2008	8460	29	-26	101	56	-179	190	93	-159	-9	-67
3/31/2008	8491	31	297	0	12	-511	209	71	-301	22	202
4/30/2008	8521	30	236	0	11	-511	207	64	-300	37	254
5/31/2008	8552	31	195	0	12	-510	217	65	-302	42	281
6/30/2008	8582	30	200	0	11	-509	211	62	-298	44	278
7/31/2008	8613	31	228	0	12	-579	217	69	-286	55	284
8/31/2008	8644	31	225	0	12	-578	218	72	-288	58	281
9/30/2008	8674	30	237	0	12	-578	213	71	-288	59	274
10/31/2008	8705	31	226	0	12	-578	221	75	-295	62	276
11/30/2008	8735	30	-242	127	71	-148	214	92	-166	22	29
12/31/2008	8766	31	-250	147	74	-166	218	90	-168	4	50
1/31/2009	8797	31	107	0	11	-471	220	69	-253	28	290
2/28/2009	8825	28	-480	428	150	-55	194	102	-115	-1	-225
3/31/2009	8856	31	164	0	11	-472	212	73	-241	23	230
4/30/2009	8886	30	125	0	10	-472	212	70	-236	36	255
5/31/2009	8917	31	102	0	11	-471	220	74	-236	40	261
6/30/2009	8947	30	113	0	10	-471	213	71	-233	42	255
7/31/2009	8978	31	186	0	12	-512	217	64	-278	60	251
8/31/2009	9009	31	206	0	12	-513	218	62	-289	66	238
9/30/2009	9039	30	227	0	12	-513	212	58	-295	68	230
10/31/2009	9070	31	-133	153	63	-205	222	68	-207	37	3
11/30/2009	9100	30	235	0	12	-514	212	47	-309	56	261
12/31/2009	9131	31	-249	297	102	-116	221	73	-185	20	-163
1/31/2010	9162	31	-626	581	197	-36	212	90	-155	-6	-262
2/28/2010	9190	28	-391	362	130	-55	186	64	-144	-11	-145
3/31/2010	9221	31	307	0	10	-486	206	28	-321	37	164
4/30/2010	9251	30	-103	103	60	-165	206	42	-214	17	54
5/31/2010	9282	31	175	0	10	-485	212	27	-311	46	270
6/30/2010	9312	30	185	0	10	-486	207	31	-309	56	246
7/31/2010	9343	31	187	0	11	-443	218	37	-307	45	251
8/31/2010	9374	31	183	0	11	-442	220	38	-314	49	255
9/30/2010	9404	30	199	0	11	-442	214	36	-317	51	247
10/31/2010	9435	31	-230	133	73	-111	220	56	-188	19	29
11/30/2010	9465	30	42	23	35	-321	213	38	-265	22	214
12/31/2010	9496	31	-919	865	281	-26	212	113	-145	-3	-361
1/31/2011	9527	31	237	0	9	-298	204	50	-272	13	57
2/28/2011	9555	28	-309	286	98	-70	189	57	-160	-1	-91
3/31/2011	9586	31	-594	471	150	-36	206	71	-139	-17	-115
4/30/2011	9616	30	158	0	9	-298	195	31	-259	7	157
5/31/2011	9647	31	73	0	9	-298	208	33	-276	19	233
6/30/2011	9677	30	64	0	9	-297	203	35	-276	22	239
7/31/2011	9708	31	92	0	11	-328	209	43	-307	28	252
8/31/2011	9739	31	95	0	11	-328	210	48	-307	30	240

Flow Budget for Layers 6 to 7 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet								
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Santa Paula B	Mound L5	Oxnard LAS	Offshore	Mound L8-L11
9/30/2011	9769	30	109	0	11	-328	203	49	-303	31	227
10/31/2011	9800	31	-146	19	42	-136	211	62	-216	9	155
11/30/2011	9830	30	-181	75	54	-118	201	63	-196	-5	107
12/31/2011	9861	31	98	0	11	-327	207	50	-298	16	242
1/31/2012	9892	31	-106	31	46	-191	209	67	-201	4	141
2/29/2012	9921	29	255	0	11	-494	196	50	-299	30	250
3/31/2012	9952	31	-206	165	75	-129	211	79	-173	8	-31
4/30/2012	9982	30	-203	113	72	-138	201	75	-166	-6	52
5/31/2012	10013	31	233	0	12	-494	209	52	-302	27	263
6/30/2012	10043	30	261	0	11	-494	205	52	-304	44	224
7/31/2012	10074	31	227	0	12	-497	214	61	-296	45	233
8/31/2012	10105	31	219	0	12	-497	216	62	-298	47	239
9/30/2012	10135	30	230	0	12	-497	211	61	-300	49	235
10/31/2012	10166	31	224	0	12	-497	220	62	-311	51	239
11/30/2012	10196	30	-39	51	42	-257	214	67	-226	29	117
12/31/2012	10227	31	-224	149	86	-123	218	77	-188	8	-3
1/31/2013	10258	31	-55	41	33	-254	218	56	-217	9	170
2/28/2013	10286	28	169	0	10	-422	196	43	-253	25	232
3/31/2013	10317	31	-20	0	12	-275	217	55	-221	22	209
4/30/2013	10347	30	144	0	10	-422	209	46	-261	30	242
5/31/2013	10378	31	144	0	10	-421	217	48	-269	37	233
6/30/2013	10408	30	154	0	10	-422	211	47	-267	40	226
7/31/2013	10439	31	135	0	12	-435	222	46	-258	43	235
8/31/2013	10470	31	148	0	12	-436	224	43	-270	45	233
9/30/2013	10500	30	170	0	12	-437	218	41	-276	46	226
10/31/2013	10531	31	173	0	12	-437	227	41	-292	47	228
11/30/2013	10561	30	189	0	11	-437	222	39	-294	47	222
12/31/2013	10592	31	187	0	12	-437	231	40	-306	49	224
1/31/2014	10623	31	290	0	11	-539	233	44	-340	53	247
2/28/2014	10651	28	-196	262	112	-81	208	69	-200	20	-193
3/31/2014	10682	31	3	89	53	-262	229	49	-273	18	95
4/30/2014	10712	30	285	0	11	-540	225	37	-324	42	264
5/31/2014	10743	31	273	0	11	-540	235	43	-334	55	255
6/30/2014	10773	30	272	0	11	-540	230	46	-330	60	251
7/31/2014	10804	31	187	0	9	-492	234	45	-294	62	249
8/31/2014	10835	31	190	0	9	-492	234	43	-302	61	257
9/30/2014	10865	30	206	0	9	-492	227	41	-302	60	251
10/31/2014	10896	31	202	0	9	-492	236	42	-313	63	253
11/30/2014	10926	30	30	0	13	-287	229	49	-281	46	202
12/31/2014	10957	31	-279	359	124	-70	232	70	-227	21	-232
1/31/2015	10988	31	-89	50	40	-180	231	41	-232	15	123
2/28/2015	11016	28	160	0	8	-419	210	25	-269	35	251
3/31/2015	11047	31	140	0	7	-418	236	29	-288	49	245
4/30/2015	11077	30	138	0	8	-419	227	32	-280	52	241
5/31/2015	11108	31	128	0	8	-418	235	33	-286	57	244
6/30/2015	11138	30	135	0	8	-418	227	34	-282	57	239
7/31/2015	11169	31	44	0	9	-357	226	31	-256	62	241
8/31/2015	11200	31	51	0	9	-357	223	32	-261	59	244
9/30/2015	11230	30	7	0	8	-276	213	29	-249	50	219
10/31/2015	11261	31	71	0	9	-349	219	28	-274	55	241
11/30/2015	11291	30	93	0	9	-358	212	28	-270	56	230
12/31/2015	11322	31	90	0	9	-358	219	29	-280	58	232

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
1/31/1985	31	31	68	34	-12	211	-132	-75	-94
2/28/1985	59	28	140	59	-10	202	-137	-187	-67
3/31/1985	90	31	282	36	-12	233	-155	-319	-65
4/30/1985	120	30	445	0	-22	235	-161	-444	-53
5/31/1985	151	31	434	0	-22	252	-173	-441	-50
6/30/1985	181	30	425	0	-22	251	-172	-436	-46
7/31/1985	212	31	445	0	-22	267	-167	-478	-45
8/31/1985	243	31	421	0	-22	276	-163	-468	-43
9/30/1985	273	30	399	0	-22	274	-158	-453	-40
10/31/1985	304	31	395	0	-22	288	-164	-456	-40
11/30/1985	334	30	-492	380	-5	273	-154	47	-48
12/31/1985	365	31	397	0	-21	276	-154	-454	-45
1/31/1986	396	31	-325	298	-7	271	-150	-40	-47
2/28/1986	424	28	-881	777	-5	228	-130	58	-47
3/31/1986	455	31	-465	481	-7	226	-139	-43	-53
4/30/1986	485	30	170	63	-12	214	-132	-256	-47
5/31/1986	516	31	517	0	-29	241	-138	-558	-33
6/30/1986	546	30	484	0	-28	250	-138	-543	-25
7/31/1986	577	31	342	0	-12	265	-156	-406	-33
8/31/1986	608	31	362	0	-13	269	-158	-423	-37
9/30/1986	638	30	219	19	-8	264	-150	-305	-40
10/31/1986	669	31	360	0	-13	279	-157	-430	-38
11/30/1986	699	30	132	52	-7	273	-150	-261	-38
12/31/1986	730	31	337	0	-13	285	-156	-417	-36
1/31/1987	761	31	23	91	-10	286	-146	-205	-39
2/28/1987	789	28	77	63	-10	256	-126	-224	-36
3/31/1987	820	31	-5	106	-10	282	-136	-197	-40
4/30/1987	850	30	382	0	-23	277	-133	-475	-29
5/31/1987	881	31	347	0	-23	293	-144	-449	-24
6/30/1987	911	30	341	0	-23	290	-144	-441	-22
7/31/1987	942	31	339	0	-13	303	-170	-437	-23
8/31/1987	973	31	349	0	-13	307	-178	-442	-23
9/30/1987	1003	30	346	0	-13	300	-178	-433	-22
10/31/1987	1034	31	5	91	-7	307	-172	-193	-32
11/30/1987	1064	30	151	55	-9	293	-161	-298	-32
12/31/1987	1095	31	-434	312	-5	290	-156	28	-36
1/31/1988	1126	31	-124	170	-8	273	-145	-130	-36
2/29/1988	1155	29	84	94	-13	251	-133	-254	-29
3/31/1988	1186	31	394	0	-19	277	-142	-489	-22
4/30/1988	1216	30	-285	215	-6	266	-131	-33	-27
5/31/1988	1247	31	409	0	-23	275	-135	-505	-22
6/30/1988	1277	30	360	0	-22	277	-134	-465	-15
7/31/1988	1308	31	332	0	-15	292	-137	-459	-14
8/31/1988	1339	31	332	0	-15	298	-138	-463	-14
9/30/1988	1369	30	328	0	-15	293	-136	-457	-13
10/31/1988	1400	31	331	0	-15	307	-143	-466	-13

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
11/30/1988	1430	30	194	17	-9	297	-140	-342	-16
12/31/1988	1461	31	-462	305	-5	295	-138	30	-25
1/31/1989	1492	31	365	0	-18	288	-216	-401	-18
2/28/1989	1520	28	-314	219	-6	257	-146	8	-19
3/31/1989	1551	31	304	0	-13	281	-196	-357	-18
4/30/1989	1581	30	347	0	-18	280	-213	-387	-10
5/31/1989	1612	31	327	0	-17	298	-222	-378	-8
6/30/1989	1642	30	319	0	-17	294	-219	-370	-7
7/31/1989	1673	31	321	0	-17	309	-200	-407	-6
8/31/1989	1704	31	314	0	-17	313	-195	-408	-6
9/30/1989	1734	30	309	0	-17	306	-191	-402	-5
10/31/1989	1765	31	306	0	-17	318	-196	-406	-4
11/30/1989	1795	30	302	0	-17	310	-192	-400	-3
12/31/1989	1826	31	303	0	-17	322	-197	-408	-3
1/31/1990	1857	31	-151	143	-12	317	-165	-122	-10
2/28/1990	1885	28	-123	146	-12	276	-151	-125	-11
3/31/1990	1916	31	409	0	-34	306	-208	-471	-1
4/30/1990	1946	30	367	0	-33	304	-210	-432	5
5/31/1990	1977	31	306	0	-26	318	-214	-388	4
6/30/1990	2007	30	372	0	-33	313	-217	-441	6
7/31/1990	2038	31	282	0	-8	325	-203	-401	4
8/31/1990	2069	31	301	0	-8	323	-200	-419	3
9/30/1990	2099	30	296	0	-8	314	-195	-410	3
10/31/1990	2130	31	291	0	-8	326	-200	-413	4
11/30/1990	2160	30	286	0	-8	317	-195	-405	5
12/31/1990	2191	31	282	0	-8	328	-199	-409	6
1/31/1991	2222	31	109	40	-42	327	-176	-261	3
2/28/1991	2250	28	-324	181	-17	286	-133	11	-4
3/31/1991	2281	31	-1936	1294	-6	280	-130	509	-11
4/30/1991	2311	30	34	0	-69	245	-155	-55	-1
5/31/1991	2342	31	190	0	-68	269	-164	-232	5
6/30/1991	2372	30	299	0	-68	272	-162	-347	6
7/31/1991	2403	31	270	0	-17	291	-165	-382	5
8/31/1991	2434	31	277	0	-18	297	-164	-396	4
9/30/1991	2464	30	269	0	-17	292	-161	-388	5
10/31/1991	2495	31	264	0	-17	306	-167	-391	6
11/30/1991	2525	30	261	0	-17	299	-164	-385	6
12/31/1991	2556	31	-662	362	-5	297	-138	148	-2
1/31/1992	2587	31	-207	159	-7	280	-123	-96	-5
2/29/1992	2616	29	-1410	963	-4	240	-107	324	-7
3/31/1992	2647	31	-846	534	-5	224	-107	210	-9
4/30/1992	2677	30	178	0	-19	214	-97	-277	0
5/31/1992	2708	31	204	0	-19	242	-97	-335	4
6/30/1992	2738	30	305	0	-19	251	-92	-451	5
7/31/1992	2769	31	259	0	-16	274	-95	-425	4
8/31/1992	2800	31	255	0	-16	285	-98	-429	3

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
9/30/1992	2830	30	244	0	-16	282	-97	-417	3
10/31/1992	2861	31	-24	69	-9	291	-107	-220	-1
11/30/1992	2891	30	253	0	-17	281	-101	-418	2
12/31/1992	2922	31	-700	383	-5	280	-101	147	-5
1/31/1993	2953	31	-1214	807	-5	251	-102	272	-10
2/28/1993	2981	28	-1185	841	-4	192	-88	255	-11
3/31/1993	3012	31	-663	457	-6	179	-99	146	-13
4/30/1993	3042	30	184	0	-22	185	-172	-168	-6
5/31/1993	3073	31	179	0	-22	221	-187	-188	-3
6/30/1993	3103	30	191	0	-20	232	-188	-212	-3
7/31/1993	3134	31	251	0	-17	254	-144	-340	-3
8/31/1993	3165	31	243	0	-17	268	-138	-353	-4
9/30/1993	3195	30	230	0	-17	268	-135	-342	-3
10/31/1993	3226	31	225	0	-17	283	-139	-349	-3
11/30/1993	3256	30	199	0	-14	277	-128	-330	-4
12/31/1993	3287	31	-29	58	-8	285	-112	-183	-10
1/31/1994	3318	31	207	0	-18	285	-121	-346	-7
2/28/1994	3346	28	-942	558	-4	246	-90	244	-11
3/31/1994	3377	31	-238	119	-7	250	-95	-12	-15
4/30/1994	3407	30	210	0	-18	241	-111	-313	-8
5/31/1994	3438	31	207	0	-18	258	-121	-320	-6
6/30/1994	3468	30	199	0	-17	260	-121	-315	-5
7/31/1994	3499	31	302	0	-18	279	-176	-387	0
8/31/1994	3530	31	275	0	-18	286	-180	-366	3
9/30/1994	3560	30	273	0	-17	281	-179	-362	3
10/31/1994	3591	31	269	0	-17	295	-184	-366	3
11/30/1994	3621	30	61	10	-8	283	-134	-209	-4
12/31/1994	3652	31	111	20	-11	291	-140	-263	-7
1/31/1995	3683	31	-2633	1870	-3	255	-98	624	-14
2/28/1995	3711	28	-168	61	-12	188	-122	65	-12
3/31/1995	3742	31	-1313	929	-4	195	-96	306	-18
4/30/1995	3772	30	238	0	-22	180	-144	-242	-9
5/31/1995	3803	31	109	14	-12	212	-133	-180	-9
6/30/1995	3833	30	270	0	-21	225	-152	-316	-6
7/31/1995	3864	31	237	0	-18	249	-148	-313	-6
8/31/1995	3895	31	251	0	-18	263	-143	-345	-8
9/30/1995	3925	30	233	0	-18	263	-138	-332	-7
10/31/1995	3956	31	226	0	-18	277	-139	-338	-8
11/30/1995	3986	30	220	0	-18	273	-136	-333	-7
12/31/1995	4017	31	-275	154	-6	276	-100	-34	-15
1/31/1996	4048	31	59	24	-11	269	-102	-222	-17
2/29/1996	4077	29	-1064	713	-5	236	-77	215	-19
3/31/1996	4108	31	-149	98	-12	229	-94	-54	-19
4/30/1996	4138	30	162	0	-15	225	-116	-243	-12
5/31/1996	4169	31	238	0	-22	244	-129	-323	-9
6/30/1996	4199	30	227	0	-22	250	-129	-320	-7

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
7/31/1996	4230	31	320	0	-23	270	-168	-397	-2
8/31/1996	4261	31	298	0	-22	279	-174	-381	1
9/30/1996	4291	30	295	0	-22	276	-175	-375	2
10/31/1996	4322	31	-89	98	-10	281	-136	-138	-7
11/30/1996	4352	30	-244	158	-7	261	-112	-41	-15
12/31/1996	4383	31	-909	589	-5	249	-101	197	-20
1/31/1997	4414	31	-787	536	-5	220	-93	151	-23
2/28/1997	4442	28	145	0	-19	190	-133	-169	-14
3/31/1997	4473	31	184	0	-18	223	-151	-226	-12
4/30/1997	4503	30	214	0	-18	229	-150	-263	-12
5/31/1997	4534	31	211	0	-18	250	-157	-274	-12
6/30/1997	4564	30	203	0	-18	251	-156	-268	-12
7/31/1997	4595	31	260	0	-26	267	-209	-282	-9
8/31/1997	4626	31	244	0	-26	273	-218	-266	-8
9/30/1997	4656	30	239	0	-26	268	-218	-255	-7
10/31/1997	4687	31	238	0	-26	277	-226	-255	-8
11/30/1997	4717	30	-330	188	-8	263	-143	47	-17
12/31/1997	4748	31	-965	607	-5	249	-116	254	-24
1/31/1998	4779	31	-407	278	-7	226	-146	81	-24
2/28/1998	4807	28	-2514	2070	-3	160	-96	409	-25
3/31/1998	4838	31	-278	309	-8	106	-148	48	-29
4/30/1998	4868	30	15	89	-12	132	-173	-29	-24
5/31/1998	4899	31	-179	225	-8	165	-150	-27	-25
6/30/1998	4929	30	403	0	-27	183	-328	-217	-14
7/31/1998	4960	31	236	0	-14	214	-209	-212	-15
8/31/1998	4991	31	248	0	-15	232	-194	-253	-19
9/30/1998	5021	30	288	0	-15	237	-191	-302	-18
10/31/1998	5052	31	274	0	-15	254	-194	-300	-18
11/30/1998	5082	30	110	32	-9	248	-156	-204	-21
12/31/1998	5113	31	239	0	-13	260	-170	-295	-21
1/31/1999	5144	31	-148	125	-11	258	-90	-110	-25
2/28/1999	5172	28	224	8	-25	234	-69	-353	-19
3/31/1999	5203	31	-326	203	-9	253	-76	-21	-25
4/30/1999	5233	30	-121	123	-10	235	-71	-130	-26
5/31/1999	5264	31	307	0	-33	247	-64	-437	-19
6/30/1999	5294	30	256	0	-33	249	-59	-399	-14
7/31/1999	5325	31	225	0	-29	262	-111	-336	-13
8/31/1999	5356	31	231	0	-29	267	-120	-338	-12
9/30/1999	5386	30	228	0	-29	263	-122	-329	-11
10/31/1999	5417	31	225	0	-29	275	-130	-330	-11
11/30/1999	5447	30	134	0	-16	265	-112	-255	-15
12/31/1999	5478	31	253	0	-29	276	-133	-353	-14
1/31/2000	5509	31	-42	83	-16	272	-118	-163	-17
2/29/2000	5538	29	-1259	863	-5	234	-95	285	-22
3/31/2000	5569	31	-234	153	-12	223	-108	3	-25
4/30/2000	5599	30	-273	211	-11	207	-100	-9	-24

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
5/31/2000	5630	31	429	0	-43	224	-146	-451	-13
6/30/2000	5660	30	405	0	-42	238	-148	-448	-5
7/31/2000	5691	31	264	0	-24	257	-144	-346	-8
8/31/2000	5722	31	287	0	-25	265	-144	-372	-11
9/30/2000	5752	30	280	0	-25	262	-143	-365	-10
10/31/2000	5783	31	68	45	-13	270	-131	-224	-15
11/30/2000	5813	30	301	0	-25	264	-144	-384	-12
12/31/2000	5844	31	278	0	-25	276	-148	-371	-10
1/31/2001	5875	31	-960	601	-5	259	-99	223	-20
2/28/2001	5903	28	-859	618	-5	206	-84	147	-24
3/31/2001	5934	31	-886	688	-6	196	-88	124	-28
4/30/2001	5964	30	137	58	-16	179	-87	-249	-21
5/31/2001	5995	31	368	0	-27	211	-91	-448	-12
6/30/2001	6025	30	355	0	-27	226	-91	-456	-8
7/31/2001	6056	31	265	0	-24	244	-97	-376	-12
8/31/2001	6087	31	285	0	-24	256	-101	-400	-15
9/30/2001	6117	30	269	0	-24	256	-101	-386	-14
10/31/2001	6148	31	259	0	-24	271	-106	-384	-15
11/30/2001	6178	30	-441	271	-7	252	-98	44	-21
12/31/2001	6209	31	58	65	-14	250	-95	-240	-24
1/31/2002	6240	31	154	10	-10	251	-108	-275	-22
2/28/2002	6268	28	236	0	-17	233	-109	-326	-16
3/31/2002	6299	31	215	0	-17	263	-122	-324	-15
4/30/2002	6329	30	216	0	-17	259	-120	-324	-14
5/31/2002	6360	31	216	0	-17	268	-125	-329	-14
6/30/2002	6390	30	210	0	-17	262	-123	-319	-13
7/31/2002	6421	31	281	0	-26	276	-145	-376	-9
8/31/2002	6452	31	263	0	-26	280	-151	-360	-7
9/30/2002	6482	30	262	0	-26	274	-153	-352	-6
10/31/2002	6513	31	262	0	-26	286	-162	-354	-6
11/30/2002	6543	30	-867	500	-5	261	-122	250	-16
12/31/2002	6574	31	-591	379	-6	244	-119	116	-23
1/31/2003	6605	31	324	0	-26	241	-222	-304	-14
2/28/2003	6633	28	-687	448	-6	214	-116	161	-15
3/31/2003	6664	31	-381	279	-9	220	-118	32	-23
4/30/2003	6694	30	183	44	-20	214	-184	-221	-15
5/31/2003	6725	31	52	73	-13	227	-149	-175	-15
6/30/2003	6755	30	376	0	-25	234	-203	-373	-9
7/31/2003	6786	31	293	0	-24	256	-124	-395	-6
8/31/2003	6817	31	286	0	-24	264	-114	-405	-7
9/30/2003	6847	30	289	0	-24	260	-112	-408	-6
10/31/2003	6878	31	284	0	-24	274	-116	-412	-5
11/30/2003	6908	30	-114	105	-10	261	-104	-127	-11
12/31/2003	6939	31	-15	89	-13	264	-105	-206	-15
1/31/2004	6970	31	271	0	-11	265	-102	-413	-11
2/29/2004	6999	29	-928	580	-5	236	-89	221	-15

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
3/31/2004	7030	31	175	0	-10	240	-99	-290	-14
4/30/2004	7060	30	258	0	-10	240	-99	-379	-9
5/31/2004	7091	31	265	0	-10	256	-104	-399	-8
6/30/2004	7121	30	262	0	-10	257	-103	-398	-7
7/31/2004	7152	31	283	0	-39	273	-194	-317	-6
8/31/2004	7183	31	276	0	-38	278	-211	-301	-5
9/30/2004	7213	30	271	0	-38	274	-215	-287	-5
10/31/2004	7244	31	-900	542	-8	267	-144	256	-14
11/30/2004	7274	30	244	0	-39	248	-207	-234	-12
12/31/2004	7305	31	-1022	690	-7	243	-139	253	-17
1/31/2005	7336	31	-1586	1255	-7	198	-122	286	-25
2/28/2005	7364	28	-972	860	-7	126	-105	123	-25
3/31/2005	7395	31	-163	218	-11	128	-136	-9	-27
4/30/2005	7425	30	342	0	-25	161	-194	-266	-17
5/31/2005	7456	31	408	0	-30	208	-256	-321	-8
6/30/2005	7486	30	377	0	-29	227	-260	-309	-4
7/31/2005	7517	31	291	0	-18	248	-226	-286	-9
8/31/2005	7548	31	323	0	-19	260	-217	-335	-12
9/30/2005	7578	30	303	0	-19	260	-212	-322	-11
10/31/2005	7609	31	100	32	-12	269	-157	-217	-16
11/30/2005	7639	30	292	0	-19	264	-202	-322	-13
12/31/2005	7670	31	263	0	-19	279	-210	-303	-10
1/31/2006	7701	31	-494	332	-11	268	-145	64	-15
2/28/2006	7729	28	-252	206	-11	225	-128	-24	-16
3/31/2006	7760	31	-415	321	-11	233	-121	13	-20
4/30/2006	7790	30	-527	423	-10	208	-104	31	-21
5/31/2006	7821	31	176	22	-18	211	-176	-198	-16
6/30/2006	7851	30	545	0	-36	229	-294	-445	0
7/31/2006	7882	31	259	0	-21	253	-231	-259	-1
8/31/2006	7913	31	286	0	-22	263	-221	-299	-6
9/30/2006	7943	30	276	0	-22	262	-218	-292	-6
10/31/2006	7974	31	271	0	-22	277	-222	-298	-6
11/30/2006	8004	30	268	0	-22	272	-218	-295	-5
12/31/2006	8035	31	189	0	-16	281	-177	-270	-7
1/31/2007	8066	31	-189	126	-11	273	-121	-62	-15
2/28/2007	8094	28	103	40	-22	242	-145	-205	-12
3/31/2007	8125	31	280	0	-31	272	-209	-306	-6
4/30/2007	8155	30	110	0	-17	264	-139	-210	-8
5/31/2007	8186	31	268	0	-31	276	-205	-304	-4
6/30/2007	8216	30	237	0	-30	272	-209	-270	0
7/31/2007	8247	31	209	0	-24	284	-200	-268	-1
8/31/2007	8278	31	215	0	-24	286	-199	-277	0
9/30/2007	8308	30	215	0	-24	279	-198	-272	1
10/31/2007	8339	31	212	0	-24	289	-202	-276	1
11/30/2007	8369	30	212	0	-24	282	-200	-272	2
12/31/2007	8400	31	-417	205	-8	281	-117	62	-6

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
1/31/2008	8431	31	-1540	1017	-7	247	-87	383	-14
2/29/2008	8460	29	-232	101	-13	202	-111	67	-13
3/31/2008	8491	31	216	0	-28	227	-207	-202	-6
4/30/2008	8521	30	261	0	-26	236	-215	-254	-1
5/31/2008	8552	31	272	0	-26	256	-221	-281	0
6/30/2008	8582	30	266	0	-26	257	-220	-278	0
7/31/2008	8613	31	276	0	-18	272	-247	-284	2
8/31/2008	8644	31	270	0	-18	277	-250	-281	3
9/30/2008	8674	30	265	0	-18	272	-249	-274	3
10/31/2008	8705	31	261	0	-18	285	-255	-276	3
11/30/2008	8735	30	-214	127	-7	270	-141	-29	-6
12/31/2008	8766	31	-210	147	-9	268	-135	-50	-11
1/31/2009	8797	31	251	0	-23	267	-199	-290	-6
2/28/2009	8825	28	-775	428	-6	232	-95	225	-9
3/31/2009	8856	31	203	0	-23	247	-190	-230	-7
4/30/2009	8886	30	227	0	-22	246	-194	-255	-1
5/31/2009	8917	31	217	0	-22	264	-197	-261	0
6/30/2009	8947	30	209	0	-22	262	-194	-255	0
7/31/2009	8978	31	253	0	-42	277	-241	-251	4
8/31/2009	9009	31	242	0	-41	281	-249	-238	6
9/30/2009	9039	30	240	0	-41	276	-251	-230	6
10/31/2009	9070	31	-242	153	-14	279	-171	-3	-1
11/30/2009	9100	30	283	0	-42	267	-249	-261	2
12/31/2009	9131	31	-564	297	-12	266	-145	163	-5
1/31/2010	9162	31	-954	581	-7	241	-110	262	-13
2/28/2010	9190	28	-583	362	-8	197	-101	145	-13
3/31/2010	9221	31	222	0	-27	220	-247	-164	-5
4/30/2010	9251	30	-85	103	-13	222	-168	-54	-6
5/31/2010	9282	31	309	0	-26	239	-249	-270	-2
6/30/2010	9312	30	279	0	-25	244	-254	-246	2
7/31/2010	9343	31	261	0	-21	261	-251	-251	0
8/31/2010	9374	31	261	0	-21	268	-254	-255	2
9/30/2010	9404	30	255	0	-21	265	-254	-247	2
10/31/2010	9435	31	-214	133	-8	270	-146	-29	-5
11/30/2010	9465	30	160	23	-18	257	-202	-214	-6
12/31/2010	9496	31	-1350	865	-5	248	-107	361	-11
1/31/2011	9527	31	64	0	-28	229	-199	-57	-9
2/28/2011	9555	28	-449	286	-9	207	-117	91	-9
3/31/2011	9586	31	-677	471	-8	214	-100	115	-15
4/30/2011	9616	30	181	0	-28	205	-191	-157	-10
5/31/2011	9647	31	247	0	-27	226	-208	-233	-6
6/30/2011	9677	30	247	0	-26	232	-208	-239	-5
7/31/2011	9708	31	266	0	-26	251	-236	-252	-4
8/31/2011	9739	31	249	0	-26	259	-239	-240	-3
9/30/2011	9769	30	236	0	-26	256	-236	-227	-3
10/31/2011	9800	31	59	19	-14	265	-165	-155	-8

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
11/30/2011	9830	30	-52	75	-14	254	-144	-107	-12
12/31/2011	9861	31	237	0	-27	265	-226	-242	-7
1/31/2012	9892	31	24	31	-15	266	-157	-141	-8
2/29/2012	9921	29	267	0	-28	253	-239	-250	-3
3/31/2012	9952	31	-306	165	-10	266	-140	31	-6
4/30/2012	9982	30	-158	113	-12	247	-128	-52	-11
5/31/2012	10013	31	277	0	-29	258	-239	-263	-4
6/30/2012	10043	30	240	0	-27	258	-249	-224	2
7/31/2012	10074	31	221	0	-24	272	-238	-233	2
8/31/2012	10105	31	223	0	-24	276	-238	-239	2
9/30/2012	10135	30	224	0	-24	271	-238	-235	3
10/31/2012	10166	31	222	0	-24	282	-245	-239	3
11/30/2012	10196	30	-14	51	-13	271	-176	-117	-2
12/31/2012	10227	31	-266	149	-9	271	-140	3	-8
1/31/2013	10258	31	48	41	-10	264	-165	-170	-8
2/28/2013	10286	28	207	0	-14	242	-200	-232	-2
3/31/2013	10317	31	125	0	-11	270	-173	-209	-3
4/30/2013	10347	30	199	0	-14	264	-206	-242	-1
5/31/2013	10378	31	184	0	-14	276	-214	-233	1
6/30/2013	10408	30	181	0	-14	270	-212	-226	2
7/31/2013	10439	31	179	0	-22	281	-205	-235	2
8/31/2013	10470	31	180	0	-22	283	-210	-233	3
9/30/2013	10500	30	181	0	-22	275	-212	-226	3
10/31/2013	10531	31	181	0	-22	286	-221	-228	3
11/30/2013	10561	30	184	0	-22	278	-221	-222	3
12/31/2013	10592	31	183	0	-22	288	-228	-224	3
1/31/2014	10623	31	221	0	-25	291	-243	-247	4
2/28/2014	10651	28	-562	262	-6	251	-136	193	-3
3/31/2014	10682	31	-53	89	-16	266	-185	-95	-6
4/30/2014	10712	30	258	0	-26	262	-230	-264	1
5/31/2014	10743	31	237	0	-25	278	-240	-255	5
6/30/2014	10773	30	235	0	-25	274	-239	-251	6
7/31/2014	10804	31	204	0	-23	286	-223	-249	6
8/31/2014	10835	31	213	0	-24	287	-225	-257	5
9/30/2014	10865	30	213	0	-24	280	-224	-251	5
10/31/2014	10896	31	212	0	-24	291	-231	-253	5
11/30/2014	10926	30	133	0	-16	281	-199	-202	2
12/31/2014	10957	31	-706	359	-7	275	-149	232	-5
1/31/2015	10988	31	-14	50	-14	260	-152	-123	-7
2/28/2015	11016	28	224	0	-30	241	-184	-251	0
3/31/2015	11047	31	195	0	-29	275	-200	-245	4
4/30/2015	11077	30	189	0	-29	272	-196	-241	5
5/31/2015	11108	31	184	0	-29	284	-200	-244	6
6/30/2015	11138	30	181	0	-29	277	-197	-239	7
7/31/2015	11169	31	146	0	-20	287	-180	-241	7
8/31/2015	11200	31	151	0	-20	287	-180	-244	6

Flow Budget for Layers 8 to 11 in Mound Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet						
			STORAGE	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Offshore
9/30/2015	11230	30	121	0	-17	277	-167	-219	5
10/31/2015	11261	31	152	0	-20	287	-184	-241	6
11/30/2015	11291	30	147	0	-20	279	-182	-230	6
12/31/2015	11322	31	145	0	-20	288	-188	-232	7

Flow Budget for the Semi-Perched Aquifer in Oxnard Basin

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Mound	Pleasant Valley	West Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin UAS	Partial Santa Clara River percolation	Calleguas Creek percolation
1/31/1985	31	31	-82.1	-746.8	-563.8	1584.6	-2.0	-117.4	183.1	-28.9	-112.3	-68.1	20.8	44.0	-552.7	116.9	324.6
2/28/1985	59	28	-241.1	-619.4	-555.9	1521.8	-1.7	-117.5	165.7	-22.7	-107.2	-61.2	18.3	39.5	-440.8	119.0	303.2
3/31/1985	90	31	34.6	-637.5	-824.1	1739.3	-2.3	-135.8	185.1	-23.8	-117.8	-67.0	22.8	54.1	-637.8	123.3	286.8
4/30/1985	120	30	357.8	-557.8	-841.3	1981.2	-3.2	-140.3	180.2	-15.8	-112.2	-64.9	23.8	62.6	-1132.7	137.4	125.1
5/31/1985	151	31	682.3	-501.3	-857.9	1890.8	-3.4	-152.7	186.6	-7.0	-115.0	-68.1	25.5	72.0	-1394.3	145.6	96.8
6/30/1985	181	30	717.8	-426.1	-747.0	1901.9	-3.5	-151.4	180.6	-2.3	-109.9	-66.4	24.3	71.4	-1567.6	146.8	31.4
7/31/1985	212	31	736.4	-410.9	-744.0	1899.9	-5.4	-155.4	185.5	-2.1	-110.9	-68.9	24.4	72.0	-1667.6	156.5	90.4
8/31/1985	243	31	750.8	-401.7	-704.4	1875.7	-5.6	-151.9	184.0	-3.5	-107.4	-68.8	23.3	69.8	-1700.9	154.0	86.6
9/30/1985	273	30	559.1	-397.6	-564.7	1898.3	-5.7	-142.6	175.8	-5.6	-103.5	-67.0	20.2	63.3	-1697.1	144.1	122.9
10/31/1985	304	31	635.9	-427.5	-520.0	1848.5	-5.8	-142.0	179.1	-6.0	-108.0	-69.9	18.6	61.2	-1780.4	143.3	173.0
11/30/1985	334	30	-1377.9	-506.3	-442.7	3381.5	-2.7	-130.4	174.1	-5.6	-107.1	-70.2	14.8	47.5	-1551.2	138.9	437.3
12/31/1985	365	31	357.9	-600.4	-430.3	1767.1	-5.0	-127.3	183.0	-4.4	-110.5	-68.8	14.9	42.1	-1446.4	138.8	289.2
1/31/1986	396	31	-984.8	-657.9	-536.3	2981.4	-3.0	-115.3	184.0	-4.2	-112.3	-69.3	15.2	40.5	-1316.5	94.2	484.4
2/28/1986	424	28	-3653.2	-827.2	-643.7	5421.7	-1.9	-77.7	175.3	-4.2	-97.3	-64.3	13.0	26.8	-1083.4	114.5	701.6
3/31/1986	455	31	-2008.6	-1163.3	-1119.6	4265.9	-1.9	-83.9	209.0	-11.1	-106.1	-68.8	17.5	33.6	-772.1	140.9	668.5
4/30/1986	485	30	635.3	-1038.0	-1190.4	1785.8	-3.2	-100.9	209.9	-28.8	-104.9	-62.5	21.6	49.2	-629.3	114.2	342.1
5/31/1986	516	31	520.9	-880.3	-1185.9	2352.3	-7.8	-127.1	218.1	-39.9	-111.2	-63.7	24.8	65.4	-1185.2	136.1	283.5
6/30/1986	546	30	582.7	-736.3	-1010.3	2263.8	-8.0	-135.1	211.7	-31.1	-110.1	-64.7	23.1	67.4	-1452.5	154.4	245.0
7/31/1986	577	31	983.5	-668.0	-958.4	1813.2	-7.1	-144.3	219.7	-22.2	-112.9	-68.6	23.2	71.0	-1500.1	149.0	222.0
8/31/1986	608	31	892.9	-598.4	-852.8	1777.7	-7.3	-141.9	219.2	-19.2	-108.3	-67.6	22.7	70.4	-1541.4	165.4	188.5
9/30/1986	638	30	710.8	-540.1	-663.3	1507.1	-4.9	-131.2	210.3	-7.2	-102.3	-65.0	20.1	62.2	-1399.4	145.2	257.8
10/31/1986	669	31	584.8	-549.6	-598.0	1764.3	-7.3	-131.9	213.9	-1.1	-104.7	-65.5	19.6	60.1	-1558.1	151.8	221.7
11/30/1986	699	30	428.5	-545.1	-458.9	1412.7	-4.9	-120.8	204.5	-4.6	-102.5	-63.9	16.8	51.1	-1304.8	127.7	364.1
12/31/1986	730	31	469.0	-580.5	-404.2	1759.0	-7.2	-120.5	208.5	-4.6	-106.4	-64.9	16.1	48.2	-1501.1	137.7	151.1
1/31/1987	761	31	174.2	-595.9	-477.2	1761.4	-4.0	-118.7	204.8	-6.6	-107.3	-66.1	15.6	47.3	-1296.0	141.6	327.0
2/28/1987	789	28	10.4	-554.1	-493.2	1689.9	-4.2	-108.0	184.7	-5.9	-95.4	-58.5	15.0	42.5	-1022.1	129.0	269.9
3/31/1987	820	31	82.8	-604.0	-757.2	1809.4	-3.8	-120.1	203.0	-6.1	-102.9	-62.6	19.6	53.6	-932.5	139.4	281.5
4/30/1987	850	30	170.8	-576.4	-810.2	2265.1	-8.6	-124.2	195.1	-4.2	-97.8	-58.5	21.3	61.4	-1368.6	146.8	187.9
5/31/1987	881	31	516.6	-574.5	-857.2	2236.3	-9.0	-135.3	199.8	-3.6	-102.5	-62.5	22.4	70.6	-1582.9	146.1	135.5
6/30/1987	911	30	559.2	-525.3	-757.7	2258.3	-9.1	-133.7	191.4	-3.1	-99.6	-62.6	20.9	70.2	-1737.4	141.7	87.0
7/31/1987	942	31	727.3	-512.0	-755.4	2221.9	-5.5	-138.5	194.9	-2.3	-103.5	-66.2	20.8	70.8	-1891.9	147.9	91.8
8/31/1987	973	31	735.0	-484.9	-716.8	2187.6	-5.5	-137.8	190.6	-1.5	-103.4	-67.0	19.8	68.6	-1962.2	146.0	131.5
9/30/1987	1003	30	688.4	-455.8	-562.1	2183.5	-5.4	-124.5	179.7	-1.9	-100.9	-65.7	16.9	62.1	-1994.9	119.8	60.8
10/31/1987	1034	31	683.6	-461.6	-539.0	1670.9	-3.3	-122.6	183.5	-2.0	-103.9	-68.4	15.3	57.8	-1857.7	136.4	411.2
11/30/1987	1064	30	359.0	-460.1	-433.7	1735.8	-3.7	-114.7	176.9	-1.4	-98.5	-64.2	13.4	46.9	-1615.6	139.4	320.5
12/31/1987	1095	31	-841.3	-569.0	-429.6	2868.1	-2.8	-99.8	182.7	-1.0	-101.6	-65.1	12.4	39.0	-1575.1	58.4	524.5
1/31/1988	1126	31	165.0	-630.7	-539.9	1779.4	-2.8	-92.6	186.4	-0.5	-100.1	-61.7	13.7	38.1	-1324.8	113.5	457.0
2/29/1988	1155	29	241.3	-578.0	-558.1	1571.8	-3.5	-93.4	175.1	-0.1	-93.8	-54.9	14.6	39.3	-1155.4	133.3	361.7
3/31/1988	1186	31	311.7	-587.7	-786.8	2045.4	-5.0	-101.3	185.8	0.0	-98.0	-57.6	18.3	53.6	-1400.7	144.2	278.1
4/30/1988	1216	30	341.1	-531.3	-838.7	1822.0	-2.8	-99.6	178.2	0.0	-94.5	-56.3	19.2	58.2	-1248.6	120.1	332.9
5/31/1988	1247	31	366.6	-509.1	-886.5	2143.8	-5.1	-108.1	183.7	0.0	-93.7	-55.5	21.9	68.0	-1388.5	128.9	133.7
6/30/1988	1277	30	346.5	-463.8	-774.1	2111.8	-5.3	-111.9	174.9	0.0	-92.1	-54.6	21.0	69.8	-1520.2	134.5	163.5
7/31/1988	1308	31	645.6	-444.8	-754.5	1897.5	-6.8	-117.1	177.0	0.0	-94.6	-57.5	21.0	70.6	-1600.7	165.9	98.5
8/31/1988	1339	31	704.9	-409.1	-688.8	1820.6	-6.8	-111.9	173.2	0.0	-92.1	-57.8	20.1	68.6	-1650.7	168.4	61.4
9/30/1988	1369	30	467.2	-386.1	-549.0	1857.8	-6.7	-99.2	164.1	0.0	-90.4	-56.4	17.4	61.9	-1676.0	98.3	197.2
10/31/1988	1400	31	592.1	-406.8	-511.4	1794.0	-6.8	-97.7	166.3	0.0	-95.1	-59.0	15.9	58.8	-1784.6	113.0	221.2
11/30/1988	1430	30	646.4	-393.0	-388.7	1493.6	-5.6	-91.0	157.4	0.0	-93.4	-57.6	13.1	49.9	-1661.1	114.9	215.1
12/31/1988	1461	31	-1014.2	-500.3	-391.2	3089.8	-3.2	-76.9	162.5	0.0	-95.3	-60.2	11.4	41.0	-1662.0	25.6	473.1
1/31/1989	1492	31	528.7	-539.3	-484.4	1626.6	-6.5	-83.2	165.7	0.0	-95.1	-56.9	12.8	41.1	-1537.0	132.5	295.0
2/28/1989	1520	28	-268.5	-490.5	-497.0	2130.2	-3.0	-80.5	150.4	0.0	-88.3	-51.2	12.7	38.3	-1374.1	100.7	420.8
3/31/1989	1551	31	649.4	-535.6	-760.5	1619.1	-5.7	-95.0	169.4	0.0	-95.4	-54.1	17.1	51.4	-1409.1	136.7	312.3
4/30/1989	1581	30	600.3	-467.5	-784.4	1806.1	-6.4	-100.0	162.5	0.0	-91.5	-51.5	18.8	60.3	-1500.2	126.6	226.9
5/31/1989	1612	31	774.9	-433.3	-819.5	1801.6	-6.7	-103.7	165.7	0.0	-93.4	-53.4	20.3	69.4	-1634.6	112.4	200.2
6/30/1989	1642	30	709.7	-376.6	-722.3	1761.2	-6.6	-97.0	158.7	0.0	-88.6	-51.9	19.5	69.1	-1647.4	83.9	188.3
7/31/1989	1673	31	846.4	-355.7	-700.0	1723.3	-6.3	-94.3	161.3	0.0	-89.4	-53.5	19.8	70.3	-1715.1	60.9	132.4
8/31/1989	1704	31	800.1	-336.8	-651.1	1695.0	-6.3	-88.6	158.6	0.0	-87.3	-53.0	19.2	68.9	-1742.1	32.1	191.4
9/30/1989	1734	30	668.7	-324.4	-527.2	1630.8	-6.2	-79.9	151.1	0.0	-84.0	-51.1	16.8	61.8	-1727.9	31.8	239.7
10/31/1989	1765	31	691.6	-341.9	-491.8	1627.6	-6.3	-76.5	153.9	0.0	-87.0	-52.8	15.5	58.6	-1808.5	45.5	272.2
11/30/1989	1795	30	604.5	-341.3	-372.4	1614.9	-6.2	-68.6	145.9	0.0	-84.8	-51.0	12.9	50.7	-1779.2	37.3	237.4
12/31/1989	1826	31	673.7	-363.9	-332.7	1637.5	-6.3	-66.9	146.7	0.0	-88.5	-52.7	11.5	47.4	-1873.7	25.5	242.3
1/31/1990	1857	31	542.3	-376.1	-408.6	1485.5	-8.3	-63.4	146.6	0.0	-87.1	-52.7	11.3	46.1	-1763.8	80.8	447.3
2/28/1990	1885	28	437.9	-346.1	-423.7	1422.9	-9.6	-59.5	133.8	0.0	-75.4	-45.4	11.2	41.0	-1509.1	104.5	317.3
3/31/1990	1916	31	740.2	-357.0	-607.6	1819.7	-17.4	-67.4	144.0	0.0	-81.6	-48.1	15.0	55.5	-1766.2	47.4	123.6
4/30/1990	1946	30	775.9	-311.7	-609.4	1776.0	-17.3	-66.9	134.0	0.0	-78.7	-46.2	16.0	63.4	-1792.5	5.8	151.5
5/31/1990	1977	31	972.9	-283.5	-630.1	1718.8	-17.2	-69.8	134.4	0.0	-79.6	-47.6	17.3	70.9	-1860.9	0.0	74.4
6/30/1990	2007	30	885.2	-235.9	-550.0	1758.5	-17.2	-66.6	127.0	0.0	-75.2	-45.5	16.6	69.7	-1879.8	0.0	13.3
7/31/1990	2038	31	1004.0	-212.0	-538.2	1682.2	-9.0	-67.4	126.5	0.0	-76.1	-46.4	16.9	70.8	-1951.1	0.0	0.0
8/31/1990	2069	31	959.2	-188.9	-497.0	1685.6	-9.0	-65.4	124.7	0.0	-74.4	-45.6	16.2	69.1	-1975.7	0.0	1.1
9/30/1990	2099	30	805.4	-173.3	-387.8	1692.5	-8.9	-60.6	115.9	0.0	-71.3	-43.4	14.0	63.0	-1945.6	0.0	0.0
10/31/1990	2130	31	788.2	-179.5	-350.9	1714.4	-9.0	-60.0	111.7	0.0	-73.5	-44.2	12.8	61.5	-2025.3	0.0	53.8
11/30/1990	2160	30	538.7	-188.2	-273.3	1666.0	-8.9	-55.0	103.7	0.0	-71.1	-42.0	10.5	54.3	-1967.6	0.0	232.9
12/31/1990	2191	31	640.1	-215.9	-252.5	1716.2	-9.0	-54.5	104.0	0.0	-73.6	-42.6	9.3	50.6	-2051.5	0.0	179.4
1/31/1991	2222	31	900.6	-216.8	-302.0	1362.1	-17.5	-52.9	102.0	0.0	-72.4	-41.9	9.2	50.4	-1970.5	0.0	249.9
2/28/1991	2250	28	197.7	-207.2	-327.4	1690.6	-6.2	-42.2	93.5	0.0	-62.9	-36.7	8.7	43.6	-1730.6	13.9	365.2
3/31/1991	2281	31	-3859.0	-394.9	-671.8	6257.9	-3.4	-35.0	111.8	0.0	-67.5	-41.7	9.9	40.5	-2315.0	169.1	799.1
4/30/1991	2311	30	958.0	-432.6	-793.2	1766.2	-20.9	-41.8	114.9	0.0	-64.1	-35.6	12.9	50.4	-1827.2	68.9	244.1
5/31/1991	2342	31	1183.2	-318.7	-734.3	1722.2	-21.0	-58.7	112.8	0.0	-70.5	-34.9	15.9	66.5	-1890.8	6.8	21.6
6/30/1991	2372	30	911.0	-227.6	-583.9	1718.3	-20.9	-58.2	107.9	0.0	-67.2	-33.2	15.7	68.9	-1838.1	0.0	7.2
7/31/1991	2403	31	850.7	-189.9	-547.4	1750.8	-7.2	-58.2	104.1	0.0	-67.2	-33.6	16.0	69.9	-1888.0	0.0	0.0
8/31/1991	2434	31	860.5	-164.1	-494.3	1688.4	-7.1	-56.2	92.9	0.0	-64.8	-33.1	15.3	67.9	-1905.4	0.0	0.0
9/30/1991	2464	30	736.7	-148.4	-379.7	1654.6	-7.0	-52.3	87.4	0.0	-61.7	-31.7	13.2	61.7	-1872.8	0.0	0.0
10/31/1991	2495	31	688.1	-151.7	-342.5	1659.2	-7.1	-52.1	87.0	0.0	-63.4	-32.4	12.0	59.9	-1947.6	0.0	90.5
11/30/1991	2525	30	608.8	-150.6	-254.1	1712.4	-7.0	-48.1	79.4	0.0	-61.2	-30.8	9.9	53.2	-1911.8	0.0	0.0
12/31/1991	2556	31	-1674.8	-242.8	-281.3	3666.0	-3.0	-42.0	81.4	0.0	-61.9	-33.1	7.6	42.9	-2091.4	63.4	568.9
1/31/1992	2587	31	284.4	-318.6	-396.7	1595.6	-3.8	-36.9	91.8	0.0	-57.1	-29.5	8.8	38.6	-1720.2	96.3	447.3
2/29/1992	2616	29	-5235.8	-606.1	-578.0	6677.8	-2.4	-17.8	108.7	0.0	-48.7	-29.0	6.9	20.2	-2041.3	229.2	1516.2

Flow Budget for the Semi-Perched Aquifer in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet														
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Mound	Pleasant Valley	West Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin UAS	Partial Santa Clara River percolation	Calleguas Creek percolation
3/31/1992	2647	31	-1339.0	-896.5	-1044.0	3805.7	-2.5	-18.2	148.1	0.0	-49.9	-29.1	10.1	20.9	-1800.4	271.7	923.2
4/30/1992	2677	30	1002.6	-722.7	-1099.7	1554.5	-7.2	-57.6	145.4	0.0	-51.8	-23.8	14.9	43.6	-1480.6	322.2	360.3
5/31/1992	2708	31	1003.3	-536.1	-1034.1	1613.5	-7.5	-78.0	141.9	0.0	-64.4	-23.9	18.1	64.0	-1507.7	102.4	308.4
6/30/1992	2738	30	675.9	-397.9	-837.0	1603.9	-7.5	-71.2	133.1	-0.2	-60.7	-22.9	18.1	67.3	-1448.7	69.5	278.1
7/31/1992	2769	31	611.6	-347.9	-766.2	1757.6	-11.9	-69.4	134.1	-0.4	-60.5	-23.6	18.7	69.6	-1533.5	42.7	179.1
8/31/1992	2800	31	596.8	-308.1	-667.0	1678.5	-12.0	-65.7	130.5	-0.7	-58.4	-23.9	18.0	68.7	-1551.4	15.3	179.5
9/30/1992	2830	30	413.6	-278.7	-503.7	1671.7	-12.0	-60.8	123.3	-0.8	-56.6	-23.6	15.7	62.0	-1537.0	10.0	176.9
10/31/1992	2861	31	237.9	-290.5	-466.0	1660.5	-9.4	-58.6	125.7	-0.3	-59.3	-25.3	14.4	57.9	-1526.7	55.8	283.7
11/30/1992	2891	30	59.8	-299.3	-357.4	1807.2	-12.0	-53.8	119.9	0.0	-57.0	-24.0	12.5	49.8	-1523.6	55.7	222.4
12/31/1992	2922	31	-1895.8	-413.1	-367.6	3565.4	-3.5	-51.7	125.8	-0.1	-58.6	-26.8	10.4	39.7	-1607.1	134.1	548.8
1/31/1993	2953	31	-5157.8	-814.9	-612.2	6383.8	-2.5	-22.6	152.9	-0.3	-47.1	-27.3	9.2	20.8	-1652.1	297.6	1472.6
2/28/1993	2981	28	-3925.9	-1096.1	-751.3	5153.0	-2.0	5.2	176.3	-2.2	-31.8	-24.1	9.3	5.9	-1306.3	594.5	1195.6
3/31/1993	3012	31	-895.2	-1146.7	-1193.5	2758.8	-2.7	-9.1	209.1	-7.4	-30.6	-23.5	15.3	21.4	-917.7	575.4	646.2
4/30/1993	3042	30	490.4	-877.6	-1214.2	1452.1	-11.0	-54.7	198.4	-20.4	-40.7	-19.9	19.7	48.0	-764.6	413.8	380.6
5/31/1993	3073	31	3.5	-691.0	-1163.6	1734.1	-11.1	-133.9	198.8	-36.8	-64.0	-21.9	22.6	66.8	-826.8	601.9	321.5
6/30/1993	3103	30	223.7	-548.5	-960.7	1712.5	-11.2	-116.5	187.7	-25.7	-65.0	-22.6	22.3	68.8	-896.7	159.3	272.6
7/31/1993	3134	31	382.8	-496.4	-909.3	1546.7	-5.3	-105.2	190.3	-11.9	-67.6	-24.5	22.9	69.8	-1012.8	160.1	260.4
8/31/1993	3165	31	49.9	-466.4	-827.9	1855.9	-5.4	-107.3	187.4	-6.7	-70.3	-25.8	22.2	67.5	-1044.4	123.5	247.8
9/30/1993	3195	30	-115.9	-449.7	-643.6	1790.0	-5.4	-99.8	178.5	-7.8	-69.4	-26.5	19.7	60.1	-971.0	116.3	224.5
10/31/1993	3226	31	-318.0	-480.5	-589.0	1829.9	-5.5	-99.2	182.6	-15.6	-73.8	-28.8	18.6	57.0	-898.0	118.6	301.9
11/30/1993	3256	30	-366.2	-483.1	-447.2	1547.1	-5.2	-93.6	176.3	-20.9	-73.1	-28.5	16.2	48.7	-705.2	129.3	305.3
12/31/1993	3287	31	-559.5	-517.4	-409.6	1448.1	-3.1	-88.0	182.7	-24.0	-75.1	-29.7	15.3	42.8	-488.9	120.5	386.0
1/31/1994	3318	31	-354.5	-524.6	-480.5	1577.2	-7.5	-88.5	182.3	-20.2	-75.1	-28.0	16.6	44.5	-642.1	117.7	282.6
2/28/1994	3346	28	-2883.5	-572.2	-526.9	3666.3	-2.1	-71.7	166.4	-19.1	-66.9	-28.7	14.6	36.5	-401.2	185.8	502.7
3/31/1994	3377	31	-812.7	-688.5	-857.2	1857.7	-2.9	-77.5	192.6	-20.0	-70.4	-30.0	19.3	47.0	-127.7	157.2	413.2
4/30/1994	3407	30	15.3	-591.7	-888.2	1535.4	-7.1	-86.0	188.4	-18.3	-70.7	-27.1	22.4	58.1	-496.9	114.9	251.4
5/31/1994	3438	31	40.7	-532.8	-916.1	1566.4	-7.2	-100.6	193.3	-20.2	-78.1	-29.9	24.9	69.0	-521.7	100.6	211.6
6/30/1994	3468	30	129.9	-458.6	-793.2	1467.8	-7.2	-105.6	186.0	-17.8	-77.1	-30.9	24.2	69.6	-647.9	122.7	138.3
7/31/1994	3499	31	186.7	-443.2	-765.1	1647.1	-10.7	-107.4	191.8	-9.2	-80.3	-33.9	24.8	71.8	-877.5	93.5	111.6
8/31/1994	3530	31	248.4	-430.6	-702.9	1690.7	-10.8	-104.3	191.6	-6.0	-81.2	-35.9	24.0	70.4	-1026.1	83.1	89.7
9/30/1994	3560	30	-33.9	-433.6	-572.9	1768.0	-10.9	-97.5	185.5	-7.3	-80.8	-36.8	21.2	63.3	-1075.3	64.8	246.3
10/31/1994	3591	31	-85.4	-486.8	-544.8	1861.4	-11.0	-96.0	192.0	-9.2	-86.0	-40.0	19.8	59.9	-1079.4	75.8	229.9
11/30/1994	3621	30	-246.5	-496.3	-420.3	1540.8	-5.9	-87.8	185.0	-9.9	-84.0	-40.1	16.9	50.8	-744.6	93.3	248.8
12/31/1994	3652	31	-294.4	-531.0	-385.8	1510.5	-6.6	-84.9	191.0	-8.6	-84.9	-40.8	16.3	46.2	-673.5	66.3	280.3
1/31/1995	3683	31	-10065.2	-1184.1	-688.9	10641.2	-1.6	-54.2	214.9	-8.8	-77.3	-50.3	11.5	16.1	-827.5	491.1	1583.1
2/28/1995	3711	28	-327.3	-1326.8	-805.6	1187.8	-4.6	-129.1	216.5	-11.3	-72.5	-42.6	12.5	13.1	-190.3	1108.5	371.8
3/31/1995	3742	31	-4662.3	-1488.1	-1264.1	5683.1	-1.3	-128.2	249.8	-31.6	-84.1	-47.3	18.0	26.4	220.5	421.1	1088.2
4/30/1995	3772	30	726.0	-1363.8	-1384.7	1471.9	-7.1	-120.9	255.3	-33.7	-81.6	-42.6	22.1	44.2	-277.2	364.3	427.8
5/31/1995	3803	31	54.6	-1084.8	-1353.2	1328.2	-5.4	-196.7	266.1	-39.4	-96.3	-43.8	26.1	64.8	-81.7	780.9	380.6
6/30/1995	3833	30	325.8	-855.6	-1117.7	1442.2	-7.3	-174.8	259.5	-40.8	-94.1	-43.0	25.8	67.8	-227.7	107.8	332.1
7/31/1995	3864	31	-223.7	-778.4	-1051.8	1590.9	-5.2	-157.7	267.8	-29.3	-95.5	-45.3	26.7	70.2	47.3	113.6	270.5
8/31/1995	3895	31	-595.1	-727.3	-946.0	1679.6	-5.2	-148.5	265.7	-26.8	-92.6	-45.3	26.4	68.9	197.3	106.9	241.8
9/30/1995	3925	30	-771.7	-692.0	-733.9	1652.4	-5.2	-137.8	254.5	-26.7	-89.1	-44.2	24.1	61.8	141.4	114.7	251.7
10/31/1995	3956	31	-828.5	-724.8	-663.7	1639.1	-5.3	-138.8	260.4	-30.2	-93.0	-46.5	23.3	58.9	149.4	136.6	263.2
11/30/1995	3986	30	-816.9	-721.6	-497.2	1525.6	-5.3	-128.3	249.4	-29.9	-91.4	-46.2	20.6	50.8	96.0	140.3	254.0
12/31/1995	4017	31	-1365.1	-786.5	-462.7	1446.6	-2.3	-118.7	257.3	-35.8	-94.4	-49.4	19.5	44.6	586.7	123.8	436.3
1/31/1996	4048	31	-865.1	-812.4	-562.4	1204.7	-2.1	-113.0	258.5	-31.2	-93.7	-49.2	20.3	43.5	501.2	111.4	389.6
2/29/1996	4077	29	-4334.3	-953.7	-653.8	4525.5	-1.0	-87.2	244.1	-35.2	-88.9	-48.6	18.8	34.2	774.7	33.7	571.6
3/31/1996	4108	31	-714.5	-1093.0	-1001.7	1258.4	-1.7	-94.6	266.3	-45.2	-94.7	-50.4	23.8	47.1	1082.5	43.4	374.4
4/30/1996	4138	30	-435.9	-928.7	-1021.8	1387.3	-3.0	-103.9	259.5	-34.2	-92.3	-47.8	26.8	59.6	611.0	41.1	282.0
5/31/1996	4169	31	-119.8	-870.1	-1066.0	1559.1	-3.5	-127.4	268.8	-23.9	-96.7	-50.3	29.6	70.0	120.0	77.5	232.5
6/30/1996	4199	30	206.3	-783.5	-947.6	1497.3	-3.6	-143.9	260.9	-12.1	-95.3	-50.1	28.7	70.1	-354.5	114.1	213.2
7/31/1996	4230	31	587.8	-772.7	-915.1	1772.6	-2.7	-156.4	270.3	-4.7	-99.7	-53.8	29.4	71.9	-883.6	94.5	62.1
8/31/1996	4261	31	682.2	-763.6	-859.1	1712.0	-2.8	-155.5	272.1	-4.5	-100.6	-56.5	28.3	70.6	-1134.0	75.5	235.9
9/30/1996	4291	30	589.0	-759.8	-695.4	1811.7	-2.9	-148.0	264.9	-6.2	-100.3	-57.5	24.9	63.0	-1263.9	67.5	213.1
10/31/1996	4322	31	193.2	-819.8	-659.4	1704.8	-2.1	-141.3	275.3	-14.1	-105.9	-62.3	23.2	58.8	-855.7	76.7	328.5
11/30/1996	4352	30	-931.1	-873.1	-533.2	2192.8	-1.5	-135.5	268.7	-18.5	-103.5	-62.4	20.0	47.6	-416.7	143.1	403.3
12/31/1996	4383	31	-3856.5	-1209.9	-565.3	4677.0	-1.1	-116.9	283.9	-27.3	-108.3	-68.3	17.3	31.9	162.2	80.4	700.9
1/31/1997	4414	31	-3148.8	-1529.2	-755.6	3765.0	-0.7	-115.5	294.2	-51.3	-110.7	-68.7	17.4	25.4	853.5	179.7	645.2
2/28/1997	4442	28	-157.6	-1355.2	-746.1	1417.9	-1.3	-118.7	270.9	-42.5	-101.9	-59.6	18.7	32.1	399.2	152.8	291.3
3/31/1997	4473	31	219.0	-1299.2	-1030.0	1554.8	-1.6	-128.4	300.3	-37.1	-115.5	-65.9	24.8	53.1	250.0	26.9	248.8
4/30/1997	4503	30	335.8	-1106.1	-1032.8	1583.7	-1.7	-132.3	291.6	-26.4	-109.9	-63.9	26.4	62.8	-117.2	78.9	211.1
5/31/1997	4534	31	938.5	-1007.4	-1050.2	1448.8	-1.8	-154.6	301.9	-14.6	-112.4	-66.3	28.9	72.1	-586.1	117.3	86.0
6/30/1997	4564	30	1017.7	-874.4	-911.0	1391.3	-1.8	-155.9	292.1	-4.8	-107.6	-64.7	28.1	72.1	-897.4	97.3	119.2
7/31/1997	4595	31	1067.2	-867.7	-925.3	1727.6	-2.2	-159.0	302.1	0.3	-111.2	-68.3	28.6	72.9	-1372.5	75.4	232.2
8/31/1997	4626	31	934.6	-874.7	-900.5	1991.7	-2.2	-158.1	302.3	-2.3	-113.1	-70.6	27.4	69.8	-1506.0	57.1	244.5
9/30/1997	4656	30	693.2	-872.5	-730.1	2019.3	-2.2	-149.3	291.9	-5.4	-112.1	-70.7	24.1	62.4	-1423.7	37.5	237.6
10/31/1997	4687	31	540.9	-934.4	-677.3	2082.4	-2.3	-150.0	300.2	-9.0	-119.0	-75.1	22.4	59.5	-1351.8	40.2	273.2
11/30/1997	4717	30	-318.6	-953.1	-539.7	2052.4	-1.5	-136.4	290.9	-13.2	-117.0	-74.9	18.8	48.4	-791.2	93.6	441.4
12/31/1997	4748	31	-3700.9	-1292.5	-577.0	5189.5	-1.2	-112.6	307.5	-15.1	-120.7	-80.0	16.4	33.0	-503.5	42.4	814.6
1/31/1998	4779	31	-594.8	-1476.7	-738.1	2307.0	-0.8	-98.2	316.3	-20.7	-122.3	-78.3	17.5	30.0	-100.2	22.1	537.2
2/28/1998	4807	28	-12470.3	-2355.6	-943.0	13671.6	-0.4	-37.6	316.0	-26.9	-104.7	-82.2	11.5	-3.2	-115.7	528.2	1612.4
3/31/1998	4838	31	858.7	-2895.7	-1600.1	2190.5	-0.2	-71.8	365.3	-41.5	-118.2	-85.8	18.5	9.8	458.1	254.0	658.6
4/30/1998	4868	30	273.2	-2146.8	-1620.2	1598.9	-0.2	-85.8	357.5	-58.0	-110.9	-78.0	25.6	43.9	925.8	366.4	508.7
5/31/1998	4899	31	-653.0	-1807.6	-1649.2	1977.0	-0.2	-101.6	373.8	-62.2	-110.1	-79.9	30.0	62.8	1279.5	241.0	499.7
6/30/1998	4929	30	22.0	-1508.2	-1383.2	1892.5	-0.3	-156.5	364.0	-56.9	-118.0	-76.5	30.2	67.8	394.8	177.9	350.5
7/31/1998	4960	31	99.7	-1378.5	-1282.6	1527.2	-0.5	-188.5	376.2	-44.1	-124.7	-79.9	31.1	71.8	426.5	240.8	325.6
8/31/1998	4991	31	294.3	-1265.3	-1142.4	1613.9	-0.6	-169.7	374.3	-25.2	-120.7	-79.5	30.7	70.5	101.8	20.8	297.1
9/30/1998	5021	30	239.1	-1180.1	-876.2	1546.9	-0.7	-152.7	360.3	-17.1	-115.7	-77.2	27.8	63.0	-156.8	43.6	295.7
10/31/1998	5052	31	-53.8	-1200.0	-778.6	1568.0	-0.8	-155.2	369.7	-34.7	-120.7	-81.0	26.6	59.9	50.5	65.6	284.3
11/30/1998	5082	30	-694.5	-1158.3	-583.2	1345.7	-0.7	-141.6	355.6	-53.4	-117.4	-80.8	23.3	50.4	639.9	87.6	327.6
12/31/1998	5113	31	-872.6	-1201.0	-525.8	1346.4	-0.7	-129.1	364.9	-51.6	-121.1	-84.6	22.3	45.1	833.6	28.4	345.9
1/31/1999	5144	31	-1265.7	-1221.0	-625.9	1565.9	-0.6	-122.2	362.3	-38.6	-122.4	-85.3	22.7	44.5	1071.1	45.7	369.4
2/28/1999	5172	28	-309.1	-1125.0	-631.4	1321.2	-0.6	-108.5	327.1	-18.5	-108.2	-75.6	21.8	43.4	288.1	39.9	335.3
3/31/1999	5203	31	-1606.9	-1311.9	-991.7	2530.9	-0.6	-126.6	361.4	-27.3	-121.1	-85.7	26.2	52.1	849.2	27.4	424.7
4/30/1999	5233	30	-855.0	-1297.4	-1112.1	1907.8	-0.4	-114.0	349.7	-33.7	-113.1	-81.3	28.3	56.7	912.8	2.0	349.9

Flow Budget for the Semi-Perched Aquifer in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet														
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Mound	Pleasant Valley	West Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin UAS	Partial Santa Clara River percolation	Calleguas Creek percolation
5/31/1999	5264	31	406.5	-1276.3	-1202.7	1569.6	-0.5	-125.5	362.2	-23.9	-115.2	-81.7	32.4	68.4	123.5	-3.2	266.4
6/30/1999	5294	30	797.8	-1160.1	-1073.4	1524.1	-0.7	-140.6	352.0	-3.9	-113.2	-79.6	31.9	69.9	-454.6	13.7	236.8
7/31/1999	5325	31	1064.3	-1146.2	-1050.3	1602.1	-0.8	-167.5	362.6	3.5	-119.5	-83.3	32.6	72.0	-769.1	49.2	150.4
8/31/1999	5356	31	1299.4	-1107.7	-968.2	1539.3	-0.9	-175.1	360.4	3.1	-120.9	-84.3	31.6	71.4	-1081.0	61.0	171.9
9/30/1999	5386	30	1016.8	-1073.7	-778.3	1654.3	-1.0	-167.2	347.5	0.9	-118.8	-83.1	28.2	64.2	-1194.1	62.0	242.2
10/31/1999	5417	31	886.1	-1138.4	-719.5	1793.9	-1.2	-171.8	357.4	-5.0	-125.7	-87.8	26.5	60.8	-1169.8	75.1	219.3
11/30/1999	5447	30	744.4	-1108.3	-548.2	1379.4	-1.2	-161.2	344.4	-8.1	-124.7	-87.7	22.8	51.6	-875.0	79.0	292.7
12/31/1999	5478	31	955.2	-1153.3	-491.5	1577.8	-1.3	-163.1	353.5	-3.2	-131.5	-91.8	21.5	47.9	-1247.8	81.2	246.4
1/31/2000	5509	31	823.2	-1143.0	-579.6	1465.5	-1.2	-162.8	351.4	-6.9	-134.5	-94.7	21.0	47.1	-972.2	83.2	303.5
2/29/2000	5538	29	-2796.2	-1282.9	-681.1	4621.2	-0.8	-128.1	331.7	-10.3	-126.8	-92.4	18.9	36.3	-522.2	57.9	574.8
3/31/2000	5569	31	175.7	-1477.2	-1070.9	1852.5	-0.7	-133.1	359.1	-18.9	-131.9	-96.1	23.9	46.4	-16.6	93.8	394.3
4/30/2000	5599	30	-553.7	-1339.4	-1157.9	2092.6	-0.5	-140.6	349.6	-32.3	-128.3	-90.5	27.1	54.9	406.4	88.7	424.1
5/31/2000	5630	31	735.6	-1307.4	-1246.9	1852.4	-0.6	-149.9	363.2	-17.2	-130.6	-90.6	30.8	66.8	-443.0	50.6	286.9
6/30/2000	5660	30	1237.4	-1176.0	-1102.3	1693.4	-0.8	-133.2	352.1	-4.9	-124.3	-88.4	30.0	68.9	-1019.5	14.1	253.6
7/31/2000	5691	31	1509.2	-1120.0	-1077.3	1447.7	-0.9	-154.0	363.8	1.7	-128.3	-91.9	30.4	71.0	-1169.4	88.6	229.5
8/31/2000	5722	31	1537.9	-1035.2	-975.4	1418.1	-1.0	-162.1	362.3	0.0	-128.4	-91.3	29.6	70.1	-1254.2	69.4	160.2
9/30/2000	5752	30	1087.0	-970.2	-748.3	1546.4	-1.0	-154.5	348.5	-3.9	-124.7	-88.0	26.4	64.2	-1188.9	78.6	128.4
10/31/2000	5783	31	417.2	-1011.0	-691.8	1576.2	-1.1	-157.4	357.8	-14.6	-129.6	-92.1	24.8	60.5	-704.0	103.1	261.8
11/30/2000	5813	30	250.4	-1011.8	-530.1	1657.2	-1.1	-148.5	343.5	-21.8	-125.8	-89.8	21.7	52.2	-731.1	108.1	227.0
12/31/2000	5844	31	525.4	-1074.5	-477.3	1552.1	-1.2	-151.2	351.6	-15.8	-132.4	-93.5	20.2	48.5	-922.4	99.1	271.5
1/31/2001	5875	31	-2337.5	-1263.2	-626.9	4035.8	-1.0	-135.0	353.2	-11.8	-133.3	-97.7	18.5	39.8	-504.8	76.5	587.4
2/28/2001	5903	28	-3245.0	-1486.5	-746.1	4642.9	-0.6	-114.5	327.4	-12.1	-120.3	-90.0	16.3	26.8	-81.8	140.0	743.6
3/31/2001	5934	31	-2334.2	-1888.4	-1262.4	3717.9	-0.5	-109.5	375.0	-30.5	-123.9	-97.1	22.2	37.8	569.0	239.4	885.3
4/30/2001	5964	30	593.2	-1690.9	-1350.7	1435.7	-0.5	-130.7	367.0	-40.9	-125.2	-88.5	26.4	51.0	490.3	97.2	366.4
5/31/2001	5995	31	840.2	-1482.9	-1353.7	1710.9	-0.6	-150.1	377.7	-25.9	-130.5	-89.6	30.1	66.6	-193.0	92.2	308.6
6/30/2001	6025	30	1021.6	-1265.7	-1158.6	1658.7	-0.7	-154.8	366.3	-9.5	-126.7	-87.1	29.3	69.1	-686.6	81.4	263.1
7/31/2001	6056	31	1091.6	-1202.5	-1127.0	1640.5	-0.8	-164.4	379.6	-4.1	-128.9	-89.5	30.0	70.8	-855.5	91.9	268.2
8/31/2001	6087	31	1237.1	-1130.1	-1036.3	1578.8	-0.8	-160.9	379.5	-1.4	-125.4	-88.6	29.4	68.9	-1068.1	77.6	240.1
9/30/2001	6117	30	811.2	-1074.6	-812.5	1717.4	-0.9	-152.6	365.8	-6.5	-121.1	-85.9	26.2	61.8	-1054.5	88.6	237.6
10/31/2001	6148	31	355.1	-1123.4	-740.5	1749.8	-0.9	-158.6	375.7	-20.7	-126.8	-89.8	24.7	58.8	-679.0	109.2	266.3
11/30/2001	6178	30	-1495.8	-1169.5	-582.6	2511.7	-0.8	-144.0	360.8	-38.2	-123.4	-90.3	20.6	46.6	225.1	108.9	370.7
12/31/2001	6209	31	-577.1	-1264.5	-540.0	1573.6	-0.7	-140.3	369.9	-25.1	-126.4	-92.9	19.8	39.9	347.9	87.4	328.5
1/31/2002	6240	31	-15.4	-1220.6	-627.7	1087.8	0.0	-141.3	366.5	-16.3	-126.4	-90.6	21.2	43.1	300.0	92.9	326.8
2/28/2002	6268	28	253.6	-1070.9	-612.5	1291.4	0.0	-134.0	328.8	-6.6	-114.5	-80.3	20.6	44.0	-273.5	97.8	256.1
3/31/2002	6299	31	740.4	-1147.7	-904.3	1389.6	0.0	-153.7	362.4	-3.5	-125.6	-88.3	25.6	58.3	-519.0	98.4	267.4
4/30/2002	6329	30	1194.9	-1027.6	-931.1	1239.7	0.0	-152.4	349.5	-4.0	-118.5	-84.4	27.2	64.5	-767.4	98.0	111.6
5/31/2002	6360	31	1354.7	-960.4	-963.6	1234.5	0.0	-158.8	359.6	-5.0	-119.3	-86.4	29.7	73.2	-907.9	87.3	62.2
6/30/2002	6390	30	1294.4	-846.8	-850.5	1186.0	0.0	-151.5	344.7	-5.1	-113.2	-83.0	29.0	72.4	-949.4	72.9	0.0
7/31/2002	6421	31	1111.0	-847.4	-850.9	1618.0	0.0	-152.7	347.8	-5.0	-116.2	-85.6	29.6	73.5	-1165.5	43.2	0.0
8/31/2002	6452	31	1271.4	-846.6	-807.8	1648.6	0.0	-149.2	342.6	-5.8	-116.5	-85.6	28.5	71.7	-1350.1	-1.0	0.0
9/30/2002	6482	30	962.4	-828.7	-643.6	1767.7	0.0	-140.7	325.7	-6.4	-114.6	-84.4	24.9	65.1	-1344.8	17.3	0.0
10/31/2002	6513	31	1015.4	-866.1	-585.4	1729.7	0.0	-139.0	328.7	-7.4	-120.7	-89.2	23.1	63.2	-1361.0	8.8	0.0
11/30/2002	6543	30	-1234.5	-955.8	-493.5	3112.4	0.0	-122.8	314.5	-8.0	-119.6	-90.3	18.8	51.1	-1009.4	111.7	425.3
12/31/2002	6574	31	-769.4	-1168.5	-506.7	2722.5	0.0	-116.7	330.6	-6.7	-124.8	-93.6	17.3	41.2	-805.8	55.5	425.1
1/31/2003	6605	31	1169.8	-1161.4	-588.4	1322.0	0.0	-130.2	332.2	-3.4	-127.7	-90.3	18.6	44.8	-1016.4	101.3	129.2
2/28/2003	6633	28	-2588.6	-1214.3	-649.5	4384.7	0.0	-106.0	306.1	-3.9	-117.5	-86.2	16.1	36.3	-709.0	57.3	674.6
3/31/2003	6664	31	-376.2	-1494.0	-1082.2	2728.6	0.0	-115.3	349.6	-5.0	-126.8	-93.2	21.3	44.4	-406.3	86.9	468.2
4/30/2003	6694	30	1117.2	-1296.3	-1134.3	1323.0	0.0	-104.9	342.7	-3.5	-118.3	-84.8	25.0	55.8	-474.6	27.8	325.3
5/31/2003	6725	31	558.7	-1167.1	-1191.0	1464.1	0.0	-124.0	356.5	-4.0	-119.6	-86.2	28.4	66.0	-199.6	126.8	290.9
6/30/2003	6755	30	1012.1	-998.0	-1012.4	1403.8	0.0	-138.5	343.9	-2.9	-115.7	-80.5	28.4	68.8	-613.4	104.4	0.0
7/31/2003	6786	31	1105.3	-938.0	-946.7	1491.0	0.0	-144.0	348.1	-0.4	-118.5	-82.6	29.4	72.9	-897.4	80.8	0.0
8/31/2003	6817	31	1115.3	-878.1	-857.0	1458.6	0.0	-139.1	342.0	-0.8	-116.7	-82.9	28.7	71.9	-998.0	56.1	0.0
9/30/2003	6847	30	946.3	-819.1	-661.9	1498.7	0.0	-128.9	325.0	-2.0	-113.4	-81.4	25.5	65.2	-1117.4	63.2	0.0
10/31/2003	6878	31	875.7	-836.2	-592.1	1603.3	0.0	-128.5	329.0	-3.3	-118.6	-85.5	23.9	63.2	-1215.2	84.1	0.0
11/30/2003	6908	30	770.1	-794.9	-439.9	1307.2	0.0	-117.7	310.8	-3.4	-115.8	-84.1	20.3	55.0	-1011.7	104.1	0.0
12/31/2003	6939	31	447.9	-829.9	-402.7	1323.0	0.0	-115.4	316.7	-2.9	-119.2	-87.2	19.0	51.3	-877.8	86.0	191.2
1/31/2004	6970	31	815.3	-845.0	-477.6	1264.6	0.0	-109.5	319.4	-2.2	-117.3	-85.9	19.3	53.4	-1033.8	72.7	126.8
2/29/2004	6999	29	-1892.3	-958.9	-562.3	3560.7	0.0	-88.4	304.8	-1.6	-110.6	-82.7	17.4	44.6	-787.4	58.8	498.1
3/31/2004	7030	31	1038.8	-1085.8	-870.9	1326.2	0.0	-96.7	332.8	-1.2	-114.3	-85.1	21.9	53.7	-768.5	69.3	179.7
4/30/2004	7060	30	1117.1	-915.4	-870.7	1326.0	0.0	-111.5	322.4	-0.7	-112.2	-79.8	24.3	63.6	-847.9	84.9	0.0
5/31/2004	7091	31	1226.7	-825.6	-893.0	1328.1	0.0	-119.5	328.8	-0.5	-114.2	-81.4	26.6	72.6	-1013.1	64.6	0.0
6/30/2004	7121	30	1181.5	-712.7	-790.2	1261.2	0.0	-112.6	313.7	-0.5	-107.7	-78.1	25.8	71.8	-1099.5	47.2	0.0
7/31/2004	7152	31	987.6	-702.5	-792.6	1638.1	0.0	-113.8	319.3	-0.4	-110.2	-80.5	26.2	72.7	-1260.0	16.2	0.0
8/31/2004	7183	31	1148.5	-690.9	-751.8	1598.3	0.0	-111.4	313.9	-0.3	-110.1	-81.2	25.0	70.8	-1421.8	10.9	0.0
9/30/2004	7213	30	1085.6	-662.3	-596.0	1582.3	0.0	-103.6	297.4	-0.1	-107.4	-79.6	21.6	64.4	-1502.7	0.4	0.0
10/31/2004	7244	31	-1116.1	-827.5	-638.7	3322.1	0.0	-94.4	307.9	0.0	-111.0	-84.6	19.1	56.7	-1453.3	63.2	556.6
11/30/2004	7274	30	610.2	-919.7	-523.8	1789.4	0.0	-86.9	305.4	0.0	-106.6	-79.2	16.9	47.7	-1348.0	65.2	229.3
12/31/2004	7305	31	-1785.7	-1156.1	-532.2	3934.9	0.0	-77.2	325.5	0.0	-113.8	-85.5	14.3	38.5	-1395.3	41.7	790.9
1/31/2005	7336	31	-4682.9	-1687.2	-783.8	6222.5	0.0	-8.0	355.7	-0.4	-84.5	-87.4	13.0	21.0	-1309.1	633.2	1398.0
2/28/2005	7364	28	-4105.4	-2041.3	-911.0	5852.6	0.0	-18.7	354.6	-1.4	-82.5	-78.5	12.3	3.0	-876.8	671.3	1221.8
3/31/2005	7395	31	974.3	-2084.6	-1419.9	1670.1	0.0	-65.1	395.9	-13.3	-90.0	-81.2	19.6	22.2	-410.0	484.6	597.3
4/30/2005	7425	30	953.9	-1580.3	-1418.4	1401.6	0.0	-119.6	380.6	-34.9	-103.6	-74.0	23.9	49.3	-195.0	363.7	352.6
5/31/2005	7456	31	657.1	-1323.7	-1378.6	1460.1	0.0	-164.0	392.2	-52.7	-112.5	-74.6	27.1	68.5	-278.3	469.9	309.5
6/30/2005	7486	30	-63.3	-1093.5	-1139.7	1464.2	0.0	-206.7	379.3	-47.5	-115.5	-71.9	26.4	70.8	-273.5	829.0	241.9
7/31/2005	7517	31	438.3	-1018.5	-1075.8	1314.1	0.0	-185.7	390.3	-38.3	-112.6	-73.3	27.2	72.7	-76.2	92.4	245.4
8/31/2005	7548	31	283.1	-940.0	-940.5	1441.1	0.0	-145.4	384.6	-25.2	-102.5	-71.1	27.1	71.2	-92.0	109.5	0.0
9/30/2005	7578	30	-47.0	-865.7	-699.1	1388.8	0.0	-126.5	361.5	-22.4	-96.3	-67.9	24.6	65.0	-7.4	92.3	0.0
10/31/2005	7609	31	-847.5	-893.1	-652.7	1401.6	0.0	-108.0	367.3	-38.7	-97.3	-70.4	23.6	61.2	501.5	54.0	298.5
11/30/2005	7639	30	-308.1	-879.1	-487.5	1367.4	0.0	-97.2	354.7	-20.9	-93.8	-67.5	21.1	53.2	63.4	78.6	15.7
12/31/2005	7670	31	-73.5	-908.1	-417.7	1269.6	0.0	-103.5	362.3	-9.4	-100.9	-70.6	19.9	51.6	-97.7	77.9	0.0
1/31/2006	7701	31	-1319.3	-962.9	-522.1	1825.3	0.0	-81.5	360.7	-18.8	-100.9	-72.2	19.6	49.5	382.0	19.3	421.4
2/28/2006	7729	28	-1642.5	-994.6	-577.4	2251.3	0.0	-63.0	331.5	-21.3	-90.8	-65.6	18.4	41.3	438.5	12.5	361.8
3/31/2006	7760	31	-2187.7	-1234.4	-948.9	2811.5	0.0	-74.1	371.8	-31.2	-100.3	-71.9	23.4	49.3	919.3	35.2	438.2
4/30/2006	7790	30	-2683.6	-1276.2	-1103.2	2856.4	0.0	-72.8	366.4	-54.2	-92.7	-68.2	25.7	53.8	1465.4	111.7	471.7
5/31/2006	7821	31	-610.8	-1268.4	-1219.5	1581.1	0.0	-105.9	383.3	-59.1	-99.2	-68.3	29.5	64.4	934.0	111.5	327.7
6/30/2006	7851	30	157.5	-1120.9	-1036.3	1863.2	0.0	-125.1	370.2	-28.4	-101.2	-66.9	29.0	68.4	-116.1	106.3	0.0

Flow Budget for the Semi-Perched Aquifer in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet														
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Mound	Pleasant Valley	West Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin UAS	Partial Santa Clara River percolation	Calleguas Creek percolation
7/31/2006	7882	31	58.8	-1071.3	-971.2	1476.2	0.0	-140.3	376.8	-14.1	-105.5	-71.2	29.6	73.1	216.2	143.0	0.0
8/31/2006	7913	31	157.2	-1012.3	-883.2	1589.1	0.0	-150.0	371.7	-3.5	-104.4	-70.9	29.2	72.2	-114.8	119.7	0.0
9/30/2006	7943	30	267.9	-957.0	-686.3	1492.6	0.0	-148.3	355.1	-3.0	-102.1	-69.2	26.4	65.6	-355.2	113.6	0.0
10/31/2006	7974	31	-44.5	-982.4	-615.2	1655.5	0.0	-151.2	362.1	-14.2	-107.2	-72.9	25.1	63.6	-230.2	111.6	0.0
11/30/2006	8004	30	79.8	-958.7	-457.5	1507.0	0.0	-141.6	346.0	-13.6	-105.8	-72.2	21.8	56.4	-377.1	115.6	0.0
12/31/2006	8035	31	-75.3	-1001.1	-418.4	1298.5	0.0	-145.1	356.0	-8.3	-112.5	-77.0	20.3	52.2	-196.7	108.0	199.3
1/31/2007	8066	31	-845.7	-1047.3	-516.4	1797.8	0.0	-140.2	360.8	-11.4	-114.3	-78.3	20.6	50.4	211.8	85.6	226.6
2/28/2007	8094	28	-114.8	-977.7	-538.5	1232.9	0.0	-125.9	330.8	-4.4	-102.9	-69.9	19.9	45.8	-43.7	79.7	268.7
3/31/2007	8125	31	516.3	-1058.8	-797.4	1531.5	0.0	-149.9	369.5	-3.4	-114.3	-76.1	25.3	59.3	-407.2	105.1	0.0
4/30/2007	8155	30	606.2	-963.3	-828.4	1367.9	0.0	-149.5	361.4	-5.1	-109.6	-74.2	26.7	64.3	-399.6	103.3	0.0
5/31/2007	8186	31	1020.0	-937.8	-893.0	1476.3	0.0	-158.0	373.4	-2.1	-110.5	-75.2	29.6	72.5	-894.4	99.2	0.0
6/30/2007	8216	30	1328.1	-863.2	-810.2	1322.1	0.0	-152.8	357.6	-1.3	-106.9	-73.2	28.8	71.8	-1169.7	68.9	0.0
7/31/2007	8247	31	1401.1	-845.6	-816.3	1268.0	0.0	-154.6	365.4	-1.6	-110.3	-76.5	29.4	73.9	-1175.3	42.3	0.0
8/31/2007	8278	31	1278.4	-819.3	-774.0	1346.2	0.0	-151.0	360.6	-2.3	-109.9	-76.7	28.9	72.7	-1195.1	41.5	0.0
9/30/2007	8308	30	805.0	-808.7	-621.8	1584.2	0.0	-141.0	344.3	-4.3	-107.7	-75.1	25.9	66.4	-1110.7	43.5	0.0
10/31/2007	8339	31	539.9	-862.0	-570.5	1698.3	0.0	-141.0	351.6	-6.7	-113.5	-78.9	24.5	64.7	-970.8	64.4	0.0
11/30/2007	8369	30	633.4	-847.2	-427.6	1464.6	0.0	-131.3	337.6	-4.4	-112.4	-77.6	21.2	57.8	-971.0	57.1	0.0
12/31/2007	8400	31	353.4	-894.7	-390.7	1402.4	0.0	-124.1	347.5	-5.9	-117.9	-82.1	19.5	53.4	-784.8	82.6	141.4
1/31/2008	8431	31	-2901.4	-1133.4	-585.3	3974.2	0.0	-101.9	366.6	-9.6	-115.7	-85.0	18.6	43.6	-629.7	181.8	977.2
2/29/2008	8460	29	-193.9	-1225.2	-698.7	1658.2	0.0	-103.4	358.4	-22.3	-105.4	-78.6	18.4	34.0	-283.9	243.8	398.4
3/31/2008	8491	31	987.3	-1181.4	-943.7	1234.1	0.0	-139.6	383.0	-38.0	-117.8	-80.9	24.0	51.9	-428.1	195.0	54.4
4/30/2008	8521	30	647.1	-997.9	-915.2	1517.6	0.0	-136.8	374.9	-27.9	-115.3	-77.3	25.8	64.0	-449.4	90.4	0.0
5/31/2008	8552	31	717.3	-942.8	-946.0	1595.3	0.0	-144.8	384.2	-13.6	-116.5	-78.9	28.2	73.1	-657.5	101.8	0.0
6/30/2008	8582	30	770.5	-854.4	-842.4	1538.5	0.0	-139.1	365.6	-2.0	-109.5	-75.4	27.6	72.1	-840.4	89.0	0.0
7/31/2008	8613	31	856.8	-853.9	-842.9	1608.9	0.0	-142.9	372.4	1.0	-110.8	-77.6	28.1	73.7	-1012.8	99.9	0.0
8/31/2008	8644	31	1043.5	-830.6	-790.7	1526.6	0.0	-139.1	367.1	-2.8	-109.6	-77.9	27.1	72.1	-1180.6	94.8	0.0
9/30/2008	8674	30	769.3	-807.6	-627.5	1724.3	0.0	-127.4	350.0	-5.1	-106.9	-76.3	23.9	65.7	-1244.6	62.3	0.0
10/31/2008	8705	31	486.6	-866.3	-574.2	2010.9	0.0	-125.9	356.4	-7.3	-112.8	-80.1	22.3	63.9	-1233.5	60.2	0.0
11/30/2008	8735	30	-155.6	-884.8	-457.2	1872.4	0.0	-115.7	342.3	-8.3	-110.5	-79.4	18.8	53.5	-832.0	106.4	249.9
12/31/2008	8766	31	-60.5	-971.1	-447.3	1611.1	0.0	-106.0	359.3	-6.0	-113.1	-81.2	18.1	46.8	-691.9	64.1	377.8
1/31/2009	8797	31	644.6	-970.6	-523.8	1233.5	0.0	-107.4	362.3	-3.7	-112.4	-79.0	19.2	48.7	-730.5	87.0	132.0
2/28/2009	8825	28	-2438.4	-1041.7	-588.3	3781.5	0.0	-79.5	332.5	-5.0	-101.5	-74.0	16.9	38.5	-465.3	37.2	587.3
3/31/2009	8856	31	946.1	-1209.7	-935.5	1221.9	0.0	-92.0	374.6	-4.2	-109.3	-78.0	22.5	51.5	-486.9	65.8	233.2
4/30/2009	8886	30	861.6	-1020.7	-922.9	1369.0	0.0	-107.4	361.3	-3.4	-105.9	-72.9	25.0	62.5	-534.2	88.1	0.0
5/31/2009	8917	31	837.6	-956.4	-982.7	1258.6	0.0	-116.4	371.7	-3.4	-107.5	-74.1	27.7	71.5	-645.5	60.7	258.1
6/30/2009	8947	30	1067.1	-844.4	-870.0	1158.7	0.0	-111.4	361.5	-3.3	-101.3	-70.8	27.1	70.4	-715.2	31.4	0.0
7/31/2009	8978	31	823.8	-832.1	-862.0	1496.7	0.0	-113.7	370.2	-3.3	-103.4	-73.2	27.8	73.4	-986.8	7.3	175.3
8/31/2009	9009	31	1060.9	-822.0	-815.2	1404.5	0.0	-111.1	373.0	-3.4	-103.6	-74.2	26.8	72.3	-1174.5	6.7	159.7
9/30/2009	9039	30	932.0	-790.2	-643.8	1394.0	0.0	-103.0	362.3	-3.0	-101.4	-73.2	23.5	65.9	-1241.3	10.5	167.5
10/31/2009	9070	31	501.4	-855.1	-595.0	1745.9	0.0	-97.4	374.4	-2.3	-105.3	-77.0	21.8	62.5	-1219.0	87.8	157.5
11/30/2009	9100	30	697.6	-862.4	-441.0	1684.5	0.0	-90.6	360.3	-1.2	-102.5	-74.8	18.6	56.1	-1297.2	52.7	0.0
12/31/2009	9131	31	-283.0	-973.8	-425.6	2308.4	0.0	-78.5	368.8	-0.5	-107.4	-79.6	16.4	47.5	-1208.9	33.7	382.5
1/31/2010	9162	31	-2475.2	-1278.2	-626.5	4411.2	0.0	-62.3	380.6	-0.3	-105.6	-80.9	15.5	35.0	-1070.2	46.9	810.1
2/28/2010	9190	28	-909.7	-1368.4	-710.5	3003.6	0.0	-52.2	353.4	-0.3	-95.8	-71.7	15.1	28.5	-771.2	82.4	496.5
3/31/2010	9221	31	1535.2	-1375.3	-1004.7	1311.9	0.0	-68.5	391.7	-0.2	-105.7	-75.0	21.3	48.8	-820.3	57.9	82.7
4/30/2010	9251	30	777.4	-1127.1	-998.7	1421.6	0.0	-67.0	379.2	-0.1	-100.4	-71.5	23.4	59.0	-589.3	50.8	242.7
5/31/2010	9282	31	989.8	-1027.7	-1028.5	1479.9	0.0	-75.6	391.5	-0.2	-99.8	-71.0	26.5	70.0	-713.1	58.1	0.0
6/30/2010	9312	30	709.7	-907.3	-908.2	1362.7	0.0	-92.3	374.7	-0.2	-97.0	-67.7	25.9	70.9	-819.1	125.6	222.2
7/31/2010	9343	31	874.3	-893.2	-912.7	1482.4	0.0	-98.6	389.0	-0.2	-99.6	-69.9	26.5	72.7	-1001.6	25.5	205.4
8/31/2010	9374	31	1013.7	-852.2	-842.5	1388.7	0.0	-96.1	389.3	-0.1	-99.4	-70.4	25.6	71.5	-1120.4	10.5	181.8
9/30/2010	9404	30	799.8	-811.0	-661.7	1469.8	0.0	-88.7	375.8	0.0	-96.8	-68.9	22.4	65.1	-1203.0	4.2	193.1
10/31/2010	9435	31	83.7	-876.5	-627.0	1996.2	0.0	-84.7	386.8	0.0	-100.7	-72.6	20.6	59.0	-1086.0	45.6	255.5
11/30/2010	9465	30	481.3	-874.3	-467.1	1475.6	0.0	-75.9	372.2	0.0	-96.1	-68.6	18.3	51.9	-939.7	76.0	46.4
12/31/2010	9496	31	-4305.0	-1227.5	-485.6	6386.1	0.0	-68.2	384.5	-0.4	-102.7	-77.1	14.2	35.9	-1033.5	82.8	396.6
1/31/2011	9527	31	973.2	-1352.9	-625.2	1166.0	0.0	-80.1	390.6	-0.4	-104.1	-73.4	15.5	37.3	-793.5	116.7	330.2
2/28/2011	9555	28	-408.7	-1148.6	-646.2	1826.0	0.0	-70.1	359.8	-1.9	-94.3	-64.8	16.3	36.3	-450.7	50.0	597.0
3/31/2011	9586	31	-2830.1	-1532.7	-1150.9	4196.3	0.0	-57.8	419.7	-9.4	-96.3	-71.0	20.6	36.7	-307.4	64.7	1317.4
4/30/2011	9616	30	966.4	-1486.3	-1288.6	1455.4	0.0	-55.6	409.5	-16.0	-87.6	-64.4	23.8	45.8	-254.8	77.2	275.1
5/31/2011	9647	31	802.0	-1266.7	-1219.6	1519.1	0.0	-82.4	414.6	-25.1	-91.4	-65.2	27.0	65.5	-314.8	174.0	63.1
6/30/2011	9677	30	805.4	-1045.7	-988.5	1427.7	0.0	-84.0	397.6	-13.9	-86.8	-62.8	26.3	69.9	-517.4	72.2	0.0
7/31/2011	9708	31	440.6	-974.7	-954.7	1444.7	0.0	-94.5	405.6	-5.7	-90.3	-64.6	27.0	73.6	-546.3	113.7	225.6
8/31/2011	9739	31	495.7	-912.6	-876.4	1406.3	0.0	-97.5	405.5	-2.1	-89.4	-64.1	26.5	72.1	-627.2	95.2	168.1
9/30/2011	9769	30	399.1	-857.2	-672.4	1361.0	0.0	-92.7	391.1	-0.6	-87.0	-62.3	23.7	65.7	-674.7	69.5	136.8
10/31/2011	9800	31	93.8	-873.5	-592.4	1515.1	0.0	-95.1	399.8	-3.2	-90.8	-65.1	22.3	62.6	-493.5	120.0	0.0
11/30/2011	9830	30	-631.1	-872.3	-469.7	1520.2	0.0	-89.8	380.6	-7.6	-87.3	-63.3	19.4	52.0	-215.4	117.6	346.6
12/31/2011	9861	31	111.3	-924.8	-420.7	1347.5	0.0	-91.0	390.5	-4.8	-90.7	-64.3	19.1	49.6	-428.9	107.1	0.0
1/31/2012	9892	31	-439.5	-934.3	-500.3	1460.1	0.0	-89.3	385.3	-3.0	-92.2	-65.2	19.1	48.7	-201.3	104.8	307.1
2/29/2012	9921	29	204.2	-881.9	-515.0	1419.3	0.0	-84.2	360.5	-0.6	-85.6	-59.5	19.1	48.3	-507.5	82.9	0.0
3/31/2012	9952	31	-394.2	-956.7	-788.3	1652.0	0.0	-86.0	384.8	-2.2	-89.5	-63.8	22.9	56.8	-279.7	83.0	461.0
4/30/2012	9982	30	-149.3	-941.6	-924.4	1496.4	0.0	-73.6	379.3	-2.3	-80.9	-60.3	25.0	57.8	-176.0	55.9	393.9
5/31/2012	10013	31	589.2	-922.8	-978.5	1433.9	0.0	-86.6	391.3	-2.0	-83.4	-60.2	28.0	68.1	-465.5	88.4	0.0
6/30/2012	10043	30	591.1	-830.5	-848.8	1297.7	0.0	-92.2	373.7	-2.4	-82.0	-58.4	27.3	70.6	-618.3	28.1	144.1
7/31/2012	10074	31	770.5	-814.5	-829.0	1375.5	0.0	-97.7	387.9	-2.8	-85.8	-61.4	27.8	73.9	-796.5	13.8	38.4
8/31/2012	10105	31	940.9	-770.5	-756.8	1297.0	0.0	-98.2	387.9	-2.8	-86.9	-62.7	26.9	73.0	-948.2	0.3	0.0
9/30/2012	10135	30	673.6	-728.8	-589.3	1471.2	0.0	-93.2	378.0	-2.3	-86.0	-62.1	23.7	66.8	-1052.4	0.2	0.6
10/31/2012	10166	31	328.6	-788.0	-544.7	1803.1	0.0	-93.1	387.1	-1.7	-91.4	-65.8	22.1	65.1	-1156.2	10.0	124.9
11/30/2012	10196	30	571.0	-774.1	-406.7	1293.4	0.0	-83.6	369.4	-0.9	-90.3	-65.6	18.7	57.7	-933.5	44.6	0.0
12/31/2012	10227	31	25.2	-806.7	-383.0	1332.7	0.0	-79.3	375.1	-0.4	-94.1	-68.5	17.4	53.5	-822.1	79.7	370.6
1/31/2013	10258	31	264.9	-827.6	-471.8	1287.9	0.0	-81.6	374.4	-0.1	-94.1	-67.8	17.9	49.8	-718.9	74.1	192.7
2/28/2013	10286	28	454.5	-745.2	-460.0	1313.0	0.0	-76.4	334.5	0.0	-84.7	-59.9	17.2	48.4	-784.2	42.8	0.0
3/31/2013	10317	31	770.3	-773.3	-670.2	1235.9	0.0	-86.0	362.0	0.0	-92.8	-66.1	21.3	60.6	-805.7	44.0	0.0
4/30/2013	10347	30	698.2	-697.3	-718.6	1263.0	0.0	-85.3	345.2	0.0	-87.0	-62.5	23.0	65.8	-890.4	16.6	129.3
5/31/2013	10378	31	981.4	-675.0	-781.9	1185.0	0.0	-90.2	357.5	0.0	-87.6	-63.7	25.1	72.9	-979.8	0.3	56.2
6/30/2013	10408	30	890.7	-614.4	-721.0	1120.5	0.0	-87.2	346.2	0.0	-83.0	-61.4	24.4	71.5	-1005.7	0.0	119.4
7/31/2013	10439	31	895.6	-609.3	-724.7	1360.3	0.0	-89.1	356.1	0.0	-84.8	-63.4	25.1	73.5	-1139.2	0.0	0.0
8/31/2013	10470	31	935.0	-584.2	-674.1	1359.6	0.0	-87.1	349.8	0.0	-84.5	-63.8	24.3	72.4	-1247.5	0.0	0.0

Flow Budget for the Semi-Perched Aquifer in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet														
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Mound	Pleasant Valley	West Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin UAS	Partial Santa Clara River percolation	Calleguas Creek percolation
9/30/2013	10500	30	819.3	-554.9	-530.1	1363.2	0.0	-80.6	330.8	0.0	-82.4	-62.5	21.2	66.4	-1290.3	0.0	0.0
10/31/2013	10531	31	895.4	-569.2	-477.9	1366.8	0.0	-79.0	334.0	0.0	-86.3	-65.5	19.6	65.0	-1402.8	0.0	0.0
11/30/2013	10561	30	616.4	-569.3	-366.8	1360.4	0.0	-71.6	319.9	0.0	-84.9	-64.2	16.4	58.0	-1411.1	0.0	196.8
12/31/2013	10592	31	788.0	-622.1	-334.5	1377.4	0.0	-70.1	330.2	0.0	-89.3	-67.1	14.7	55.0	-1505.7	0.0	123.4
1/31/2014	10623	31	939.8	-617.4	-382.0	1465.8	0.0	-69.7	331.9	0.0	-89.9	-67.2	14.2	55.7	-1589.4	0.0	8.2
2/28/2014	10651	28	-591.0	-592.3	-402.4	2596.6	0.0	-59.5	297.0	0.0	-82.1	-62.4	12.4	47.5	-1416.1	38.6	213.8
3/31/2014	10682	31	709.9	-682.7	-683.8	1276.2	0.0	-60.1	331.4	0.0	-86.0	-66.1	16.8	56.7	-1339.8	78.8	448.8
4/30/2014	10712	30	1096.5	-604.3	-726.2	1454.4	0.0	-68.4	319.6	0.0	-82.4	-60.9	19.1	61.8	-1409.2	0.0	0.0
5/31/2014	10743	31	1168.3	-546.0	-734.4	1446.0	0.0	-74.7	319.1	0.0	-83.8	-61.9	20.9	71.1	-1524.7	0.0	0.0
6/30/2014	10773	30	1012.6	-473.1	-648.2	1455.2	0.0	-71.8	298.6	0.0	-79.1	-59.3	20.0	70.7	-1525.8	0.0	0.0
7/31/2014	10804	31	1088.1	-448.6	-641.4	1426.5	0.0	-74.0	296.2	0.0	-80.6	-61.0	20.3	72.8	-1598.4	0.0	0.0
8/31/2014	10835	31	1073.4	-415.7	-595.2	1409.7	0.0	-73.6	283.3	0.0	-80.3	-61.0	19.5	71.7	-1631.9	0.0	0.0
9/30/2014	10865	30	902.6	-384.6	-464.6	1412.9	0.0	-68.5	262.3	0.0	-77.4	-58.7	16.9	65.7	-1606.5	0.0	0.0
10/31/2014	10896	31	901.4	-387.6	-416.4	1434.5	0.0	-67.6	258.4	0.0	-79.9	-60.3	15.4	64.3	-1662.1	0.0	0.0
11/30/2014	10926	30	827.9	-377.4	-311.8	1236.7	0.0	-58.5	240.6	0.0	-76.3	-57.6	12.7	57.9	-1586.9	0.0	92.9
12/31/2014	10957	31	-1645.3	-535.4	-349.9	3427.8	0.0	-50.3	256.9	0.0	-78.0	-61.1	10.1	46.0	-1734.0	46.0	667.2
1/31/2015	10988	31	567.3	-642.7	-480.5	1417.1	0.0	-46.1	268.8	0.0	-75.8	-57.4	11.2	40.3	-1404.3	12.7	389.5
2/28/2015	11016	28	907.0	-530.9	-449.9	1213.8	0.0	-45.5	241.6	0.0	-67.6	-48.2	12.3	42.2	-1275.0	0.0	0.0
3/31/2015	11047	31	1284.2	-487.2	-605.5	1034.5	0.0	-55.0	260.2	0.0	-73.7	-52.1	16.3	59.1	-1397.7	0.0	16.8
4/30/2015	11077	30	1046.4	-396.4	-602.3	1167.7	0.0	-55.2	250.0	0.0	-68.4	-49.0	17.8	65.2	-1375.8	0.0	0.0
5/31/2015	11108	31	1057.0	-358.1	-628.6	1162.4	0.0	-57.7	247.6	0.0	-67.3	-49.4	19.5	72.2	-1446.8	49.1	0.0
6/30/2015	11138	30	933.3	-309.2	-558.2	1214.3	0.0	-55.3	229.3	0.0	-62.4	-46.7	19.0	70.8	-1434.9	0.0	0.0
7/31/2015	11169	31	903.7	-294.8	-554.9	1293.5	-0.4	-57.6	227.1	0.0	-62.8	-47.4	19.6	72.5	-1498.4	0.0	0.0
8/31/2015	11200	31	877.6	-277.1	-517.4	1303.1	-0.4	-57.6	217.5	0.0	-61.6	-46.8	19.1	71.3	-1527.8	0.0	0.0
9/30/2015	11230	30	775.2	-260.8	-406.4	1273.3	-0.4	-53.5	201.3	0.0	-58.5	-44.6	16.8	65.4	-1507.9	0.0	0.0
10/31/2015	11261	31	790.4	-266.2	-365.9	1295.9	-0.4	-53.5	199.5	0.0	-59.6	-45.3	15.6	64.1	-1574.5	0.0	0.0
11/30/2015	11291	30	670.7	-259.9	-272.2	1302.1	-0.4	-50.4	185.2	0.0	-57.6	-43.2	13.0	57.6	-1545.1	0.0	0.0
12/31/2015	11322	31	685.8	-274.4	-241.5	1328.9	-0.4	-50.4	187.8	0.0	-59.4	-44.0	11.7	55.6	-1609.5	0.0	9.7

Flow Budget for the UAS in Oxnard Basin

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	Volcanic Outcrop Recharge	Tile DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin Semi-Perched Aquifer	Santa Paula	Mound	Pleasant Valley	Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin LAS	Partial Santa Clara River percolation
1/31/1985	31	31	-2603.8	0.6	0.0	0.0	7776.6	-4214.0	552.7	133.5	-358.5	-104.6	-304.2	-26.1	-1.3	37.9	107.9	-1184.5	187.7
2/28/1985	59	28	-2570.2	0.7	0.0	0.0	6663.6	-3237.9	440.8	114.6	-430.6	-108.7	-198.7	-36.6	2.0	40.1	104.8	-997.3	213.3
3/31/1985	90	31	696.1	0.3	0.0	0.0	5186.7	-5220.3	637.8	127.3	-426.2	-103.1	-191.9	-20.3	9.5	59.9	139.3	-1114.4	219.2
4/30/1985	120	30	5562.1	0.0	0.0	0.0	2077.2	-8058.7	1132.7	127.2	-160.6	-65.1	-75.7	83.1	37.6	75.2	166.7	-1147.0	245.3
5/31/1985	151	31	5423.4	0.0	0.0	0.0	1577.7	-8094.3	1394.3	144.9	78.7	-30.5	31.1	116.5	62.9	89.1	195.9	-1248.2	258.6
6/30/1985	181	30	5627.8	0.0	0.0	0.0	854.9	-8097.9	1567.6	153.8	268.4	4.0	89.5	145.0	78.3	94.7	206.9	-1252.9	260.0
7/31/1985	212	31	4952.7	0.0	0.0	0.0	597.7	-7313.4	1667.6	175.1	315.4	5.8	159.2	96.2	87.7	113.7	258.3	-1388.7	272.8
8/31/1985	243	31	4726.4	0.0	0.0	0.0	689.4	-7326.8	1700.9	192.2	390.1	26.8	195.3	111.0	96.8	126.2	292.1	-1480.5	260.0
9/30/1985	273	30	2234.6	0.0	0.0	0.0	3214.0	-7333.2	1697.1	195.8	426.5	48.2	153.6	137.6	108.1	132.0	305.4	-1550.3	230.7
10/31/1985	304	31	4289.7	0.0	0.0	0.0	1102.7	-7306.9	1780.4	202.7	432.4	71.2	109.3	161.0	124.6	143.4	332.4	-1673.1	230.1
11/30/1985	334	30	-2694.3	3.5	0.0	0.0	2569.0	-1280.6	1551.2	204.2	278.2	93.0	68.5	21.9	89.4	106.5	271.3	-1510.2	228.4
12/31/1985	365	31	328.3	0.0	0.0	0.0	4151.9	-5831.0	1446.4	212.9	272.6	42.3	71.0	100.1	80.6	97.7	244.0	-1446.9	230.0
1/31/1986	396	31	-3394.2	2.9	0.0	0.0	4343.6	-1852.6	1316.5	215.3	124.4	60.6	-15.9	26.6	69.2	83.8	214.7	-1345.0	150.0
2/28/1986	424	28	-5087.3	7.3	0.0	0.0	5555.0	-982.1	1083.4	193.6	-28.2	50.7	-84.9	-30.8	32.3	52.5	147.3	-1098.5	189.7
3/31/1986	455	31	-9984.9	6.1	0.0	0.0	11692.1	-1362.9	772.1	187.3	-171.3	26.7	-300.3	-55.1	13.2	41.9	124.8	-1234.4	244.7
4/30/1986	485	30	-6546.8	0.0	0.0	0.0	12735.7	-5134.0	629.3	125.1	-318.4	2.1	-480.1	-1.6	17.6	46.7	118.3	-1298.6	104.5
5/31/1986	516	31	2495.5	0.0	0.0	0.0	7935.9	-10067.3	1185.2	85.2	-258.1	45.1	-471.7	197.4	68.3	81.7	167.4	-1423.3	-41.8
6/30/1986	546	30	5743.6	0.0	0.0	0.0	3754.6	-10091.0	1452.5	76.3	-54.4	99.5	-267.7	254.4	108.8	104.2	205.7	-1417.4	28.7
7/31/1986	577	31	-1966.4	0.0	0.0	0.0	8769.2	-7402.5	1500.1	85.4	61.8	46.6	-194.0	164.0	110.8	111.1	247.1	-1580.8	47.5
8/31/1986	608	31	5421.1	0.0	0.0	0.0	1194.6	-7402.4	1541.4	88.7	67.9	24.6	-123.1	145.8	103.2	110.4	258.5	-1565.6	134.9
9/30/1986	638	30	2270.9	0.2	0.0	0.0	1079.6	-4350.7	1399.4	114.2	86.1	23.0	27.9	67.1	85.6	99.4	241.6	-1383.5	239.0
10/31/1986	669	31	4648.0	0.0	0.0	0.0	1269.3	-7391.0	1558.1	144.8	225.7	7.4	106.5	134.1	92.4	105.3	253.4	-1405.1	251.3
11/30/1986	699	30	256.6	0.9	0.0	0.0	2198.7	-3618.6	1304.8	162.6	201.7	36.1	75.1	78.6	85.5	96.1	236.1	-1318.3	204.2
12/31/1986	730	31	3021.4	0.0	0.0	0.0	2804.0	-7377.8	1501.1	186.1	247.0	11.7	131.5	142.4	92.1	101.8	245.1	-1332.6	226.1
1/31/1987	761	31	-2201.3	1.0	0.0	0.0	4151.7	-3054.2	1296.0	205.1	94.5	34.9	99.8	45.4	79.9	92.8	224.2	-1302.3	232.4
2/28/1987	789	28	-575.5	0.5	0.0	0.0	3074.0	-3218.4	1022.1	197.9	3.9	1.7	77.4	32.6	52.3	70.0	174.6	-1124.0	211.2
3/31/1987	820	31	-3530.0	1.1	0.0	0.0	6055.6	-2877.1	932.5	227.1	-103.0	-13.5	28.1	-6.9	43.5	69.4	179.0	-1229.5	223.8
4/30/1987	850	30	5130.0	0.0	0.0	0.0	2576.8	-8801.8	1368.6	217.1	31.6	-28.3	37.2	162.8	72.0	89.7	194.1	-1294.0	244.2
5/31/1987	881	31	5768.2	0.0	0.0	0.0	1585.5	-8862.9	1582.9	222.1	230.1	1.7	61.7	223.7	117.9	121.0	253.8	-1544.5	238.9
6/30/1987	911	30	3662.2	0.0	0.0	0.0	3430.2	-8875.8	1737.4	211.5	391.0	34.8	49.2	259.6	140.1	132.1	278.6	-1676.6	224.5
7/31/1987	942	31	1220.9	0.0	0.0	0.0	5423.8	-8411.8	1891.9	204.7	468.8	53.3	-24.7	282.9	161.5	146.0	339.3	-1990.5	234.0
8/31/1987	973	31	5421.0	0.0	0.0	0.0	1161.9	-8413.4	1962.2	193.3	469.1	69.9	-4.1	304.4	175.1	155.4	368.7	-2106.0	242.5
9/30/1987	1003	30	5430.4	0.0	0.0	0.0	864.6	-8409.6	1994.9	200.0	494.6	84.9	100.6	322.1	185.1	159.8	377.6	-2051.8	246.8
10/31/1987	1034	31	632.1	0.8	0.0	0.0	1128.1	-3460.5	1857.7	227.5	366.2	118.9	93.8	164.8	167.6	149.8	364.4	-2024.1	212.9
11/30/1987	1064	30	306.1	1.5	0.0	0.0	2236.4	-4095.0	1615.6	235.0	327.5	113.8	101.9	154.3	135.5	119.8	301.7	-1777.0	222.9
12/31/1987	1095	31	-3308.7	2.7	0.0	0.0	3870.8	-1813.3	1575.1	256.4	212.5	102.0	47.0	93.5	115.0	101.8	262.4	-1606.4	89.3
1/31/1988	1126	31	-6691.2	1.4	0.0	0.0	8073.7	-2312.5	1324.8	258.8	43.7	71.6	-7.3	77.2	93.2	88.4	219.8	-1418.1	176.4
2/29/1988	1155	29	-1562.7	0.7	0.0	0.0	5250.0	-4407.4	1155.4	238.5	-94.1	44.2	-55.8	126.3	87.6	84.4	192.6	-1267.6	207.8
3/31/1988	1186	31	-1691.6	0.0	0.0	0.0	8689.3	-7940.3	1400.7	248.1	-58.5	32.6	-77.3	218.9	114.8	106.2	221.8	-1491.8	225.8
4/30/1988	1216	30	-2608.2	1.2	0.0	0.0	4774.6	-2356.5	1248.6	220.5	-154.3	39.3	-267.7	61.0	94.5	93.1	216.6	-1548.5	185.9
5/31/1988	1247	31	-842.5	0.0	0.0	0.0	8335.5	-8047.6	1388.5	202.0	11.1	30.2	-264.0	204.3	106.9	103.9	222.5	-1651.5	199.2
6/30/1988	1277	30	3615.9	0.0	0.0	0.0	3628.5	-8072.9	1520.2	174.7	72.8	44.0	-223.9	253.4	135.3	119.5	246.9	-1726.7	209.3
7/31/1988	1308	31	5030.7	0.0	0.0	0.0	916.7	-7004.2	1600.7	182.1	120.0	23.5	-68.1	238.6	147.9	133.4	300.3	-1889.3	267.9
8/31/1988	1339	31	5457.4	0.0	0.0	0.0	205.4	-7019.7	1650.7	199.1	235.0	23.6	49.7	246.4	153.9	140.0	325.0	-1945.7	279.1
9/30/1988	1369	30	4987.5	0.0	0.0	0.0	495.1	-7023.2	1676.0	213.4	326.0	30.1	111.3	262.0	161.0	143.6	332.5	-1949.7	234.4
10/31/1988	1400	31	4760.6	0.0	0.0	0.0	557.3	-7043.5	1784.6	239.7	390.7	46.7	138.4	283.3	177.5	154.4	357.9	-2083.8	236.4
11/30/1988	1430	30	2075.5	0.4	0.0	0.0	879.6	-4577.0	1661.1	249.0	360.7	71.8	119.1	240.4	168.5	141.8	335.4	-1943.1	216.7
12/31/1988	1461	31	-1058.4	4.2	0.0	0.0	1325.4	-1614.4	1662.0	277.9	274.5	104.6	90.2	120.9	140.4	116.5	292.5	-1774.5	38.2
1/31/1989	1492	31	2197.4	0.0	0.0	0.0	1807.9	-5659.9	1537.0	280.4	343.8	67.4	106.3	270.7	145.5	105.5	250.4	-1659.4	205.2
2/28/1989	1520	28	-5859.0	2.3	0.0	0.0	6292.1	-1613.0	1374.1	254.7	168.3	76.1	23.1	134.6	122.0	89.5	212.9	-1431.4	153.8
3/31/1989	1551	31	-676.7	0.1	0.0	0.0	4205.2	-4678.3	1409.1	270.2	128.3	60.9	-65.6	236.7	134.5	98.3	223.3	-1564.8	218.7
4/30/1989	1581	30	3953.2	0.0	0.0	0.0	1052.4	-6265.7	1500.2	248.7	162.6	59.4	-71.8	285.3	151.5	109.9	235.4	-1645.5	224.4
5/31/1989	1612	31	2890.1	0.0	0.0	0.0	1868.8	-6300.5	1634.6	258.6	244.5	81.2	6.8	311.1	172.8	124.0	264.2	-1785.0	228.8
6/30/1989	1642	30	3804.8	0.0	0.0	0.0	815.8	-6292.0	1647.4	258.5	284.3	94.3	55.1	321.5	178.8	126.6	269.7	-1794.5	225.8
7/31/1989	1673	31	3762.2	0.0	0.0	0.0	315.8	-5738.4	1715.1	274.9	292.8	62.8	77.2	311.8	186.1	137.1	307.5	-1941.3	235.8
8/31/1989	1704	31	3738.0	0.0	0.0	0.0	289.0	-5748.9	1742.1	283.9	319.5	53.3	98.4	317.1	189.2	141.1	322.5	-1998.8	250.1
9/30/1989	1734	30	3461.6	0.0	0.0	0.0	542.0	-5739.1	1727.9	283.8	336.6	51.5	112.5	324.7	191.4	142.1	325.2	-1990.1	230.0
10/31/1989	1765	31	3289.9	0.0	0.0	0.0	666.6	-5759.2	1808.5	301.7	358.6	59.2	116.5	343.2	205.7	151.3	346.9	-2101.6	212.8
11/30/1989	1795	30	3111.7	0.0	0.0	0.0	719.1	-5643.8	1779.2	298.3	347.4	61.1	101.7	349.3	207.1	150.7	345.2	-2042.2	213.7
12/31/1989	1826	31	3248.1	0.0	0.0	0.0	598.6	-5758.5	1873.7	313.6	358.9	69.4	108.4	367.1	221.0	159.1	364.6	-2152.7	228.7
1/31/1990	1857	31	-1478.8	0.7	0.0	0.0	2004.1	-2179.7	1763.8	319.2	290.5	109.5	53.1	269.3	204.5	143.2	332.4	-2023.3	191.5
2/28/1990	1885	28	-1960.3	0.9	0.0	0.0	3085.7	-2545.2	1509.1	288.6	230.6	102.6	4.0	264.6	174.3	116.5	268.5	-1699.5	159.7
3/31/1990	1916	31	2522.8	0.0	0.0	0.0	1860.6	-5997.3	1766.2	314.1	247.4	68.0	6.8	379.7	208.1	136.1	294.8	-2020.5	213.1
4/30/1990	1946	30	3047.8	0.0	0.0	0.0	1413.9	-6025.8	1792.5	304.4	261.7	56.8	33.8	395.3	219.5	142.9	304.1	-2158.6	211.8
5/31/1990	1977	31	2965.8	0.0	0.0	0.0	901.7	-5484.5	1860.9	319.0	299.8	62.8	40.6	412.3	237.3	154.6	330.9	-2311.7	210.4
6/30/1990	2007	30	3876.3	0.0	0.0	0.0	566.6	-6048.5	1879.8	312.6	331.5	63.1	51.4	417.9	239.5	155.7	333.5	-2360.9	181.5
7/31/1990	2038	31	3256.8	0.0	0.0	0.0	415.3	-5346.8	1951.1	326.0	368.5	84.5	62.0	438.5	255.5	163.2	361.7	-2504.9	166.0
8/31/1990	2069	31	3354.5	0.0	0.0	0.0	243.8	-5351.6	1975.7	329.8	386.7	94.2	64.0	448.1	261.3	168.0	375.1	-2510.6	156.7
9/30/1990	2099	30	3346.2	0.0	0.0	0.0	219.3	-5340.7	1945.6	323.3	390.4	94.5	63.8	451.0	260.6	167.0	371.8	-2445.0	152.0
10/31/1990	2130	31	3286.0	0.0	0.0	0.0	200.7	-5354.9	2025.3	338.5	397.9	103.0	67.2	472.0	275.9	175.7	391.2	-2534.8	156.5
11/30/1990	2160	30	3235.1	0.0	0.0	0.0	196.1	-5299.3	1967.6	332.3	390.5	115.1	68.7	472.8	273.5	172.8	384.0	-2456.4	146.7
12/31/1990	2191	31	3169.1	0.0	0.0	0.0	197.5	-5347.5	2051.5	346.8	402.4	116.6	74.2	493.3	287.9	180.5	401.0	-2529.8	156.6
1/31/1991	2222	31	1952.4	0.4	0.0	0.0	204.8	-4158.3	1970.5	352.2	396.8	128.3	57.3	459.4	281.7	173.9	387.0	-2357.2	150.7
2/28/1991	2250	28	-1000.3	1.0	0.0	0.0	890.0	-1670.0	1730.6	323.3	261.3	127.1	23.8	311.0	232.0	140.1	319.0	-1841.5	152.4
3/31/1991	2281	31	-17226.0	8.3	0.0	0.0	15633.9	-603.9	2315.0	349.7	143.6	183.0	-117.0	281.3	226.4	132.1	307.8	-1900.2	266.0
4/30/1991	2311	30	-8366.9	0.0	0.0	0.0	13001.4	-5786.4	1827.2	287.8	-3.5	92.9	-353.8	434.4	229.9	130.5	280.0	-2015.2	241.8
5/31/1991	2342	31	1589.2	0.0	0.0	0.0	3333.2	-5836.6	1890.8	261.6	-132.1	59.3	-410.3	457.9	253.6	146.8	308.1	-2152.8	231.4
6/30/1991	2372	30	3392.0	0.0	0.0	0.0	1333.5	-5838.6	1838.1	246.2	30.3	43.5	-291.3	442.4	248.7	147.0	310.1	-2123.0	220.9
7/31/1991	2403	31	3160.8	0.0	0.0	0.0	828.3	-5342.6	1888.0	261.8	125.1	28.8	-184.0	453.3	262.5	157.9	349.1	-2208.0	217.4
8/31/1991	2434	31	3574.4	0.0	0.0	0.0	237.3	-5349.7	1905.4	274.1	205.0	22.0	-94.0	460.8	268.1	165.0	366.4	-2242.8	204.8
9/30/1991	2464	30	3206.6	0.0	0.0	0.0	499.2	-5347.7	1872.8	278.7	260.7	19.7	-33.2	461.6	266.9	165.5	367.5	-2209.2	185.8
10/31/1991	2495	31	998.0	0.0	0.0	0.0	2628.1	-5365.7	1947.6	299.0	289.3	22.4	-13.9	480.5	281.6	175.1	389.4	-2317.4	183.2
11/30/1991	2525	30	1673.3	0.0	0.0	0.0	2005.9	-5358.9	1911.8	297.6	257.1	20.9	-12.5	476.0	277.8	172.8	384.5	-2283.3	173.3
12/31/1991	2556	31	-2578.8	5.5	0.0	0.0	1967.8	-1058.0	2091.4	321.0	118.0	107.5	-55.2	319.4	255.7	158.2	360.6	-2109.9	97.1
1/31/1992	2587	31	-4748.7	1.6	0.0	0.0	5122.3	-1816.9	1720.2	319.4	99.9	108.9	-124.0	309.8	225.4	132.9	304.3	-1802.0	146.9
2/29/1992	2616	29	-16232.3	10.6	0.0	0.0	15173.6	-589.4	2041.3	283.4	-123.7	132.8	-244.2	233.8	188.3	107.5	246.8	-1593.0	364.4
3/31/1992	2647	31	-17809.1	5.8	0.0	0.0	18140.1	-913.5	1800.4	253.0	-577.9	122.3	-553.1	220.9	175.4	97.5	224.4	-1614.1	427.9
4/30/1992	2677	30	-4723.5	0.0	0.0	0.0	10096.9	-5561.2	1480.6	180.9	-686.4	45.6	-713.1	355.0	175.3	95.8	204.1	-1651.6	701.5

Flow Budget for the UAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet																
			STORAGE	Volcanic Outcrop Recharge	Tile DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin Semi-Perched Aquifer	Santa Paula	Mound	Pleasant Valley	Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin LAS	Partial Santa Clara River percolation
5/31/1992	2708	31	-806.2	0.0	0.0	0.0	6544.0	-5605.1	1507.7	168.4	-494.4	16.3	-668.3	358.0	187.5	107.3	222.5	-1757.8	220.0
6/30/1992	2738	30	2131.8	0.0	0.0	0.0	3274.7	-5605.5	1448.7	160.4	-273.2	4.0	-525.1	341.2	180.3	106.1	221.4	-1703.5	238.9
7/31/1992	2769	31	2976.2	0.0	0.0	0.0	2131.9	-5652.0	1533.5	173.8	-110.6	-38.2	-379.8	326.1	188.5	119.5	265.7	-1790.5	255.9
8/31/1992	2800	31	3881.6	0.0	0.0	0.0	900.5	-5663.5	1551.4	190.3	25.5	-42.7	-232.0	334.2	193.9	128.0	289.3	-1818.1	261.6
9/30/1992	2830	30	2541.1	0.0	0.0	0.0	2012.4	-5665.0	1537.0	205.1	123.0	-35.6	-111.4	341.0	195.0	129.9	295.4	-1805.9	238.0
10/31/1992	2861	31	-13675.3	0.2	0.0	0.0	16658.3	-3859.5	1526.7	217.6	51.3	-17.6	-206.0	329.4	201.2	133.8	306.2	-1919.1	252.7
11/30/1992	2891	30	-9378.3	0.0	0.0	0.0	15165.3	-5666.8	1523.6	177.3	-339.1	-35.1	-488.8	324.4	191.7	130.5	301.4	-2134.7	228.5
12/31/1992	2922	31	-7697.6	4.2	0.0	0.0	9525.8	-971.9	1607.1	156.7	-727.2	3.4	-707.4	118.3	154.0	114.3	273.5	-2058.8	205.7
1/31/1993	2953	31	-8379.9	10.6	0.0	0.0	9611.9	-637.4	1652.1	155.2	-900.4	9.2	-640.6	20.1	99.6	83.4	213.8	-1772.8	475.1
2/28/1993	2981	28	-4914.3	5.9	0.0	0.0	5761.3	-577.8	1306.3	138.1	-936.9	-31.1	-525.4	-29.4	57.0	57.4	153.5	-1421.0	956.4
3/31/1993	3012	31	-5663.9	2.3	0.0	0.0	7725.6	-1159.4	917.7	148.9	-980.8	-103.1	-543.7	-56.2	38.1	50.8	139.3	-1449.9	934.3
4/30/1993	3042	30	-8406.8	0.0	0.0	0.0	16074.8	-6046.8	764.6	114.3	-747.6	-161.3	-725.5	104.0	50.7	55.0	132.3	-1751.1	543.4
5/31/1993	3073	31	-565.0	0.0	0.0	0.0	8444.9	-6089.4	826.8	78.0	-804.3	-171.9	-723.5	121.8	68.2	68.2	154.6	-1875.4	467.1
6/30/1993	3103	30	3689.1	0.0	0.0	0.0	3313.1	-5742.8	896.7	95.4	-553.6	-164.4	-439.0	113.9	67.0	69.6	159.0	-1717.2	213.2
7/31/1993	3134	31	5036.1	0.0	0.0	0.0	1126.2	-5531.0	1012.8	121.1	-295.1	-149.9	-235.4	98.8	71.2	79.7	194.3	-1782.7	253.9
8/31/1993	3165	31	1029.1	0.0	0.0	0.0	4846.7	-5536.8	1044.4	139.8	-58.4	-125.0	-182.3	112.8	77.9	88.3	215.9	-1850.7	198.4
9/30/1993	3195	30	-5848.8	0.0	0.0	0.0	11979.2	-5542.1	971.0	135.2	-50.9	-103.4	-287.4	129.6	83.7	91.4	222.9	-1964.8	184.4
10/31/1993	3226	31	-6557.6	0.0	0.0	0.0	13462.1	-5559.6	898.0	120.0	-312.4	-105.4	-466.3	120.5	86.3	97.0	238.6	-2191.2	170.0
11/30/1993	3256	30	-2518.3	0.0	0.0	0.0	8994.0	-4694.4	705.2	105.9	-548.2	-109.0	-476.4	79.3	71.8	90.3	227.0	-2096.7	169.4
12/31/1993	3287	31	-1813.1	0.6	0.0	0.0	6409.4	-2415.9	488.9	116.5	-663.9	-122.3	-462.8	-60.8	39.4	76.8	205.8	-1990.4	191.7
1/31/1994	3318	31	199.7	0.0	0.0	0.0	6871.4	-5418.7	642.1	124.8	-445.2	-140.8	-379.3	31.1	36.5	68.9	177.4	-1952.2	184.2
2/28/1994	3346	28	-726.7	4.2	0.0	0.0	3140.6	-819.5	401.2	123.2	-479.0	-105.7	-315.7	-116.9	11.9	51.7	142.7	-1605.8	293.9
3/31/1994	3377	31	-1460.8	1.8	0.0	0.0	4886.7	-1477.7	127.7	146.8	-438.7	-132.7	-327.3	-150.5	-17.9	38.2	122.3	-1566.3	248.2
4/30/1994	3407	30	-92.7	0.0	0.0	0.0	6740.9	-5378.7	496.9	136.6	-179.3	-149.9	-308.9	5.5	1.9	41.8	112.3	-1611.2	185.0
5/31/1994	3438	31	1715.8	0.0	0.0	0.0	5003.3	-5423.7	521.7	131.4	-79.5	-142.1	-331.6	40.0	24.9	54.8	131.4	-1808.6	162.1
6/30/1994	3468	30	4501.7	0.0	0.0	0.0	1723.1	-5423.0	647.9	120.1	55.8	-114.8	-255.2	63.2	35.9	58.5	136.9	-1767.5	217.4
7/31/1994	3499	31	4947.5	0.0	0.0	0.0	985.8	-5645.9	877.5	133.6	166.3	-132.9	-103.6	84.0	49.2	69.0	165.7	-1848.7	252.3
8/31/1994	3530	31	4493.2	0.0	0.0	0.0	1098.4	-5661.4	1026.1	151.0	264.9	-118.4	-14.7	107.5	62.3	79.0	188.2	-1917.8	241.8
9/30/1994	3560	30	365.7	0.0	0.0	0.0	5058.3	-5666.4	1075.3	164.2	272.0	-97.9	29.8	131.2	74.1	84.7	200.0	-1930.2	239.0
10/31/1994	3591	31	-1482.1	0.0	0.0	0.0	7169.0	-5687.3	1079.4	188.4	132.2	-93.2	20.4	132.7	83.1	93.0	220.3	-2083.7	227.8
11/30/1994	3621	30	-2478.3	0.3	0.0	0.0	5742.7	-2512.3	744.6	197.5	-146.7	-79.0	-78.4	7.2	58.2	82.7	206.6	-1953.2	208.0
12/31/1994	3652	31	-247.9	0.3	0.0	0.0	4777.9	-3385.9	673.5	217.2	-246.8	-91.5	-122.0	-35.4	34.2	72.2	192.6	-1938.3	99.7
1/31/1995	3683	31	-6803.1	15.2	0.0	0.0	7802.0	-427.7	827.5	219.8	-487.2	-7.1	-208.9	-157.4	0.2	52.7	156.0	-1785.9	804.1
2/28/1995	3711	28	-10272.4	0.6	-0.1	0.0	13875.7	-3281.2	190.3	161.1	-723.5	-44.4	-364.8	-79.0	-8.2	36.7	110.8	-1674.9	2073.3
3/31/1995	3742	31	-4540.1	8.0	-1.8	0.0	7805.8	-587.8	-220.5	145.3	-835.5	-61.5	-597.9	-199.2	-33.2	29.2	98.0	-1746.9	738.1
4/30/1995	3772	30	369.5	0.0	-3.7	0.0	6702.1	-5378.5	277.2	118.8	-571.5	-85.8	-483.9	-56.9	-25.3	28.8	84.3	-1612.5	637.4
5/31/1995	3803	31	-4758.5	0.0	-16.2	0.0	10491.8	-4158.1	81.7	93.6	-678.3	-94.6	-509.3	-75.8	-12.5	40.6	100.9	-1778.6	1273.1
6/30/1995	3833	30	-1133.5	0.0	-5.5	0.0	8914.1	-5490.3	227.7	95.3	-416.6	-90.4	-480.0	-32.9	-5.7	42.2	102.9	-1770.0	42.6
7/31/1995	3864	31	-2009.1	0.0	-11.5	-5.3	8806.7	-4230.3	-47.3	103.5	-475.6	-112.2	-384.9	-73.1	-15.1	46.2	121.2	-1833.6	120.5
8/31/1995	3895	31	-1158.0	0.0	-34.2	-23.3	8308.5	-4241.7	-197.3	111.0	-560.1	-130.8	-373.7	-107.4	-30.4	46.3	128.6	-1902.0	164.7
9/30/1995	3925	30	-836.6	0.0	-50.5	-22.9	7956.0	-4242.9	-141.4	108.2	-507.7	-133.7	-381.7	-115.0	-35.2	46.1	130.8	-1935.0	161.5
10/31/1995	3956	31	-1481.7	0.0	-64.9	-22.9	8881.0	-4256.1	-149.4	105.4	-475.9	-139.8	-437.6	-131.0	-39.9	48.5	139.5	-2099.0	123.8
11/30/1995	3986	30	52.5	0.0	-72.1	-16.6	7239.7	-4251.5	-96.0	93.1	-412.7	-135.6	-430.9	-126.6	-40.3	47.6	138.1	-2057.8	69.2
12/31/1995	4017	31	-791.0	1.4	-88.2	-14.9	5916.8	-1481.0	-586.7	98.9	-496.6	-125.6	-454.2	-242.6	-62.0	37.8	123.6	-1924.3	88.5
1/31/1996	4048	31	1016.7	0.4	-101.4	-16.1	4493.3	-2263.9	-501.2	107.7	-418.8	-140.9	-382.0	-240.3	-79.1	23.9	92.8	-1712.4	121.4
2/29/1996	4077	29	-6065.3	5.7	-111.3	-19.0	10205.5	-554.6	-774.7	103.9	-420.1	-113.2	-420.7	-284.2	-90.8	9.5	63.1	-1558.8	24.8
3/31/1996	4108	31	-2688.5	0.7	-138.2	-39.4	9075.6	-1957.7	-1082.5	91.3	-537.1	-153.5	-540.4	-272.2	-106.4	3.9	48.6	-1593.8	-110.3
4/30/1996	4138	30	1822.6	0.0	-144.4	-54.8	5967.8	-4039.9	-611.0	78.3	-406.4	-176.6	-442.0	-180.9	-93.2	7.3	47.1	-1557.0	-216.9
5/31/1996	4169	31	5403.0	0.0	-146.6	-57.8	1914.0	-4427.8	-120.0	83.5	-186.8	-177.2	-302.7	-163.3	-85.0	14.8	58.8	-1614.5	-192.4
6/30/1996	4199	30	4964.5	0.0	-129.3	-16.8	955.1	-4437.5	354.5	96.1	21.0	-150.6	-129.1	-136.0	-71.0	21.5	69.8	-1562.3	150.2
7/31/1996	4230	31	4770.0	0.0	-109.5	0.0	929.4	-5079.7	883.6	113.6	198.2	-166.8	-23.5	-101.4	-55.4	34.7	103.3	-1746.0	248.2
8/31/1996	4261	31	4497.6	0.0	-80.9	0.0	783.7	-5104.8	1134.0	127.3	314.8	-144.9	41.6	-65.6	-33.8	49.8	133.8	-1899.5	244.8
9/30/1996	4291	30	3644.5	0.0	-51.9	0.0	1341.2	-5108.8	1263.9	135.3	376.7	-115.1	72.0	-28.0	-13.6	59.3	151.5	-1958.3	228.2
10/31/1996	4322	31	-168.1	0.3	-36.0	0.0	3473.4	-2702.7	855.7	150.5	306.4	-74.3	-9.5	-115.5	-16.8	61.8	160.4	-2033.3	147.8
11/30/1996	4352	30	-3491.3	2.4	-29.4	0.0	5890.0	-1357.0	416.7	145.3	93.5	-34.6	-102.4	-158.8	-32.8	44.8	130.8	-1802.3	285.1
12/31/1996	4383	31	-8947.7	6.4	-40.1	0.0	12029.5	-716.6	-162.2	147.3	-214.6	-16.2	-305.5	-216.8	-59.1	25.3	96.4	-1775.2	149.2
1/31/1997	4414	31	-8797.3	5.6	-69.3	-0.3	13604.1	-797.0	-853.5	106.7	-611.2	-33.5	-602.6	-256.9	-85.0	7.7	59.7	-1770.8	93.8
2/28/1997	4442	28	-616.3	0.0	-81.0	-6.3	9293.9	-4951.3	-399.2	62.6	-612.5	-89.1	-543.7	-132.5	-71.5	10.9	48.5	-1548.5	-364.1
3/31/1997	4473	31	596.7	0.0	-99.6	-13.9	7956.6	-5016.9	-250.0	64.3	-549.1	-116.5	-502.5	-147.7	-67.2	25.1	74.9	-1784.8	-169.4
4/30/1997	4503	30	5312.7	0.0	-101.7	-4.4	2543.6	-5016.3	117.2	61.6	-332.1	-109.1	-356.4	-139.9	-60.9	29.7	85.2	-1745.5	-283.6
5/31/1997	4534	31	5678.6	0.0	-97.0	0.0	931.8	-5028.5	586.1	78.6	-71.2	-94.0	-175.1	-135.9	-55.8	35.5	98.8	-1759.9	8.0
6/30/1997	4564	30	4997.2	0.0	-76.4	0.0	509.8	-5023.5	897.4	96.5	133.9	-70.3	-17.9	-107.9	-44.1	38.9	104.5	-1663.0	225.0
7/31/1997	4595	31	5591.2	0.0	-55.4	0.0	558.1	-6567.1	1372.5	120.4	356.5	-57.6	91.0	-17.0	-20.2	51.3	131.7	-1797.5	242.0
8/31/1997	4626	31	3944.9	0.0	-39.1	0.0	1874.4	-6596.0	1506.0	140.8	451.9	-33.4	148.8	20.6	2.4	64.1	157.5	-1883.4	240.5
9/30/1997	4656	30	1678.2	0.0	-27.4	0.0	4165.0	-6598.0	1423.7	155.7	412.4	-15.2	157.3	48.0	18.4	70.8	171.2	-1898.4	236.8
10/31/1997	4687	31	1710.3	0.0	-17.4	0.0	4439.1	-6620.7	1351.8	176.4	331.9	-3.5	109.8	52.6	28.4	79.2	191.4	-2059.0	228.7
11/30/1997	4717	30	480.9	1.8	-8.7	0.0	1845.6	-1946.9	791.2	181.3	141.7	32.9	15.0	-105.9	1.9	63.3	169.3	-1862.1	198.7
12/31/1997	4748	31	-5782.9	7.1	-8.1	0.0	7520.4	-759.6	503.5	198.4	8.1	61.9	-76.1	-183.8	-33.9	39.3	129.0	-1706.9	83.6
1/31/1998	4779	31	-6358.0	2.6	-10.4	0.0	10086.4	-1906.8	100.2	180.1	-162.6	41.5	-288.3	-168.8	-52.2	24.1	91.4	-1628.3	49.6
2/28/1998	4807	28	-3851.3	20.6	-34.4	0.0	5381.9	-408.5	115.7	136.2	-531.5	80.7	-329.3	-214.0	-66.4	9.0	55.7	-1356.5	992.3
3/31/1998	4838	31	-11913.2	2.5	-60.0	0.0	16680.2	-1951.9	-458.1	120.3	-602.8	32.8	-493.1	-213.6	-88.7	-0.8	32.7	-1481.9	395.6
4/30/1998	4868	30	-5243.3	0.9	-84.5	-3.8	12982.6	-3330.6	-925.8	70.4	-873.8	-20.1	-695.8	-193.7	-90.9	-2.5	21.4	-1463.3	-147.2
5/31/1998	4899	31	-3518.9	1.6	-124.7	-43.9	11369.7	-2080.1	-1279.5	52.2	-926.4	-38.9	-749.3	-243.2	-105.9	-5.7	15.8	-1450.5	-872.3
6/30/1998	4929	30	2130.6	0.0	-142.7	-51.8	12238.1	-8685.5	-394.8	37.3	-519.3	-45.4	-678.4	-58.3	-80.9	8.7	28.5	-1528.5	-2358.8
7/31/1998	4960	31	1426.3	0.0	-173.1	-63.0	9122.0	-4753.1	-426.5	42.7	-502.4	-22.6	-539.9	-162.5	-72.8	19.8	55.1	-1652.4	-2297.7
8/31/1998	4991	31	4691.3	0.0	-158.0	-45.2	2952.4	-4744.2	-101.8	70.9	-272.2	-17.7	-302.3	-176.7	-79.9	19.1	63.2	-1571.3	-327.8
9/30/1998	5021	30	666.6	0.0	-145.9	-16.5	6084.4	-4677.3	156.8	78.4	-113.7	-5.6	-170.0	-159.4	-74.6	21.4	69.4	-1517.8	-196.2
10/31/1998	5052	31	-4699.0	0.0	-146.8	-14.7	12421.9	-4765.7	-50.5	68.7	-153.1	2.7	-347.2	-161.5	-74.1	24.7	78.6	-1807.7	-376.4
11/30/1998	5082	30	-4747.3	0.1	-150.4	-36.5	12411.6	-3151.5	-639.9	37.3	-375.8	-5.1	-536.4	-209.7	-81.5	20.1	73.4	-1799.2	-809.1
12/31/1998	5113	31	-2117.9	0.0	-174.8	-56.5	10995.3	-4084.4	-833.6	28.5	-583.6	-24.1	-537.1	-226.3	-96.2	12.2	63.0	-1768.9	-595.6
1/31/1999	5144	31	2410.5	1.2	-199.7	-58.5	4453.9	-2013.0	-1071.1	36.1	-576.8	-38.5	-397.1	-305.1	-119.1	0.9	43.8	-1541.3	-626.0
2/28/1999	5172	28	1723.2	0.0	-189.2	-50.0	6422.1	-5147.7	-288.1	52.3	-281.9	-36.7	-190.6	-197.2	-105.8	2.5	36.0	-1283.1	-465.8
3/31/1999	5203	31	157.3	2.7	-219.0	-78.9	5152.4	-1424.2	-849.2	70.6	-325.3	-40.1	-239.0	-333.6	-130.1	-2.5	36.5	-1410.4	-367.1
4/30/1999	5233	30	-2785.7	1.4	-218.1	-90.6	8186.7	-1640.7	-912.8	68.4	-291.1	-48.6	-308.9	-332.2	-143.6	-16.6	9.6	-1301.7	-175.3
5/31/1999	5264	31	5645.3	0.0	-218.7	-95.5	3224.3	-6076.0	-123.5	58.9	-132.0	-44.9	-237.6	-236.3	-134.6	-10.2	12.3	-1299.3	-332.2
6/30/1999	5294	30	6115.5	0.0	-193.7	-47.6	1398.2	-6107.4	454.6	69.7	97.6	-18.9	-30.7	-192.5	-110.6	3.4	33.3	-1225.6	-245.3
7/31/1999	5325	31	4988.8	0.0	-175.8	-5.3	475.2	-5059.2	769.1	94.1	223.5	-40.2	94.7	-173.3	-99.3	12.7	60.9	-1346.6	180.7
8/31/1999	5356	31	4537.6	0.0	-148.1	0.0	364.6	-5070.0	1081.0	115.9	325.2	-27.7	154.1	-146.5	-84.0	22.1	82.4	-1466.6	260.0

Flow Budget for the UAS in Oxnard Basin

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	Volcanic Outcrop Recharge	Tile DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin Semi-Perched Aquifer	Santa Paula	Mound	Pleasant Valley	Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin LAS	Partial Santa Clara River percolation
9/30/1999	5386	30	1944.8	0.0	-115.7	0.0	2779.3	-5079.8	1194.1	128.5	373.0	-9.3	159.3	-112.4	-65.5	30.6	99.2	-1533.8	207.7
10/31/1999	5417	31	540.0	0.0	-96.0	0.0	4405.7	-5102.4	1169.8	138.0	339.9	6.7	97.5	-100.6	-54.7	39.0	118.9	-1728.0	226.0
11/30/1999	5447	30	2672.8	0.1	-77.7	0.0	693.2	-3125.5	875.0	135.0	236.5	25.1	45.8	-139.2	-53.8	37.0	117.6	-1657.6	215.6
12/31/1999	5478	31	4167.2	0.0	-61.0	0.0	534.6	-5087.8	1247.8	151.3	316.0	29.7	130.5	-87.4	-47.2	40.8	126.4	-1675.4	214.5
1/31/2000	5509	31	1053.6	0.9	-47.6	0.0	1228.3	-2439.5	972.2	164.8	279.0	78.3	116.9	-138.9	-46.1	38.3	117.2	-1591.4	214.1
2/29/2000	5538	29	-3856.5	5.8	-43.1	0.0	5006.9	-726.7	522.2	167.2	132.9	103.0	40.1	-188.8	-60.3	19.9	80.8	-1330.3	127.0
3/31/2000	5569	31	-9264.3	1.3	-52.6	0.0	12583.3	-1824.7	16.6	160.8	-77.3	82.0	-184.8	-192.6	-78.2	8.9	57.9	-1470.8	234.6
4/30/2000	5599	30	-3661.6	1.5	-66.1	0.0	7833.1	-1625.7	-406.4	115.0	-383.7	48.2	-366.1	-202.6	-85.3	2.3	40.0	-1381.1	138.3
5/31/2000	5630	31	4571.9	0.0	-77.1	0.0	3446.6	-6628.2	443.0	108.0	-289.2	36.5	-213.0	-66.7	-67.4	13.7	49.8	-1417.4	89.5
6/30/2000	5660	30	6231.6	0.0	-60.7	0.0	720.9	-6659.3	1019.5	115.7	-1.1	55.4	-40.2	-20.2	-36.6	31.3	76.9	-1475.4	42.2
7/31/2000	5691	31	4280.4	0.0	-47.1	0.0	433.2	-5043.7	1169.4	131.5	190.1	67.4	73.7	-47.4	-29.4	38.2	100.2	-1565.1	248.7
8/31/2000	5722	31	4032.3	0.0	-39.5	0.0	372.7	-5045.9	1254.2	149.0	298.4	79.4	128.1	-31.9	-21.6	42.8	113.3	-1583.4	252.2
9/30/2000	5752	30	-453.3	0.0	-29.8	0.0	4892.4	-5047.6	1188.9	157.2	309.0	89.1	108.8	-7.0	-9.4	47.4	122.1	-1595.6	228.1
10/31/2000	5783	31	-7580.1	0.0	-23.2	0.0	11575.5	-3355.7	704.0	153.8	101.0	94.2	-148.4	-59.2	-11.0	49.7	130.5	-1859.8	228.6
11/30/2000	5813	30	97.4	0.0	-19.5	0.0	5902.8	-5053.4	731.1	116.6	-72.9	82.0	-271.4	-16.9	-9.4	48.9	129.5	-1860.6	196.0
12/31/2000	5844	31	5181.7	0.0	-19.5	0.0	436.6	-5066.1	922.4	117.8	-63.1	84.5	-140.1	-15.9	-4.7	54.3	141.7	-1842.0	212.3
1/31/2001	5875	31	-2108.8	4.9	-21.3	0.0	3925.4	-917.2	504.8	141.8	-105.2	127.6	-69.4	-161.3	-29.9	39.6	120.2	-1616.9	165.8
2/28/2001	5903	28	-5969.7	6.0	-24.7	0.0	7993.2	-813.9	81.8	140.0	-255.8	114.4	-119.1	-185.7	-55.7	15.2	70.4	-1293.1	296.5
3/31/2001	5934	31	-11073.6	5.1	-48.4	0.0	14771.0	-999.0	-569.0	138.9	-665.1	96.7	-386.1	-243.5	-84.9	2.8	46.2	-1460.9	469.7
4/30/2001	5964	30	-2891.2	0.1	-67.4	-0.5	10084.2	-3815.3	-490.3	105.4	-774.2	69.2	-511.8	-159.9	-79.0	8.0	41.5	-1441.8	-77.1
5/31/2001	5995	31	4146.1	0.0	-84.0	-1.4	5209.2	-6940.7	193.0	97.5	-565.4	70.3	-381.2	-64.4	-54.4	22.8	62.9	-1544.6	-165.5
6/30/2001	6025	30	6326.4	0.0	-80.3	0.0	1547.8	-6951.8	686.6	100.9	-201.5	85.8	-155.9	-32.5	-33.6	31.0	75.2	-1522.9	124.8
7/31/2001	6056	31	4952.9	0.0	-69.7	0.0	539.4	-5171.1	855.5	120.9	57.9	73.2	-33.5	-71.6	-31.4	36.3	89.5	-1596.6	248.3
8/31/2001	6087	31	4594.3	0.0	-52.6	0.0	386.4	-5184.2	1068.1	138.6	225.0	89.0	47.1	-61.0	-25.7	42.7	104.6	-1638.6	266.3
9/30/2001	6117	30	-2429.4	0.0	-39.0	0.0	7428.9	-5191.3	1054.5	142.5	271.0	102.1	-2.6	-33.2	-13.1	48.5	116.0	-1695.4	240.5
10/31/2001	6148	31	-7446.6	0.0	-33.9	0.0	13741.6	-5219.5	679.0	125.2	74.1	108.3	-283.9	-30.6	-6.8	54.9	131.7	-2069.7	176.0
11/30/2001	6178	30	-3447.4	2.4	-37.1	0.0	7460.8	-1274.4	-225.1	91.6	-337.4	102.1	-449.6	-171.5	-35.9	39.0	113.4	-1857.8	27.0
12/31/2001	6209	31	-174.3	1.0	-61.0	-0.4	5274.1	-2388.8	-347.9	101.3	-501.9	71.6	-303.1	-200.9	-67.7	18.8	79.7	-1610.2	109.8
1/31/2002	6240	31	1280.7	0.4	-82.6	-2.8	3650.7	-2553.7	-300.0	119.9	-477.8	33.4	-196.7	-193.6	-76.5	13.9	61.8	-1481.9	204.9
2/28/2002	6268	28	3261.3	0.0	-81.5	-0.2	2248.2	-4246.0	273.5	120.4	-247.2	9.2	-84.6	-127.8	-61.2	16.1	53.9	-1351.4	217.3
3/31/2002	6299	31	4450.6	0.0	-82.6	0.0	716.2	-4275.7	519.0	148.5	-73.8	15.8	-13.0	-133.9	-58.3	22.4	64.8	-1509.9	209.7
4/30/2002	6329	30	4119.6	0.0	-64.2	0.0	415.9	-4271.8	767.4	157.2	121.2	29.0	43.1	-108.8	-48.6	24.4	66.1	-1455.0	204.5
5/31/2002	6360	31	3740.2	0.0	-45.1	0.0	417.3	-4278.9	907.9	174.2	244.8	47.4	79.9	-93.2	-40.6	28.2	72.6	-1492.2	237.4
6/30/2002	6390	30	3354.6	0.0	-29.2	0.0	549.2	-4273.0	949.4	179.5	307.4	60.5	92.5	-65.2	-29.4	30.2	74.4	-1430.8	229.9
7/31/2002	6421	31	4158.3	0.0	-20.7	0.0	618.2	-5404.8	1165.5	195.2	369.3	53.4	125.1	-22.6	-15.3	42.6	97.2	-1601.2	238.3
8/31/2002	6452	31	3929.2	0.0	-9.6	0.0	677.3	-5437.2	1350.1	204.0	396.7	70.0	135.4	2.1	4.0	59.2	132.1	-1786.2	270.7
9/30/2002	6482	30	92.2	0.0	-0.6	0.0	4606.7	-5452.1	1344.8	205.7	363.8	83.2	118.5	30.6	21.6	69.0	152.8	-1882.3	243.5
10/31/2002	6513	31	3614.2	0.0	0.0	0.0	1345.1	-5478.3	1361.0	219.3	268.2	94.6	76.4	39.6	34.5	79.8	178.0	-2083.4	248.5
11/30/2002	6543	30	-1304.2	3.9	0.0	0.0	2338.2	-1055.3	1009.4	219.7	151.7	155.0	-15.1	-97.6	11.6	64.5	161.4	-1882.4	239.1
12/31/2002	6574	31	-3422.1	2.7	0.0	0.0	4911.9	-1127.0	805.8	227.7	97.9	157.2	-83.6	-125.9	-16.1	42.9	125.2	-1700.2	103.8
1/31/2003	6605	31	3940.4	0.0	0.0	0.0	2242.2	-6450.0	1016.4	218.7	95.3	144.2	-24.9	30.1	3.8	45.7	111.9	-1581.2	205.2
2/28/2003	6633	28	-4287.3	5.8	0.0	0.0	5328.0	-873.0	709.0	202.4	-3.5	155.1	-51.8	-93.4	-7.5	34.1	91.1	-1316.8	107.9
3/31/2003	6664	31	-4276.6	2.4	0.0	0.0	6267.0	-1270.4	406.3	219.0	-162.8	149.7	-125.1	-144.0	-39.0	18.5	67.8	-1282.5	169.9
4/30/2003	6694	30	22.0	0.0	0.0	0.0	4851.4	-4223.5	474.6	211.4	-217.1	114.7	-112.3	-39.2	-29.9	21.4	58.7	-1186.6	54.5
5/31/2003	6725	31	-4013.3	0.8	0.0	0.0	7872.1	-2827.6	199.6	211.0	-334.3	114.2	-158.1	-106.8	-34.7	21.3	60.8	-1250.5	245.4
6/30/2003	6755	30	4065.6	0.0	0.0	0.0	2788.4	-6412.4	613.4	194.6	-245.7	109.8	-129.1	-13.3	-24.3	24.1	57.9	-1251.4	219.9
7/31/2003	6786	31	5210.0	0.0	0.0	0.0	242.6	-5575.3	897.4	205.5	-52.2	79.2	-35.4	-4.4	-6.6	34.5	77.9	-1311.0	238.0
8/31/2003	6817	31	4874.1	0.0	0.0	0.0	173.5	-5582.0	998.0	214.1	141.6	85.1	26.8	23.6	8.1	42.5	97.3	-1358.0	254.9
9/30/2003	6847	30	3832.2	0.0	0.0	0.0	910.7	-5584.2	1117.4	216.6	242.2	97.6	67.4	56.9	24.2	49.4	111.6	-1367.4	224.2
10/31/2003	6878	31	2275.5	0.0	0.0	0.0	2364.6	-5600.0	1215.2	233.5	279.2	116.6	85.6	78.0	38.6	57.9	130.5	-1476.2	199.8
11/30/2003	6908	30	534.2	0.5	0.0	0.0	1630.5	-2823.9	1011.7	235.3	191.2	152.8	31.1	15.9	34.3	55.0	128.5	-1398.6	201.6
12/31/2003	6939	31	210.6	0.6	0.0	0.0	1896.8	-2528.6	877.8	254.1	137.9	163.0	25.2	-17.8	19.2	47.6	119.5	-1343.3	137.4
1/31/2004	6970	31	681.7	0.0	0.0	0.0	3429.7	-4755.2	1033.8	259.6	85.8	169.0	44.4	55.8	29.9	51.5	115.0	-1318.7	117.7
2/29/2004	6999	29	-4280.6	4.4	0.0	0.0	4934.4	-786.4	787.4	245.0	-31.1	195.9	-66.6	-59.6	12.3	37.8	95.4	-1184.1	95.7
3/31/2004	7030	31	-2786.8	0.0	0.0	0.0	6835.3	-4036.2	768.5	253.8	-154.7	161.7	-80.5	3.3	6.1	33.0	83.3	-1204.1	117.2
4/30/2004	7060	30	3361.4	0.0	0.0	0.0	1514.0	-4975.9	847.9	232.3	-198.1	143.3	-116.3	49.4	25.7	43.8	90.2	-1238.5	220.8
5/31/2004	7091	31	4297.5	0.0	0.0	0.0	197.5	-4983.5	1013.1	235.7	-48.1	164.3	-67.2	67.2	40.8	53.8	105.5	-1306.7	230.0
6/30/2004	7121	30	3945.4	0.0	0.0	0.0	165.2	-4976.4	1099.5	232.7	76.2	174.8	12.4	92.2	52.3	57.4	110.6	-1264.0	221.8
7/31/2004	7152	31	4341.5	0.0	0.0	0.0	280.7	-5833.4	1260.0	246.4	242.0	167.3	49.7	166.1	76.9	68.2	130.5	-1444.5	247.5
8/31/2004	7183	31	4310.2	0.0	0.0	0.0	172.6	-5869.5	1421.8	253.0	327.3	177.4	66.3	201.9	100.4	83.5	160.4	-1639.3	232.6
9/30/2004	7213	30	4196.3	0.0	0.0	0.0	163.7	-5881.8	1502.7	251.6	373.9	187.9	84.3	227.6	116.6	92.9	180.7	-1725.9	227.2
10/31/2004	7244	31	-4098.2	4.9	0.0	0.0	4130.1	-1161.8	1453.3	271.7	263.2	278.5	28.7	61.5	91.6	82.7	181.7	-1685.3	97.5
11/30/2004	7274	30	2511.5	0.0	0.0	0.0	2139.1	-5853.7	1348.0	259.4	235.5	214.0	33.3	192.7	93.6	78.2	163.5	-1611.0	194.3
12/31/2004	7305	31	-1811.0	6.0	0.0	0.0	1890.1	-965.9	1395.3	273.5	123.8	284.5	-36.9	47.1	81.9	74.8	168.0	-1597.0	65.8
1/31/2005	7336	31	-14439.3	8.9	0.0	0.0	13700.7	-602.4	1309.1	261.7	-190.6	311.6	-159.9	-33.0	36.8	48.0	125.3	-1447.9	1071.0
2/28/2005	7364	28	-10267.0	8.6	0.0	0.0	10479.0	-604.7	876.8	197.4	-539.6	263.9	-399.2	-63.9	7.9	27.5	80.4	-1261.6	1194.5
3/31/2005	7395	31	-14062.3	1.3	0.0	0.0	16808.9	-1546.8	410.0	175.0	-952.4	226.1	-637.7	-83.0	-9.1	21.8	65.3	-1367.4	950.4
4/30/2005	7425	30	-8337.2	0.1	0.0	0.0	14820.4	-4014.2	195.0	117.2	-1100.0	170.7	-779.5	-19.2	-2.3	24.1	59.0	-1482.3	348.3
5/31/2005	7456	31	-3732.9	0.0	0.0	0.0	12526.0	-5737.1	278.3	82.5	-1091.3	158.5	-793.5	50.0	20.3	35.9	72.2	-1652.7	-216.1
6/30/2005	7486	30	-2382.8	0.0	0.0	0.0	11074.4	-5720.7	273.5	60.6	-1080.4	146.1	-698.4	53.0	30.7	42.7	81.9	-1720.5	-160.0
7/31/2005	7517	31	-1742.5	0.0	0.0	0.0	9517.8	-4687.7	76.2	69.5	-770.6	142.7	-642.5	-39.0	13.3	44.1	92.7	-1849.6	-224.4
8/31/2005	7548	31	2965.8	0.0	-1.3	0.0	4355.8	-4669.0	92.0	70.1	-610.8	130.1	-455.1	-77.3	-5.3	42.9	98.6	-1793.0	-143.7
9/30/2005	7578	30	-4945.6	0.0	-15.8	0.0	12168.5	-4692.3	7.4	78.4	-509.3	119.9	-402.6	-82.5	-10.5	42.6	100.8	-1798.8	-60.2
10/31/2005	7609	31	-1826.3	0.4	-39.6	-2.7	8113.3	-2708.5	-501.5	72.6	-628.8	111.1	-554.1	-158.2	-29.4	38.6	100.9	-1865.5	-122.3
11/30/2005	7639	30	3354.3	0.0	-59.7	-6.7	3977.7	-4648.9	-63.4	77.0	-548.7	96.6	-352.2	-120.7	-33.5	35.2	93.0	-1695.6	-104.4
12/31/2005	7670	31	2373.2	0.0	-74.2	-7.0	4271.0	-4657.7	97.7	103.0	-403.8	99.5	-181.8	-120.5	-30.8	39.4	101.0	-1710.4	101.4
1/31/2006	7701	31	-2560.5	1.9	-85.6	-11.7	7422.6	-2296.5	-382.0	125.3	-362.8	110.3	-239.3	-191.6	-49.3	31.2	91.2	-1637.1	33.8
2/28/2006	7729	28	381.3	2.5	-91.7	-14.1	4137.5	-2055.3	-438.5	116.8	-359.0	97.0	-256.6	-191.8	-62.5	15.2	60.0	-1362.9	22.1
3/31/2006	7760	31	-8796.8	2.9	-117.7	-27.5	13950.4	-1656.5	-919.3	123.5	-515.2	92.6	-390.5	-256.8	-88.6	4.3	42.2	-1487.0	40.0
4/30/2006	7790	30	-6618.8	2.3	-142.0	-50.9	13165.4	-1534.4	-1465.4	87.3	-810.5	62.5	-659.2	-283.3	-105.7	-5.8	20.8	-1504.2	-158.0
5/31/2006	7821	31	-1214.2	0.7	-168.3	-141.1	11156.0	-4424.9	-934.0	52.0	-732.6	52.5	-744.2	-187.0	-92.8	1.3	22.3	-1573.8	-1072.0
6/30/2006	7851	30	4327.0	0.0	-169.2	-117.5	7427.9	-7939.9	116.1	39.6	-442.7	73.6	-487.8	-48.1	-47.5	23.2	47.8	-1601.9	-1216.7
7/31/2006	7882	31	4319.6	0.0	-172.5	-93.0	3872.1	-4647.0	-216.2	58.3	-285.4	82.2	-287.4	-139.6	-48.8	32.5	73.5	-1677.8	-870.5
8/31/2006	7913	31	5291.0	0.0	-169.1	-71.5	1556.9	-4643.0	114.8	85.9	-144.5	92.8	-103.6	-165.0	-61.6	32.2	82.7	-1645.5	-252.3
9/30/2006	7943	30	-272.0	0.0	-152.1	-44.2	6294.2	-4652.0	355.2	100.3	-65.7	108.9	-60.2	-146.9	-55.3	35.3	89.7	-1643.8	108.7
10/31/2006	7974	31	-1295.2	0.0	-148.2	-29.7	7894.0	-4687.8	230.2	99.9	-126.2	124.9	-199.6	-147.1	-52.8	39.4	100.6	-1850.7	48.5
11/30/2006	8004	30	3327.6	0.0	-134.4	-10.4	2997.3	-4661.5	377.1	88.7	-135.8	131.9	-192.8	-130.7	-46.5	40.6	103.0	-1776.5	22.4
12/31/2006	8035	31	1563.3	0.4	-131.8	-6.4	3273.4	-3339.8	196.7	106.6	-129.1	143.4	-93.6	-160.4	-54.9	35.0	99.2	-1682.1	180.0

Flow Budget for the UAS in Oxnard Basin

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	Volcanic Outcrop Recharge	Tile DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin Semi-Perched Aquifer	Santa Paula	Mound	Pleasant Valley	Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin LAS	Partial Santa Clara River percolation
1/31/2007	8066	31	1597.8	1.4	-131.6	-3.9	2199.7	-1948.9	-211.8	125.0	-147.0	135.2	-83.4	-243.0	-81.0	18.2	71.9	-1466.2	167.5
2/28/2007	8094	28	-405.4	0.2	-116.2	-5.2	5574.3	-3934.1	43.7	125.1	-120.8	108.9	-8.4	-196.4	-81.8	10.3	48.6	-1203.8	160.9
3/31/2007	8125	31	4272.0	0.0	-122.7	-5.1	2793.2	-6231.9	407.2	146.5	-133.3	122.0	6.7	-144.3	-75.5	21.6	62.8	-1335.3	216.2
4/30/2007	8155	30	2699.0	0.0	-104.3	0.0	1595.7	-3584.5	399.6	149.7	-41.7	130.7	15.6	-206.5	-75.4	19.0	62.2	-1266.2	207.1
5/31/2007	8186	31	5422.5	0.0	-86.2	0.0	592.1	-6220.2	894.4	164.6	113.9	152.4	96.7	-122.1	-66.7	23.9	65.8	-1263.0	232.0
6/30/2007	8216	30	4853.6	0.0	-55.3	0.0	510.6	-6220.5	1169.7	169.9	241.3	179.1	145.4	-74.3	-42.6	34.1	79.5	-1229.6	238.8
7/31/2007	8247	31	4544.8	0.0	-39.2	0.0	270.5	-5784.4	1175.3	186.5	346.5	178.6	172.9	-68.2	-34.2	35.4	87.1	-1324.4	252.7
8/31/2007	8278	31	4036.0	0.0	-27.0	0.0	692.8	-5804.4	1195.1	198.4	394.7	182.6	194.6	-45.2	-25.9	37.5	92.2	-1356.6	235.0
9/30/2007	8308	30	-986.3	0.0	-14.0	0.0	5848.2	-5798.8	1110.7	199.8	345.9	184.3	162.6	-16.5	-13.2	41.7	98.8	-1380.6	216.9
10/31/2007	8339	31	-1494.4	0.0	-3.5	0.0	6957.3	-5838.4	970.8	199.9	195.5	194.7	26.5	-9.5	-5.8	47.0	110.8	-1565.3	214.6
11/30/2007	8369	30	3999.2	0.0	0.0	0.0	1582.9	-5838.4	971.0	181.4	111.7	191.4	-32.7	1.4	0.0	48.6	113.8	-1541.0	210.8
12/31/2007	8400	31	-1094.7	1.0	0.0	0.0	3142.6	-1978.3	784.8	192.4	82.8	226.1	-73.0	-97.1	-10.7	45.9	115.3	-1479.1	142.2
1/31/2008	8431	31	-5348.3	6.5	0.0	0.0	6417.6	-779.5	629.7	184.9	-17.3	274.7	-199.5	-150.0	-32.3	28.7	89.6	-1419.3	314.3
2/29/2008	8460	29	-9926.9	1.8	0.0	0.0	13045.8	-2100.5	283.9	136.5	-230.9	243.7	-401.9	-121.2	-39.7	15.9	58.2	-1370.5	405.7
3/31/2008	8491	31	-5624.6	0.0	0.0	0.0	13561.3	-6071.8	428.1	96.7	-450.8	226.0	-555.1	-31.0	-25.9	26.0	64.3	-1565.6	-77.5
4/30/2008	8521	30	3595.3	0.0	-1.8	0.0	4088.9	-6062.3	449.4	81.4	-472.1	200.2	-387.9	-19.3	-13.2	35.0	76.0	-1534.2	-35.5
5/31/2008	8552	31	5450.5	0.0	-8.2	0.0	1377.0	-6060.6	657.5	100.7	-281.1	205.1	-148.6	-33.2	-12.5	39.4	85.2	-1529.8	158.7
6/30/2008	8582	30	5645.6	0.0	-9.1	0.0	468.3	-6052.0	840.4	125.3	-45.8	206.5	12.8	-23.9	-7.7	41.0	87.4	-1457.9	169.1
7/31/2008	8613	31	5587.1	0.0	-4.8	0.0	191.1	-6121.9	1012.8	155.8	91.5	207.0	78.0	-3.6	4.1	52.8	104.9	-1556.4	201.6
8/31/2008	8644	31	5283.1	0.0	0.0	0.0	178.0	-6141.6	1180.6	179.9	219.1	219.7	114.2	19.8	18.2	62.5	125.8	-1630.0	170.3
9/30/2008	8674	30	2551.1	0.0	0.0	0.0	2721.5	-6149.7	1244.6	190.7	263.5	227.7	118.5	46.0	31.3	68.6	138.9	-1654.3	200.4
10/31/2008	8705	31	-5794.2	0.0	0.0	0.0	11615.5	-6219.2	1233.5	191.9	208.2	247.8	-69.0	59.3	42.9	76.6	157.5	-1968.6	217.7
11/30/2008	8735	30	503.1	1.1	0.0	0.0	1901.9	-1966.6	832.0	160.6	-9.8	255.7	-263.0	-43.2	23.2	58.9	139.3	-1769.3	176.1
12/31/2008	8766	31	-1257.0	1.3	0.0	0.0	3506.1	-1852.2	691.9	178.2	-91.4	251.7	-119.8	-78.8	-2.1	41.7	111.3	-1485.5	104.7
1/31/2009	8797	31	1575.8	0.0	0.0	0.0	3468.4	-4972.2	730.5	195.3	-114.6	244.6	-23.7	-28.0	3.8	42.1	100.1	-1366.5	144.4
2/28/2009	8825	28	-3594.8	4.6	0.0	0.0	4752.1	-686.3	465.3	193.9	-190.1	230.6	-55.5	-110.6	-13.4	27.5	75.6	-1159.7	60.7
3/31/2009	8856	31	73.7	0.0	0.0	0.0	5357.7	-4949.8	486.9	221.0	-259.0	225.9	-56.2	-67.5	-20.1	26.7	67.0	-1216.6	110.4
4/30/2009	8886	30	3664.6	0.0	0.0	0.0	1576.1	-4954.8	534.2	216.7	-178.9	212.4	-49.8	-46.1	-7.6	33.9	72.0	-1219.8	147.0
5/31/2009	8917	31	4537.1	0.0	0.0	0.0	296.8	-4959.9	645.5	229.5	-19.1	232.8	-3.6	-39.1	-2.7	37.4	77.1	-1254.2	222.5
6/30/2009	8947	30	4246.1	0.0	0.0	0.0	191.8	-4952.3	715.2	229.0	135.2	244.1	48.0	-13.8	6.1	38.6	76.9	-1196.8	231.7
7/31/2009	8978	31	5023.4	0.0	0.0	0.0	187.4	-6153.0	986.8	242.9	232.0	235.9	88.3	52.7	28.1	49.3	92.2	-1318.1	250.1
8/31/2009	9009	31	4782.5	0.0	0.0	0.0	189.0	-6175.2	1174.5	250.0	301.4	251.5	105.6	91.6	51.6	61.5	114.9	-1432.9	231.5
9/30/2009	9039	30	4666.0	0.0	0.0	0.0	188.4	-6179.8	1241.3	249.8	339.3	263.4	103.2	121.8	68.3	68.9	129.6	-1475.7	210.4
10/31/2009	9070	31	-864.6	0.4	0.0	0.0	2663.0	-3026.4	1219.0	265.7	353.0	312.8	45.9	84.9	71.3	74.6	145.4	-1506.3	161.1
11/30/2009	9100	30	3638.5	0.0	0.0	0.0	1254.7	-6190.4	1297.2	250.8	308.3	299.0	28.2	142.7	80.8	76.0	147.9	-1523.9	184.6
12/31/2009	9131	31	-3883.4	2.7	0.0	0.0	4650.8	-1636.2	1208.9	257.5	259.0	352.8	-56.0	44.8	67.5	65.2	141.4	-1526.3	51.2
1/31/2010	9162	31	-4512.3	6.2	0.0	0.0	4744.9	-746.0	1070.2	241.2	118.3	365.6	-196.4	-15.4	32.8	40.9	102.4	-1326.3	73.9
2/28/2010	9190	28	-7421.7	3.6	0.0	0.0	8198.6	-958.7	771.2	200.8	-51.2	317.3	-219.3	-26.5	13.8	25.5	67.4	-1052.2	131.4
3/31/2010	9221	31	-2177.1	0.0	0.0	0.0	7719.5	-5562.0	820.3	210.2	-281.4	327.4	-225.9	63.8	32.2	39.3	77.1	-1135.5	92.0
4/30/2010	9251	30	-450.6	0.6	0.0	0.0	3539.2	-2732.9	589.3	205.1	-369.6	297.3	-211.5	1.2	27.1	36.9	77.8	-1089.9	80.0
5/31/2010	9282	31	2999.9	0.0	0.0	0.0	2568.7	-5552.1	713.1	219.5	-298.5	304.3	-123.2	33.7	26.9	40.6	78.5	-1101.7	90.4
6/30/2010	9312	30	4681.8	0.0	0.0	0.0	409.7	-5556.6	819.1	219.7	-157.0	308.1	-58.4	55.3	40.9	49.7	91.1	-1118.8	215.4
7/31/2010	9343	31	4784.9	0.0	0.0	0.0	325.0	-6041.7	1001.6	237.1	85.9	286.0	8.2	123.9	61.6	56.9	106.6	-1292.9	254.3
8/31/2010	9374	31	4664.6	0.0	0.0	0.0	189.9	-6055.3	1120.4	247.6	217.7	289.8	39.5	160.0	80.1	65.1	124.8	-1402.1	254.5
9/30/2010	9404	30	4330.8	0.0	0.0	0.0	312.2	-6039.2	1203.0	249.9	296.1	294.3	73.1	184.2	92.9	71.0	138.0	-1433.7	227.0
10/31/2010	9435	31	-6592.4	1.7	0.0	0.0	7490.9	-1959.5	1086.0	267.0	184.4	343.5	34.1	58.4	72.5	61.5	135.3	-1396.7	213.4
11/30/2010	9465	30	-1432.4	0.0	0.0	0.0	5037.9	-4281.2	939.7	258.9	5.0	291.7	-37.8	96.2	59.4	53.9	118.4	-1313.4	203.7
12/31/2010	9496	31	-8335.1	8.1	0.0	0.0	8685.5	-579.6	1033.5	269.2	-235.8	346.4	-144.7	-35.2	32.9	43.6	110.6	-1328.2	128.9
1/31/2011	9527	31	-7466.2	0.0	0.0	0.0	12282.9	-4519.2	793.5	236.7	-396.7	332.7	-368.2	28.9	25.1	34.9	85.5	-1397.6	327.8
2/28/2011	9555	28	-5725.2	2.0	0.0	0.0	8291.1	-1380.9	450.7	183.4	-508.4	284.4	-505.7	-35.8	14.8	29.5	71.8	-1248.6	77.1
3/31/2011	9586	31	-7796.9	5.6	0.0	0.0	10200.9	-745.4	307.4	189.7	-762.9	299.2	-529.8	-111.4	-17.2	17.2	56.0	-1215.3	102.8
4/30/2011	9616	30	-8260.1	0.0	0.0	0.0	14989.8	-4802.7	254.8	163.3	-869.0	262.5	-584.0	-31.1	-9.8	24.7	54.0	-1313.7	121.2
5/31/2011	9647	31	4008.8	0.0	0.0	0.0	2583.4	-4747.8	314.8	141.0	-881.1	261.0	-580.2	-22.6	6.9	42.1	81.7	-1477.7	269.9
6/30/2011	9677	30	2971.9	0.0	0.0	0.0	2892.7	-4805.0	517.4	145.1	-492.8	259.2	-307.2	-21.5	10.8	46.9	92.4	-1421.3	111.2
7/31/2011	9708	31	3480.8	0.0	0.0	0.0	1606.3	-4467.1	546.3	164.2	-272.1	258.4	-158.1	-20.6	12.7	52.9	106.1	-1536.8	227.1
8/31/2011	9739	31	4356.2	0.0	0.0	0.0	371.7	-4464.8	627.2	181.8	-85.5	263.1	-83.2	-18.6	13.3	54.5	113.2	-1551.2	222.2
9/30/2011	9769	30	1180.8	0.0	0.0	0.0	3242.7	-4463.7	674.7	188.9	41.8	266.4	-39.8	0.1	19.5	55.9	116.2	-1521.2	237.7
10/31/2011	9800	31	-6108.3	0.0	0.0	0.0	9693.3	-3016.6	493.5	196.7	-47.2	275.2	-190.4	-54.8	12.1	55.3	121.2	-1624.9	194.9
11/30/2011	9830	30	-1802.0	0.9	0.0	0.0	5287.0	-2314.6	215.4	176.3	-247.6	253.1	-303.1	-94.7	-10.3	36.9	97.5	-1480.3	185.5
12/31/2011	9861	31	2638.2	0.0	0.0	0.0	2601.9	-4448.2	428.9	185.4	-237.7	246.3	-193.0	-46.8	-10.0	37.7	90.4	-1459.5	166.7
1/31/2012	9892	31	960.4	0.7	0.0	0.0	2343.5	-2391.2	201.3	196.0	-225.7	249.1	-148.5	-127.1	-23.5	32.0	87.3	-1372.9	218.5
2/29/2012	9921	29	3417.9	0.0	0.0	0.0	1669.1	-4746.5	507.5	193.6	-112.2	233.6	-67.6	-75.2	-25.6	30.8	76.3	-1296.4	194.5
3/31/2012	9952	31	808.9	1.6	0.0	0.0	1564.0	-1746.6	279.7	221.2	-69.9	258.3	-83.2	-131.9	-30.2	29.0	78.4	-1305.8	126.5
4/30/2012	9982	30	-1567.7	1.0	0.0	0.0	4327.4	-2101.9	176.0	224.6	-60.2	241.7	-69.2	-138.3	-42.4	17.5	54.9	-1148.2	84.9
5/31/2012	10013	31	3670.7	0.0	0.0	0.0	1348.2	-4743.1	465.5	233.0	-82.8	247.9	-48.7	-82.5	-35.0	25.6	61.6	-1256.9	196.5
6/30/2012	10043	30	4521.7	0.0	0.0	0.0	170.2	-4754.8	618.3	228.6	15.5	257.2	-14.0	-50.1	-16.5	36.4	78.7	-1321.5	230.3
7/31/2012	10074	31	4235.3	0.0	0.0	0.0	742.1	-5355.8	796.5	240.7	178.5	242.8	8.3	-3.0	0.3	46.7	96.9	-1466.5	235.8
8/31/2012	10105	31	4248.2	0.0	0.0	0.0	482.1	-5377.0	948.2	244.1	279.6	255.0	22.6	26.7	17.0	55.4	116.2	-1559.6	239.7
9/30/2012	10135	30	3307.4	0.0	0.0	0.0	1242.3	-5378.4	1052.4	241.3	327.8	263.3	25.2	53.8	31.6	61.8	130.1	-1586.5	225.4
10/31/2012	10166	31	-1908.3	0.0	0.0	0.0	6498.9	-5412.0	1156.2	252.4	302.1	287.6	7.5	71.4	45.2	70.3	149.4	-1741.7	219.2
11/30/2012	10196	30	2249.9	0.0	0.0	0.0	229.8	-2854.7	933.5	243.9	149.9	287.4	-74.6	12.5	38.4	65.9	148.6	-1628.4	198.1
12/31/2012	10227	31	-644.8	0.9	0.0	0.0	2152.7	-1853.0	822.1	260.2	127.1	308.4	-60.2	-23.0	24.7	56.0	138.9	-1502.2	192.2
1/31/2013	10258	31	507.9	0.4	0.0	0.0	1453.6	-2293.0	718.9	267.3	83.7	293.6	-45.8	-22.6	15.3	46.1	117.4	-1348.5	205.8
2/28/2013	10286	28	2271.5	0.0	0.0	0.0	1162.7	-3938.6	784.2	244.9	104.1	244.2	-14.2	21.5	19.9	47.6	104.3	-1247.0	194.3
3/31/2013	10317	31	1819.6	0.0	0.0	0.0	445.1	-2735.4	805.7	274.9	120.7	278.1	-25.1	-3.3	25.1	52.9	119.4	-1382.0	204.2
4/30/2013	10347	30	3129.5	0.0	0.0	0.0	138.2	-3959.0	890.4	269.1	176.8	264.5	-3.5	33.7	29.1	54.4	116.4	-1350.1	210.4
5/31/2013	10378	31	2978.6	0.0	0.0	0.0	146.6	-3976.7	979.8	281.0	231.0	283.4	10.8	54.6	42.2	63.0	131.2	-1443.6	217.7
6/30/2013	10408	30	2873.7	0.0	0.0	0.0	152.2	-3975.0	1005.7	274.9	262.2	283.4	26.2	72.1	50.2	65.3	134.6	-1429.3	202.9
7/31/2013	10439	31	3337.8	0.0	0.0	0.0	155.9	-4624.3	1139.2	287.4	298.1	282.1	61.2	108.3	65.9	74.2	154.1	-1538.6	198.5
8/31/2013	10470	31	3259.1	0.0	0.0	0.0	152.6	-4645.1	1247.5	291.1	312.4	289.3	72.1	131.8	81.8	83.9	176.3	-1645.2	192.3
9/30/2013	10500	30	3222.4	0.0	0.0	0.0	153.4	-4652.1	1290.3	285.9	320.6	288.1	73.3	150.4	93.0	89.4	188.0	-1684.8	182.1
10/31/2013	10531	31	3132.0	0.0	0.0	0.0	146.7	-4671.6	1402.8	300.3	349.2	309.9	75.6	170.4	108.3	98.9	209.0	-1813.1	181.6
11/30/2013	10561	30	3048.4	0.0	0.0	0.0	144.0	-4611.2	1411.1	295.6	349.6	307.1	68.9	183.5	115.5	101.4	214.1	-1802.5	174.5
12/31/2013	10592	31	3014.0	0.0	0.0	0.0	149.6	-4685.2	1505.7	309.6	365.5	326.8	74.8	201.5	129.1	109.4	231.7	-1911.3	178.9
1/31/2014	10623	31	3186.3	0.0	0.0	0.0	172.8	-4936.9	1589.4	312.2	378.2	337.5	64.6	216.6	140.4	114.9	239.1	-1985.2	170.1
2/28/2014	10651	28	-658.0	2.1	0.0	0.0	328.8	-1051.2	1416.1	287.9	283.9	347.0	24.8	125.7	117.6	90.7	200.8	-1650.0	133.7
3/31/2014	10682	31	-1050.4	0.4	0.0	0.0	2459.9	-2905.3	1339.8	320.6	269.5	362.0	29.4	159.4	116.8	87.9	195.4	-1650.9	265.4
4/30/2014	10712	30	2873.6	0.0	0.0	0.0	578.2	-4887.0	1409.2	308.2	240.2	318.4	34.0	208.3	125.5	95.7	196.0	-1669.6	169.4

Flow Budget for the UAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet															
			STORAGE	Volcanic Outcrop Recharge	Tile DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin Semi-Perched Aquifer	Santa Paula	Mound	Pleasant Valley	Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin LAS	Partial Santa Clara River percolation
5/31/2014	10743	31	3172.9	0.0	0.0	0.0	242.2	-4920.8	1524.7	315.8	281.3	329.3	32.4	234.9	146.8	110.8	222.1	-1858.6	166.3
6/30/2014	10773	30	3241.0	0.0	0.0	0.0	174.6	-4923.0	1525.8	306.2	313.6	321.4	35.9	247.1	154.1	114.4	228.5	-1887.8	148.2
7/31/2014	10804	31	2583.4	0.0	0.0	0.0	152.9	-4416.0	1598.4	316.8	351.4	351.3	25.5	306.1	179.6	123.6	249.0	-1984.9	162.8
8/31/2014	10835	31	2559.8	0.0	0.0	0.0	148.8	-4420.7	1631.9	318.5	350.6	358.6	23.6	324.7	193.9	129.5	261.8	-2042.5	161.5
9/30/2014	10865	30	2593.6	0.0	0.0	0.0	148.8	-4415.2	1606.5	310.6	338.5	349.4	22.7	328.6	197.2	130.4	264.3	-2027.2	151.6
10/31/2014	10896	31	2517.0	0.0	0.0	0.0	147.2	-4429.1	1662.1	324.0	341.1	363.3	20.7	344.7	211.2	138.6	282.3	-2133.6	210.6
11/30/2014	10926	30	1820.4	0.0	0.0	0.0	136.8	-3596.4	1586.9	318.5	311.1	351.1	9.9	300.3	203.2	133.8	277.2	-2046.5	193.7
12/31/2014	10957	31	-1328.5	4.2	0.0	0.0	487.1	-852.4	1734.0	340.8	260.0	411.4	-10.6	218.0	182.9	118.1	261.8	-1897.0	70.2
1/31/2015	10988	31	-1505.4	1.3	0.0	0.0	1257.6	-1291.0	1404.3	343.1	210.0	378.9	-24.4	203.9	157.2	97.8	218.6	-1581.1	129.2
2/28/2015	11016	28	1612.8	0.0	0.0	0.0	762.4	-3831.6	1275.0	305.6	183.3	302.9	-18.1	241.7	150.1	95.2	192.9	-1412.0	139.9
3/31/2015	11047	31	1276.7	0.2	0.0	0.0	778.0	-3616.5	1397.7	335.0	210.8	350.5	-28.2	279.7	178.8	109.9	220.5	-1635.9	142.7
4/30/2015	11077	30	2051.5	0.0	0.0	0.0	261.6	-3856.8	1375.8	320.8	218.0	325.7	-28.9	279.5	177.3	109.9	215.6	-1606.4	156.5
5/31/2015	11108	31	2088.5	0.0	0.0	0.0	123.3	-3870.8	1446.8	332.0	235.7	335.9	-24.8	295.4	190.1	119.1	233.5	-1704.7	200.1
6/30/2015	11138	30	2083.2	0.0	0.0	0.0	124.8	-3868.3	1434.9	320.5	240.4	325.9	-16.4	297.0	190.0	119.1	233.5	-1685.2	200.8
7/31/2015	11169	31	1878.3	0.0	0.0	0.0	133.6	-3764.9	1498.4	330.5	286.7	338.0	-21.1	345.2	205.9	125.0	248.3	-1806.2	201.2
8/31/2015	11200	31	1889.1	0.0	0.0	0.0	134.1	-3779.6	1527.8	330.0	294.5	329.0	-20.6	354.4	213.3	130.1	259.9	-1862.7	200.9
9/30/2015	11230	30	1889.2	0.0	0.0	0.0	130.6	-3698.7	1507.9	321.3	287.9	312.0	-18.6	343.8	211.9	130.7	262.7	-1857.6	176.9
10/31/2015	11261	31	1897.9	0.0	0.0	0.0	133.3	-3788.1	1574.5	334.0	304.3	322.4	-18.1	366.5	224.7	138.8	280.9	-1959.2	188.3
11/30/2015	11291	30	1934.6	0.0	0.0	0.0	132.2	-3783.5	1545.1	324.8	299.1	311.6	-17.3	366.3	223.6	137.7	279.4	-1932.2	178.9
12/31/2015	11322	31	1887.7	0.0	0.0	0.0	132.6	-3793.0	1609.5	337.5	309.5	322.8	-20.6	382.0	236.0	145.1	295.5	-2024.6	179.8

Flow Budget for the LAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet												
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Oxnard Basin UAS	Santa Paula	Pleasant Valley	Las Posas	Mound	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Costal Flux from South of Port Hueneme to Arnold Road	Costal Flux from Arnold Road to Point Mugu
1/31/1985	31	31	-224.2	0.0	1.2	-1657.6	1184.5	2.0	-30.8	-36.0	471.7	110.5	92.7	40.8	45.2
2/28/1985	59	28	-145.8	0.0	1.3	-1518.0	997.3	1.8	-31.1	-35.7	446.7	111.4	91.1	42.3	38.6
3/31/1985	90	31	729.1	0.0	1.1	-2697.3	1114.4	2.0	-3.0	-24.9	541.2	125.2	102.1	60.7	49.3
4/30/1985	120	30	1287.7	0.0	0.8	-3539.3	1147.0	1.9	-15.3	36.0	658.3	169.0	124.9	69.8	59.2
5/31/1985	151	31	1002.2	0.0	0.8	-3503.4	1248.2	2.0	-22.4	77.3	691.3	208.8	144.8	78.8	71.8
6/30/1985	181	30	931.5	0.0	0.8	-3499.8	1252.9	1.9	-17.2	105.6	687.6	224.2	153.2	81.7	77.7
7/31/1985	212	31	1251.4	0.0	0.8	-4089.6	1388.7	2.0	34.6	149.1	650.1	245.1	164.4	95.0	108.3
8/31/1985	243	31	1059.3	0.0	0.8	-4076.0	1480.5	2.1	60.1	160.0	638.0	252.3	172.1	105.8	145.1
9/30/1985	273	30	953.4	0.0	0.8	-4069.6	1550.3	2.1	72.5	164.5	624.5	257.8	176.3	108.8	158.6
10/31/1985	304	31	699.8	0.0	0.7	-4016.8	1673.1	2.2	84.5	158.9	641.0	276.7	189.4	116.0	174.4
11/30/1985	334	30	-2247.4	0.1	4.1	-477.3	1510.2	2.1	64.2	102.6	448.4	206.6	149.0	87.8	149.6
12/31/1985	365	31	115.4	0.0	0.9	-2910.3	1446.9	2.2	32.9	145.0	592.5	213.0	153.7	81.5	126.4
1/31/1986	396	31	-1771.3	0.1	4.2	-640.1	1345.0	2.2	28.8	78.3	461.3	179.3	132.7	70.5	108.9
2/28/1986	424	28	-1665.9	0.2	8.5	-254.3	1098.5	2.0	17.6	66.0	383.3	125.3	99.0	47.8	72.0
3/31/1986	455	31	-1590.0	0.1	4.9	-407.2	1234.4	2.1	4.9	21.2	422.4	112.3	93.8	42.4	58.6
4/30/1986	485	30	163.0	0.0	1.0	-2251.1	1298.6	2.0	34.1	-37.0	467.3	123.1	103.0	46.6	49.5
5/31/1986	516	31	1592.6	0.0	0.9	-4229.4	1423.3	1.9	89.5	-44.1	672.5	199.8	150.3	77.6	65.1
6/30/1986	546	30	1395.2	0.0	0.9	-4205.5	1417.4	1.8	130.7	-8.4	661.6	252.0	174.9	95.8	83.6
7/31/1986	577	31	579.4	0.0	0.7	-3422.4	1580.8	1.9	68.2	-21.9	600.6	244.2	177.4	94.0	97.1
8/31/1986	608	31	633.1	0.0	0.7	-3422.3	1565.6	1.8	24.1	-20.0	610.9	233.2	177.2	91.4	104.3
9/30/1986	638	30	-325.2	0.0	1.0	-2110.1	1383.5	1.8	-2.2	8.3	502.3	200.9	153.9	82.9	102.7
10/31/1986	669	31	777.4	0.0	0.7	-3433.7	1405.1	1.9	-9.5	60.2	616.3	214.9	172.5	87.5	106.0
11/30/1986	699	30	-850.8	0.0	1.5	-1571.6	1318.3	1.9	4.0	52.8	509.0	197.6	154.5	80.4	102.3
12/31/1986	730	31	832.9	0.0	0.7	-3447.0	1332.6	2.0	0.2	91.5	615.7	211.5	170.7	85.0	103.0
1/31/1987	761	31	-883.0	0.0	1.4	-1497.7	1302.3	2.1	29.8	79.3	460.3	187.2	141.9	78.8	97.7
2/28/1987	789	28	-257.4	0.0	1.1	-1789.8	1124.0	1.9	16.7	79.0	414.1	151.9	121.0	63.2	74.1
3/31/1987	820	31	-742.8	0.0	1.6	-1423.4	1229.5	2.1	3.4	79.8	432.4	154.7	125.9	63.9	72.8
4/30/1987	850	30	2202.1	0.0	0.7	-4762.2	1294.0	2.1	77.5	114.7	564.6	192.5	159.6	82.9	71.5
5/31/1987	881	31	1710.7	0.0	0.7	-4700.6	1544.5	2.1	90.6	132.0	590.9	247.5	189.6	104.5	87.3
6/30/1987	911	30	1483.3	0.0	0.7	-4687.8	1676.6	2.1	104.5	141.0	591.5	272.6	205.0	112.0	98.5
7/31/1987	942	31	1406.1	0.0	0.7	-5178.0	1990.5	2.1	146.6	139.0	686.1	328.3	222.4	116.9	136.9
8/31/1987	973	31	1140.8	0.0	0.7	-5176.4	2106.0	2.1	184.4	144.2	708.6	349.5	235.8	124.4	177.4
9/30/1987	1003	30	1132.1	0.0	0.7	-5180.3	2051.8	2.1	197.8	170.1	707.7	356.5	241.3	126.8	188.9
10/31/1987	1034	31	-1583.0	0.0	1.3	-2116.9	2024.1	2.2	145.9	153.8	537.3	311.7	218.5	118.6	186.3
11/30/1987	1064	30	-1420.2	0.0	1.2	-1881.1	1777.0	2.1	114.5	149.4	557.5	265.3	189.5	94.0	150.6
12/31/1987	1095	31	-1966.3	0.1	3.6	-907.0	1606.4	2.2	66.7	123.8	463.9	231.7	170.3	79.1	125.4
1/31/1988	1126	31	-1381.3	0.1	2.5	-1162.1	1418.1	2.2	46.8	107.6	450.1	198.0	150.6	70.9	96.4
2/29/1988	1155	29	-323.7	0.0	1.3	-2057.4	1267.6	2.1	55.4	92.2	475.5	196.4	145.8	70.7	74.2
3/31/1988	1186	31	1281.3	0.0	0.6	-4167.3	1491.8	2.2	114.5	113.7	589.5	241.9	166.9	88.0	77.0
4/30/1988	1216	30	-1387.8	0.1	2.6	-1156.2	1548.5	2.1	49.7	47.1	390.1	207.3	147.1	75.7	73.9
5/31/1988	1247	31	1229.2	0.0	0.6	-4196.6	1651.5	2.1	108.2	56.3	570.8	243.9	169.1	87.3	77.5
6/30/1988	1277	30	1068.5	0.0	0.6	-4171.1	1726.7	2.0	126.3	47.8	564.0	272.8	179.4	97.4	83.4
7/31/1988	1308	31	1195.6	0.0	0.5	-4499.2	1889.3	2.1	56.3	103.0	532.1	298.5	194.5	109.5	117.8
8/31/1988	1339	31	1040.4	0.0	0.5	-4483.7	1945.7	2.1	33.2	136.5	536.4	313.0	205.3	117.0	153.6
9/30/1988	1369	30	989.1	0.0	0.5	-4480.3	1949.7	2.1	31.4	164.9	532.0	318.0	209.2	118.9	164.6
10/31/1988	1400	31	730.7	0.0	0.5	-4459.9	2083.8	2.2	33.7	191.0	549.7	339.2	224.0	126.0	178.9
11/30/1988	1430	30	-655.6	0.0	0.9	-2783.3	1943.1	2.2	35.9	156.8	489.6	315.9	213.3	113.9	167.1
12/31/1988	1461	31	-2377.3	0.1	3.1	-615.2	1774.5	2.3	11.4	125.3	396.0	260.1	186.5	91.4	141.9
1/31/1989	1492	31	309.5	0.0	0.5	-3486.7	1659.4	2.3	17.4	167.2	686.3	270.5	186.0	80.7	107.0
2/28/1989	1520	28	-1587.0	0.1	3.0	-881.4	1431.4	2.1	-4.9	109.0	402.1	224.4	154.6	67.5	79.1
3/31/1989	1551	31	348.6	0.0	0.8	-3257.5	1564.8	2.3	25.1	117.0	606.2	257.1	179.4	77.9	78.3
4/30/1989	1581	30	1103.2	0.0	0.5	-4245.9	1645.5	2.2	47.6	141.4	668.1	282.7	189.1	87.9	77.7
5/31/1989	1612	31	802.2	0.0	0.5	-4216.0	1785.0	2.3	60.5	166.9	685.3	318.3	208.5	99.4	87.1
6/30/1989	1642	30	754.7	0.0	0.5	-4212.4	1794.5	2.2	67.9	183.1	677.5	326.4	213.3	101.6	90.8
7/31/1989	1673	31	748.6	0.0	0.4	-4243.3	1941.3	2.3	-5.6	166.8	602.1	337.7	222.1	109.9	117.8
8/31/1989	1704	31	689.3	0.0	0.4	-4232.5	1998.8	2.4	-35.2	164.0	591.8	338.3	224.6	113.6	144.7
9/30/1989	1734	30	713.2	0.0	0.4	-4232.9	1990.1	2.3	-43.1	166.9	580.3	335.1	222.7	113.2	151.9
10/31/1989	1765	31	518.3	0.0	0.4	-4215.7	2101.6	2.4	-47.2	177.7	592.7	352.6	234.6	118.9	163.6
11/30/1989	1795	30	537.4	0.0	0.3	-4152.7	2042.2	2.4	-46.8	173.7	582.2	349.2	232.5	117.2	162.5
12/31/1989	1826	31	414.9	0.0	0.4	-4209.5	2152.7	2.5	-46.9	188.4	594.2	366.1	244.0	122.5	170.7
1/31/1990	1857	31	-1570.4	0.0	2.1	-1890.8	2023.3	2.5	2.1	158.2	463.1	327.4	223.6	109.2	149.7
2/28/1990	1885	28	-888.8	0.0	1.7	-2101.1	1699.5	2.2	34.3	132.0	441.9	283.5	199.0	87.9	107.6
3/31/1990	1916	31	1591.9	0.0	0.5	-5352.0	2020.5	2.5	91.9	195.4	661.3	345.3	230.2	104.4	108.1
4/30/1990	1946	30	1353.7	0.0	0.5	-5323.6	2158.6	2.4	108.0	211.9	658.2	376.2	239.1	110.2	104.7
5/31/1990	1977	31	827.4	0.0	0.4	-5036.8	2311.7	2.5	122.9	216.1	654.6	409.1	260.3	119.4	112.3
6/30/1990	2007	30	984.9	0.0	0.5	-5300.9	2360.9	2.5	130.4	239.9	671.7	412.8	263.1	120.4	113.8
7/31/1990	2038	31	366.5	0.0	0.3	-4819.6	2504.9	2.6	76.4	300.0	604.3	423.5	272.8	128.1	140.2
8/31/1990	2069	31	343.5	0.0	0.3	-4814.8	2510.6	2.6	66.9	299.1	600.6	415.8	273.4	132.9	169.2
9/30/1990	2099	30	451.2	0.0	0.3	-4825.8	2445.0	2.5	66.2	292.3	589.3	404.5	267.3	131.5	175.4
10/31/1990	2130	31	282.5	0.0	0.3	-4811.3	2534.8	2.6	70.2	298.0	601.5	420.0	278.1	136.8	186.4
11/30/1990	2160	30	227.6	0.0	0.3	-4669.8	2456.4	2.6	105.5	289.0	588.9	410.7	272.0	133.5	182.7
12/31/1990	2191	31	251.6	0.0	0.3	-4814.3	2529.8	2.7	98.4	296.5	599.1	425.7	282.2	138.1	190.0
1/31/1991	2222	31	-1354.0	0.0	0.7	-2736.5	2357.2	2.7	24.0	236.1	489.8	410.4	276.5	125.7	167.2

Flow Budget for the LAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet												
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Oxnard Basin UAS	Santa Paula	Pleasant Valley	Las Posas	Mound	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Costal Flux from South of Port Hueneme to Arnold Road	Costal Flux from Arnold Road to Point Mugu
2/28/1991	2250	28	-1968.0	0.0	2.3	-1122.6	1841.5	2.4	-12.7	152.4	347.4	318.0	225.1	95.6	118.7
3/31/1991	2281	31	-2926.3	0.2	10.8	-97.7	1900.2	2.7	-31.2	112.7	333.0	289.3	215.6	85.5	105.2
4/30/1991	2311	30	988.5	0.0	0.4	-4257.1	2015.2	2.4	-54.9	127.1	464.1	312.0	222.8	87.7	87.6
5/31/1991	2342	31	736.0	0.0	0.4	-4206.9	2152.8	2.4	-64.0	104.2	480.8	356.3	242.7	101.7	91.1
6/30/1991	2372	30	743.1	0.0	0.4	-4205.0	2123.0	2.3	-64.2	116.5	473.0	364.5	245.9	104.1	92.3
7/31/1991	2403	31	743.5	0.0	0.2	-4356.4	2208.0	2.4	-71.0	167.0	439.4	369.7	253.4	119.8	124.0
8/31/1991	2434	31	631.4	0.0	0.2	-4349.2	2242.8	2.4	-67.1	186.3	438.3	369.8	256.7	129.7	158.9
9/30/1991	2464	30	647.3	0.0	0.2	-4351.4	2209.2	2.3	-59.5	200.4	432.6	365.6	254.0	130.3	168.9
10/31/1991	2495	31	436.8	0.0	0.2	-4333.3	2317.4	2.4	-55.4	213.0	448.7	384.0	266.6	136.8	182.7
11/30/1991	2525	30	488.3	0.0	0.2	-4340.2	2283.3	2.4	-51.7	219.1	441.8	378.5	262.6	134.4	181.4
12/31/1991	2556	31	-3046.1	0.1	3.9	-356.7	2109.9	2.5	-26.0	102.0	352.4	338.7	241.8	114.1	163.4
1/31/1992	2587	31	-2212.5	0.0	1.7	-637.7	1802.0	2.5	-51.8	53.6	316.8	294.4	219.4	91.3	120.3
2/29/1992	2616	29	-2387.3	0.2	9.2	-12.6	1593.0	2.3	-47.8	3.3	274.8	232.1	176.9	69.7	86.3
3/31/1992	2647	31	-2073.2	0.1	5.3	-198.5	1614.1	2.3	-49.1	-90.0	273.8	214.1	167.2	62.3	71.4
4/30/1992	2677	30	398.7	0.0	0.2	-2671.3	1651.6	2.1	-85.8	-104.0	251.8	240.6	181.7	71.3	63.0
5/31/1992	2708	31	218.7	0.0	0.2	-2627.1	1757.8	2.1	-101.5	-117.5	244.4	270.4	195.8	85.5	71.1
6/30/1992	2738	30	253.3	0.0	0.2	-2626.7	1703.5	2.0	-96.6	-94.7	228.9	273.0	195.8	87.2	74.1
7/31/1992	2769	31	828.1	0.0	0.2	-3370.9	1790.5	2.0	-117.9	-31.1	232.4	276.2	199.2	97.6	93.6
8/31/1992	2800	31	704.3	0.0	0.2	-3359.5	1818.1	2.0	-114.3	2.6	240.9	278.7	203.1	105.0	118.9
9/30/1992	2830	30	661.2	0.0	0.2	-3357.9	1805.9	2.0	-108.5	38.6	241.7	278.1	202.9	106.5	129.2
10/31/1992	2861	31	-516.0	0.0	1.2	-2292.9	1919.1	2.1	-86.5	-28.9	276.2	275.9	202.8	108.3	138.7
11/30/1992	2891	30	349.1	0.0	0.2	-3356.0	2134.7	1.9	-97.5	-15.3	259.5	275.7	204.9	106.6	136.0
12/31/1992	2922	31	-2443.8	0.1	4.9	-289.1	2058.8	2.0	-55.4	-164.2	252.3	237.0	179.5	90.1	127.8
1/31/1993	2953	31	-2267.4	0.2	9.3	-45.9	1772.8	1.9	-50.7	-172.7	252.6	189.0	152.2	65.1	93.5
2/28/1993	2981	28	-1650.4	0.2	9.3	-146.1	1421.0	1.7	-59.7	-157.5	215.5	139.1	117.6	47.0	62.2
3/31/1993	3012	31	-1294.5	0.1	3.4	-472.7	1449.9	1.9	-93.6	-182.1	240.6	132.2	115.7	45.7	53.4
4/30/1993	3042	30	667.4	0.0	0.1	-2944.9	1751.1	1.7	-156.5	-156.4	414.4	177.3	139.5	57.0	49.1
5/31/1993	3073	31	454.2	0.0	0.1	-2902.1	1875.4	1.7	-175.5	-201.6	446.5	213.8	157.3	71.6	58.6
6/30/1993	3103	30	480.2	0.0	0.3	-2853.7	1717.2	1.6	-169.7	-146.0	448.6	222.1	161.4	74.8	63.3
7/31/1993	3134	31	755.0	0.0	0.2	-3257.8	1782.7	1.7	-96.6	-88.4	344.4	216.5	161.1	90.0	91.3
8/31/1993	3165	31	579.0	0.0	0.2	-3251.9	1850.7	1.7	-67.1	-59.4	333.0	220.4	165.7	100.9	126.8
9/30/1993	3195	30	426.9	0.0	0.2	-3246.6	1964.8	1.7	-49.4	-57.8	329.0	222.3	166.6	102.9	139.6
10/31/1993	3226	31	163.7	0.0	0.2	-3229.0	2191.2	1.7	-40.6	-98.4	339.2	234.7	175.6	108.4	153.3
11/30/1993	3256	30	-270.1	0.0	0.2	-2628.0	2096.7	1.6	-33.8	-126.2	311.3	226.0	171.3	102.8	148.1
12/31/1993	3287	31	-1374.5	0.0	1.1	-1253.5	1990.4	1.7	-38.5	-160.7	269.1	192.6	151.4	86.7	134.4
1/31/1994	3318	31	313.7	0.0	0.2	-3019.1	1952.2	1.7	-6.8	-114.8	298.8	210.9	163.3	84.1	107.4
2/28/1994	3346	28	-1856.4	0.1	6.1	-241.0	1605.8	1.5	-26.6	-116.5	217.5	152.8	120.2	60.1	76.3
3/31/1994	3377	31	-1271.1	0.1	2.3	-721.9	1566.3	1.7	-39.2	-129.5	230.4	131.7	113.7	51.4	64.1
4/30/1994	3407	30	871.2	0.0	0.2	-3061.1	1611.2	1.6	-29.6	-93.0	276.2	163.3	130.3	62.5	57.3
5/31/1994	3438	31	518.6	0.0	0.2	-3008.6	1808.6	1.7	-27.9	-95.7	302.0	201.0	149.6	77.1	65.0
6/30/1994	3468	30	519.3	0.0	0.2	-3016.6	1767.5	1.6	-17.8	-85.3	304.9	212.1	155.3	80.3	68.2
7/31/1994	3499	31	1273.2	0.0	0.2	-4063.4	1848.7	1.7	-37.0	-30.7	424.9	235.5	167.4	90.8	88.7
8/31/1994	3530	31	1049.3	0.0	0.2	-4047.7	1917.8	1.7	-6.1	6.7	426.1	257.9	177.9	100.5	115.8
9/30/1994	3560	30	956.6	0.0	0.2	-4042.8	1930.2	1.7	12.7	38.0	419.6	268.7	183.6	103.8	127.7
10/31/1994	3591	31	680.2	0.0	0.2	-4021.6	2083.7	1.8	26.5	57.7	430.4	289.8	197.9	111.2	142.2
11/30/1994	3621	30	-953.7	0.0	0.9	-2015.7	1953.2	1.8	34.6	14.3	310.0	247.5	176.7	96.7	133.9
12/31/1994	3652	31	-732.0	0.0	0.5	-2162.3	1938.3	1.9	11.4	23.5	326.7	219.9	163.9	85.6	122.6
1/31/1995	3683	31	-2573.2	0.4	15.8	80.8	1785.9	1.9	1.5	2.1	226.6	165.4	131.5	63.4	97.9
2/28/1995	3711	28	-694.3	0.0	0.6	-1620.7	1674.9	1.7	-4.6	-38.5	286.8	152.0	122.0	52.9	67.2
3/31/1995	3742	31	-2080.3	0.2	8.5	-80.0	1746.9	1.8	-24.6	-136.1	220.7	128.6	107.0	47.9	59.4
4/30/1995	3772	30	623.1	0.0	0.1	-2853.6	1612.5	1.6	-4.6	-117.6	333.1	164.1	130.8	58.7	51.7
5/31/1995	3803	31	-43.7	0.0	0.1	-2377.9	1778.6	1.6	7.6	-136.4	305.5	188.7	143.2	72.7	60.0
6/30/1995	3833	30	388.4	0.0	0.1	-2872.7	1770.0	1.5	13.5	-129.5	348.4	200.6	145.6	73.0	61.2
7/31/1995	3864	31	308.3	0.0	0.1	-2892.4	1833.6	1.6	-5.3	-91.3	340.0	200.4	145.3	79.8	79.7
8/31/1995	3895	31	241.8	0.0	0.1	-2880.9	1902.0	1.6	-20.9	-78.3	323.1	184.1	139.7	84.3	103.5
9/30/1995	3925	30	219.9	0.0	0.1	-2879.7	1935.0	1.5	-21.0	-73.1	310.1	176.3	135.2	83.9	111.8
10/31/1995	3956	31	33.7	0.0	0.1	-2866.5	2099.0	1.5	-19.9	-91.1	313.3	181.1	139.4	87.4	122.0
11/30/1995	3986	30	104.0	0.0	0.1	-2871.0	2057.8	1.5	-17.0	-100.7	305.3	177.0	136.2	85.3	121.3
12/31/1995	4017	31	-1500.0	0.0	1.9	-931.0	1924.3	1.5	-11.7	-156.2	220.3	144.0	119.9	73.1	113.9
1/31/1996	4048	31	-633.7	0.0	0.7	-1509.7	1712.4	1.5	-21.0	-144.8	230.9	113.8	103.5	60.8	85.5
2/29/1996	4077	29	-1664.1	0.2	7.6	-154.6	1558.8	1.4	-26.3	-140.8	171.8	75.1	74.3	40.0	56.6
3/31/1996	4108	31	-403.0	0.0	2.0	-1445.7	1593.8	1.5	-38.9	-183.0	217.0	79.8	84.0	44.8	47.6
4/30/1996	4138	30	469.2	0.0	0.2	-2380.3	1557.0	1.4	-58.9	-150.2	274.0	101.4	91.4	51.1	43.8
5/31/1996	4169	31	751.8	0.0	0.3	-2819.8	1614.5	1.4	-58.2	-128.0	296.8	127.6	103.1	62.1	48.4
6/30/1996	4199	30	701.6	0.0	0.3	-2810.0	1562.3	1.4	-44.0	-79.7	294.5	142.9	110.1	67.4	53.1
7/31/1996	4230	31	1739.4	0.0	0.4	-4322.3	1746.0	1.5	9.6	-17.1	390.8	167.2	127.9	80.0	76.4
8/31/1996	4261	31	1379.9	0.0	0.4	-4297.1	1899.5	1.5	46.7	18.5	401.8	200.8	146.3	94.2	107.4
9/30/1996	4291	30	1217.6	0.0	0.4	-4293.0	1958.3	1.5	64.0	44.8	405.7	220.5	158.5	100.4	121.3
10/31/1996	4322	31	-520.4	0.0	0.9	-2512.2	2033.3	1.6	65.2	13.1	310.5	215.1	163.2	100.3	129.3
11/30/1996	4352	30	-1663.2	0.0	2.2	-898.1	1802.3	1.6	37.9	-25.2	263.1	165.2	130.0	75.2	108.9
12/31/1996	4383	31	-2033.9	0.1	5.6	-300.7	1775.2	1.6	8.5	-65.0	239.4	125.3	105.6	53.4	84.8
1/31/1997	4414	31	-1835.5	0.1	4.9	-262.6	1770.8	1.6	-16.7	-157.0	224.3	87.9	84.2	38.4	59.6

Flow Budget for the LAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet												
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Oxnard Basin UAS	Santa Paula	Pleasant Valley	Las Posas	Mound	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Costal Flux from South of Port Hueneme to Arnold Road	Costal Flux from Arnold Road to Point Mugu
2/28/1997	4442	28	1062.7	0.0	0.4	-3070.8	1548.5	1.3	9.9	-160.5	315.2	97.5	100.9	49.2	45.7
3/31/1997	4473	31	643.8	0.0	0.4	-3004.9	1784.8	1.4	4.2	-165.3	352.9	133.1	122.7	70.0	57.0
4/30/1997	4503	30	617.8	0.0	0.4	-3005.5	1745.5	1.3	10.4	-129.6	352.3	143.0	128.5	73.7	62.1
5/31/1997	4534	31	494.0	0.0	0.4	-2993.1	1759.9	1.4	13.2	-91.9	369.5	157.6	138.9	79.6	70.5
6/30/1997	4564	30	534.0	0.0	0.4	-2998.1	1663.0	1.4	17.5	-44.8	370.9	161.8	141.0	80.0	73.0
7/31/1997	4595	31	1320.0	0.0	0.6	-4157.7	1797.5	1.5	-28.3	42.4	482.1	191.1	160.5	94.1	96.3
8/31/1997	4626	31	1057.9	0.0	0.6	-4128.8	1883.4	1.5	-9.8	76.2	502.4	213.6	172.4	105.5	125.3
9/30/1997	4656	30	971.2	0.0	0.6	-4126.8	1898.4	1.6	5.5	98.5	504.1	223.6	178.3	108.7	136.5
10/31/1997	4687	31	693.0	0.0	0.6	-4104.0	2059.0	1.7	17.2	109.7	522.9	242.3	191.5	115.8	150.4
11/30/1997	4717	30	-1880.0	0.0	2.1	-951.9	1862.1	1.7	20.5	35.7	344.5	193.2	149.7	89.3	133.2
12/31/1997	4748	31	-2229.3	0.1	7.2	-215.1	1706.9	1.8	7.7	4.4	289.6	142.0	119.7	62.0	103.1
1/31/1998	4779	31	-1535.6	0.1	3.5	-733.9	1628.3	1.7	-5.3	-57.8	353.9	111.9	106.7	52.1	74.4
2/28/1998	4807	28	-1781.7	0.5	20.3	6.4	1356.5	1.5	-23.3	-45.4	236.3	73.9	71.3	34.7	48.9
3/31/1998	4838	31	-1066.6	0.1	3.4	-853.0	1481.9	1.6	-24.1	-123.3	354.3	68.3	81.0	36.2	40.2
4/30/1998	4868	30	-528.2	0.0	1.1	-1319.9	1463.3	1.5	-31.9	-206.9	401.0	68.6	78.3	39.5	33.6
5/31/1998	4899	31	-755.3	0.1	4.0	-981.6	1450.5	1.4	-40.1	-235.1	347.7	64.0	71.4	40.6	32.5
6/30/1998	4929	30	1517.2	0.0	0.2	-3900.6	1528.5	1.3	-3.7	-223.2	733.3	112.2	126.7	68.6	39.4
7/31/1998	4960	31	384.6	0.0	0.5	-2722.8	1652.4	1.3	9.3	-164.0	463.7	127.4	105.4	78.6	63.6
8/31/1998	4991	31	436.3	0.0	0.5	-2731.6	1571.3	1.3	28.4	-121.5	435.1	117.1	103.4	76.2	83.7
9/30/1998	5021	30	398.0	0.0	0.3	-2689.5	1517.8	1.3	37.0	-78.9	429.2	115.3	102.6	75.7	91.2
10/31/1998	5052	31	99.8	0.0	0.5	-2710.0	1807.7	1.3	42.8	-90.2	438.4	122.5	107.8	79.2	100.3
11/30/1998	5082	30	-607.8	0.0	0.7	-1777.0	1799.2	1.3	29.6	-169.0	356.0	108.1	95.6	68.9	94.4
12/31/1998	5113	31	-414.6	0.0	0.5	-1929.7	1768.9	1.3	9.6	-160.4	387.0	101.6	89.0	60.3	86.6
1/31/1999	5144	31	-1097.2	0.0	1.6	-702.0	1541.3	1.3	-18.7	-195.0	205.9	75.9	69.0	48.3	69.5
2/28/1999	5172	28	680.6	0.0	0.7	-2220.8	1283.1	1.1	-14.3	-123.0	160.4	61.1	65.0	53.3	52.8
3/31/1999	5203	31	-1269.4	0.1	2.9	-356.5	1410.4	1.3	-47.3	-129.2	175.7	57.1	57.5	45.1	52.3
4/30/1999	5233	30	-913.9	0.0	2.0	-529.1	1301.7	1.3	-41.3	-136.0	168.6	34.1	43.2	30.0	39.3
5/31/1999	5264	31	831.2	0.0	0.2	-2287.1	1299.3	1.3	-38.5	-136.7	147.8	43.1	52.4	47.2	39.8
6/30/1999	5294	30	805.1	0.0	0.2	-2255.5	1225.6	1.2	-44.0	-96.1	131.9	64.1	61.3	59.7	46.5
7/31/1999	5325	31	1577.3	0.0	0.3	-3468.9	1346.6	1.3	-9.5	5.3	257.5	88.0	61.9	70.2	69.9
8/31/1999	5356	31	1265.6	0.0	0.3	-3457.9	1466.6	1.4	28.4	50.0	281.8	111.9	75.1	78.5	98.1
9/30/1999	5386	30	1093.9	0.0	0.3	-3448.0	1533.8	1.4	45.6	76.8	290.5	127.6	84.8	82.8	110.5
10/31/1999	5417	31	784.4	0.0	0.3	-3425.3	1728.0	1.5	57.0	83.7	310.2	147.5	98.3	89.9	124.5
11/30/1999	5447	30	-261.4	0.0	0.7	-2206.5	1657.6	1.5	50.9	46.5	271.4	140.8	98.4	80.1	119.9
12/31/1999	5478	31	825.8	0.0	0.3	-3439.8	1675.4	1.5	62.7	88.7	324.8	147.8	102.7	86.5	123.6
1/31/2000	5509	31	-1210.9	0.0	1.4	-1192.4	1591.4	1.6	48.3	38.7	284.1	148.2	103.3	74.7	111.6
2/29/2000	5538	29	-1689.4	0.2	6.8	-245.4	1330.3	1.5	18.3	22.7	235.8	110.9	84.2	48.5	75.8
3/31/2000	5569	31	-1068.2	0.0	2.1	-945.0	1470.8	1.6	17.3	-16.3	267.9	93.0	73.5	42.7	60.6
4/30/2000	5599	30	-895.5	0.0	2.0	-872.8	1381.1	1.5	1.2	-89.8	248.8	76.8	61.3	38.3	47.1
5/31/2000	5630	31	1565.5	0.0	0.4	-3600.1	1417.4	1.5	33.3	-48.0	339.6	111.3	68.2	60.5	50.4
6/30/2000	5660	30	1347.6	0.0	0.4	-3568.9	1475.4	1.4	40.5	-10.2	330.1	158.4	86.9	77.3	60.9
7/31/2000	5691	31	814.7	0.0	0.4	-3219.9	1565.1	1.5	20.9	31.6	335.9	175.3	102.9	84.3	87.2
8/31/2000	5722	31	708.3	0.0	0.4	-3217.6	1583.4	1.6	40.0	58.5	340.8	174.1	107.8	87.6	115.1
9/30/2000	5752	30	659.6	0.0	0.4	-3215.9	1595.6	1.5	46.7	73.9	340.9	174.7	109.6	88.6	124.3
10/31/2000	5783	31	-308.2	0.0	0.8	-2448.8	1859.8	1.6	51.6	16.4	317.3	175.6	116.1	87.9	129.8
11/30/2000	5813	30	445.6	0.0	0.4	-3210.0	1860.6	1.5	51.8	2.3	351.1	170.4	112.8	87.5	126.1
12/31/2000	5844	31	400.5	0.0	0.4	-3197.2	1842.0	1.5	53.3	5.5	357.5	185.5	120.4	93.8	136.8
1/31/2001	5875	31	-2125.7	0.1	6.4	-202.8	1616.9	1.6	45.5	-29.4	236.0	156.8	112.4	68.4	113.7
2/28/2001	5903	28	-1603.9	0.2	7.3	-201.8	1293.1	1.5	26.5	-17.1	205.3	100.0	81.1	40.7	67.3
3/31/2001	5934	31	-1529.6	0.1	4.7	-339.6	1460.9	1.6	11.9	-65.0	218.2	79.2	70.6	35.2	51.8
4/30/2001	5964	30	431.8	0.0	1.1	-2328.1	1441.8	1.5	76.4	-105.1	218.7	83.2	64.6	52.4	44.5
5/31/2001	5995	31	968.1	0.0	0.4	-3118.3	1544.6	1.4	93.4	-70.4	225.4	133.4	83.1	71.1	52.7
6/30/2001	6025	30	872.6	0.0	0.4	-3107.2	1522.9	1.4	95.9	-27.1	219.6	169.1	97.9	76.9	57.4
7/31/2001	6056	31	972.7	0.0	0.3	-3331.2	1596.6	1.5	74.1	-16.3	237.9	181.5	110.5	84.9	87.6
8/31/2001	6087	31	803.2	0.0	0.3	-3318.1	1638.6	1.5	96.6	12.3	252.3	181.2	115.6	91.4	125.2
9/30/2001	6117	30	691.4	0.0	0.3	-3311.0	1695.4	1.5	107.1	24.9	257.2	182.9	118.0	93.5	138.8
10/31/2001	6148	31	256.5	0.0	0.3	-3282.6	2069.7	1.5	116.7	-12.0	273.6	196.2	127.8	99.3	153.1
11/30/2001	6178	30	-2005.3	0.1	2.7	-540.7	1857.8	1.4	64.3	-95.4	243.7	156.9	113.9	72.7	127.9
12/31/2001	6209	31	-1072.0	0.0	0.7	-1098.7	1610.2	1.5	44.5	-90.7	238.8	123.0	95.2	53.3	94.0
1/31/2002	6240	31	-351.5	0.0	1.2	-1713.7	1481.9	1.5	47.2	-67.6	273.2	113.3	85.4	57.0	72.0
2/28/2002	6268	28	623.9	0.0	0.5	-2612.3	1351.4	1.3	63.8	-20.8	280.2	116.5	80.4	60.1	54.8
3/31/2002	6299	31	325.8	0.0	0.5	-2582.6	1509.9	1.5	63.3	-1.4	309.9	147.4	97.4	70.3	58.0
4/30/2002	6329	30	364.8	0.0	0.5	-2586.5	1455.0	1.5	62.0	19.1	305.7	152.1	99.4	70.1	56.2
5/31/2002	6360	31	264.2	0.0	0.5	-2579.4	1492.2	1.6	62.6	34.4	318.6	164.7	107.2	73.9	59.4
6/30/2002	6390	30	321.6	0.0	0.5	-2585.3	1430.8	1.6	62.5	47.3	315.4	165.9	107.3	73.3	59.1
7/31/2002	6421	31	1997.9	0.0	0.9	-4564.2	1601.2	1.7	25.9	95.2	363.1	188.8	120.0	86.2	83.2
8/31/2002	6452	31	1637.9	0.0	0.9	-4531.8	1786.2	1.7	34.7	120.7	376.1	218.2	137.5	100.1	117.8
9/30/2002	6482	30	1443.1	0.0	0.9	-4516.9	1882.3	1.7	44.9	136.7	382.2	236.7	149.3	106.2	132.9
10/31/2002	6513	31	1093.7	0.0	0.9	-4490.7	2083.4	1.8	57.2	150.4	405.4	264.5	168.1	115.6	149.6
11/30/2002	6543	30	-2356.5	0.1	6.9	-592.6	1882.4	1.8	57.4	95.7	305.2	223.7	156.1	88.8	131.0
12/31/2002	6574	31	-1850.1	0.1	5.8	-739.0	1700.2	1.9	39.6	65.8	302.1	173.2	132.2	66.2	101.9
1/31/2003	6605	31	164.0	0.0	0.8	-2879.3	1581.2	1.8	41.8	63.3	550.9	183.4	124.3	81.0	86.6

Flow Budget for the LAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet												
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Oxnard Basin UAS	Santa Paula	Pleasant Valley	Las Posas	Mound	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Costal Flux from South of Port Hueneme to Arnold Road	Costal Flux from Arnold Road to Point Mugu
2/28/2003	6633	28	-1852.2	0.1	7.1	-157.9	1316.8	1.7	2.6	25.4	277.3	151.0	105.2	57.3	65.7
3/31/2003	6664	31	-1442.9	0.1	6.5	-463.1	1282.5	1.9	11.4	1.7	288.9	119.5	93.3	45.8	54.6
4/30/2003	6694	30	362.0	0.0	1.2	-2314.6	1186.6	1.8	-0.1	-3.2	449.1	122.1	85.1	60.1	49.9
5/31/2003	6725	31	-766.3	0.0	1.5	-1137.8	1250.5	1.8	-12.0	-16.5	352.1	129.6	88.4	57.5	51.0
6/30/2003	6755	30	824.4	0.0	0.8	-2916.9	1251.4	1.7	5.3	-0.7	484.5	142.9	88.9	67.4	50.3
7/31/2003	6786	31	1014.6	0.0	0.8	-3060.1	1311.0	1.8	-13.6	51.2	284.0	162.3	100.2	74.8	73.1
8/31/2003	6817	31	920.3	0.0	0.8	-3053.5	1358.0	1.8	-10.7	70.5	264.6	165.3	105.0	78.5	99.4
9/30/2003	6847	30	862.1	0.0	0.8	-3051.3	1367.4	1.8	-4.3	88.0	262.5	171.9	109.2	81.2	110.7
10/31/2003	6878	31	654.7	0.0	0.8	-3035.5	1476.2	1.9	0.6	103.2	275.9	189.9	120.9	87.4	123.9
11/30/2003	6908	30	-651.2	0.0	1.1	-1583.6	1398.6	1.9	21.7	63.2	251.4	178.2	120.1	81.0	117.6
12/31/2003	6939	31	-711.0	0.0	1.6	-1445.3	1343.3	2.0	34.2	59.9	258.6	161.6	115.8	71.6	107.7
1/31/2004	6970	31	253.0	0.0	0.7	-2338.8	1318.7	1.9	-11.5	67.7	256.1	171.8	116.8	75.5	88.0
2/29/2004	6999	29	-1611.1	0.1	8.9	-207.9	1184.1	1.9	0.1	31.4	222.5	147.0	105.8	55.3	62.0
3/31/2004	7030	31	194.6	0.0	0.6	-2026.3	1204.1	1.9	-17.6	36.5	249.6	146.0	102.5	54.9	53.1
4/30/2004	7060	30	623.0	0.0	0.7	-2508.1	1238.5	1.8	-25.2	30.0	246.8	164.7	108.3	69.8	49.7
5/31/2004	7091	31	458.6	0.0	0.7	-2500.6	1306.7	1.9	-14.0	37.1	259.1	189.5	123.9	82.0	55.2
6/30/2004	7121	30	472.8	0.0	0.7	-2507.7	1264.0	1.8	-5.9	52.3	256.8	196.3	127.9	83.7	57.3
7/31/2004	7152	31	2004.8	0.0	0.9	-4590.1	1444.5	1.9	-23.8	121.5	478.0	231.8	146.7	98.3	85.6
8/31/2004	7183	31	1577.4	0.0	0.9	-4554.0	1639.3	1.9	-6.3	151.6	519.4	265.6	167.0	113.5	123.7
9/30/2004	7213	30	1383.2	0.0	0.9	-4541.7	1725.9	1.9	8.4	169.3	531.8	282.5	178.4	119.4	140.1
10/31/2004	7244	31	-2347.2	0.1	7.1	-536.0	1685.3	2.0	59.6	106.5	361.1	255.4	175.4	97.0	133.6
11/30/2004	7274	30	1635.7	0.0	0.9	-4569.8	1611.0	1.9	22.0	155.2	520.0	240.5	161.3	99.3	121.9
12/31/2004	7305	31	-2295.8	0.1	8.4	-406.8	1597.0	2.1	53.1	89.9	353.6	229.4	161.6	86.8	120.6
1/31/2005	7336	31	-2318.4	0.3	16.7	-19.4	1447.9	2.1	59.5	58.2	312.8	167.3	129.4	58.3	85.3
2/28/2005	7364	28	-1787.6	0.2	13.1	-87.5	1261.6	1.8	39.1	-13.8	270.3	114.9	93.7	40.0	54.3
3/31/2005	7395	31	-1174.7	0.1	4.5	-776.2	1367.4	1.9	32.9	-87.0	343.4	109.9	88.3	43.8	45.7
4/30/2005	7425	30	27.8	0.0	1.1	-2188.1	1482.3	1.6	30.7	-136.8	471.2	131.0	86.6	53.5	39.2
5/31/2005	7456	31	661.8	0.0	1.0	-3195.9	1652.7	1.5	23.4	-168.3	609.7	191.7	106.6	72.4	43.5
6/30/2005	7486	30	518.8	0.0	1.0	-3186.8	1720.5	1.4	21.7	-158.6	606.4	226.0	120.9	80.9	47.9
7/31/2005	7517	31	116.4	0.0	0.7	-2875.3	1849.6	1.4	59.9	-161.9	502.9	222.5	130.7	85.0	68.1
8/31/2005	7548	31	166.5	0.0	0.7	-2893.9	1793.0	1.4	82.3	-137.2	480.5	201.0	127.1	87.2	91.4
9/30/2005	7578	30	122.3	0.0	0.7	-2870.6	1798.8	1.3	87.3	-103.0	467.1	189.5	122.0	86.3	98.4
10/31/2005	7609	31	-844.7	0.0	1.2	-1770.3	1865.5	1.4	79.6	-153.4	344.5	172.2	119.5	82.1	102.4
11/30/2005	7639	30	325.7	0.0	0.7	-2911.4	1695.6	1.3	91.1	-102.4	450.8	159.9	110.3	79.9	98.7
12/31/2005	7670	31	215.4	0.0	0.7	-2905.2	1710.4	1.4	90.4	-60.0	462.8	176.2	116.7	85.6	105.6
1/31/2006	7701	31	-1225.9	0.1	4.6	-1164.5	1637.1	1.4	72.5	-67.0	320.3	153.7	108.5	70.7	88.7
2/28/2006	7729	28	-957.2	0.1	5.0	-994.5	1362.9	1.3	55.9	-59.9	286.6	111.8	83.6	48.5	55.9
3/31/2006	7760	31	-1248.5	0.1	6.1	-730.0	1487.0	1.5	45.9	-91.3	267.2	96.9	77.1	42.0	46.2
4/30/2006	7790	30	-1095.9	0.1	5.4	-716.6	1504.2	1.4	35.7	-159.6	229.5	67.6	59.8	34.1	34.3
5/31/2006	7821	31	343.1	0.0	1.9	-2421.3	1573.8	1.3	49.5	-194.7	405.9	89.7	64.9	51.6	34.4
6/30/2006	7851	30	1830.9	0.0	1.6	-4480.1	1601.9	1.2	107.1	-108.0	660.8	162.0	88.6	75.8	41.8
7/31/2006	7882	31	519.0	0.0	0.8	-3205.5	1677.8	1.2	144.4	-87.0	495.5	193.7	108.9	86.5	64.7
8/31/2006	7913	31	499.5	0.0	0.8	-3209.5	1645.5	1.3	160.7	-38.1	475.2	177.4	108.4	89.4	89.3
9/30/2006	7943	30	459.7	0.0	0.8	-3200.4	1643.8	1.3	165.7	-7.7	470.8	171.8	107.0	89.4	97.8
10/31/2006	7974	31	184.0	0.0	0.8	-3164.7	1850.7	1.3	173.9	-19.5	479.2	180.2	113.3	93.5	107.2
11/30/2006	8004	30	306.1	0.0	0.8	-3191.0	1776.5	1.3	174.9	-30.8	473.3	177.9	112.1	91.8	107.0
12/31/2006	8035	31	-671.3	0.0	0.9	-1984.1	1682.1	1.4	145.2	-24.7	381.4	170.6	111.8	82.5	104.3
1/31/2007	8066	31	-1435.6	0.0	3.3	-696.9	1466.2	1.4	89.1	-39.6	256.3	122.8	92.6	59.6	80.7
2/28/2007	8094	28	-212.2	0.0	0.9	-1604.5	1203.8	1.3	67.0	-23.4	313.8	85.5	68.1	46.5	53.2
3/31/2007	8125	31	527.2	0.0	0.7	-2679.4	1335.3	1.5	78.2	-15.8	451.2	107.9	75.7	63.9	53.4
4/30/2007	8155	30	-390.2	0.0	0.5	-1481.5	1266.2	1.5	52.2	-23.9	290.3	103.7	74.5	57.6	49.2
5/31/2007	8186	31	604.8	0.0	0.7	-2691.1	1263.0	1.5	70.4	-0.3	444.3	113.0	77.6	65.6	50.4
6/30/2007	8216	30	569.4	0.0	0.7	-2690.9	1229.6	1.5	80.3	18.3	449.5	131.3	84.1	73.0	53.1
7/31/2007	8247	31	783.2	0.0	0.9	-3084.3	1324.4	1.6	97.8	65.8	431.2	144.4	91.8	77.1	66.1
8/31/2007	8278	31	683.5	0.0	0.9	-3064.4	1356.6	1.7	102.7	81.0	432.1	149.7	94.8	78.8	82.6
9/30/2007	8308	30	624.5	0.0	0.9	-3049.2	1380.6	1.7	103.9	86.2	431.8	153.8	96.7	79.6	89.5
10/31/2007	8339	31	366.3	0.0	0.9	-3008.2	1565.3	1.7	107.7	69.6	441.2	167.2	105.4	84.4	98.6
11/30/2007	8369	30	431.4	0.0	0.9	-3030.4	1541.0	1.7	107.0	53.0	437.6	168.4	106.3	83.9	99.2
12/31/2007	8400	31	-868.1	0.1	3.6	-1439.4	1479.1	1.7	125.2	7.7	253.1	155.5	108.0	75.6	97.8
1/31/2008	8431	31	-1785.6	0.2	13.3	-273.1	1419.3	1.7	89.7	-7.7	198.2	118.4	94.4	53.6	77.7
2/29/2008	8460	29	-885.1	0.0	2.0	-1066.4	1370.5	1.5	97.8	-49.8	270.1	92.5	75.4	39.0	52.5
3/31/2008	8491	31	697.6	0.0	0.9	-3148.3	1565.6	1.5	109.5	-46.8	508.3	120.8	83.8	57.8	49.4
4/30/2008	8521	30	647.5	0.0	0.9	-3157.9	1534.2	1.4	110.3	-15.3	515.0	149.1	94.7	69.6	50.5
5/31/2008	8552	31	535.1	0.0	0.9	-3159.6	1529.8	1.5	119.2	39.5	522.8	171.1	107.6	76.7	55.5
6/30/2008	8582	30	557.0	0.0	0.9	-3168.2	1457.9	1.5	121.8	90.8	517.9	176.0	110.5	77.2	56.6
7/31/2008	8613	31	1124.4	0.0	0.9	-3994.8	1556.4	1.6	119.4	182.6	533.4	193.4	120.3	88.5	74.0
8/31/2008	8644	31	947.9	0.0	0.9	-3975.1	1630.0	1.7	134.3	196.0	538.6	205.4	127.4	96.3	96.7
9/30/2008	8674	30	876.3	0.0	0.9	-3967.0	1654.3	1.7	140.9	209.0	537.2	210.7	131.1	98.6	106.4
10/31/2008	8705	31	440.4	0.0	0.9	-3897.6	1968.6	1.8	151.4	189.8	550.2	228.2	142.9	104.9	118.3
11/30/2008	8735	30	-1752.4	0.0	2.8	-984.8	1769.3	1.7	112.1	29.3	306.5	196.3	132.9	80.7	105.5
12/31/2008	8766	31	-1197.9	0.0	3.3	-1138.5	1485.5	1.7	100.7	13.7	303.0	158.9	117.5	64.5	87.5
1/31/2009	8797	31	7.8	0.0	0.7	-2448.9	1366.5	1.7	128.4	82.6	451.9	152.2	109.4	72.7	75.0

Flow Budget for the LAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet												
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Oxnard Basin UAS	Santa Paula	Pleasant Valley	Las Posas	Mound	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Costal Flux from South of Port Hueneme to Arnold Road	Costal Flux from Arnold Road to Point Mugu
2/28/2009	8825	28	-1584.2	0.1	9.3	-192.9	1159.7	1.6	65.9	11.0	209.8	121.8	91.7	50.9	55.3
3/31/2009	8856	31	299.0	0.0	0.7	-2471.4	1216.6	1.8	106.4	84.3	430.9	125.0	92.3	61.9	52.4
4/30/2009	8886	30	246.2	0.0	0.7	-2466.4	1219.8	1.8	115.6	97.0	430.9	138.0	94.4	70.8	51.2
5/31/2009	8917	31	157.2	0.0	0.7	-2461.2	1254.2	1.9	124.0	106.7	433.7	151.9	101.8	75.4	53.6
6/30/2009	8947	30	216.2	0.0	0.7	-2468.9	1196.8	1.8	126.2	116.9	427.6	153.6	101.6	74.7	52.8
7/31/2009	8978	31	1415.3	0.0	0.9	-3986.5	1318.1	1.9	112.9	188.6	518.7	175.8	111.1	80.2	62.9
8/31/2009	9009	31	1176.0	0.0	0.9	-3964.3	1432.9	2.0	110.9	210.3	538.6	201.7	123.9	87.6	79.6
9/30/2009	9039	30	1067.6	0.0	0.9	-3959.7	1475.7	1.9	113.5	225.3	546.1	215.9	132.4	91.6	88.8
10/31/2009	9070	31	-234.4	0.0	3.5	-2498.2	1506.3	2.0	158.2	127.1	377.6	218.3	144.1	97.4	98.1
11/30/2009	9100	30	953.3	0.0	0.9	-3949.1	1523.9	1.9	149.0	211.4	558.6	213.8	141.6	96.2	98.5
12/31/2009	9131	31	-1819.9	0.1	4.5	-759.6	1526.3	2.0	98.7	92.8	330.7	208.6	142.1	78.5	95.2
1/31/2010	9162	31	-1936.1	0.1	9.7	-167.7	1326.3	2.0	79.3	16.5	265.5	158.7	119.1	54.5	72.3
2/28/2010	9190	28	-1258.7	0.1	5.5	-380.0	1052.2	1.8	58.1	-12.6	244.6	111.1	88.8	39.9	49.2
3/31/2010	9221	31	634.7	0.0	0.7	-2860.5	1135.5	1.9	102.1	75.0	567.3	134.9	95.4	62.7	50.3
4/30/2010	9251	30	-711.8	0.0	1.7	-1195.4	1089.9	1.9	82.6	10.5	382.3	138.7	95.2	57.1	47.3
5/31/2010	9282	31	645.3	0.0	0.7	-2870.3	1101.7	2.0	110.3	88.6	560.2	147.5	97.9	67.6	48.5
6/30/2010	9312	30	551.6	0.0	0.7	-2865.9	1118.8	2.0	121.6	112.0	562.5	163.8	103.6	76.4	52.8
7/31/2010	9343	31	1204.8	0.0	0.9	-3775.2	1292.9	2.1	82.5	184.7	557.6	186.2	115.6	82.7	65.2
8/31/2010	9374	31	991.2	0.0	0.9	-3761.3	1402.1	2.2	87.2	211.7	567.5	203.5	125.4	88.1	81.5
9/30/2010	9404	30	906.6	0.0	0.9	-3761.9	1433.7	2.1	91.8	229.2	570.7	212.7	130.9	90.8	89.9
10/31/2010	9435	31	-1478.8	0.0	2.8	-957.7	1396.7	2.2	96.3	108.3	334.2	199.0	132.2	75.1	89.7
11/30/2010	9465	30	479.7	0.0	0.9	-2936.6	1313.4	2.1	85.8	145.4	467.6	173.1	118.2	71.2	79.1
12/31/2010	9496	31	-1988.5	0.2	14.9	-126.9	1328.2	2.2	82.1	36.6	252.1	154.0	112.2	57.9	75.1
1/31/2011	9527	31	-32.4	0.0	0.6	-2387.2	1397.6	2.0	127.4	50.4	471.2	148.8	102.7	55.8	63.2
2/28/2011	9555	28	-1145.8	0.0	4.2	-725.4	1248.6	1.7	81.7	-63.5	277.0	129.9	90.7	48.6	52.1
3/31/2011	9586	31	-1456.9	0.1	10.1	-243.1	1215.3	1.9	61.4	-106.1	238.5	106.3	84.8	40.7	47.0
4/30/2011	9616	30	1014.2	0.0	0.6	-3178.9	1313.7	1.7	140.9	-45.6	450.4	111.5	80.3	61.1	50.2
5/31/2011	9647	31	664.1	0.0	0.5	-3138.7	1477.7	1.7	170.2	-60.5	484.1	149.3	99.1	83.2	69.3
6/30/2011	9677	30	658.8	0.0	0.6	-3176.6	1421.3	1.6	183.4	-7.5	484.0	162.4	106.7	87.9	77.4
7/31/2011	9708	31	366.7	0.0	0.8	-3114.4	1536.8	1.7	140.4	56.5	543.0	179.0	117.1	88.1	84.5
8/31/2011	9739	31	334.3	0.0	0.8	-3116.8	1551.2	1.7	131.1	70.9	545.8	184.7	120.1	86.9	89.3
9/30/2011	9769	30	360.0	0.0	0.8	-3117.8	1521.2	1.7	128.9	85.4	539.5	184.5	119.2	86.0	90.6
10/31/2011	9800	31	-483.5	0.0	1.8	-2162.5	1624.9	1.8	139.1	21.5	381.1	175.2	121.8	85.2	93.5
11/30/2011	9830	30	-1262.0	0.0	2.1	-1023.5	1480.3	1.7	96.9	-23.7	339.7	141.2	105.3	62.7	79.2
12/31/2011	9861	31	541.6	0.0	0.8	-3071.3	1459.5	1.7	111.1	45.0	523.8	146.8	101.4	65.9	73.8
1/31/2012	9892	31	-886.4	0.0	1.4	-1310.1	1372.9	1.8	110.0	-17.0	357.5	141.1	98.9	60.2	69.5
2/29/2012	9921	29	962.6	0.0	0.6	-3348.8	1296.4	1.7	149.5	50.9	537.3	138.8	90.7	64.6	55.7
3/31/2012	9952	31	-1089.8	0.0	3.4	-989.2	1305.8	1.8	88.7	7.8	312.9	143.5	98.1	62.0	55.0
4/30/2012	9982	30	-629.3	0.0	2.2	-1201.2	1148.2	1.8	77.6	15.5	293.6	109.6	83.8	52.4	45.9
5/31/2012	10013	31	1017.1	0.0	0.6	-3352.2	1256.9	1.9	135.9	70.0	541.0	130.3	87.2	64.6	46.7
6/30/2012	10043	30	849.5	0.0	0.6	-3340.5	1321.5	1.8	143.1	89.4	552.3	161.5	97.2	73.1	50.3
7/31/2012	10074	31	1157.2	0.0	0.9	-3860.5	1466.5	1.9	95.6	170.4	533.7	182.0	110.8	80.1	61.4
8/31/2012	10105	31	984.4	0.0	0.9	-3839.3	1559.6	2.0	99.9	183.3	536.1	193.3	119.5	85.4	75.0
9/30/2012	10135	30	915.6	0.0	0.9	-3837.9	1586.5	1.9	103.9	193.0	538.4	201.8	125.1	88.1	82.7
10/31/2012	10166	31	648.0	0.0	0.9	-3804.3	1741.7	2.0	110.9	197.2	555.6	221.7	138.2	94.7	93.4
11/30/2012	10196	30	-485.4	0.0	1.6	-2251.7	1628.4	2.0	78.8	104.6	401.8	204.1	134.2	87.1	94.4
12/31/2012	10227	31	-1140.4	0.0	3.3	-1306.6	1502.2	2.0	69.8	63.6	327.8	179.9	127.8	75.4	95.0
1/31/2013	10258	31	-713.5	0.0	1.5	-1588.9	1348.5	2.0	74.3	70.2	382.3	159.2	115.4	66.6	82.2
2/28/2013	10286	28	858.8	0.0	0.7	-3172.0	1247.0	1.8	81.7	135.9	453.0	151.7	104.3	72.4	64.7
3/31/2013	10317	31	-363.8	0.0	0.4	-2049.9	1382.0	2.1	88.6	109.1	393.8	173.5	119.0	77.3	68.0
4/30/2013	10347	30	661.2	0.0	0.7	-3151.6	1350.1	2.0	91.4	145.8	466.6	172.4	116.7	80.2	64.6
5/31/2013	10378	31	467.6	0.0	0.7	-3134.0	1443.6	2.1	99.5	157.9	483.1	193.0	127.7	89.2	69.7
6/30/2013	10408	30	474.7	0.0	0.7	-3135.6	1429.3	2.0	101.0	162.1	479.0	197.3	129.6	89.6	70.4
7/31/2013	10439	31	1344.3	0.0	0.5	-4150.8	1538.6	2.1	105.8	162.3	463.6	217.0	141.8	92.3	82.5
8/31/2013	10470	31	1126.2	0.0	0.5	-4130.0	1645.2	2.1	112.9	177.1	479.6	236.2	154.3	98.2	97.6
9/30/2013	10500	30	1030.8	0.0	0.5	-4123.0	1684.8	2.1	116.0	189.0	487.9	246.0	160.9	101.2	103.8
10/31/2013	10531	31	776.8	0.0	0.5	-4103.5	1813.1	2.2	125.5	205.3	512.3	268.8	176.3	108.6	114.1
11/30/2013	10561	30	731.7	0.0	0.5	-4051.2	1802.5	2.1	124.4	201.8	514.3	271.5	178.5	108.6	115.3
12/31/2013	10592	31	569.8	0.0	0.5	-4089.9	1911.3	2.2	131.5	221.5	534.3	290.1	191.3	114.5	122.9
1/31/2014	10623	31	638.5	0.0	0.6	-4303.9	1985.2	2.2	100.9	253.6	583.1	303.1	199.7	119.4	117.5
2/28/2014	10651	28	-2137.9	0.1	5.9	-684.6	1650.0	2.1	80.3	133.6	336.0	257.3	176.5	88.5	92.3
3/31/2014	10682	31	-631.2	0.0	1.1	-2323.0	1650.9	2.3	80.3	158.8	457.7	250.7	176.9	86.6	89.0
4/30/2014	10712	30	1241.9	0.0	0.6	-4353.8	1669.6	2.2	63.3	216.8	554.4	253.6	172.3	97.7	81.4
5/31/2014	10743	31	896.1	0.0	0.6	-4320.0	1858.6	2.3	63.0	241.3	573.9	292.2	193.2	112.5	86.3
6/30/2014	10773	30	842.4	0.0	0.6	-4317.7	1887.8	2.2	62.9	247.8	568.6	303.4	199.3	115.0	87.7
7/31/2014	10804	31	731.7	0.0	1.0	-4353.2	1984.9	2.3	91.8	256.6	516.8	326.6	215.2	121.2	103.8
8/31/2014	10835	31	612.9	0.0	1.0	-4348.5	2042.5	2.3	100.9	258.3	526.7	335.8	221.5	124.3	120.5
9/30/2014	10865	30	635.4	0.0	1.0	-4354.0	2027.2	2.3	99.9	257.7	525.5	333.7	220.1	123.7	124.4
10/31/2014	10896	31	439.0	0.0	1.0	-4340.1	2133.6	2.3	104.7	265.4	544.4	352.1	232.6	129.5	132.9
11/30/2014	10926	30	-13.3	0.0	0.9	-3670.7	2046.5	2.3	108.9	232.1	479.6	335.4	225.7	121.8	129.3
12/31/2014	10957	31	-2827.8	0.1	6.9	-423.6	1897.0	2.4	88.4	136.1	375.9	308.0	216.4	100.3	120.1
1/31/2015	10988	31	-1771.3	0.0	3.0	-1007.7	1581.1	2.4	85.7	101.7	384.0	257.8	186.8	80.4	96.1

Flow Budget for the LAS in Oxnard Basin

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet											
			STORAGE	Mountain Front Recharge	Recharge	Pumping from Wells	Oxnard Basin UAS	Santa Paula	Pleasant Valley	Las Posas	Mound	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Costal Flux from South of Port Hueneme to Arnold Road	Costal Flux from Arnold Road to Point Mugu
2/28/2015	11016	28	955.0	0.0	0.7	-3636.3	1412.0	2.1	99.9	170.1	452.8	228.8	159.1	79.5	76.2
3/31/2015	11047	31	-118.1	0.0	0.6	-2929.6	1635.9	2.4	105.3	186.3	488.4	274.6	182.9	90.6	80.8
4/30/2015	11077	30	598.6	0.0	0.7	-3611.1	1606.4	2.3	113.1	188.2	475.3	275.8	181.4	91.9	77.4
5/31/2015	11108	31	406.4	0.0	0.7	-3597.1	1704.7	2.4	130.0	195.5	486.6	294.3	193.7	99.9	82.8
6/30/2015	11138	30	435.0	0.0	0.7	-3599.6	1685.2	2.3	131.3	197.5	479.0	292.6	192.6	99.8	83.5
7/31/2015	11169	31	525.2	0.0	1.1	-3819.2	1806.2	2.4	114.9	218.5	435.5	307.8	203.2	105.4	99.0
8/31/2015	11200	31	533.4	0.0	0.8	-3893.4	1862.7	2.4	95.4	214.7	440.9	310.5	206.8	109.6	116.2
9/30/2015	11230	30	520.6	0.0	0.8	-3833.0	1857.6	2.3	85.3	212.2	416.5	302.6	204.0	109.5	121.3
10/31/2015	11261	31	381.1	0.0	0.8	-3883.5	1959.2	2.4	86.5	217.0	457.7	317.8	214.7	115.1	130.9
11/30/2015	11291	30	432.9	0.0	0.8	-3889.4	1932.2	2.4	82.6	215.5	452.3	314.9	211.6	113.3	130.2
12/31/2015	11322	31	271.6	0.0	0.8	-3880.0	2024.6	2.5	84.5	219.4	467.4	330.9	222.4	118.3	137.2

Flow Budget for the Semi-Perched Aquifer in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley UAS	Arroya Las Posas percolation	Conejo Creek Percolation	Calleguas Creek percolation
1/31/1985	31	31	-332.9	-38.6	0.0	407.6	-14.8	-183.1	-695.8	0.0	426.4	431.2
2/28/1985	59	28	-288.7	-34.0	0.0	388.5	-14.3	-165.7	-670.0	0.0	389.7	394.5
3/31/1985	90	31	-193.2	-37.0	0.0	435.6	-17.6	-185.1	-825.0	0.0	409.9	412.4
4/30/1985	120	30	96.4	-35.1	0.0	426.5	-19.9	-180.2	-1013.5	0.0	365.4	360.5
5/31/1985	151	31	225.5	-35.2	0.0	356.5	-22.8	-186.6	-1079.6	0.0	374.3	367.9
6/30/1985	181	30	268.9	-32.9	0.0	375.3	-23.6	-180.6	-1108.5	0.0	355.4	345.9
7/31/1985	212	31	302.2	-32.9	0.0	378.3	-26.5	-185.5	-1176.2	0.0	373.6	367.0
8/31/1985	243	31	358.6	-31.7	0.0	359.4	-28.5	-184.0	-1213.4	0.0	373.2	366.4
9/30/1985	273	30	356.7	-29.7	0.0	370.6	-29.2	-175.8	-1218.0	0.0	365.2	360.2
10/31/1985	304	31	404.4	-29.6	0.0	335.7	-31.4	-179.1	-1260.1	0.0	381.9	378.3
11/30/1985	334	30	-713.0	-29.2	0.0	835.4	-26.7	-174.1	-848.1	0.0	473.1	482.6
12/31/1985	365	31	73.6	-30.4	0.0	473.3	-25.8	-183.0	-1132.1	0.0	410.9	413.6
1/31/1986	396	31	-669.4	-30.8	0.0	677.4	-23.8	-184.0	-791.6	0.0	505.8	516.4
2/28/1986	424	28	-1827.9	-31.0	-0.4	1360.9	-17.3	-175.3	-762.5	251.6	588.7	613.3
3/31/1986	455	31	-1562.3	-42.0	-4.7	1160.2	-15.7	-209.0	-775.8	223.1	606.1	620.0
4/30/1986	485	30	-82.5	-41.0	-2.7	347.2	-17.0	-209.9	-851.9	0.0	425.8	431.9
5/31/1986	516	31	77.0	-39.3	0.0	398.1	-21.3	-218.1	-1015.8	0.0	408.5	410.9
6/30/1986	546	30	204.9	-35.9	0.0	338.2	-23.0	-211.7	-1040.8	0.0	384.0	384.2
7/31/1986	577	31	262.5	-35.0	0.0	430.4	-26.2	-219.7	-1183.7	0.0	386.9	384.8
8/31/1986	608	31	344.7	-33.5	0.0	396.8	-28.2	-219.2	-1224.2	0.0	383.4	380.2
9/30/1986	638	30	222.4	-31.6	0.0	366.0	-26.9	-210.3	-1098.3	0.0	388.8	389.9
10/31/1986	669	31	339.1	-31.9	0.0	391.7	-28.5	-213.9	-1228.0	0.0	386.8	384.7
11/30/1986	699	30	-69.8	-30.4	0.0	404.6	-26.0	-204.5	-953.3	0.0	436.3	443.2
12/31/1986	730	31	317.8	-31.0	0.0	383.8	-27.4	-208.5	-1190.0	0.0	379.7	375.5
1/31/1987	761	31	-37.2	-30.6	0.0	428.4	-26.2	-204.8	-989.6	0.0	427.5	432.4
2/28/1987	789	28	56.5	-27.4	0.0	386.5	-22.2	-184.7	-961.4	0.0	374.8	377.8
3/31/1987	820	31	-89.8	-30.2	0.0	440.8	-23.3	-203.0	-912.1	0.0	407.7	409.9
4/30/1987	850	30	281.5	-28.9	0.0	507.0	-25.4	-195.1	-1279.2	0.0	371.5	368.6
5/31/1987	881	31	429.6	-29.3	0.0	483.9	-31.0	-199.8	-1405.0	0.0	378.2	373.4
6/30/1987	911	30	486.8	-27.7	0.0	505.2	-32.9	-191.4	-1456.6	0.0	361.5	355.0
7/31/1987	942	31	485.0	-28.0	0.0	454.7	-36.0	-194.9	-1421.7	0.0	373.7	367.2
8/31/1987	973	31	519.2	-27.3	0.0	422.8	-37.2	-190.6	-1437.6	0.0	377.8	372.8
9/30/1987	1003	30	545.3	-25.6	0.0	417.2	-37.2	-179.7	-1429.6	0.0	358.7	350.9
10/31/1987	1034	31	96.6	-25.9	0.0	386.8	-36.2	-183.5	-1182.7	0.0	468.2	476.7
11/30/1987	1064	30	-76.7	-25.1	0.0	473.2	-30.7	-176.9	-999.9	0.0	415.6	420.5
12/31/1987	1095	31	-590.5	-26.7	0.0	625.5	-27.8	-182.7	-863.2	0.0	527.0	538.5
1/31/1988	1126	31	-316.6	-27.2	0.0	446.0	-24.9	-186.4	-883.9	0.0	491.6	501.5
2/29/1988	1155	29	-153.4	-25.4	0.0	391.5	-22.3	-175.1	-875.3	0.0	426.5	433.6
3/31/1988	1186	31	170.4	-27.0	0.0	428.3	-26.1	-185.8	-1174.4	0.0	406.3	408.3
4/30/1988	1216	30	-156.3	-26.3	0.0	446.2	-25.0	-178.2	-908.6	0.0	421.3	426.9
5/31/1988	1247	31	191.8	-27.3	0.0	498.9	-26.5	-183.7	-1204.4	0.0	378.0	373.1
6/30/1988	1277	30	273.0	-26.1	0.0	457.1	-28.5	-174.9	-1235.4	0.0	369.2	365.6
7/31/1988	1308	31	336.2	-26.3	0.0	429.2	-31.2	-177.0	-1273.5	0.0	374.4	368.1
8/31/1988	1339	31	408.6	-25.4	0.0	394.3	-32.6	-173.2	-1304.6	0.0	370.5	362.4
9/30/1988	1369	30	387.7	-23.7	0.0	398.3	-32.8	-164.1	-1307.6	0.0	372.4	369.8
10/31/1988	1400	31	416.8	-23.6	0.0	383.9	-35.0	-166.3	-1347.0	0.0	386.7	384.5
11/30/1988	1430	30	246.5	-22.3	0.0	360.9	-32.8	-157.4	-1141.9	0.0	374.5	372.5
12/31/1988	1461	31	-710.4	-24.2	0.0	829.3	-29.6	-162.5	-912.7	0.0	499.9	510.2
1/31/1989	1492	31	169.5	-24.4	0.0	304.2	-28.3	-165.7	-1085.0	0.0	413.3	416.4
2/28/1989	1520	28	-475.7	-22.1	0.0	567.2	-24.3	-150.4	-800.0	0.0	448.1	457.3
3/31/1989	1551	31	7.8	-24.8	0.0	412.9	-26.4	-169.4	-1045.9	0.0	420.8	424.9
4/30/1989	1581	30	170.7	-23.7	0.0	422.0	-27.6	-162.5	-1133.6	0.0	377.9	376.8
5/31/1989	1612	31	226.4	-24.2	0.0	416.9	-30.2	-165.7	-1189.2	0.0	384.5	381.7
6/30/1989	1642	30	292.6	-22.9	0.0	349.7	-30.4	-158.7	-1170.5	0.0	371.6	368.7
7/31/1989	1673	31	398.3	-22.9	0.0	454.7	-32.9	-161.3	-1386.7	0.0	377.9	373.0
8/31/1989	1704	31	409.7	-22.2	0.0	434.9	-34.2	-158.6	-1393.9	0.0	383.6	380.6
9/30/1989	1734	30	392.6	-20.8	0.0	420.4	-34.2	-151.1	-1370.9	0.0	382.2	382.0
10/31/1989	1765	31	403.7	-20.8	0.0	410.7	-36.3	-153.9	-1412.9	0.0	404.0	405.6
11/30/1989	1795	30	422.4	-19.5	0.0	411.3	-35.9	-145.9	-1394.7	0.0	381.4	381.0
12/31/1989	1826	31	439.5	-19.5	0.0	415.4	-37.8	-146.7	-1436.5	0.0	393.0	392.4
1/31/1990	1857	31	13.4	-19.3	0.0	379.9	-35.9	-146.6	-1174.1	0.0	486.6	496.2
2/28/1990	1885	28	-1.9	-17.6	0.0	384.8	-29.8	-133.8	-1000.0	0.0	396.3	401.9
3/31/1990	1916	31	387.8	-19.3	0.0	428.5	-33.9	-144.0	-1367.9	0.0	377.0	371.7
4/30/1990	1946	30	415.2	-18.1	0.0	416.0	-35.3	-134.0	-1375.8	0.0	368.0	364.0
5/31/1990	1977	31	464.8	-18.2	0.0	412.2	-38.1	-134.4	-1422.8	0.0	371.9	364.5
6/30/1990	2007	30	488.9	-17.0	0.0	423.0	-38.0	-127.0	-1425.6	0.0	353.4	342.4

Flow Budget for the Semi-Perched Aquifer in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley UAS	Arroya Las Posas percolation	Conejo Creek Percolation	Calleguas Creek percolation
7/31/1990	2038	31	580.7	-17.0	0.0	386.7	-39.6	-126.5	-1460.3	0.0	360.0	316.0
8/31/1990	2069	31	534.0	-16.3	0.0	384.6	-39.9	-124.7	-1452.5	0.0	363.6	351.0
9/30/1990	2099	30	530.6	-15.1	0.0	383.9	-39.0	-115.9	-1415.8	0.0	350.0	321.3
10/31/1990	2130	31	492.1	-14.8	0.0	390.4	-40.7	-111.7	-1446.1	0.0	369.7	361.1
11/30/1990	2160	30	384.5	-13.6	0.0	308.2	-39.4	-103.7	-1295.1	0.0	379.9	379.2
12/31/1990	2191	31	440.5	-13.3	0.0	383.1	-41.0	-104.0	-1426.9	0.0	382.5	379.1
1/31/1991	2222	31	267.4	-12.7	0.0	369.9	-39.6	-102.0	-1274.4	0.0	395.7	395.6
2/28/1991	2250	28	-65.6	-11.3	0.0	378.9	-33.2	-93.5	-1022.3	0.0	419.7	427.2
3/31/1991	2281	31	-1885.5	-15.7	0.0	1520.8	-31.7	-111.8	-1110.4	278.7	664.2	691.4
4/30/1991	2311	30	243.8	-16.5	0.0	452.4	-30.1	-114.9	-1302.1	0.0	383.7	383.8
5/31/1991	2342	31	406.4	-15.9	0.0	421.1	-34.1	-112.8	-1386.1	0.0	366.1	355.3
6/30/1991	2372	30	436.2	-14.7	0.0	400.5	-34.4	-107.9	-1373.5	0.0	352.6	341.1
7/31/1991	2403	31	453.7	-14.4	0.0	363.9	-36.5	-104.1	-1292.0	0.0	355.6	273.7
8/31/1991	2434	31	477.5	-13.6	0.0	367.2	-37.1	-92.9	-1308.1	0.0	353.5	253.7
9/30/1991	2464	30	372.4	-12.3	0.0	360.9	-36.8	-87.4	-1284.3	0.0	351.4	336.1
10/31/1991	2495	31	354.7	-11.8	0.0	365.6	-38.8	-87.0	-1323.3	0.0	373.6	367.0
11/30/1991	2525	30	445.9	-10.5	0.0	377.8	-37.9	-79.4	-1299.7	0.0	343.7	260.1
12/31/1991	2556	31	-1019.5	-12.3	0.0	1004.9	-35.4	-81.4	-1009.6	39.6	550.7	563.0
1/31/1992	2587	31	-333.3	-13.3	0.0	406.0	-30.5	-91.8	-919.8	0.0	486.5	496.2
2/29/1992	2616	29	-3151.6	-16.0	0.0	1840.6	-26.2	-108.7	-1089.5	466.0	951.9	1133.5
3/31/1992	2647	31	-1762.9	-21.0	0.0	1168.3	-24.4	-148.1	-1110.6	355.9	729.5	813.2
4/30/1992	2677	30	32.1	-20.5	0.0	336.3	-23.8	-145.4	-1063.6	0.0	438.8	446.0
5/31/1992	2708	31	121.0	-20.6	0.0	348.4	-26.0	-141.9	-1123.0	0.0	419.1	423.0
6/30/1992	2738	30	145.0	-19.9	0.0	333.9	-25.7	-133.1	-1096.5	0.0	396.9	399.4
7/31/1992	2769	31	187.2	-20.2	0.0	392.7	-28.3	-134.1	-1158.8	0.0	382.5	379.1
8/31/1992	2800	31	254.8	-19.6	0.0	336.6	-30.0	-130.5	-1172.9	0.0	382.5	379.1
9/30/1992	2830	30	264.8	-18.2	0.0	327.7	-30.1	-123.3	-1158.6	0.0	370.5	367.3
10/31/1992	2861	31	89.8	-18.5	0.0	415.8	-31.0	-125.7	-1150.1	0.0	408.6	411.0
11/30/1992	2891	30	182.4	-17.7	0.0	417.6	-30.3	-119.9	-1183.7	0.0	376.6	375.0
12/31/1992	2922	31	-979.2	-19.6	0.0	953.0	-28.4	-125.8	-1078.0	186.2	539.9	551.9
1/31/1993	2953	31	-3137.8	-24.2	-0.5	1918.5	-24.2	-152.9	-1121.1	443.9	977.1	1121.2
2/28/1993	2981	28	-2341.3	-32.5	-7.3	1292.5	-19.3	-176.3	-1046.3	442.6	855.9	1031.9
3/31/1993	3012	31	-771.3	-34.1	-6.9	560.5	-19.3	-209.1	-1055.8	305.5	591.3	639.3
4/30/1993	3042	30	31.8	-28.2	-0.5	272.5	-19.6	-198.4	-956.6	0.0	445.6	453.3
5/31/1993	3073	31	32.2	-28.5	0.0	401.2	-21.5	-198.8	-1039.1	0.0	425.0	429.6
6/30/1993	3103	30	51.0	-27.8	0.0	399.2	-21.4	-187.7	-1004.7	0.0	394.6	396.8
7/31/1993	3134	31	91.0	-28.3	0.0	285.8	-22.3	-190.3	-935.5	0.0	399.5	400.2
8/31/1993	3165	31	33.0	-28.0	0.0	387.4	-22.9	-187.4	-971.9	0.0	394.9	394.7
9/30/1993	3195	30	42.7	-26.8	0.0	371.0	-22.6	-178.5	-938.9	0.0	377.2	375.9
10/31/1993	3226	31	-24.2	-27.4	0.0	393.2	-23.8	-182.6	-971.3	0.0	416.3	419.8
11/30/1993	3256	30	-38.1	-26.1	0.0	323.9	-22.7	-176.3	-882.2	0.0	408.6	412.8
12/31/1993	3287	31	-239.9	-26.6	0.0	340.7	-21.8	-182.7	-788.4	0.0	455.6	463.2
1/31/1994	3318	31	-30.1	-26.4	0.0	342.0	-21.1	-182.3	-900.7	0.0	408.2	410.5
2/28/1994	3346	28	-1143.1	-25.1	0.0	898.2	-17.3	-166.4	-773.7	240.3	484.7	502.4
3/31/1994	3377	31	-659.3	-28.9	0.0	560.6	-16.3	-192.6	-741.8	131.3	469.2	477.8
4/30/1994	3407	30	-58.2	-27.6	0.0	302.5	-16.1	-188.4	-785.4	0.0	386.3	387.0
5/31/1994	3438	31	-15.1	-28.1	0.0	330.1	-18.0	-193.3	-844.2	0.0	385.5	383.0
6/30/1994	3468	30	53.8	-26.9	0.0	291.3	-18.1	-186.0	-843.2	0.0	366.7	362.3
7/31/1994	3499	31	134.6	-27.2	0.0	327.5	-20.4	-191.8	-968.5	0.0	375.8	370.0
8/31/1994	3530	31	182.2	-26.5	0.0	339.3	-22.2	-191.6	-1021.6	0.0	373.5	366.8
9/30/1994	3560	30	121.5	-25.3	0.0	385.4	-22.9	-185.5	-1042.5	0.0	384.5	384.8
10/31/1994	3591	31	131.7	-26.0	0.0	434.6	-24.6	-192.0	-1100.4	0.0	389.1	387.6
11/30/1994	3621	30	16.9	-25.1	0.0	376.6	-23.3	-185.0	-931.4	0.0	385.4	385.9
12/31/1994	3652	31	-9.6	-25.9	0.0	364.2	-22.6	-191.0	-931.8	0.0	407.2	409.3
1/31/1995	3683	31	-4186.6	-51.9	-9.7	2656.8	-19.2	-214.9	-863.2	487.1	1008.9	1192.6
2/28/1995	3711	28	-211.4	-55.5	-9.6	281.2	-13.8	-216.5	-657.1	0.0	437.1	445.7
3/31/1995	3742	31	-2357.6	-72.7	-20.6	1473.5	-14.2	-249.8	-806.7	427.1	731.8	889.2
4/30/1995	3772	30	-168.1	-70.5	-20.0	315.2	-12.5	-255.3	-749.6	0.0	475.6	485.2
5/31/1995	3803	31	-32.6	-60.2	-16.4	362.4	-14.1	-266.1	-886.2	0.0	453.0	460.3
6/30/1995	3833	30	43.7	-51.3	-12.7	316.8	-14.1	-259.5	-870.2	0.0	420.9	426.5
7/31/1995	3864	31	11.0	-47.9	-10.3	349.2	-14.6	-267.8	-827.6	0.0	403.3	404.8
8/31/1995	3895	31	11.3	-45.0	-7.9	372.5	-14.8	-265.7	-835.7	0.0	392.9	392.2
9/30/1995	3925	30	-1.0	-42.6	-5.5	360.1	-14.6	-254.5	-815.5	0.0	386.5	387.1
10/31/1995	3956	31	-9.2	-43.5	-4.6	352.2	-15.3	-260.4	-821.3	0.0	400.5	401.4
11/30/1995	3986	30	7.5	-41.6	-3.1	310.0	-14.9	-249.4	-784.0	0.0	387.3	388.2
12/31/1995	4017	31	-496.9	-45.6	-4.0	427.1	-14.3	-257.3	-580.2	0.0	480.9	490.2

Flow Budget for the Semi-Perched Aquifer in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley UAS	Arroya Las Posas percolation	Conejo Creek Percolation	Calleguas Creek percolation
1/31/1996	4048	31	-222.0	-47.8	-5.2	299.2	-13.3	-258.5	-674.9	0.0	457.4	465.1
2/29/1996	4077	29	-1574.6	-56.6	-8.5	1139.2	-10.8	-244.1	-577.1	263.5	520.5	548.6
3/31/1996	4108	31	-358.0	-65.5	-12.9	349.0	-9.9	-266.3	-615.6	72.3	449.9	457.1
4/30/1996	4138	30	-72.2	-58.5	-12.2	342.4	-10.7	-259.5	-729.3	0.0	398.5	401.3
5/31/1996	4169	31	18.4	-56.3	-12.0	360.1	-12.3	-268.8	-807.5	0.0	389.9	388.6
6/30/1996	4199	30	95.0	-51.5	-10.4	320.6	-13.0	-260.9	-825.7	0.0	374.0	371.8
7/31/1996	4230	31	181.2	-50.8	-9.4	376.2	-15.6	-270.3	-944.4	0.0	370.6	362.5
8/31/1996	4261	31	229.3	-50.2	-9.1	357.1	-17.8	-272.1	-1017.9	0.0	391.0	389.9
9/30/1996	4291	30	253.3	-48.7	-7.2	400.9	-18.8	-264.9	-1060.3	0.0	374.0	371.8
10/31/1996	4322	31	25.9	-52.8	-7.7	442.9	-19.4	-275.3	-974.8	0.0	428.2	433.2
11/30/1996	4352	30	-454.7	-57.5	-7.3	609.4	-16.4	-268.7	-724.8	0.0	455.8	464.2
12/31/1996	4383	31	-1635.1	-79.0	-10.2	1237.6	-13.5	-283.9	-745.4	298.7	594.3	636.5
1/31/1997	4414	31	-1510.6	-99.5	-14.7	1071.2	-10.3	-294.2	-609.7	286.8	573.7	607.3
2/28/1997	4442	28	-19.5	-90.4	-12.9	315.2	-10.2	-270.9	-685.0	0.0	384.7	389.0
3/31/1997	4473	31	97.9	-90.8	-16.4	370.3	-14.0	-300.3	-837.1	0.0	395.3	395.2
4/30/1997	4503	30	148.4	-81.2	-16.4	364.6	-14.9	-291.6	-854.3	0.0	373.8	371.5
5/31/1997	4534	31	236.5	-77.1	-16.9	335.9	-16.2	-301.9	-899.7	0.0	373.1	366.3
6/30/1997	4564	30	265.4	-68.9	-15.0	307.3	-16.3	-292.1	-904.9	0.0	364.8	359.7
7/31/1997	4595	31	334.9	-67.5	-15.2	337.0	-18.2	-302.1	-1047.2	0.0	389.8	388.5
8/31/1997	4626	31	315.0	-65.6	-14.4	398.4	-19.5	-302.3	-1098.7	0.0	393.8	393.4
9/30/1997	4656	30	315.9	-62.9	-11.3	417.8	-20.0	-291.9	-1110.1	0.0	381.4	381.1
10/31/1997	4687	31	312.4	-65.1	-10.1	434.9	-21.7	-300.2	-1160.6	0.0	404.4	406.0
11/30/1997	4717	30	-283.8	-68.0	-9.1	520.2	-19.2	-290.9	-863.5	54.3	475.2	484.8
12/31/1997	4748	31	-1781.7	-94.0	-12.7	1383.4	-15.8	-307.5	-835.4	328.3	634.9	700.5
1/31/1998	4779	31	-636.1	-107.5	-15.5	603.1	-12.6	-316.3	-858.8	278.1	518.8	546.7
2/28/1998	4807	28	-5371.8	-197.4	-45.9	3561.1	-9.7	-316.0	-537.8	574.4	1036.1	1307.1
3/31/1998	4838	31	-735.2	-257.3	-124.5	644.6	-6.8	-365.3	-720.0	324.3	576.1	664.1
4/30/1998	4868	30	-143.6	-209.7	-110.2	373.4	-7.4	-357.5	-833.5	252.7	505.9	530.0
5/31/1998	4899	31	-338.7	-192.7	-102.1	508.0	-7.0	-373.8	-794.1	277.3	497.9	525.2
6/30/1998	4929	30	197.8	-170.0	-72.8	390.7	-7.8	-364.0	-917.9	78.3	429.7	436.1
7/31/1998	4960	31	204.6	-160.2	-51.5	343.0	-9.5	-376.2	-808.8	0.0	426.8	431.7
8/31/1998	4991	31	181.4	-150.1	-36.4	389.2	-10.2	-374.3	-831.3	0.0	414.2	417.4
9/30/1998	5021	30	198.2	-139.5	-25.9	344.4	-10.5	-360.3	-818.9	0.0	404.4	408.0
10/31/1998	5052	31	227.5	-138.9	-22.0	340.8	-11.3	-369.7	-846.4	0.0	408.8	411.2
11/30/1998	5082	30	96.5	-131.6	-15.9	353.0	-10.9	-355.6	-778.5	0.0	418.8	424.1
12/31/1998	5113	31	122.6	-133.9	-13.5	293.3	-10.7	-364.9	-771.3	0.0	436.3	442.1
1/31/1999	5144	31	-231.4	-133.9	-15.5	455.1	-9.4	-362.3	-648.4	43.9	447.5	454.4
2/28/1999	5172	28	138.3	-121.6	-15.4	328.2	-9.2	-327.1	-809.5	0.0	405.0	411.3
3/31/1999	5203	31	-543.8	-139.5	-24.8	643.9	-9.4	-361.4	-691.2	167.3	475.0	483.9
4/30/1999	5233	30	-326.9	-137.5	-28.3	461.2	-6.8	-349.7	-721.2	246.4	427.1	435.8
5/31/1999	5264	31	138.4	-137.5	-30.9	399.2	-8.0	-362.2	-803.7	0.0	401.7	402.9
6/30/1999	5294	30	251.0	-127.7	-28.3	376.1	-9.7	-352.0	-871.4	0.0	381.1	380.7
7/31/1999	5325	31	314.8	-127.3	-27.9	369.3	-11.9	-362.6	-909.4	0.0	379.7	375.4
8/31/1999	5356	31	380.9	-122.8	-25.8	361.6	-13.8	-360.4	-979.6	0.0	381.8	378.2
9/30/1999	5386	30	323.9	-117.2	-20.5	430.3	-15.1	-347.5	-1020.1	0.0	383.0	383.0
10/31/1999	5417	31	358.7	-120.6	-17.9	478.9	-16.9	-357.4	-1094.9	0.0	386.3	384.0
11/30/1999	5447	30	309.9	-114.1	-13.3	333.0	-16.5	-344.4	-964.4	0.0	403.1	406.5
12/31/1999	5478	31	418.3	-114.1	-10.9	359.3	-17.5	-353.5	-1070.2	0.0	394.4	394.1
1/31/2000	5509	31	93.7	-110.0	-12.5	359.1	-15.9	-351.4	-800.6	0.0	417.0	420.6
2/29/2000	5538	29	-1286.8	-120.3	-16.5	1110.8	-11.4	-331.7	-682.8	288.4	499.9	550.3
3/31/2000	5569	31	-240.3	-138.4	-25.3	434.0	-9.6	-359.1	-725.4	136.7	459.7	467.6
4/30/2000	5599	30	-369.0	-131.4	-28.5	503.6	-8.5	-349.6	-718.5	160.2	466.3	475.4
5/31/2000	5630	31	105.0	-132.8	-31.0	405.1	-9.7	-363.2	-795.9	0.0	409.9	412.5
6/30/2000	5660	30	261.0	-122.2	-27.9	333.0	-11.7	-352.1	-855.2	0.0	387.2	388.0
7/31/2000	5691	31	429.8	-118.1	-27.3	306.3	-14.0	-363.8	-989.4	0.0	389.0	387.4
8/31/2000	5722	31	477.1	-109.6	-24.6	296.0	-15.0	-362.3	-1018.9	0.0	380.6	376.7
9/30/2000	5752	30	407.9	-101.5	-18.6	375.1	-15.4	-348.5	-1025.7	0.0	365.7	361.0
10/31/2000	5783	31	305.8	-104.2	-16.8	395.7	-16.2	-357.8	-1007.2	0.0	400.0	400.8
11/30/2000	5813	30	327.7	-100.7	-12.1	417.0	-16.1	-343.5	-1027.0	0.0	378.0	376.8
12/31/2000	5844	31	382.2	-103.1	-10.3	339.5	-17.4	-351.6	-1048.4	0.0	403.7	405.2
1/31/2001	5875	31	-1102.3	-118.3	-15.1	1015.8	-14.6	-353.2	-812.4	297.2	529.6	573.2
2/28/2001	5903	28	-1623.6	-138.8	-18.8	1257.4	-9.7	-327.4	-648.4	329.1	542.0	638.1
3/31/2001	5934	31	-1534.4	-187.3	-43.0	1018.2	-8.5	-375.0	-640.7	347.1	671.7	752.0
4/30/2001	5964	30	-12.6	-182.3	-54.3	423.2	-8.5	-367.0	-809.4	124.9	439.3	446.6
5/31/2001	5995	31	181.9	-168.6	-41.6	413.7	-10.5	-377.7	-839.5	0.0	419.2	423.1
6/30/2001	6025	30	279.1	-150.3	-33.2	362.1	-11.3	-366.3	-863.2	0.0	390.8	392.3

Flow Budget for the Semi-Perched Aquifer in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley UAS	Arroya Las Posas percolation	Conejo Creek Percolation	Calleguas Creek percolation
7/31/2001	6056	31	431.7	-144.1	-32.7	421.4	-12.2	-379.6	-1090.7	0.0	402.4	403.7
8/31/2001	6087	31	507.7	-133.9	-29.5	378.7	-12.9	-379.5	-1114.4	0.0	392.3	391.6
9/30/2001	6117	30	426.4	-124.2	-22.5	458.2	-13.4	-365.8	-1121.2	0.0	381.4	381.1
10/31/2001	6148	31	426.6	-125.9	-19.7	457.2	-14.6	-375.7	-1152.4	0.0	401.7	402.9
11/30/2001	6178	30	-315.4	-125.9	-15.4	614.3	-12.7	-360.8	-827.9	157.6	439.5	446.8
12/31/2001	6209	31	-25.3	-132.0	-13.3	390.9	-10.9	-369.9	-712.3	11.5	428.1	433.1
1/31/2002	6240	31	32.0	-128.2	-14.7	340.2	-10.2	-366.5	-740.7	28.4	427.4	432.3
2/28/2002	6268	28	168.0	-113.4	-14.1	395.2	-9.7	-328.8	-837.3	0.0	369.0	371.1
3/31/2002	6299	31	206.1	-122.9	-20.9	429.2	-11.5	-362.4	-923.1	0.0	402.1	403.3
4/30/2002	6329	30	352.6	-112.0	-21.9	332.1	-11.3	-349.5	-912.6	0.0	364.0	358.6
5/31/2002	6360	31	398.2	-106.2	-23.5	316.1	-11.9	-359.6	-946.2	0.0	370.6	362.5
6/30/2002	6390	30	579.9	-90.9	-17.7	306.6	-11.5	-344.7	-939.8	0.0	335.1	183.1
7/31/2002	6421	31	375.6	-82.7	-13.7	369.6	-13.8	-347.8	-923.5	0.0	356.3	279.9
8/31/2002	6452	31	493.8	-75.5	-10.7	380.8	-16.5	-342.6	-1018.0	0.0	351.7	237.0
9/30/2002	6482	30	612.5	-67.4	-6.7	427.8	-17.9	-325.7	-1058.6	0.0	326.1	109.8
10/31/2002	6513	31	626.7	-64.7	-4.3	408.9	-19.9	-328.7	-1112.9	0.0	341.9	153.0
11/30/2002	6543	30	-781.6	-70.4	-7.0	933.3	-17.2	-314.5	-933.3	254.6	460.2	476.1
12/31/2002	6574	31	-482.8	-87.5	-9.2	582.4	-14.4	-330.6	-875.5	272.0	461.2	484.2
1/31/2003	6605	31	174.1	-87.3	-9.8	333.8	-13.1	-332.2	-815.6	0.0	377.6	372.5
2/28/2003	6633	28	-1472.1	-96.2	-14.5	1158.5	-10.7	-306.1	-686.4	313.7	515.6	598.1
3/31/2003	6664	31	-669.5	-122.2	-24.8	642.6	-9.2	-349.6	-730.6	268.4	487.2	507.6
4/30/2003	6694	30	-18.8	-113.3	-25.7	318.3	-8.8	-342.7	-754.8	104.9	417.8	423.0
5/31/2003	6725	31	-143.7	-110.1	-27.7	397.4	-8.9	-356.5	-576.5	0.0	411.6	414.4
6/30/2003	6755	30	346.4	-95.5	-20.4	283.5	-8.2	-343.9	-671.7	0.0	334.2	175.7
7/31/2003	6786	31	412.7	-85.8	-14.9	378.2	-10.4	-348.1	-835.6	0.0	342.9	161.1
8/31/2003	6817	31	553.9	-76.1	-10.7	342.7	-12.2	-342.0	-897.6	0.0	335.9	106.0
9/30/2003	6847	30	530.6	-66.1	-6.3	363.3	-13.1	-325.0	-914.9	0.0	325.6	106.0
10/31/2003	6878	31	641.5	-63.0	-4.0	377.5	-14.6	-329.0	-968.9	0.0	325.7	34.8
11/30/2003	6908	30	282.4	-55.5	-2.0	348.2	-13.3	-310.8	-780.0	0.0	336.4	194.6
12/31/2003	6939	31	-5.3	-55.4	-3.2	379.8	-12.8	-316.7	-787.5	36.9	383.6	380.6
1/31/2004	6970	31	85.8	-60.2	-5.6	311.9	-13.7	-319.4	-748.3	0.0	377.3	372.2
2/29/2004	6999	29	-1106.3	-73.5	-10.2	934.8	-11.6	-304.8	-679.1	284.4	458.3	507.8
3/31/2004	7030	31	34.3	-86.6	-15.6	326.7	-11.7	-332.8	-675.9	0.0	382.5	379.1
4/30/2004	7060	30	290.1	-74.7	-12.6	299.6	-12.4	-322.4	-713.6	0.0	337.9	208.0
5/31/2004	7091	31	550.6	-65.2	-9.4	290.0	-13.2	-328.8	-766.6	0.0	323.2	19.3
6/30/2004	7121	30	344.4	-55.0	-5.7	259.2	-13.2	-313.7	-756.9	0.0	337.4	203.5
7/31/2004	7152	31	512.5	-51.8	-3.2	362.4	-15.2	-319.3	-980.6	0.0	341.9	153.2
8/31/2004	7183	31	624.4	-48.7	-0.8	362.2	-17.4	-313.9	-1050.7	0.0	336.3	108.6
9/30/2004	7213	30	617.3	-44.3	0.0	363.5	-18.7	-297.4	-1071.1	0.0	327.8	123.0
10/31/2004	7244	31	-1102.6	-54.5	-7.1	1059.5	-17.7	-307.9	-933.8	307.5	500.4	556.2
11/30/2004	7274	30	209.4	-61.7	-7.1	413.1	-17.2	-305.4	-987.5	0.0	378.7	377.7
12/31/2004	7305	31	-1549.5	-85.3	-11.2	1260.4	-17.4	-325.5	-901.4	359.6	583.4	686.8
1/31/2005	7336	31	-2914.9	-144.3	-27.8	1811.9	-14.2	-355.7	-825.4	534.3	836.1	1100.0
2/28/2005	7364	28	-2697.0	-214.2	-85.5	1691.5	-10.8	-354.6	-683.4	539.2	751.3	1063.4
3/31/2005	7395	31	-307.8	-235.5	-153.2	436.0	-9.5	-395.9	-769.8	306.3	515.7	613.7
4/30/2005	7425	30	116.0	-187.1	-125.6	339.1	-9.3	-380.6	-811.9	198.0	422.7	438.7
5/31/2005	7456	31	189.7	-167.2	-93.7	308.3	-10.1	-392.2	-793.4	115.5	419.6	423.6
6/30/2005	7486	30	207.4	-145.0	-60.8	305.2	-10.3	-379.3	-683.0	0.0	382.9	382.9
7/31/2005	7517	31	187.1	-138.8	-45.4	320.3	-10.7	-390.3	-710.1	0.0	394.1	393.7
8/31/2005	7548	31	357.6	-124.9	-27.4	365.6	-10.5	-384.6	-698.8	0.0	344.9	178.0
9/30/2005	7578	30	482.3	-105.3	-15.6	357.7	-10.1	-361.5	-665.0	0.0	310.8	6.6
10/31/2005	7609	31	-122.2	-104.8	-15.5	362.3	-10.4	-367.3	-624.7	49.7	414.8	418.1
11/30/2005	7639	30	62.9	-101.5	-11.7	315.2	-9.9	-354.7	-596.9	0.0	353.6	342.9
12/31/2005	7670	31	189.9	-98.8	-8.3	282.2	-10.3	-362.3	-608.8	0.0	354.4	262.1
1/31/2006	7701	31	-654.4	-104.1	-11.8	539.2	-9.6	-360.7	-607.5	256.8	470.0	482.1
2/28/2006	7729	28	-781.2	-111.0	-14.4	684.1	-7.3	-331.5	-511.8	234.1	413.6	425.4
3/31/2006	7760	31	-886.3	-139.1	-27.9	693.6	-6.6	-371.8	-492.3	266.7	472.4	491.2
4/30/2006	7790	30	-903.2	-146.6	-45.6	654.0	-5.2	-366.4	-430.1	261.6	480.1	501.3
5/31/2006	7821	31	-272.6	-153.7	-53.0	342.3	-4.9	-383.3	-335.3	0.0	427.8	432.7
6/30/2006	7851	30	345.4	-138.2	-32.0	307.8	-5.6	-370.2	-473.5	0.0	317.5	48.8
7/31/2006	7882	31	361.9	-127.6	-21.9	343.6	-7.0	-376.8	-519.9	0.0	323.9	23.7
8/31/2006	7913	31	252.9	-115.4	-17.7	365.9	-7.6	-371.7	-540.3	0.0	335.0	98.9
9/30/2006	7943	30	251.2	-102.9	-12.1	337.8	-7.8	-355.1	-542.5	0.0	325.5	105.9
10/31/2006	7974	31	246.1	-98.0	-9.4	330.7	-8.5	-362.1	-564.4	0.0	338.7	126.9
11/30/2006	8004	30	311.3	-88.0	-6.1	323.4	-8.5	-346.0	-561.3	0.0	318.7	56.4
12/31/2006	8035	31	-138.9	-90.4	-6.7	320.5	-8.7	-356.0	-485.8	0.0	384.4	381.6

Flow Budget for the Semi-Perched Aquifer in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley UAS	Arroya Las Posas percolation	Conejo Creek Percolation	Calleguas Creek percolation
1/31/2007	8066	31	-448.7	-99.9	-9.9	549.8	-7.6	-360.8	-397.4	0.0	388.2	386.4
2/28/2007	8094	28	-135.2	-98.7	-11.6	269.8	-6.6	-330.8	-455.5	17.1	374.3	377.2
3/31/2007	8125	31	73.0	-109.6	-15.7	352.1	-7.9	-369.5	-568.6	0.0	357.2	288.9
4/30/2007	8155	30	85.9	-103.0	-17.0	273.5	-7.9	-361.4	-543.7	0.0	350.2	323.4
5/31/2007	8186	31	351.7	-101.4	-17.4	302.4	-8.2	-373.4	-607.1	0.0	337.3	116.1
6/30/2007	8216	30	424.7	-89.6	-13.6	249.9	-8.5	-357.6	-630.8	0.0	324.8	100.5
7/31/2007	8247	31	430.2	-83.8	-11.8	283.4	-9.9	-365.4	-695.5	0.0	337.2	115.6
8/31/2007	8278	31	416.4	-77.0	-9.7	331.6	-10.9	-360.6	-737.8	0.0	336.6	111.3
9/30/2007	8308	30	253.5	-71.6	-7.0	428.3	-11.4	-344.3	-763.4	0.0	334.8	181.1
10/31/2007	8339	31	249.4	-71.5	-5.9	385.3	-12.5	-351.6	-800.0	0.0	353.4	253.3
11/30/2007	8369	30	343.9	-66.8	-4.2	337.3	-12.7	-337.6	-787.9	0.0	336.1	191.8
12/31/2007	8400	31	-67.4	-72.9	-5.3	400.2	-12.6	-347.5	-647.4	0.0	378.8	374.2
1/31/2008	8431	31	-2059.4	-111.1	-15.7	1295.3	-10.5	-366.6	-581.1	383.0	674.6	791.4
2/29/2008	8460	29	-462.2	-128.6	-17.9	483.5	-7.6	-358.4	-528.2	121.3	444.9	453.3
3/31/2008	8491	31	199.2	-130.4	-22.2	247.3	-8.7	-383.0	-633.0	0.0	369.7	361.2
4/30/2008	8521	30	176.9	-117.7	-22.1	330.6	-9.4	-374.9	-658.0	0.0	350.3	324.2
5/31/2008	8552	31	448.9	-111.6	-20.9	376.4	-9.9	-384.2	-687.7	0.0	329.5	59.5
6/30/2008	8582	30	313.0	-96.9	-16.3	356.1	-9.7	-365.6	-686.9	0.0	333.8	172.5
7/31/2008	8613	31	395.0	-91.7	-14.3	358.2	-11.4	-372.4	-776.1	0.0	343.9	169.0
8/31/2008	8644	31	493.6	-83.5	-11.7	313.7	-13.0	-367.1	-824.0	0.0	341.6	150.5
9/30/2008	8674	30	425.7	-75.4	-8.1	412.3	-13.9	-350.0	-854.5	0.0	329.2	134.6
10/31/2008	8705	31	339.5	-74.9	-6.6	459.5	-15.4	-356.4	-911.4	0.0	349.4	216.3
11/30/2008	8735	30	-109.9	-76.6	-7.2	476.9	-14.0	-342.3	-699.1	0.0	385.8	386.4
12/31/2008	8766	31	-285.5	-89.4	-9.2	435.4	-12.5	-359.3	-589.9	0.0	451.5	458.8
1/31/2009	8797	31	64.4	-92.6	-10.8	270.6	-11.3	-362.3	-608.7	0.0	377.8	372.9
2/28/2009	8825	28	-1327.7	-102.8	-15.0	952.3	-8.8	-332.5	-494.7	269.3	510.6	549.3
3/31/2009	8856	31	-2.8	-123.7	-22.5	262.7	-8.4	-374.6	-509.7	0.0	390.2	388.9
4/30/2009	8886	30	286.3	-107.8	-19.5	340.6	-8.3	-361.3	-537.8	0.0	322.8	85.2
5/31/2009	8917	31	-31.5	-104.5	-22.5	305.4	-8.8	-371.7	-564.2	0.0	398.6	399.2
6/30/2009	8947	30	464.5	-94.4	-18.8	248.3	-8.3	-361.5	-550.4	0.0	311.2	9.3
7/31/2009	8978	31	130.3	-93.0	-19.5	341.6	-10.3	-370.2	-739.5	0.0	382.1	378.6
8/31/2009	9009	31	260.7	-94.3	-20.8	310.0	-12.7	-373.0	-827.1	0.0	380.6	376.6
9/30/2009	9039	30	318.3	-91.6	-17.0	290.5	-13.9	-362.3	-859.6	0.0	369.6	366.1
10/31/2009	9070	31	40.4	-98.1	-15.8	502.6	-14.8	-374.4	-796.6	0.0	380.4	376.3
11/30/2009	9100	30	703.4	-93.6	-9.6	432.6	-14.9	-360.3	-892.6	0.0	235.0	0.0
12/31/2009	9131	31	-475.1	-101.7	-9.7	703.5	-14.3	-368.8	-815.0	165.9	453.9	461.3
1/31/2010	9162	31	-1598.8	-137.2	-17.6	1179.9	-11.0	-380.6	-689.9	351.6	606.0	697.6
2/28/2010	9190	28	-868.7	-147.5	-24.5	762.8	-7.7	-353.4	-588.4	266.0	461.8	499.8
3/31/2010	9221	31	223.8	-154.8	-33.0	273.6	-8.3	-391.7	-648.0	0.0	372.8	365.8
4/30/2010	9251	30	-19.5	-137.8	-27.2	369.4	-8.4	-379.2	-563.7	0.0	383.2	383.2
5/31/2010	9282	31	600.4	-129.0	-25.8	340.7	-8.2	-391.5	-655.9	0.0	269.3	0.0
6/30/2010	9312	30	136.6	-113.9	-24.0	294.7	-8.7	-374.7	-661.6	0.0	376.5	375.0
7/31/2010	9343	31	236.5	-115.0	-26.3	310.8	-10.9	-389.0	-773.3	0.0	385.0	382.3
8/31/2010	9374	31	346.6	-111.7	-25.2	258.9	-12.7	-389.3	-828.7	0.0	382.7	379.4
9/30/2010	9404	30	319.1	-106.1	-19.9	313.7	-13.6	-375.8	-858.7	0.0	372.0	369.3
10/31/2010	9435	31	-148.8	-113.4	-18.5	565.2	-13.1	-386.8	-680.3	0.0	397.7	398.1
11/30/2010	9465	30	246.4	-111.7	-13.2	340.3	-12.6	-372.2	-782.5	0.0	357.1	348.5
12/31/2010	9496	31	-1646.0	-141.1	-13.9	1678.6	-10.9	-384.5	-638.2	325.5	361.7	468.8
1/31/2011	9527	31	119.2	-153.5	-16.9	178.8	-9.4	-390.6	-590.5	0.0	428.9	434.0
2/28/2011	9555	28	-679.6	-142.0	-22.0	542.0	-9.0	-359.8	-666.4	253.7	528.5	554.7
3/31/2011	9586	31	-2225.7	-214.3	-112.4	1319.0	-9.0	-419.7	-621.7	349.0	928.2	1006.7
4/30/2011	9616	30	240.6	-215.9	-145.7	288.0	-7.6	-409.5	-537.5	0.0	385.1	402.5
5/31/2011	9647	31	279.3	-188.4	-95.3	305.6	-9.1	-414.6	-610.8	0.0	370.7	362.7
6/30/2011	9677	30	542.8	-156.7	-50.4	277.3	-9.2	-397.6	-616.6	0.0	323.0	87.3
7/31/2011	9708	31	209.0	-145.0	-37.9	297.2	-10.1	-405.6	-681.5	0.0	387.9	386.0
8/31/2011	9739	31	245.9	-137.6	-31.5	267.3	-10.5	-405.5	-687.2	0.0	381.4	377.7
9/30/2011	9769	30	214.8	-128.8	-22.8	290.9	-10.6	-391.1	-681.0	0.0	366.6	362.1
10/31/2011	9800	31	543.0	-125.1	-17.0	345.7	-10.8	-399.8	-687.1	0.0	324.5	26.8
11/30/2011	9830	30	-188.7	-119.2	-13.3	397.5	-9.8	-380.6	-547.9	0.0	427.8	434.0
12/31/2011	9861	31	273.6	-119.0	-10.0	285.9	-9.2	-390.5	-615.9	0.0	351.3	233.9
1/31/2012	9892	31	-174.7	-117.2	-12.1	400.0	-9.1	-385.3	-542.6	0.0	418.6	422.4
2/29/2012	9921	29	388.5	-108.4	-11.2	315.5	-8.3	-360.5	-573.7	0.0	307.5	50.8
3/31/2012	9952	31	-517.2	-120.2	-20.0	549.9	-8.9	-384.8	-662.6	166.5	493.6	503.6
4/30/2012	9982	30	-313.4	-126.2	-27.4	408.5	-7.4	-379.3	-549.5	84.5	451.0	459.1
5/31/2012	10013	31	396.3	-123.5	-25.1	338.6	-7.5	-391.3	-586.6	0.0	330.7	68.4
6/30/2012	10043	30	172.5	-109.7	-22.4	230.1	-8.5	-373.7	-618.6	0.0	367.3	363.1

Flow Budget for the Semi-Perched Aquifer in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet									
			STORAGE	TILE DRAINS	ET	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley UAS	Arroya Las Posas percolation	Conejo Creek Percolation	Calleguas Creek percolation
7/31/2012	10074	31	292.1	-111.1	-24.2	294.9	-11.1	-387.9	-779.1	0.0	368.0	358.5
8/31/2012	10105	31	467.8	-104.5	-20.2	267.8	-13.1	-387.9	-851.7	0.0	356.8	285.0
9/30/2012	10135	30	369.2	-97.0	-15.8	332.2	-14.2	-378.0	-887.8	0.0	351.9	339.6
10/31/2012	10166	31	313.5	-104.2	-15.6	412.0	-16.2	-387.1	-951.5	0.0	377.1	371.9
11/30/2012	10196	30	669.6	-95.6	-9.6	248.5	-15.4	-369.4	-849.1	0.0	324.3	96.7
12/31/2012	10227	31	7.0	-95.9	-9.3	320.1	-14.6	-375.1	-735.4	0.0	448.1	455.0
1/31/2013	10258	31	127.2	-97.9	-11.4	336.8	-13.3	-374.4	-731.6	0.0	383.8	380.8
2/28/2013	10286	28	515.0	-84.3	-9.2	313.0	-12.2	-334.5	-732.7	0.0	296.7	48.1
3/31/2013	10317	31	556.0	-83.0	-10.5	265.4	-13.5	-362.0	-769.6	0.0	333.0	84.2
4/30/2013	10347	30	252.0	-75.4	-12.5	258.0	-13.4	-345.2	-790.3	0.0	365.8	361.1
5/31/2013	10378	31	334.7	-76.7	-16.3	237.8	-14.8	-357.5	-838.7	0.0	369.9	361.5
6/30/2013	10408	30	328.4	-72.8	-16.7	230.2	-15.1	-346.2	-832.3	0.0	364.8	359.7
7/31/2013	10439	31	522.1	-69.5	-14.0	303.1	-17.0	-356.1	-997.5	0.0	355.6	273.2
8/31/2013	10470	31	731.1	-61.1	-9.4	305.9	-18.7	-349.8	-1055.9	0.0	337.8	120.1
9/30/2013	10500	30	676.6	-53.0	-4.8	309.4	-19.4	-330.8	-1073.5	0.0	332.7	162.8
10/31/2013	10531	31	579.4	-51.0	-3.0	313.3	-21.2	-334.0	-1136.3	0.0	357.9	295.0
11/30/2013	10561	30	468.4	-49.6	-4.1	315.3	-22.0	-319.9	-1130.2	0.0	372.4	369.7
12/31/2013	10592	31	529.3	-55.0	-4.6	319.2	-23.9	-330.2	-1183.5	0.0	377.0	371.7
1/31/2014	10623	31	582.2	-55.0	-5.3	338.1	-24.6	-331.9	-1220.5	0.0	364.5	352.6
2/28/2014	10651	28	-62.5	-52.2	-6.0	600.5	-20.5	-297.0	-868.1	0.0	353.4	352.4
3/31/2014	10682	31	98.5	-63.9	-12.9	334.7	-21.1	-331.4	-1000.7	12.6	487.3	497.0
4/30/2014	10712	30	901.4	-54.4	-9.4	330.7	-21.2	-319.6	-1096.6	0.0	269.1	0.0
5/31/2014	10743	31	743.1	-47.0	-3.4	327.5	-23.2	-319.1	-1179.8	0.0	342.7	159.2
6/30/2014	10773	30	733.4	-39.8	0.0	333.7	-23.5	-298.6	-1184.3	0.0	330.9	148.3
7/31/2014	10804	31	760.8	-37.1	0.0	324.7	-24.7	-296.2	-1242.8	0.0	344.1	171.1
8/31/2014	10835	31	806.5	-34.0	0.0	317.8	-25.2	-283.3	-1212.3	0.0	334.6	95.9
9/30/2014	10865	30	838.2	-30.9	0.0	310.7	-25.0	-262.3	-1181.1	0.0	315.4	35.0
10/31/2014	10896	31	780.0	-30.9	0.0	314.8	-26.3	-258.4	-1217.3	0.0	335.5	102.5
11/30/2014	10926	30	455.7	-28.8	0.0	290.7	-26.2	-240.6	-1168.7	0.0	362.1	355.9
12/31/2014	10957	31	-915.9	-32.8	-1.2	914.6	-25.4	-256.9	-904.1	0.0	603.9	617.7
1/31/2015	10988	31	-149.8	-37.5	-2.9	398.9	-21.5	-268.8	-840.7	0.0	457.3	465.0
2/28/2015	11016	28	572.2	-32.4	-0.4	265.9	-19.1	-241.6	-843.4	0.0	290.4	8.5
3/31/2015	11047	31	227.4	-32.7	0.0	268.8	-21.3	-260.2	-901.8	0.0	365.5	354.4
4/30/2015	11077	30	489.1	-29.8	0.0	236.5	-20.8	-250.0	-916.5	0.0	332.3	159.3
5/31/2015	11108	31	549.2	-29.8	0.0	234.1	-22.2	-247.6	-966.4	0.0	340.6	142.2
6/30/2015	11138	30	454.9	-28.2	0.0	239.1	-21.9	-229.3	-959.7	0.0	337.8	207.2
7/31/2015	11169	31	747.7	-28.3	0.0	253.8	-23.2	-227.1	-1011.1	0.0	288.1	0.0
8/31/2015	11200	31	696.8	-27.3	0.0	280.7	-24.3	-217.5	-1068.0	0.0	325.6	34.0
9/30/2015	11230	30	460.7	-25.4	0.0	277.4	-24.4	-201.3	-1051.6	0.0	339.8	224.9
10/31/2015	11261	31	756.7	-25.3	0.0	280.0	-26.0	-199.5	-1089.3	0.0	303.4	0.0
11/30/2015	11291	30	676.7	-23.6	0.0	292.3	-25.7	-185.2	-1077.2	0.0	314.4	28.3
12/31/2015	11322	31	326.8	-23.5	0.0	309.0	-27.4	-187.8	-1114.7	0.0	364.7	352.9

Flow Budget for the UAS in Pleasant Valley

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	Mountain Front Recharge	GW Flux from East Las Posas	ET	Recharge	Pumping from Wells	Pleasant Valley Semi-Perched Aquifer	Oxnard UAS	Los Posas	Pleasant Valley LAS	Arroyo Las Posas Percolation	Conejo Creek Percolation	Calleguas Creek percolation
1/31/1985	31	31	-133.0	80.4	17.6	-94.6	51.5	-427.6	695.8	104.6	-0.8	-429.3	10.5	124.9	0.0
2/28/1985	59	28	-306.7	79.2	15.3	-93.8	47.6	-405.6	670.0	108.7	0.0	-277.3	15.0	147.5	0.0
3/31/1985	90	31	-250.4	50.1	15.6	-147.3	43.2	-546.4	825.0	103.1	0.0	-308.0	10.5	204.7	0.0
4/30/1985	120	30	21.6	0.0	12.8	-169.3	24.8	-774.1	1013.5	65.1	0.0	-415.9	4.2	217.2	0.0
5/31/1985	151	31	113.7	0.0	11.7	-180.1	28.1	-823.7	1079.6	30.5	0.0	-503.5	3.7	240.2	0.0
6/30/1985	181	30	151.1	0.0	10.0	-166.4	32.4	-839.2	1108.5	-4.0	0.0	-530.3	4.2	233.7	0.0
7/31/1985	212	31	202.1	0.0	8.5	-173.5	31.4	-933.8	1176.2	-5.8	0.0	-558.1	4.9	248.2	0.0
8/31/1985	243	31	216.2	0.0	6.8	-166.3	32.7	-956.9	1213.4	-26.8	0.0	-572.1	4.3	248.7	0.0
9/30/1985	273	30	227.4	0.0	4.9	-135.9	28.8	-962.5	1218.0	-48.2	0.0	-572.5	4.2	235.9	0.0
10/31/1985	304	31	251.4	0.0	3.9	-123.6	27.1	-988.8	1260.1	-71.2	0.0	-605.1	5.5	240.6	0.0
11/30/1985	334	30	-492.2	471.2	25.9	-100.0	177.2	-461.7	848.1	-93.0	0.0	-750.0	144.0	230.5	0.0
12/31/1985	365	31	64.9	1.5	15.3	-83.7	27.2	-819.3	1132.1	-42.3	0.0	-501.0	11.1	194.2	0.0
1/31/1986	396	31	-479.5	380.5	40.4	-94.6	142.3	-400.4	791.6	-60.6	0.0	-878.5	379.4	179.3	0.0
2/28/1986	424	28	-1324.3	850.1	56.3	-93.8	277.5	-263.6	762.5	-50.7	0.0	-984.6	650.8	119.9	0.0
3/31/1986	455	31	-1346.7	713.9	73.9	-147.3	243.5	-257.6	775.8	-26.7	-0.8	-832.2	677.1	127.2	0.0
4/30/1986	485	30	96.0	6.7	58.6	-170.9	32.6	-538.6	851.9	-2.1	-1.0	-532.3	25.6	173.6	0.0
5/31/1986	516	31	58.0	0.0	52.6	-200.7	25.3	-663.5	1015.8	-45.1	0.0	-476.2	11.1	222.8	0.0
6/30/1986	546	30	74.6	0.0	49.3	-177.8	30.7	-684.9	1040.8	-99.5	0.0	-474.4	11.9	229.2	0.0
7/31/1986	577	31	100.3	0.0	51.4	-182.0	30.8	-913.6	1183.7	-46.6	0.0	-480.5	11.1	245.3	0.0
8/31/1986	608	31	91.2	0.0	50.8	-175.3	28.6	-963.3	1224.2	-24.6	0.0	-487.9	10.5	245.8	0.0
9/30/1986	638	30	-43.8	24.7	51.3	-143.3	39.2	-780.9	1098.3	-23.0	0.0	-482.9	22.0	238.3	0.0
10/31/1986	669	31	85.1	0.0	50.1	-129.8	25.7	-982.3	1228.0	-7.4	0.0	-517.0	12.9	234.8	0.0
11/30/1986	699	30	-226.8	117.0	59.7	-99.3	68.6	-587.0	953.3	-36.1	0.0	-518.1	53.6	215.1	0.0
12/31/1986	730	31	80.0	0.0	52.8	-83.2	21.7	-959.7	1190.0	-11.7	0.0	-500.3	14.1	196.2	0.0
1/31/1987	761	31	-188.9	119.0	55.0	-94.5	62.6	-627.0	989.6	-34.9	0.0	-513.3	33.2	199.2	0.0
2/28/1987	789	28	-97.8	53.7	48.1	-93.8	44.7	-678.4	961.4	-1.7	0.0	-445.4	25.0	184.2	0.0
3/31/1987	820	31	-219.7	126.1	55.4	-144.1	66.4	-590.5	912.1	13.5	0.0	-480.2	32.6	228.5	0.0
4/30/1987	850	30	139.6	0.0	50.3	-159.7	28.8	-1100.2	1279.2	28.3	0.0	-514.6	17.3	231.1	0.0
5/31/1987	881	31	239.8	0.0	51.4	-180.2	28.9	-1195.8	1405.0	-1.7	0.0	-611.6	18.4	245.6	0.0
6/30/1987	911	30	280.9	0.0	48.5	-170.9	33.7	-1229.9	1456.6	-34.8	0.0	-638.7	15.5	239.1	0.0
7/31/1987	942	31	322.2	0.0	50.7	-178.5	36.8	-1164.2	1421.7	-53.3	0.0	-702.7	17.2	250.2	0.0
8/31/1987	973	31	341.9	0.0	52.9	-171.3	30.0	-1172.1	1437.6	-69.9	0.0	-724.9	23.4	252.4	0.0
9/30/1987	1003	30	340.3	0.0	51.3	-138.2	31.3	-1167.9	1429.6	-84.9	0.0	-715.9	20.2	234.1	0.0
10/31/1987	1034	31	63.2	115.3	72.7	-134.0	63.8	-798.0	1182.7	-118.9	0.0	-912.8	194.3	271.8	0.0
11/30/1987	1064	30	-101.7	194.5	71.9	-99.5	91.3	-620.5	999.9	-113.8	0.0	-697.4	66.0	209.1	0.0
12/31/1987	1095	31	-354.2	342.2	87.0	-83.7	102.0	-535.9	863.2	-102.0	0.0	-1102.4	603.2	180.5	0.0
1/31/1988	1126	31	-292.1	178.8	90.9	-94.6	83.9	-512.5	883.9	-71.6	-0.3	-909.1	469.1	173.6	0.0
2/29/1988	1155	29	-254.9	88.6	86.0	-97.1	53.4	-541.9	875.3	-44.2	-1.8	-600.5	265.2	171.9	0.0
3/31/1988	1186	31	222.8	0.0	76.7	-147.3	28.3	-903.1	1174.4	-32.6	-1.2	-666.2	27.1	221.2	0.0
4/30/1988	1216	30	-330.1	125.6	86.3	-164.4	70.8	-548.8	908.6	-39.3	-1.6	-706.9	363.6	236.2	0.0
5/31/1988	1247	31	214.6	0.0	78.2	-186.0	33.7	-920.6	1204.4	-30.2	-1.6	-667.2	33.2	241.6	0.0
6/30/1988	1277	30	173.8	0.0	68.5	-174.7	34.5	-958.2	1235.4	-44.0	-0.1	-596.1	21.4	239.5	0.0
7/31/1988	1308	31	183.8	0.0	68.3	-181.1	34.7	-1014.7	1273.5	-23.5	0.0	-614.2	25.2	248.0	0.0
8/31/1988	1339	31	226.4	0.0	65.7	-174.6	33.6	-1051.9	1304.6	-23.6	0.0	-649.8	22.8	246.8	0.0
9/30/1988	1369	30	230.9	0.0	65.4	-141.8	33.6	-1061.3	1307.6	-30.1	0.0	-676.0	33.9	237.7	0.0
10/31/1988	1400	31	265.8	0.0	62.9	-129.6	33.6	-1096.8	1347.0	-46.7	0.0	-696.6	19.7	240.7	0.0
11/30/1988	1430	30	108.5	60.1	66.1	-97.7	50.3	-836.6	1141.9	-71.8	0.0	-680.9	41.7	218.4	0.0
12/31/1988	1461	31	-413.6	508.0	84.0	-83.7	177.1	-551.5	912.7	-104.6	0.0	-1113.2	420.0	164.7	0.0
1/31/1989	1492	31	162.9	0.0	70.2	-94.6	25.6	-796.2	1085.0	-67.4	0.0	-583.0	20.3	177.2	0.0
2/28/1989	1520	28	-341.8	299.2	76.6	-93.8	121.0	-440.9	800.0	-76.1	-0.1	-790.5	295.5	150.8	0.0
3/31/1989	1551	31	34.1	11.6	77.7	-147.3	37.8	-685.8	1045.9	-60.9	-0.1	-561.4	39.4	209.2	0.0
4/30/1989	1581	30	90.9	0.0	68.2	-163.0	33.1	-816.3	1133.6	-59.4	0.0	-536.2	22.0	227.1	0.0
5/31/1989	1612	31	141.3	0.0	68.5	-184.7	33.7	-859.5	1189.2	-81.2	0.0	-577.1	24.0	245.7	0.0
6/30/1989	1642	30	181.4	0.0	62.4	-174.9	36.0	-865.8	1170.5	-94.3	0.0	-570.4	14.3	240.8	0.0
7/31/1989	1673	31	232.0	0.0	62.0	-182.3	36.5	-1122.5	1386.7	-62.8	0.0	-614.5	15.4	249.4	0.0
8/31/1989	1704	31	276.0	0.0	59.3	-176.6	34.9	-1155.9	1393.9	-53.3	0.0	-643.9	13.5	252.0	0.0
9/30/1989	1734	30	285.8	0.0	55.9	-143.7	34.0	-1158.4	1370.9	-51.5	0.0	-651.6	17.3	241.3	0.0
10/31/1989	1765	31	309.4	0.0	56.6	-132.2	32.7	-1192.7	1412.9	-59.2	0.0	-694.3	19.7	247.1	0.0
11/30/1989	1795	30	309.0	0.0	55.1	-97.3	32.8	-1183.2	1394.7	-61.1	0.0	-694.9	25.0	220.0	0.0
12/31/1989	1826	31	333.8	0.0	55.8	-82.9	33.7	-1211.5	1436.5	-69.4	0.0	-727.4	24.0	207.5	0.0
1/31/1990	1857	31	130.1	112.4	80.8	-94.5	63.4	-841.0	1174.1	-109.5	0.0	-1011.4	289.0	206.8	0.0
2/28/1990	1885	28	44.2	124.0	82.8	-93.8	61.3	-690.9	1000.0	-102.6	0.0	-900.7	296.0	179.7	0.0
3/31/1990	1916	31	281.1	0.0	81.0	-142.0	23.8	-1144.1	1367.9	-68.0	0.0	-650.7	22.8	228.4	0.0
4/30/1990	1946	30	324.5	0.0	76.0	-158.7	24.4	-1178.3	1375.8	-56.8	0.0	-662.2	22.0	233.3	0.0
5/31/1990	1977	31	375.2	0.0	82.1	-179.7	24.6	-1221.0	1422.8	-62.8	0.0	-720.7	33.8	245.7	0.0
6/30/1990	2007	30	383.4	0.0	77.0	-171.2	28.1	-1229.4	1425.6	-63.1	0.0	-707.1	19.0	237.7	0.0
7/31/1990	2038	31	416.1	0.0	78.5	-174.9	27.6	-1250.3	1460.3	-84.5	0.0	-737.5	18.4	246.4	0.0
8/31/1990	2069	31	417.9	0.0	76.6	-166.7	27.9	-1239.9	1452.5	-94.2	0.0	-736.0	14.1	247.7	0.0
9/30/1990	2099	30	403.2	0.0	72.3	-135.8	27.7	-1217.7	1415.8	-94.5	0.0	-715.0	12.5	231.5	0.0
10/31/1990	2130	31	409.8	0.0	73.9	-126.4	29.9	-1237.1	1446.1	-103.0	0.0	-746.1	16.0	236.8	0.0
11/30/1990	2160	30	371.0	0.0	72.4	-96.6	24.5	-1076.3	1295.1	-115.1	0.0	-725.3	22.0	228.3	0.0
12/31/1990	2191	31	390.4	0.0	72.0	-82.6	26.2	-1217.7	1426.9	-116.6	0.0	-732.0	14.1	219.3	0.0
1/31/1991	2222	31	280.4	55.9	80.1	-93.4	46.7	-1000.3	1274.4	-128.3	0.0	-767.2	38.1	213.7	0.0
2/28/1991	2250	28	93.8	139.8	88.1	-93.6	66.1	-719.7	1022.3	-127.1	0.0	-930.6	271.6	189.3	0.0
3/31/1991	2281	31	-1149.7	1048.1	117.4	-147.3	338.3	-485.5	1110.4	-183.0	0.0	-1528.7	720.8	159.3	0.0
4/30/1991	2311	30	327.1	0.0	102.4	-167.8	19.6	-1088.3	1302.1	-92.9	0.0	-607.1	23.2	181.8	0.0
5/31/1991	2342	31	262.1	0.0	97.2	-186.6	22.3	-1161.0	1386.1	-59.3	0.0	-605.4	19.7	224.9	0.0

Flow Budget for the UAS in Pleasant Valley

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	Mountain Front Recharge	GW Flux from East Las Posas	ET	Recharge	Pumping from Wells	Pleasant Valley Semi-Perched Aquifer	Oxnard UAS	Los Posas	Pleasant Valley LAS	Arroyo Las Posas Percolation	Conejo Creek Percolation	Calleguas Creek percolation
6/30/1991	2372	30	275.3	0.0	90.5	-175.2	21.1	-1175.5	1373.5	-43.5	0.0	-610.2	16.1	228.0	0.0
7/31/1991	2403	31	301.2	0.0	89.7	-181.4	22.2	-1099.7	1292.0	-28.8	0.0	-647.8	16.0	236.5	0.0
8/31/1991	2434	31	308.0	0.0	86.3	-174.7	21.6	-1116.7	1308.1	-22.0	0.0	-662.6	14.8	237.1	0.0
9/30/1991	2464	30	296.5	0.0	80.7	-141.4	20.6	-1107.2	1284.3	-19.7	0.0	-653.9	13.1	227.1	0.0
10/31/1991	2495	31	299.7	0.0	80.6	-129.4	21.4	-1135.3	1323.3	-22.4	0.0	-684.1	12.3	233.9	0.0
11/30/1991	2525	30	289.8	0.0	75.6	-96.4	21.1	-1119.7	1299.7	-20.9	0.0	-670.8	11.9	209.7	0.0
12/31/1991	2556	31	-520.7	622.5	101.3	-83.7	185.7	-599.0	1009.6	-107.5	0.0	-1392.9	613.4	171.3	0.0
1/31/1992	2587	31	-151.9	217.4	110.2	-94.6	84.2	-527.5	919.8	-108.9	-0.2	-1047.7	445.2	153.9	0.0
2/29/1992	2616	29	-2246.1	1341.8	136.7	-97.1	400.8	-348.6	1089.5	-132.8	-3.7	-1275.0	1066.0	68.5	0.0
3/31/1992	2647	31	-1420.7	689.3	159.6	-147.3	226.4	-330.6	1110.6	-122.3	-9.0	-1092.5	861.3	75.3	0.0
4/30/1992	2677	30	-33.6	0.0	149.1	-170.9	18.6	-645.4	1063.6	-45.6	-10.1	-622.1	156.5	139.8	0.0
5/31/1992	2708	31	3.9	0.0	144.2	-202.2	21.6	-684.3	1123.0	-16.3	-8.1	-643.2	65.8	195.7	0.0
6/30/1992	2738	30	-27.7	0.0	132.0	-186.9	21.6	-690.5	1096.5	-4.0	-5.8	-608.5	57.7	215.4	0.0
7/31/1992	2769	31	45.4	0.0	132.1	-192.3	23.8	-845.0	1158.8	38.2	-4.5	-654.9	62.7	235.6	0.0
8/31/1992	2800	31	89.9	0.0	127.7	-183.3	25.9	-884.9	1172.9	42.7	-3.4	-678.1	49.8	240.7	0.0
9/30/1992	2830	30	103.8	0.0	120.4	-148.6	23.4	-894.5	1158.6	35.6	-2.3	-667.2	44.0	226.6	0.0
10/31/1992	2861	31	-151.8	23.9	130.2	-134.5	36.9	-794.4	1150.1	17.6	-2.6	-645.0	144.5	225.1	0.0
11/30/1992	2891	30	61.1	0.0	118.9	-97.6	22.3	-895.7	1183.7	35.1	-2.3	-658.9	38.1	195.3	0.0
12/31/1992	2922	31	-1303.0	539.2	136.3	-83.7	175.5	-473.3	1078.0	-3.4	-4.0	-878.5	672.2	144.6	0.0
1/31/1993	2953	31	-2632.4	1248.1	165.6	-94.6	393.4	-336.1	1121.1	-9.2	-8.7	-960.4	1032.5	80.6	0.0
2/28/1993	2981	28	-2303.2	909.6	157.8	-101.4	299.3	-273.4	1046.3	31.1	-14.3	-771.6	1014.7	5.0	0.0
3/31/1993	3012	31	-1419.1	258.2	178.7	-154.2	89.6	-324.4	1055.8	103.1	-22.4	-616.1	767.2	83.5	0.0
4/30/1993	3042	30	-402.2	0.0	166.4	-170.9	22.3	-595.5	956.6	161.3	-22.2	-511.9	251.1	145.1	0.0
5/31/1993	3073	31	-365.6	0.0	165.5	-202.7	25.1	-641.9	1039.1	171.9	-21.3	-598.0	232.4	195.5	0.0
6/30/1993	3103	30	-310.3	0.0	156.1	-187.2	24.3	-656.9	1004.7	164.4	-19.4	-615.6	229.1	210.7	0.0
7/31/1993	3134	31	-172.7	0.0	156.2	-195.7	23.5	-634.4	935.5	149.9	-18.2	-661.9	181.4	236.3	0.0
8/31/1993	3165	31	-138.1	0.0	152.0	-188.5	25.1	-644.9	971.9	125.0	-16.1	-671.0	141.4	243.2	0.0
9/30/1993	3195	30	-76.2	0.0	143.6	-150.9	25.1	-643.1	938.9	103.4	-13.5	-664.6	116.6	220.7	0.0
10/31/1993	3226	31	-142.3	0.0	147.2	-134.6	26.0	-661.4	971.3	105.4	-12.9	-693.0	172.8	221.6	0.0
11/30/1993	3256	30	-122.6	0.0	140.8	-98.3	22.7	-578.2	882.2	109.0	-11.8	-681.1	146.4	190.9	0.0
12/31/1993	3287	31	-483.6	72.3	146.6	-83.7	47.2	-469.9	788.4	122.3	-13.1	-608.3	307.4	174.4	0.0
1/31/1994	3318	31	-336.3	0.0	148.3	-94.6	18.8	-623.9	900.7	140.8	-15.3	-642.1	319.1	184.5	0.0
2/28/1994	3346	28	-1345.1	501.9	140.1	-93.8	177.6	-318.0	773.7	105.7	-14.6	-698.1	633.2	137.4	0.0
3/31/1994	3377	31	-1020.6	237.8	157.3	-147.3	99.7	-335.0	741.8	132.7	-19.6	-648.6	626.3	175.5	0.0
4/30/1994	3407	30	-221.5	0.0	150.5	-167.2	19.6	-563.4	785.4	149.9	-19.6	-544.9	206.5	204.8	0.0
5/31/1994	3438	31	-193.1	0.0	154.5	-188.1	21.1	-601.5	844.2	142.1	-18.9	-609.1	209.1	239.8	0.0
6/30/1994	3468	30	-57.4	0.0	147.3	-182.9	24.0	-610.5	843.2	114.8	-16.3	-612.9	116.0	234.7	0.0
7/31/1994	3499	31	98.9	0.0	149.4	-188.4	25.9	-813.6	968.5	132.9	-14.2	-697.9	93.5	245.1	0.0
8/31/1994	3530	31	133.3	0.0	146.7	-181.3	28.0	-849.4	1021.6	118.4	-11.9	-729.4	79.3	244.8	0.0
9/30/1994	3560	30	138.2	0.0	139.5	-148.9	26.1	-860.2	1042.5	97.9	-9.8	-732.3	67.8	239.2	0.0
10/31/1994	3591	31	134.6	0.0	138.7	-133.6	25.7	-890.1	1100.4	93.2	-8.6	-740.3	46.1	233.8	0.0
11/30/1994	3621	30	-101.9	42.6	136.8	-98.0	43.4	-676.2	931.4	79.0	-7.4	-652.2	100.0	202.5	0.0
12/31/1994	3652	31	-190.9	33.2	144.9	-83.5	38.2	-681.1	931.8	91.5	-8.3	-676.6	218.3	182.6	0.0
1/31/1995	3683	31	-3086.8	1835.0	174.0	-96.0	557.8	-349.0	863.2	7.1	-9.3	-1079.1	1117.8	65.3	0.0
2/28/1995	3711	28	-297.1	67.0	156.0	-95.9	42.4	-434.7	657.1	44.4	-17.0	-567.6	382.6	62.5	0.0
3/31/1995	3742	31	-2343.6	1069.7	184.1	-157.9	342.8	-280.6	806.7	61.5	-20.4	-710.3	999.5	48.7	0.0
4/30/1995	3772	30	-381.4	0.0	174.0	-176.9	22.1	-485.6	749.6	85.8	-25.1	-579.4	494.5	122.4	0.0
5/31/1995	3803	31	-289.3	0.2	174.9	-204.4	24.7	-595.0	886.2	94.6	-26.4	-637.8	386.8	185.6	0.0
6/30/1995	3833	30	-185.7	0.0	165.7	-189.0	26.3	-599.3	870.2	90.4	-25.1	-633.9	276.1	204.4	0.0
7/31/1995	3864	31	-152.3	0.0	168.0	-196.3	29.8	-564.4	827.6	112.2	-23.6	-612.6	184.5	227.2	0.0
8/31/1995	3895	31	-186.4	0.0	165.2	-190.1	32.5	-582.7	835.7	130.8	-20.8	-582.0	162.3	235.4	0.0
9/30/1995	3925	30	-143.9	0.0	157.4	-151.4	32.0	-584.7	815.5	133.7	-17.8	-586.7	130.9	215.1	0.0
10/31/1995	3956	31	-100.3	0.0	159.7	-134.4	30.2	-601.8	821.3	139.8	-16.1	-614.1	103.9	212.0	0.0
11/30/1995	3986	30	-43.3	0.0	151.5	-97.9	24.7	-596.6	784.0	135.6	-13.5	-606.8	80.9	181.4	0.0
12/31/1995	4017	31	-613.7	170.5	160.1	-83.7	65.3	-377.1	580.2	125.6	-15.1	-627.0	448.9	166.0	0.0
1/31/1996	4048	31	-252.5	46.3	157.7	-94.6	41.6	-490.5	674.9	140.9	-16.6	-550.3	170.9	172.2	0.0
2/29/1996	4077	29	-1656.4	775.2	156.3	-97.1	260.6	-282.2	577.1	113.2	-16.1	-609.9	678.9	100.6	0.0
3/31/1996	4108	31	-781.1	95.4	167.8	-147.3	57.7	-407.7	615.6	153.5	-22.6	-505.5	618.2	156.1	0.0
4/30/1996	4138	30	-72.0	0.0	160.2	-170.9	27.9	-593.8	729.3	176.6	-22.3	-642.1	212.4	194.7	0.0
5/31/1996	4169	31	36.7	0.0	162.7	-190.0	31.6	-659.8	807.5	177.2	-20.5	-722.2	147.0	229.8	0.0
6/30/1996	4199	30	76.6	0.0	156.0	-184.1	31.6	-676.8	825.7	150.6	-17.4	-736.0	139.2	234.6	0.0
7/31/1996	4230	31	75.2	0.0	160.8	-191.3	32.7	-843.5	944.4	166.8	-16.3	-709.3	140.2	240.2	0.0
8/31/1996	4261	31	75.4	0.0	160.8	-184.3	32.5	-889.4	1017.9	144.9	-15.3	-735.2	143.3	249.5	0.0
9/30/1996	4291	30	79.0	0.0	156.1	-149.8	32.6	-907.0	1060.3	115.1	-14.4	-756.9	153.5	231.5	0.0
10/31/1996	4322	31	-267.2	45.4	164.5	-134.9	45.7	-730.9	974.8	74.3	-17.1	-770.2	384.3	231.5	0.0
11/30/1996	4352	30	-711.3	262.7	162.0	-100.3	102.0	-487.5	724.8	34.6	-20.1	-687.6	549.2	171.4	0.0
12/31/1996	4383	31	-1651.7	801.7	179.2	-83.7	244.8	-373.9	745.4	16.2	-24.8	-709.6	755.0	101.7	0.0
1/31/1997	4414	31	-1470.4	656.7	181.4	-94.6	206.4	-265.5	609.7	33.5	-31.1	-638.2	734.4	77.6	0.0
2/28/1997	4442	28	-12.2	0.0	157.8	-93.8	22.4	-557.1	685.0	89.1	-30.2	-625.4	261.6	102.8	0.0
3/31/1997	4473	31	12.2	0.0	168.5	-147.3	28.2	-628.1	837.1	116.5	-30.0	-747.4	218.9	171.3	0.0
4/30/1997	4503	30	55.1	0.0	158.5	-170.9	28.8	-643.8	854.3	109.1	-25.9	-760.0	196.4	198.4	0.0
5/31/1997	4534	31	76.6	0.0	160.8	-193.1	28.5	-670.8	899.7	94.0	-24.6	-801.3	198.6	231.6	0.0
6/30/1997	4564	30	87.3	0.0	153.7	-182.0	30.0	-671.5	904.9	70.3	-22.6	-799.9	197.6	232.2	0.0
7/31/1997	4595	31	154.7	0.0	156.8	-188.7	30.9	-822.8	1047.2	57.6	-21.9	-836.6	174.0	248.8	0.0
8/31/1997	4626	31	159.6	0.0	155.1	-182.9	33.1	-843.5	1098.7	33.4	-20.4	-848.0	164.2	250.7	0.0
9/30/1997	4656	30	139.5	0.0	148.9	-148.9	33.6	-847.1	1110.1	15.2	-18.8	-842.6	174.9	235.1	0.0
10/31/1997	4687	31	45.0	0.0	154.6	-134.0	35.2	-871.8	1160.6	3.5	-20.3	-885.9	281.6	231.4	0.0

Flow Budget for the UAS in Pleasant Valley

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	Mountain Front Recharge	GW Flux from East Las Posas	ET	Recharge	Pumping from Wells	Pleasant Valley Semi-Perched Aquifer	Oxnard UAS	Los Posas	Pleasant Valley LAS	Arroyo Las Posas Percolation	Conejo Creek Percolation	Calleguas Creek percolation
11/30/1997	4717	30	-701.8	226.5	151.5	-100.3	91.5	-493.6	863.5	-32.9	-22.5	-765.7	596.0	187.8	0.0
12/31/1997	4748	31	-1705.6	824.3	172.2	-83.7	255.8	-346.6	835.4	-61.9	-29.5	-780.2	809.1	110.6	0.0
1/31/1998	4779	31	-1047.6	317.5	176.8	-94.6	117.8	-383.6	858.8	-41.5	-40.6	-690.1	719.9	107.2	0.0
2/28/1998	4807	28	-3523.7	2285.8	168.5	-109.3	707.1	-239.7	537.8	-80.7	-67.2	-887.1	1276.6	-68.1	0.0
3/31/1998	4838	31	-877.4	330.2	190.3	-180.1	122.7	-318.5	720.0	-32.8	-101.6	-665.9	801.6	11.5	0.0
4/30/1998	4868	30	-656.6	107.8	181.6	-172.5	58.0	-378.5	833.5	20.1	-94.1	-665.3	671.6	94.5	0.0
5/31/1998	4899	31	-877.0	198.9	187.3	-204.5	87.5	-325.9	794.1	38.9	-94.9	-666.2	718.6	143.2	0.0
6/30/1998	4929	30	-180.4	0.0	177.1	-193.7	35.3	-615.7	917.9	45.4	-89.1	-865.9	599.5	169.6	0.0
7/31/1998	4960	31	-68.6	0.0	178.0	-197.6	29.5	-530.3	808.8	22.6	-84.5	-824.1	464.8	201.4	0.0
8/31/1998	4991	31	-54.1	0.0	173.8	-190.8	31.3	-543.2	831.3	17.7	-81.3	-793.6	395.4	213.7	0.0
9/30/1998	5021	30	-102.4	0.0	165.2	-152.1	27.8	-544.8	818.9	5.6	-76.9	-784.0	445.7	197.2	0.0
10/31/1998	5052	31	3.2	0.0	167.7	-134.8	29.0	-560.8	846.4	-2.7	-77.0	-806.6	341.3	194.3	0.0
11/30/1998	5082	30	-246.1	10.1	160.8	-98.8	34.8	-491.2	778.5	5.1	-73.5	-765.9	521.8	164.3	0.0
12/31/1998	5113	31	-49.7	0.0	164.2	-83.7	24.3	-516.9	771.3	24.1	-75.4	-801.2	383.1	159.9	0.0
1/31/1999	5144	31	-552.4	144.6	162.3	-94.6	65.3	-392.1	648.4	38.5	-76.1	-716.7	614.1	158.8	0.0
2/28/1999	5172	28	-176.3	0.4	144.8	-93.8	22.6	-658.7	809.5	36.7	-70.2	-706.8	533.7	158.2	0.0
3/31/1999	5203	31	-868.6	319.6	161.6	-147.3	113.6	-358.3	691.2	40.1	-78.9	-725.6	669.0	183.7	0.0
4/30/1999	5233	30	-750.8	139.1	158.5	-166.3	67.7	-352.6	721.2	48.6	-80.7	-644.6	663.6	196.2	0.0
5/31/1999	5264	31	25.9	0.0	161.9	-188.5	31.0	-658.1	803.7	44.9	-82.4	-779.5	413.2	227.9	0.0
6/30/1999	5294	30	153.6	0.0	154.4	-184.1	31.8	-684.5	871.4	18.9	-72.3	-812.7	290.4	233.0	0.0
7/31/1999	5325	31	129.0	0.0	157.1	-191.9	30.5	-739.3	909.4	40.2	-65.3	-765.7	252.7	243.2	0.0
8/31/1999	5356	31	108.8	0.0	155.1	-183.9	31.8	-785.2	979.6	27.7	-59.1	-779.5	260.1	244.4	0.0
9/30/1999	5386	30	104.8	0.0	148.2	-149.8	29.5	-803.2	1020.1	9.3	-54.1	-792.1	258.2	229.1	0.0
10/31/1999	5417	31	165.8	0.0	150.6	-133.6	34.8	-837.2	1094.9	-6.7	-50.0	-837.8	201.1	218.2	0.0
11/30/1999	5447	30	-50.4	15.9	145.1	-98.2	36.6	-692.2	964.4	-25.1	-49.8	-784.7	347.5	190.8	0.0
12/31/1999	5478	31	101.9	0.0	149.0	-83.2	29.0	-833.4	1070.2	-29.7	-57.0	-839.7	317.9	175.0	0.0
1/31/2000	5509	31	-260.4	119.5	147.7	-94.4	64.6	-485.6	800.6	-78.3	-61.1	-819.2	493.1	173.4	0.0
2/29/2000	5538	29	-1313.5	759.6	148.8	-97.1	235.1	-322.6	682.8	-103.0	-65.7	-758.7	722.4	111.8	0.0
3/31/2000	5569	31	-532.2	156.7	157.8	-147.3	68.9	-361.9	725.4	-82.0	-77.7	-695.9	627.0	161.4	0.0
4/30/2000	5599	30	-651.7	182.8	151.3	-168.8	79.9	-327.3	718.5	-48.2	-76.5	-663.6	618.1	185.5	0.0
5/31/2000	5630	31	168.6	0.0	153.0	-189.2	33.5	-568.7	795.9	-36.5	-74.6	-814.1	314.2	218.0	0.0
6/30/2000	5660	30	270.7	0.0	145.2	-184.2	35.2	-605.3	855.2	-55.4	-60.1	-867.0	238.6	227.1	0.0
7/31/2000	5691	31	188.7	0.0	156.2	-191.3	23.6	-742.6	989.4	-67.4	-52.2	-790.2	242.3	243.6	0.0
8/31/2000	5722	31	147.9	0.0	159.8	-182.8	24.4	-759.0	1018.9	-79.4	-47.9	-769.4	244.7	242.8	0.0
9/30/2000	5752	30	118.1	0.0	156.1	-147.9	22.6	-760.0	1025.7	-89.1	-45.0	-758.9	255.3	223.2	0.0
10/31/2000	5783	31	-7.0	1.7	162.2	-133.8	20.1	-717.0	1007.2	-94.2	-50.7	-760.1	350.5	221.0	0.0
11/30/2000	5813	30	109.3	0.0	156.4	-97.5	21.2	-763.8	1027.0	-82.0	-50.0	-760.4	248.7	191.0	0.0
12/31/2000	5844	31	117.9	0.0	160.9	-83.2	20.0	-785.7	1048.4	-84.5	-49.1	-798.0	271.8	181.6	0.0
1/31/2001	5875	31	-1286.7	628.2	172.3	-94.6	192.8	-363.1	812.4	-127.6	-57.5	-769.5	752.3	141.0	0.0
2/28/2001	5903	28	-1479.5	745.2	167.6	-93.8	254.8	-268.7	648.4	-114.4	-68.6	-665.6	792.6	82.0	0.0
3/31/2001	5934	31	-1261.6	577.2	191.3	-147.3	157.7	-272.5	640.7	-96.7	-92.3	-665.8	844.6	124.8	0.0
4/30/2001	5964	30	-434.6	26.7	181.3	-170.9	36.3	-450.4	809.4	-69.2	-92.1	-597.0	605.8	154.7	0.0
5/31/2001	5995	31	-191.7	0.0	183.0	-200.8	25.1	-570.1	839.5	-70.3	-90.0	-691.4	566.3	200.4	0.0
6/30/2001	6025	30	-26.4	0.0	174.0	-186.3	26.0	-588.4	863.2	-85.8	-82.1	-706.5	399.9	212.6	0.0
7/31/2001	6056	31	78.2	0.0	172.2	-194.2	33.5	-830.1	1090.7	-73.2	-79.5	-817.7	384.3	235.7	0.0
8/31/2001	6087	31	123.4	0.0	167.1	-185.9	33.3	-849.1	1114.4	-89.0	-74.0	-855.1	375.7	239.2	0.0
9/30/2001	6117	30	133.3	0.0	158.6	-150.2	30.5	-852.9	1121.2	-102.1	-67.4	-860.3	373.7	215.7	0.0
10/31/2001	6148	31	92.9	0.0	162.2	-134.1	31.9	-874.5	1152.4	-108.3	-66.5	-910.2	441.5	212.6	0.0
11/30/2001	6178	30	-650.7	264.2	157.7	-100.1	99.2	-440.4	827.9	-102.1	-64.9	-768.4	610.0	167.5	0.0
12/31/2001	6209	31	-320.2	114.6	162.6	-83.7	52.4	-491.9	712.3	-71.6	-70.3	-759.7	608.9	146.8	0.0
1/31/2002	6240	31	-316.6	50.5	154.1	-94.6	39.0	-520.2	740.7	-33.4	-71.1	-721.2	611.7	161.1	0.0
2/28/2002	6268	28	-3.9	0.0	132.6	-93.8	22.9	-694.0	837.3	-9.2	-62.9	-730.4	442.1	159.4	0.0
3/31/2002	6299	31	10.9	0.0	143.0	-143.6	26.4	-745.2	923.1	-15.8	-66.3	-822.8	477.8	212.6	0.0
4/30/2002	6329	30	78.4	0.0	135.6	-159.7	26.3	-747.0	912.6	-29.0	-61.5	-799.7	417.7	226.3	0.0
5/31/2002	6360	31	136.6	0.0	138.1	-186.0	28.6	-765.1	946.2	-47.4	-61.2	-819.5	382.5	247.1	0.0
6/30/2002	6390	30	145.2	0.0	131.9	-177.9	29.0	-760.5	939.8	-60.5	-57.3	-795.0	367.7	237.6	0.0
7/31/2002	6421	31	275.3	0.0	148.6	-185.2	35.2	-775.3	923.5	-53.4	-56.7	-886.2	324.7	249.7	0.0
8/31/2002	6452	31	307.8	0.0	156.5	-180.1	35.2	-820.3	1018.0	-70.0	-54.0	-960.2	314.8	252.1	0.0
9/30/2002	6482	30	332.2	0.0	155.6	-146.4	37.0	-837.1	1058.6	-83.2	-49.6	-991.5	291.6	232.8	0.0
10/31/2002	6513	31	365.6	0.0	163.4	-133.2	34.3	-875.0	1112.9	-94.6	-49.2	-1061.1	302.5	234.2	0.0
11/30/2002	6543	30	-955.3	530.9	165.0	-100.5	178.6	-476.7	933.3	-155.0	-52.2	-909.0	674.3	166.5	0.0
12/31/2002	6574	31	-747.3	312.6	176.4	-83.7	99.5	-445.6	875.5	-157.2	-65.6	-805.2	710.2	130.5	0.0
1/31/2003	6605	31	206.8	0.0	174.7	-94.6	21.3	-540.7	815.6	-144.2	-68.4	-850.0	325.3	154.2	0.0
2/28/2003	6633	28	-1291.2	713.5	170.8	-93.8	217.3	-291.8	686.4	-155.1	-68.7	-753.3	763.2	102.7	0.0
3/31/2003	6664	31	-799.5	284.8	190.2	-147.3	110.1	-301.3	730.6	-149.7	-86.7	-681.0	704.6	145.3	0.0
4/30/2003	6694	30	-268.3	8.8	181.0	-170.9	33.1	-418.1	754.8	-114.7	-84.3	-708.5	603.2	183.9	0.0
5/31/2003	6725	31	-299.5	89.5	184.1	-195.3	51.4	-326.2	576.5	-114.2	-84.9	-703.1	600.7	220.9	0.0
6/30/2003	6755	30	195.0	0.0	175.4	-185.2	24.5	-454.8	671.7	-109.8	-77.2	-761.1	299.9	221.6	0.0
7/31/2003	6786	31	277.5	0.0	178.5	-191.4	28.1	-663.8	835.6	-79.2	-69.3	-825.0	266.2	242.7	0.0
8/31/2003	6817	31	277.9	0.0	176.2	-182.2	29.7	-707.0	897.6	-85.1	-61.1	-853.6	265.0	242.6	0.0
9/30/2003	6847	30	283.4	0.0	168.6	-147.4	27.4	-721.9	914.9	-97.6	-54.8	-860.4	263.6	224.2	0.0
10/31/2003	6878	31	312.5	0.0	172.2	-133.6	28.9	-750.5	968.9	-116.6	-53.0	-905.6	257.6	219.1	0.0
11/30/2003	6908	30	184.9	39.7	165.3	-97.9	36.2	-501.8	780.0	-152.8	-50.6	-878.9	285.0	190.7	0.0
12/31/2003	6939	31	-283.9	80.0	171.3	-83.6	49.1	-500.8	787.5	-163.0	-58.6	-789.7	613.0	178.7	0.0
1/31/2004	6970	31	133.6	0.0	169.9	-94.5	18.0	-511.3	748.3	-169.0	-65.0	-787.0	367.7	189.2	0.0
2/29/2004	6999	29	-1085.2	546.5	169.0	-97.1	172.9	-276.7	679.1	-195.9	-69.3	-703.2	715.1	144.8	0.0
3/31/2004	7030	31	164.5	0.0	178.2	-147.1	20.4	-479.4	675.9	-161.7	-78.7	-733.1	365.2	195.9	0.0

Flow Budget for the UAS in Pleasant Valley

influx(+) outflux(-); units in Acre-feet

Date	Stress	days in month	STORAGE	Mountain Front Recharge	GW Flux from East Las Posas	ET	Recharge	Pumping from Wells	Pleasant Valley Semi-Perched Aquifer	Oxnard UAS	Los Posas	Pleasant Valley LAS	Arroyo Las Posas Percolation	Conejo Creek Percolation	Calleguas Creek percolation
4/30/2004	7060	30	145.0	0.0	169.9	-160.9	25.0	-491.2	713.6	-143.3	-73.2	-743.7	341.6	217.4	0.0
5/31/2004	7091	31	249.5	0.0	173.0	-183.9	36.0	-511.7	766.6	-164.3	-66.3	-781.0	241.0	241.1	0.0
6/30/2004	7121	30	296.3	0.0	165.2	-175.6	28.5	-510.8	756.9	-174.8	-52.1	-770.6	192.8	244.1	0.0
7/31/2004	7152	31	373.0	0.0	169.1	-183.1	29.9	-770.1	980.6	-167.3	-45.2	-841.3	202.9	251.6	0.0
8/31/2004	7183	31	426.6	0.0	167.2	-176.9	30.7	-814.9	1050.7	-177.4	-38.4	-891.2	172.8	251.0	0.0
9/30/2004	7213	30	416.9	0.0	160.8	-143.5	29.5	-831.2	1071.1	-187.9	-33.5	-908.4	189.8	236.4	0.0
10/31/2004	7244	31	-1161.1	645.6	179.1	-140.5	216.0	-446.4	933.8	-278.5	-48.7	-879.4	770.8	209.4	0.0
11/30/2004	7274	30	354.7	0.0	170.6	-98.4	24.0	-783.5	987.5	-214.0	-58.9	-834.3	288.0	164.2	0.0
12/31/2004	7305	31	-1407.3	815.1	189.5	-83.7	248.0	-407.3	901.4	-284.5	-74.6	-865.5	868.5	100.5	0.0
1/31/2005	7336	31	-2246.9	1207.3	195.0	-94.6	417.4	-295.6	825.4	-311.6	-110.0	-821.6	1211.2	23.9	0.0
2/28/2005	7364	28	-2095.0	1145.5	178.7	-108.1	364.8	-226.4	683.4	-263.9	-133.6	-706.1	1206.6	-45.9	0.0
3/31/2005	7395	31	-686.9	194.0	198.7	-176.7	92.1	-266.9	769.8	-226.1	-137.8	-574.3	768.6	45.5	0.0
4/30/2005	7425	30	-446.6	15.0	188.4	-185.3	36.0	-328.0	811.9	-170.7	-113.8	-577.8	652.9	118.0	0.0
5/31/2005	7456	31	-212.6	0.0	190.4	-214.1	25.9	-405.7	793.4	-158.5	-104.7	-712.0	624.2	173.7	0.0
6/30/2005	7486	30	-6.6	0.0	180.9	-196.3	27.3	-416.5	683.0	-146.1	-92.0	-756.4	529.6	193.0	0.0
7/31/2005	7517	31	90.0	0.0	184.3	-200.7	28.2	-435.6	710.1	-142.7	-88.2	-793.0	428.0	219.7	0.0
8/31/2005	7548	31	94.7	0.0	182.2	-189.1	28.1	-441.3	698.8	-130.1	-83.6	-775.6	389.8	226.0	0.0
9/30/2005	7578	30	135.1	0.0	174.6	-150.0	25.9	-437.2	665.0	-119.9	-76.4	-742.2	321.3	203.8	0.0
10/31/2005	7609	31	-379.4	61.7	180.5	-136.3	54.7	-357.2	624.7	-111.1	-79.0	-678.6	614.9	205.0	0.0
11/30/2005	7639	30	-69.6	0.0	174.1	-98.4	23.7	-421.4	596.9	-96.6	-78.2	-702.9	496.9	175.6	0.0
12/31/2005	7670	31	14.2	0.0	179.2	-83.6	22.2	-438.1	608.8	-99.5	-79.4	-745.8	454.4	167.6	0.0
1/31/2006	7701	31	-738.9	266.8	182.2	-94.6	91.7	-280.3	607.5	-110.3	-82.2	-693.1	688.2	162.7	0.0
2/28/2006	7729	28	-779.7	312.5	166.8	-93.8	123.0	-232.5	511.8	-97.0	-79.2	-583.7	624.5	127.4	0.0
3/31/2006	7760	31	-898.4	381.0	187.5	-147.3	146.1	-229.1	492.3	-92.6	-92.9	-601.5	702.0	152.8	0.0
4/30/2006	7790	30	-848.3	353.4	183.8	-176.2	134.1	-211.0	430.1	-62.5	-94.3	-553.9	684.7	160.1	0.0
5/31/2006	7821	31	-204.5	68.3	187.8	-206.3	49.6	-267.9	335.3	-52.5	-95.9	-591.6	578.6	199.2	0.0
6/30/2006	7851	30	206.5	0.0	179.4	-189.5	31.1	-386.5	473.5	-73.6	-86.6	-747.4	385.6	207.5	0.0
7/31/2006	7882	31	196.1	0.0	183.0	-194.9	28.8	-413.1	519.9	-82.2	-82.0	-725.9	338.2	232.1	0.0
8/31/2006	7913	31	130.5	0.0	180.9	-185.1	29.4	-423.4	540.3	-92.8	-79.3	-699.2	360.3	238.3	0.0
9/30/2006	7943	30	170.1	0.0	173.0	-149.8	26.8	-423.6	542.5	-108.9	-73.8	-682.6	311.8	214.3	0.0
10/31/2006	7974	31	181.2	0.0	176.8	-134.3	27.5	-437.1	564.4	-124.9	-72.1	-702.7	311.1	210.0	0.0
11/30/2006	8004	30	155.9	0.0	169.5	-97.9	24.2	-433.5	561.3	-131.9	-68.1	-689.1	326.7	182.9	0.0
12/31/2006	8035	31	-98.1	56.0	174.4	-83.6	42.7	-343.2	485.8	-143.4	-72.4	-650.5	463.0	169.3	0.0
1/31/2007	8066	31	-384.6	187.8	174.2	-94.6	93.9	-292.4	397.4	-135.2	-77.1	-552.6	526.9	156.1	0.0
2/28/2007	8094	28	-225.3	35.8	157.6	-93.8	34.5	-364.5	455.5	-108.9	-73.3	-523.6	551.1	154.9	0.0
3/31/2007	8125	31	87.1	0.0	173.8	-145.6	22.9	-475.6	568.6	-122.0	-81.4	-625.7	389.8	208.1	0.0
4/30/2007	8155	30	-93.7	0.0	168.5	-160.8	21.2	-430.7	543.7	-130.7	-78.9	-609.3	545.7	225.0	0.0
5/31/2007	8186	31	135.0	0.0	173.6	-186.7	27.0	-485.2	607.1	-152.4	-81.4	-658.5	373.2	248.2	0.0
6/30/2007	8216	30	154.8	0.0	167.7	-178.8	27.0	-488.8	630.8	-179.1	-77.6	-660.2	363.0	241.3	0.0
7/31/2007	8247	31	302.8	0.0	172.7	-185.6	30.3	-567.1	695.5	-178.6	-77.8	-780.9	338.2	250.5	0.0
8/31/2007	8278	31	292.7	0.0	172.3	-179.7	28.8	-592.7	737.8	-182.6	-75.1	-828.6	375.7	251.3	0.0
9/30/2007	8308	30	139.9	0.0	167.0	-146.6	28.3	-599.6	763.4	-184.3	-71.9	-833.3	499.2	237.9	0.0
10/31/2007	8339	31	333.6	0.0	171.4	-133.5	30.2	-621.1	800.0	-194.7	-71.0	-865.4	319.1	231.3	0.0
11/30/2007	8369	30	367.8	0.0	164.7	-97.6	26.8	-618.9	787.9	-191.4	-62.4	-848.2	272.5	198.9	0.0
12/31/2007	8400	31	-202.1	133.5	170.6	-83.6	67.1	-452.0	647.4	-226.1	-66.1	-718.3	550.3	179.4	0.0
1/31/2008	8431	31	-1616.5	991.1	188.5	-94.9	309.1	-294.1	581.1	-274.7	-86.7	-725.5	913.5	109.1	0.0
2/29/2008	8460	29	-414.4	226.5	174.8	-97.9	90.3	-290.7	528.2	-243.7	-90.7	-566.5	585.7	98.4	0.0
3/31/2008	8491	31	293.9	0.0	181.6	-147.3	30.1	-463.9	633.0	-226.0	-91.1	-697.8	321.6	165.9	0.0
4/30/2008	8521	30	301.2	0.0	172.0	-170.9	34.1	-473.9	658.0	-200.2	-80.8	-743.5	308.2	195.7	0.0
5/31/2008	8552	31	339.1	0.0	175.1	-191.7	35.5	-494.0	687.7	-205.1	-76.5	-786.7	286.5	230.0	0.0
6/30/2008	8582	30	359.0	0.0	167.7	-180.8	35.6	-494.1	686.9	-206.5	-66.9	-787.1	251.1	235.2	0.0
7/31/2008	8613	31	498.6	0.0	171.3	-187.6	36.7	-610.0	776.1	-207.0	-60.1	-876.8	210.3	248.4	0.0
8/31/2008	8644	31	525.2	0.0	169.6	-181.2	35.5	-639.5	824.0	-219.7	-51.9	-913.1	202.3	248.7	0.0
9/30/2008	8674	30	506.7	0.0	163.0	-147.4	34.5	-647.6	854.5	-227.7	-46.0	-917.2	197.6	229.6	0.0
10/31/2008	8705	31	503.7	0.0	167.6	-133.7	36.6	-671.8	911.4	-247.8	-46.3	-962.0	219.5	222.7	0.0
11/30/2008	8735	30	-79.2	118.1	163.2	-99.3	72.4	-425.6	699.1	-255.7	-53.3	-759.0	430.2	189.2	0.0
12/31/2008	8766	31	-304.2	192.4	169.7	-83.7	85.1	-382.0	589.9	-251.7	-70.1	-679.0	574.9	158.7	0.0
1/31/2009	8797	31	288.2	0.0	168.5	-94.6	24.9	-369.0	608.7	-244.6	-71.8	-721.2	236.7	174.2	0.0
2/28/2009	8825	28	-1092.9	673.1	161.2	-93.8	216.9	-221.2	494.7	-230.6	-71.3	-630.0	681.2	112.8	0.0
3/31/2009	8856	31	265.0	0.0	176.2	-147.3	24.9	-330.3	509.7	-225.9	-86.7	-667.2	308.1	173.6	0.0
4/30/2009	8886	30	225.0	0.0	168.4	-166.4	27.7	-328.6	537.8	-212.4	-82.7	-685.0	314.8	201.4	0.0
5/31/2009	8917	31	387.4	0.0	170.4	-186.9	28.7	-338.0	564.2	-232.8	-72.3	-709.3	152.5	236.2	0.0
6/30/2009	8947	30	403.6	0.0	162.2	-176.4	26.1	-332.6	550.4	-244.1	-54.7	-696.2	129.1	232.6	0.0
7/31/2009	8978	31	480.3	0.0	165.9	-182.6	31.1	-557.6	739.5	-235.9	-48.3	-784.0	145.7	245.9	0.0
8/31/2009	9009	31	469.4	0.0	165.0	-176.3	35.4	-601.5	827.1	-251.5	-45.2	-837.4	169.7	245.3	0.0
9/30/2009	9039	30	403.0	0.0	160.1	-142.9	32.1	-619.6	859.6	-263.4	-47.7	-854.3	244.6	228.6	0.0
10/31/2009	9070	31	-79.6	73.1	166.8	-134.3	54.6	-480.0	796.6	-312.8	-61.5	-746.1	495.0	228.1	0.0
11/30/2009	9100	30	457.0	0.0	159.2	-97.5	30.6	-625.5	892.6	-299.0	-61.0	-811.4	164.8	190.3	0.0
12/31/2009	9131	31	-613.4	334.1	167.5	-83.7	115.3	-378.0	815.0	-352.8	-68.0	-745.5	645.1	164.5	0.0
1/31/2010	9162	31	-1209.4	676.5	185.0	-94.6	170.5	-275.4	689.9	-365.6	-92.2	-679.7	853.1	141.8	0.0
2/28/2010	9190	28	-816.6	446.3	170.7	-93.8	136.3	-225.5	588.4	-317.3	-98.6	-566.0	675.2	100.9	0.0
3/31/2010	9221	31	292.4	0.0	183.4	-147.3	27.4	-367.3	648.0	-327.4	-110.8	-730.4	368.9	163.0	0.0
4/30/2010	9251	30	-44.7	68.6	173.4	-169.4	45.5	-274.8	563.7	-297.3	-103.1	-654.0	496.9	195.3	0.0
5/31/2010	9282	31	188.3	0.0	176.2	-188.5	33.2	-363.7	655.9	-304.3	-105.8	-766.7	452.5	222.8	0.0
6/30/2010	9312	30	417.9	0.0	167.7	-177.4	31.8	-367.3	661.6	-308.1	-92.7	-803.6	242.2	227.9	0.0
7/31/2010	9343	31	540.0	0.0	170.3	-183.4	39.3	-540.2	773.3	-286.0	-80.4	-871.3	195.5	242.9	0.0
8/31/2010	9374	31	555.1	0.0	167.8	-176.8	39.4	-577.0	828.7	-289.8	-68.2	-902.9	179.5	244.0	0.0

Flow Budget for the UAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet												
			STORAGE	Mountain Front Recharge	GW Flux from East Las Posas	ET	Recharge	Pumping from Wells	Pleasant Valley Semi-Perched Aquifer	Oxnard UAS	Los Posas	Pleasant Valley LAS	Arroyo Las Posas Percolation	Conejo Creek Percolation	Calleguas Creek percolation
9/30/2010	9404	30	515.1	0.0	161.3	-143.4	38.4	-590.6	858.7	-294.3	-60.7	-908.6	199.3	224.8	0.0
10/31/2010	9435	31	-99.7	225.4	167.6	-136.2	91.0	-371.5	680.3	-343.5	-72.1	-793.2	435.9	215.7	0.0
11/30/2010	9465	30	335.6	1.1	161.6	-97.0	26.2	-530.0	782.5	-291.7	-79.4	-757.7	275.5	173.2	0.0
12/31/2010	9496	31	-1505.8	1081.3	181.6	-83.7	346.5	-284.1	638.2	-346.4	-97.9	-795.4	803.9	61.7	0.0
1/31/2011	9527	31	223.1	0.0	178.8	-94.6	33.6	-329.7	590.5	-332.7	-110.0	-736.1	457.5	119.7	0.0
2/28/2011	9555	28	-692.5	295.8	164.0	-93.8	111.5	-227.2	666.4	-284.4	-103.7	-609.4	654.2	119.2	0.0
3/31/2011	9586	31	-1336.0	723.3	191.1	-152.3	223.4	-203.6	621.7	-299.2	-129.5	-634.7	848.2	147.8	0.0
4/30/2011	9616	30	103.9	0.0	180.3	-182.3	36.2	-292.1	537.5	-262.5	-128.5	-662.6	515.3	154.8	0.0
5/31/2011	9647	31	143.1	0.0	181.1	-215.1	37.3	-321.9	610.8	-261.0	-124.4	-746.2	493.1	203.2	0.0
6/30/2011	9677	30	346.7	0.0	170.7	-195.3	39.4	-330.6	616.6	-259.2	-108.7	-747.6	254.7	213.3	0.0
7/31/2011	9708	31	418.8	0.0	171.8	-195.4	35.7	-384.8	681.5	-258.4	-94.1	-790.0	183.2	231.7	0.0
8/31/2011	9739	31	448.2	0.0	167.6	-185.6	35.9	-390.3	687.2	-263.1	-76.7	-802.2	144.5	234.4	0.0
9/30/2011	9769	30	435.9	0.0	159.3	-148.9	33.6	-386.8	681.0	-266.4	-61.9	-792.1	131.5	214.6	0.0
10/31/2011	9800	31	149.9	3.7	165.2	-135.6	35.3	-374.8	687.1	-275.2	-70.0	-729.0	331.4	212.0	0.0
11/30/2011	9830	30	-319.1	139.8	161.4	-101.1	74.9	-283.6	547.9	-253.1	-84.3	-651.6	586.7	182.1	0.0
12/31/2011	9861	31	277.0	0.0	165.9	-84.2	29.4	-368.5	615.9	-246.3	-93.6	-746.0	285.9	164.4	0.0
1/31/2012	9892	31	-9.2	96.1	165.2	-94.7	66.3	-278.8	542.6	-249.1	-96.9	-679.3	368.3	169.6	0.0
2/29/2012	9921	29	415.1	0.0	153.1	-97.1	38.7	-349.5	573.7	-233.6	-83.4	-756.3	170.8	168.5	0.0
3/31/2012	9952	31	-551.7	233.9	166.9	-147.3	101.2	-269.0	662.6	-258.3	-90.3	-708.5	655.6	204.9	0.0
4/30/2012	9982	30	-323.8	111.7	162.5	-164.9	55.0	-244.8	549.5	-241.7	-100.5	-624.8	600.4	221.2	0.0
5/31/2012	10013	31	483.1	0.0	164.3	-188.4	41.5	-348.6	586.6	-247.9	-91.5	-778.0	143.3	235.6	0.0
6/30/2012	10043	30	531.4	0.0	156.1	-178.6	42.6	-368.8	618.6	-257.2	-67.8	-837.3	127.9	232.9	0.0
7/31/2012	10074	31	490.9	0.0	159.7	-181.9	34.5	-568.6	779.1	-242.8	-61.1	-798.6	148.2	240.6	0.0
8/31/2012	10105	31	485.1	0.0	157.5	-174.3	35.3	-606.8	851.7	-255.0	-56.6	-789.9	116.8	236.3	0.0
9/30/2012	10135	30	465.8	0.0	150.1	-140.7	34.9	-621.0	887.8	-263.3	-49.1	-785.1	96.4	224.3	0.0
10/31/2012	10166	31	455.8	0.0	153.8	-129.4	36.5	-649.5	951.5	-287.6	-47.1	-823.8	114.4	225.5	0.0
11/30/2012	10196	30	417.3	2.6	148.3	-97.2	29.2	-542.6	849.1	-287.4	-45.4	-806.9	135.7	197.3	0.0
12/31/2012	10227	31	105.2	132.3	155.5	-83.7	51.1	-433.5	735.4	-308.4	-61.0	-832.0	351.7	187.4	0.0
1/31/2013	10258	31	167.0	60.4	156.5	-94.6	45.4	-417.8	731.6	-293.6	-79.4	-785.8	333.3	177.0	0.0
2/28/2013	10286	28	420.7	0.0	139.5	-93.5	19.8	-499.6	732.7	-244.2	-69.1	-709.9	132.7	171.0	0.0
3/31/2013	10317	31	257.5	0.0	155.3	-141.1	20.0	-474.8	769.6	-278.1	-77.6	-776.8	324.0	222.0	0.0
4/30/2013	10347	30	435.6	0.0	148.2	-158.4	22.9	-530.6	790.3	-264.5	-71.1	-738.6	136.9	229.3	0.0
5/31/2013	10378	31	492.0	0.0	148.6	-178.8	23.9	-555.7	838.7	-283.4	-56.7	-741.1	70.7	241.7	0.0
6/30/2013	10408	30	484.2	0.0	138.2	-171.2	23.5	-554.5	832.3	-283.4	-41.1	-715.3	48.2	239.1	0.0
7/31/2013	10439	31	590.9	0.0	134.4	-178.3	28.1	-741.4	997.5	-282.1	-30.9	-789.0	30.1	240.7	0.0
8/31/2013	10470	31	610.2	0.0	129.0	-170.9	28.1	-775.2	1055.9	-289.3	-21.8	-827.3	28.3	233.3	0.0
9/30/2013	10500	30	586.0	0.0	121.1	-137.7	28.0	-784.6	1073.5	-288.1	-15.3	-831.1	27.4	220.9	0.0
10/31/2013	10531	31	590.2	0.0	122.9	-125.9	26.8	-815.5	1136.3	-309.9	-13.3	-871.4	31.4	228.3	0.0
11/30/2013	10561	30	552.8	0.0	122.3	-96.2	24.3	-811.8	1130.2	-307.1	-12.1	-866.3	50.6	213.1	0.0
12/31/2013	10592	31	604.0	0.0	118.9	-82.4	24.6	-835.7	1183.5	-326.8	-11.4	-896.5	24.6	197.2	0.0
1/31/2014	10623	31	420.0	0.0	131.0	-92.3	28.2	-851.6	1220.5	-337.5	-13.8	-897.1	194.3	198.3	0.0
2/28/2014	10651	28	55.8	268.8	116.3	-93.6	112.6	-478.7	868.1	-347.0	-14.0	-699.9	50.5	161.0	0.0
3/31/2014	10682	31	-224.8	62.5	137.7	-143.5	45.8	-591.3	1000.7	-362.0	-28.0	-728.6	609.1	222.3	0.0
4/30/2014	10712	30	133.6	0.0	137.1	-158.6	27.4	-772.4	1096.6	-318.4	-47.2	-816.5	498.6	219.9	0.0
5/31/2014	10743	31	656.2	0.0	132.6	-180.0	31.2	-826.3	1179.8	-329.3	-42.0	-892.5	41.2	229.2	0.0
6/30/2014	10773	30	651.3	0.0	121.9	-169.4	30.5	-835.4	1184.3	-321.4	-25.0	-897.8	36.3	224.8	0.0
7/31/2014	10804	31	635.3	0.0	125.1	-176.7	28.7	-851.9	1242.8	-351.3	-18.3	-915.5	45.5	236.2	0.0
8/31/2014	10835	31	653.4	0.0	121.4	-170.1	27.6	-832.4	1212.3	-358.6	-15.3	-906.9	36.3	232.4	0.0
9/30/2014	10865	30	644.4	0.0	114.4	-136.3	26.2	-823.0	1181.1	-349.4	-12.6	-890.7	31.5	214.4	0.0
10/31/2014	10896	31	652.9	0.0	118.3	-123.6	25.3	-845.6	1217.3	-363.3	-11.6	-928.4	38.7	219.9	0.0
11/30/2014	10926	30	571.0	0.0	117.1	-94.8	20.0	-807.6	1168.7	-351.1	-10.8	-880.5	49.4	218.6	0.0
12/31/2014	10957	31	-334.8	579.9	130.4	-83.7	188.3	-497.1	904.1	-411.4	-16.3	-858.9	230.0	169.8	0.0
1/31/2015	10988	31	-140.6	134.0	136.0	-94.6	73.7	-386.0	840.7	-378.9	-34.2	-692.4	388.6	153.7	0.0
2/28/2015	11016	28	111.3	0.0	125.9	-93.8	19.7	-511.3	843.4	-302.9	-47.5	-679.5	379.3	155.3	0.0
3/31/2015	11047	31	469.5	16.2	127.2	-147.3	33.2	-470.6	901.8	-350.5	-43.5	-778.9	29.5	213.4	0.0
4/30/2015	11077	30	526.1	0.0	116.8	-161.0	22.4	-557.1	916.5	-325.7	-24.9	-754.6	28.0	213.6	0.0
5/31/2015	11108	31	521.3	0.0	123.0	-175.5	21.9	-589.3	966.4	-335.9	-18.6	-789.5	47.3	228.7	0.0
6/30/2015	11138	30	526.9	0.0	112.8	-167.5	21.8	-589.5	959.7	-325.9	-14.5	-774.9	23.2	228.0	0.0
7/31/2015	11169	31	495.6	0.0	113.0	-177.5	18.4	-635.7	1011.1	-338.0	-12.4	-743.0	21.5	247.0	0.0
8/31/2015	11200	31	555.2	0.0	109.0	-168.7	23.2	-708.5	1068.0	-329.0	-11.2	-783.2	16.0	228.9	0.0
9/30/2015	11230	30	548.1	0.0	102.4	-136.2	22.6	-712.0	1051.6	-312.0	-9.8	-793.3	13.7	225.0	0.0
10/31/2015	11261	31	580.1	0.0	103.8	-122.0	22.4	-736.3	1089.3	-322.4	-9.4	-835.9	17.2	213.1	0.0
11/30/2015	11291	30	540.9	0.0	100.6	-91.2	23.4	-729.4	1077.2	-311.6	-8.6	-826.9	24.4	201.3	0.0
12/31/2015	11322	31	557.9	0.0	99.9	-81.7	23.9	-748.6	1114.7	-322.8	-8.6	-865.4	14.8	215.9	0.0

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
1/31/1985	31	31	-34.0	18.0	-445.1	429.3	30.8	1.0
2/28/1985	59	28	77.0	17.4	-411.8	277.3	31.1	9.0
3/31/1985	90	31	270.2	15.0	-619.1	308.0	3.0	22.8
4/30/1985	120	30	722.5	7.8	-1208.4	415.9	15.3	46.8
5/31/1985	151	31	549.2	8.0	-1155.8	503.5	22.4	72.7
6/30/1985	181	30	499.1	8.5	-1139.6	530.3	17.2	84.5
7/31/1985	212	31	459.1	8.3	-1086.6	558.1	-34.6	95.7
8/31/1985	243	31	437.4	8.1	-1061.5	572.1	-60.1	104.0
9/30/1985	273	30	439.1	8.0	-1055.3	572.5	-72.5	108.2
10/31/1985	304	31	381.2	7.6	-1026.7	605.1	-84.5	117.4
11/30/1985	334	30	-1003.1	73.5	148.2	750.0	-64.2	95.5
12/31/1985	365	31	250.5	8.9	-805.9	501.0	-32.9	78.4
1/31/1986	396	31	-1057.7	59.3	89.3	878.5	-28.8	59.5
2/28/1986	424	28	-1229.1	112.2	131.4	984.6	-17.6	18.5
3/31/1986	455	31	-1007.1	97.8	91.7	832.2	-4.9	-9.7
4/30/1986	485	30	270.6	13.9	-765.2	532.3	-34.1	-17.5
5/31/1986	516	31	501.0	8.3	-896.9	476.2	-89.5	0.8
6/30/1986	546	30	500.2	8.2	-873.7	474.4	-130.7	21.6
7/31/1986	577	31	577.1	8.8	-1050.2	480.5	-68.2	52.1
8/31/1986	608	31	450.2	7.7	-998.4	487.9	-24.1	76.7
9/30/1986	638	30	65.2	12.3	-644.5	482.9	2.2	81.9
10/31/1986	669	31	357.9	7.7	-979.1	517.0	9.5	87.0
11/30/1986	699	30	-465.3	23.2	-146.7	518.1	-4.0	74.6
12/31/1986	730	31	423.0	7.6	-1002.9	500.3	-0.2	72.3
1/31/1987	761	31	-285.1	22.1	-294.7	513.3	-29.8	74.1
2/28/1987	789	28	97.9	16.3	-606.3	445.4	-16.7	63.5
3/31/1987	820	31	-300.9	24.8	-262.6	480.2	-3.4	61.9
4/30/1987	850	30	908.0	8.8	-1432.5	514.6	-77.5	78.5
5/31/1987	881	31	681.4	8.4	-1331.4	611.6	-90.6	120.5
6/30/1987	911	30	613.4	8.8	-1295.3	638.7	-104.5	139.0
7/31/1987	942	31	398.6	10.5	-1123.9	702.7	-146.6	158.7
8/31/1987	973	31	401.5	10.5	-1114.9	724.9	-184.4	162.4
9/30/1987	1003	30	430.1	10.0	-1119.1	715.9	-197.8	160.9
10/31/1987	1034	31	-747.0	22.8	-178.9	912.8	-145.9	136.2
11/30/1987	1064	30	-656.9	32.9	-46.2	697.4	-114.5	87.2
12/31/1987	1095	31	-1116.9	40.6	-9.5	1102.4	-66.7	50.2
1/31/1988	1126	31	-814.1	34.7	-95.7	909.1	-46.8	12.7
2/29/1988	1155	29	-204.9	21.1	-355.7	600.5	-55.4	-5.7
3/31/1988	1186	31	586.4	8.6	-1154.2	666.2	-114.5	7.5
4/30/1988	1216	30	-511.4	29.1	-186.0	706.9	-49.7	11.0
5/31/1988	1247	31	556.6	9.0	-1136.2	667.2	-108.2	11.7

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
6/30/1988	1277	30	582.3	8.8	-1096.7	596.1	-126.3	35.8
7/31/1988	1308	31	645.8	8.6	-1278.4	614.2	-56.3	66.0
8/31/1988	1339	31	522.5	8.6	-1239.8	649.8	-33.2	92.1
9/30/1988	1369	30	472.1	8.7	-1230.1	676.0	-31.4	104.7
10/31/1988	1400	31	403.0	8.6	-1192.5	696.6	-33.7	118.0
11/30/1988	1430	30	-294.7	14.6	-466.7	680.9	-35.9	101.9
12/31/1988	1461	31	-1355.0	66.3	129.2	1113.2	-11.4	57.7
1/31/1989	1492	31	352.0	7.5	-967.5	583.0	-17.4	42.5
2/28/1989	1520	28	-835.7	43.6	-27.4	790.5	4.9	24.0
3/31/1989	1551	31	138.5	9.6	-699.0	561.4	-25.1	14.6
4/30/1989	1581	30	527.1	8.4	-1063.3	536.2	-47.6	39.3
5/31/1989	1612	31	430.0	8.3	-1017.5	577.1	-60.5	62.7
6/30/1989	1642	30	426.2	8.4	-1011.0	570.4	-67.9	73.9
7/31/1989	1673	31	612.8	7.9	-1329.6	614.5	5.6	86.9
8/31/1989	1704	31	506.4	7.8	-1295.0	643.9	35.2	99.0
9/30/1989	1734	30	479.8	8.0	-1292.5	651.6	43.1	105.3
10/31/1989	1765	31	388.5	7.8	-1256.1	694.3	47.2	114.6
11/30/1989	1795	30	396.6	7.8	-1265.9	694.9	46.8	114.3
12/31/1989	1826	31	329.6	8.2	-1235.8	727.4	46.9	119.5
1/31/1990	1857	31	-983.4	26.8	-144.0	1011.4	-2.1	91.3
2/28/1990	1885	28	-714.0	24.4	-221.4	900.7	-34.3	44.6
3/31/1990	1916	31	649.5	8.4	-1277.0	650.7	-91.9	60.3
4/30/1990	1946	30	587.1	8.5	-1241.5	662.2	-108.0	91.7
5/31/1990	1977	31	354.6	7.6	-1073.2	720.7	-122.9	113.1
6/30/1990	2007	30	483.5	9.2	-1187.6	707.1	-130.4	118.2
7/31/1990	2038	31	211.6	9.2	-1006.2	737.5	-76.4	124.3
8/31/1990	2069	31	216.7	9.2	-1016.4	736.0	-66.9	121.5
9/30/1990	2099	30	263.9	9.1	-1039.4	715.0	-66.2	117.7
10/31/1990	2130	31	211.7	9.7	-1018.4	746.1	-70.2	121.1
11/30/1990	2160	30	-4.5	8.3	-731.8	725.3	-105.5	108.3
12/31/1990	2191	31	285.1	8.4	-1037.4	732.0	-98.4	110.3
1/31/1991	2222	31	-313.3	15.5	-546.2	767.2	-24.0	100.8
2/28/1991	2250	28	-902.4	27.7	-125.6	930.6	12.7	57.0
3/31/1991	2281	31	-2014.1	131.5	313.8	1528.7	31.2	9.0
4/30/1991	2311	30	556.8	7.1	-1231.0	607.1	54.9	5.0
5/31/1991	2342	31	435.9	7.6	-1154.2	605.4	64.0	41.3
6/30/1991	2372	30	398.2	7.2	-1139.5	610.2	64.2	59.8
7/31/1991	2403	31	271.8	7.4	-1076.5	647.8	71.0	78.4
8/31/1991	2434	31	231.9	7.4	-1058.9	662.6	67.1	89.1
9/30/1991	2464	30	249.8	7.6	-1068.6	653.9	59.5	93.8

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
10/31/1991	2495	31	188.5	7.3	-1038.5	684.1	55.4	101.4
11/30/1991	2525	30	219.2	7.3	-1055.1	670.8	51.7	101.3
12/31/1991	2556	31	-1873.1	69.2	326.9	1392.9	26.0	58.1
1/31/1992	2587	31	-1224.1	30.9	100.4	1047.7	51.8	-6.5
2/29/1992	2616	29	-1675.0	144.6	262.9	1275.0	47.8	-55.3
3/31/1992	2647	31	-1310.9	89.8	188.1	1092.5	49.1	-108.6
4/30/1992	2677	30	215.8	6.4	-829.3	622.1	85.8	-100.8
5/31/1992	2708	31	108.1	7.0	-788.1	643.2	101.5	-71.6
6/30/1992	2738	30	121.2	6.8	-782.2	608.5	96.6	-51.0
7/31/1992	2769	31	370.2	9.0	-1116.8	654.9	117.9	-35.2
8/31/1992	2800	31	290.2	9.5	-1075.2	678.1	114.3	-16.9
9/30/1992	2830	30	283.8	9.0	-1065.5	667.2	108.5	-2.9
10/31/1992	2861	31	-182.6	14.8	-557.7	645.0	86.5	-5.9
11/30/1992	2891	30	302.7	8.6	-1064.1	658.9	97.5	-3.6
12/31/1992	2922	31	-1160.4	64.2	191.6	878.5	55.4	-29.3
1/31/1993	2953	31	-1328.8	155.5	247.2	960.4	50.7	-84.9
2/28/1993	2981	28	-956.2	114.0	124.7	771.6	59.7	-113.9
3/31/1993	3012	31	-515.7	39.0	-81.8	616.1	93.6	-151.2
4/30/1993	3042	30	483.5	7.8	-1034.8	511.9	156.5	-125.0
5/31/1993	3073	31	301.2	8.0	-986.4	598.0	175.5	-96.3
6/30/1993	3103	30	255.1	6.6	-971.5	615.6	169.7	-75.5
7/31/1993	3134	31	80.9	9.2	-780.5	661.9	96.6	-68.1
8/31/1993	3165	31	83.4	9.3	-769.5	671.0	67.1	-61.3
9/30/1993	3195	30	97.4	9.3	-771.6	664.6	49.4	-49.1
10/31/1993	3226	31	54.1	9.4	-752.1	693.0	40.6	-45.0
11/30/1993	3256	30	-68.0	8.9	-609.6	681.1	33.8	-46.2
12/31/1993	3287	31	-420.5	17.6	-176.5	608.3	38.5	-67.4
1/31/1994	3318	31	93.2	6.8	-677.9	642.1	6.8	-71.0
2/28/1994	3346	28	-848.4	72.5	123.4	698.1	26.6	-72.2
3/31/1994	3377	31	-635.6	36.3	21.8	648.6	39.2	-110.2
4/30/1994	3407	30	307.0	6.8	-792.4	544.9	29.6	-95.9
5/31/1994	3438	31	180.5	6.9	-752.4	609.1	27.9	-72.0
6/30/1994	3468	30	159.4	7.4	-743.4	612.9	17.8	-54.1
7/31/1994	3499	31	281.0	9.6	-987.1	697.9	37.0	-38.5
8/31/1994	3530	31	227.2	9.9	-949.5	729.4	6.1	-23.2
9/30/1994	3560	30	217.9	9.6	-937.9	732.3	-12.7	-9.2
10/31/1994	3591	31	139.0	8.1	-861.5	740.3	-26.5	0.6
11/30/1994	3621	30	-274.1	13.6	-349.8	652.2	-34.6	-7.3
12/31/1994	3652	31	-151.1	14.1	-505.9	676.6	-11.4	-22.3
1/31/1995	3683	31	-1555.7	224.5	309.7	1079.1	-1.5	-56.1

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
2/28/1995	3711	28	-273.8	16.2	-231.8	567.6	4.6	-82.8
3/31/1995	3742	31	-937.7	128.1	184.7	710.3	24.6	-110.0
4/30/1995	3772	30	28.3	8.2	-499.1	579.4	4.6	-121.4
5/31/1995	3803	31	86.6	9.2	-613.5	637.8	-7.6	-112.5
6/30/1995	3833	30	76.8	9.1	-609.2	633.9	-13.5	-97.1
7/31/1995	3864	31	96.5	12.0	-644.7	612.6	5.3	-81.7
8/31/1995	3895	31	76.9	12.2	-626.2	582.0	20.9	-65.7
9/30/1995	3925	30	57.3	12.4	-624.4	586.7	21.0	-52.9
10/31/1995	3956	31	7.7	11.8	-606.7	614.1	19.9	-46.9
11/30/1995	3986	30	15.8	11.2	-612.2	606.8	17.0	-38.6
12/31/1995	4017	31	-635.1	26.6	26.9	627.0	11.7	-57.1
1/31/1996	4048	31	-37.3	14.8	-475.8	550.3	21.0	-73.0
2/29/1996	4077	29	-762.0	101.5	101.6	609.9	26.3	-77.2
3/31/1996	4108	31	-174.0	24.3	-293.5	505.5	38.9	-101.2
4/30/1996	4138	30	336.9	10.9	-966.4	642.1	58.9	-82.3
5/31/1996	4169	31	242.4	11.7	-973.7	722.2	58.2	-60.8
6/30/1996	4199	30	206.8	11.6	-956.0	736.0	44.0	-42.3
7/31/1996	4230	31	397.4	12.6	-1091.4	709.3	-9.6	-18.2
8/31/1996	4261	31	337.9	12.6	-1043.3	735.2	-46.7	4.3
9/30/1996	4291	30	302.0	12.6	-1024.7	756.9	-64.0	17.2
10/31/1996	4322	31	-227.9	18.7	-503.2	770.2	-65.2	7.3
11/30/1996	4352	30	-681.2	34.2	25.0	687.6	-37.9	-27.6
12/31/1996	4383	31	-890.1	93.0	164.6	709.6	-8.5	-68.6
1/31/1997	4414	31	-701.6	79.7	70.3	638.2	16.7	-103.2
2/28/1997	4442	28	499.7	8.7	-1043.5	625.4	-9.9	-80.5
3/31/1997	4473	31	269.3	9.7	-968.7	747.4	-4.2	-53.5
4/30/1997	4503	30	225.2	9.7	-952.2	760.0	-10.4	-32.4
5/31/1997	4534	31	147.2	9.8	-923.8	801.3	-13.2	-21.2
6/30/1997	4564	30	143.0	10.3	-923.0	799.9	-17.5	-12.7
7/31/1997	4595	31	150.8	11.3	-1012.7	836.6	28.3	-14.3
8/31/1997	4626	31	129.7	11.5	-990.7	848.0	9.8	-8.3
9/30/1997	4656	30	140.4	11.6	-986.6	842.6	-5.5	-2.5
10/31/1997	4687	31	80.7	12.4	-960.3	885.9	-17.2	-1.5
11/30/1997	4717	30	-743.7	34.3	-13.7	765.7	-20.5	-22.1
12/31/1997	4748	31	-987.0	97.7	183.8	780.2	-7.7	-67.0
1/31/1998	4779	31	-640.7	48.1	0.2	690.1	5.3	-103.0
2/28/1998	4807	28	-1256.6	273.6	186.6	887.1	23.3	-114.1
3/31/1998	4838	31	-517.1	50.1	-74.0	665.9	24.1	-149.0
4/30/1998	4868	30	-179.6	22.0	-398.5	665.3	31.9	-141.1
5/31/1998	4899	31	-431.1	38.2	-174.5	666.2	40.1	-138.8

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
6/30/1998	4929	30	399.4	12.9	-1154.5	865.9	3.7	-127.4
7/31/1998	4960	31	-27.8	10.2	-692.9	824.1	-9.3	-104.2
8/31/1998	4991	31	-9.4	11.2	-679.2	793.6	-28.4	-87.8
9/30/1998	5021	30	-3.6	10.4	-677.3	784.0	-37.0	-76.6
10/31/1998	5052	31	-40.3	10.0	-660.5	806.6	-42.8	-73.1
11/30/1998	5082	30	-197.7	14.7	-483.5	765.9	-29.6	-69.8
12/31/1998	5113	31	-98.2	9.4	-627.9	801.2	-9.6	-74.9
1/31/1999	5144	31	-496.3	24.1	-183.3	716.7	18.7	-80.0
2/28/1999	5172	28	308.7	8.6	-974.6	706.8	14.3	-63.8
3/31/1999	5203	31	-706.1	41.4	-40.0	725.6	47.3	-68.2
4/30/1999	5233	30	-438.9	26.4	-187.8	644.6	41.3	-85.6
5/31/1999	5264	31	321.3	10.1	-1066.3	779.5	38.5	-83.1
6/30/1999	5294	30	228.8	10.3	-1038.2	812.7	44.0	-57.5
7/31/1999	5325	31	324.3	9.3	-1078.9	765.7	9.5	-29.8
8/31/1999	5356	31	273.3	9.6	-1031.1	779.5	-28.4	-2.9
9/30/1999	5386	30	244.3	9.2	-1011.8	792.1	-45.6	11.9
10/31/1999	5417	31	162.1	10.9	-976.1	837.8	-57.0	22.3
11/30/1999	5447	30	-205.4	11.0	-556.0	784.7	-50.9	16.5
12/31/1999	5478	31	178.9	9.9	-979.2	839.7	-62.7	13.4
1/31/2000	5509	31	-647.9	22.8	-150.7	819.2	-48.3	4.8
2/29/2000	5538	29	-926.7	95.1	117.7	758.7	-18.3	-26.5
3/31/2000	5569	31	-465.9	29.3	-186.1	695.9	-17.3	-56.1
4/30/2000	5599	30	-415.2	30.8	-213.9	663.6	-1.2	-64.1
5/31/2000	5630	31	476.9	11.9	-1225.8	814.1	-33.3	-43.8
6/30/2000	5660	30	356.7	12.3	-1187.2	867.0	-40.5	-8.2
7/31/2000	5691	31	75.2	6.2	-850.7	790.2	-20.9	-0.1
8/31/2000	5722	31	94.8	6.3	-833.3	769.4	-40.0	2.8
9/30/2000	5752	30	106.7	5.9	-831.9	758.9	-46.7	7.2
10/31/2000	5783	31	-106.8	7.5	-612.7	760.1	-51.6	3.5
11/30/2000	5813	30	108.5	5.7	-827.4	760.4	-51.8	4.6
12/31/2000	5844	31	44.9	5.4	-804.2	798.0	-53.3	9.2
1/31/2001	5875	31	-966.1	75.0	179.0	769.5	-45.5	-12.0
2/28/2001	5903	28	-824.3	101.3	126.2	665.6	-26.5	-42.3
3/31/2001	5934	31	-673.9	55.0	37.7	665.8	-11.9	-72.7
4/30/2001	5964	30	56.1	14.8	-520.6	597.0	-76.4	-70.8
5/31/2001	5995	31	289.7	7.2	-849.2	691.4	-93.4	-45.8
6/30/2001	6025	30	235.3	7.2	-830.1	706.5	-95.9	-23.1
7/31/2001	6056	31	255.2	10.0	-996.1	817.7	-74.1	-12.7
8/31/2001	6087	31	212.0	10.2	-976.3	855.1	-96.6	-4.4
9/30/2001	6117	30	206.1	9.5	-972.0	860.3	-107.1	3.3

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
10/31/2001	6148	31	136.8	10.5	-949.2	910.2	-116.7	8.5
11/30/2001	6178	30	-737.5	38.0	5.7	768.4	-64.3	-10.3
12/31/2001	6209	31	-360.8	17.9	-335.9	759.7	-44.5	-36.4
1/31/2002	6240	31	-283.4	12.5	-358.4	721.2	-47.2	-44.6
2/28/2002	6268	28	236.1	8.7	-885.0	730.4	-63.8	-26.2
3/31/2002	6299	31	76.6	9.2	-832.0	822.8	-63.3	-13.3
4/30/2002	6329	30	88.8	9.3	-830.4	799.7	-62.0	-5.5
5/31/2002	6360	31	46.6	9.7	-811.7	819.5	-62.6	-1.5
6/30/2002	6390	30	72.8	9.8	-816.8	795.0	-62.5	1.6
7/31/2002	6421	31	577.5	12.5	-1480.4	886.2	-25.9	28.3
8/31/2002	6452	31	431.6	13.3	-1432.7	960.2	-34.7	59.3
9/30/2002	6482	30	377.8	14.9	-1414.6	991.5	-44.9	75.4
10/31/2002	6513	31	269.3	13.6	-1374.6	1061.1	-57.2	87.9
11/30/2002	6543	30	-1095.1	68.3	127.0	909.0	-57.4	48.2
12/31/2002	6574	31	-704.3	41.6	-101.1	805.2	-39.6	-1.7
1/31/2003	6605	31	199.6	6.3	-1005.3	850.0	-41.8	-8.9
2/28/2003	6633	28	-920.6	80.2	114.3	753.3	-2.6	-24.5
3/31/2003	6664	31	-625.1	43.7	-25.8	681.0	-11.4	-62.4
4/30/2003	6694	30	221.9	12.4	-888.2	708.5	0.1	-54.7
5/31/2003	6725	31	-403.9	17.9	-271.8	703.1	12.0	-57.2
6/30/2003	6755	30	378.8	6.4	-1096.1	761.1	-5.3	-45.0
7/31/2003	6786	31	366.9	9.5	-1197.2	825.0	13.6	-17.8
8/31/2003	6817	31	274.4	9.8	-1152.1	853.6	10.7	3.7
9/30/2003	6847	30	245.3	9.3	-1136.4	860.4	4.3	17.1
10/31/2003	6878	31	165.8	9.7	-1106.3	905.6	-0.6	25.8
11/30/2003	6908	30	-376.1	14.1	-502.7	878.9	-21.7	7.5
12/31/2003	6939	31	-376.5	20.4	-381.9	789.7	-34.2	-17.5
1/31/2004	6970	31	50.2	6.7	-833.9	787.0	11.5	-21.5
2/29/2004	6999	29	-794.4	67.3	59.1	703.2	-0.1	-35.1
3/31/2004	7030	31	212.2	8.0	-923.0	733.1	17.6	-47.9
4/30/2004	7060	30	163.2	9.0	-910.5	743.7	25.2	-30.7
5/31/2004	7091	31	104.6	11.5	-889.2	781.0	14.0	-22.0
6/30/2004	7121	30	117.9	9.9	-890.2	770.6	5.9	-14.1
7/31/2004	7152	31	495.6	10.0	-1381.7	841.3	23.8	10.9
8/31/2004	7183	31	388.3	10.2	-1334.7	891.2	6.3	38.7
9/30/2004	7213	30	353.1	10.0	-1317.1	908.4	-8.4	54.1
10/31/2004	7244	31	-1074.7	77.2	153.1	879.4	-59.6	24.7
11/30/2004	7274	30	531.6	8.1	-1366.3	834.3	-22.0	14.4
12/31/2004	7305	31	-1050.1	89.0	148.7	865.5	-53.1	0.0
1/31/2005	7336	31	-1097.4	162.4	220.1	821.6	-59.5	-47.2

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
2/28/2005	7364	28	-853.9	127.0	133.3	706.1	-39.1	-73.4
3/31/2005	7395	31	-391.0	36.9	-88.0	574.3	-32.9	-99.3
4/30/2005	7425	30	88.0	9.6	-558.4	577.8	-30.7	-86.3
5/31/2005	7456	31	314.2	8.3	-946.7	712.0	-23.4	-64.4
6/30/2005	7486	30	235.5	8.9	-935.7	756.4	-21.7	-43.3
7/31/2005	7517	31	-59.2	9.1	-638.7	793.0	-59.9	-44.4
8/31/2005	7548	31	-22.6	8.9	-633.1	775.6	-82.3	-46.5
9/30/2005	7578	30	17.4	8.5	-637.7	742.2	-87.3	-43.1
10/31/2005	7609	31	-355.6	17.1	-203.5	678.6	-79.6	-56.9
11/30/2005	7639	30	86.4	8.1	-651.1	702.9	-91.1	-55.3
12/31/2005	7670	31	23.3	7.7	-636.5	745.8	-90.4	-49.8
1/31/2006	7701	31	-445.7	37.2	-149.3	693.1	-72.5	-62.8
2/28/2006	7729	28	-381.0	47.1	-123.2	583.7	-55.9	-70.7
3/31/2006	7760	31	-450.6	55.2	-68.6	601.5	-45.9	-91.6
4/30/2006	7790	30	-355.0	52.4	-116.6	553.9	-35.7	-99.1
5/31/2006	7821	31	21.6	14.8	-478.6	591.6	-49.5	-99.9
6/30/2006	7851	30	549.0	10.6	-1137.2	747.4	-107.1	-62.7
7/31/2006	7882	31	48.0	10.3	-589.9	725.9	-144.4	-49.9
8/31/2006	7913	31	78.6	10.1	-579.0	699.2	-160.7	-48.1
9/30/2006	7943	30	93.7	9.7	-578.6	682.6	-165.7	-41.7
10/31/2006	7974	31	66.1	9.2	-564.4	702.7	-173.9	-39.7
11/30/2006	8004	30	80.5	8.7	-567.9	689.1	-174.9	-35.5
12/31/2006	8035	31	-227.6	10.9	-243.1	650.5	-145.2	-45.5
1/31/2007	8066	31	-398.5	30.2	-29.8	552.6	-89.1	-65.3
2/28/2007	8094	28	85.0	13.9	-492.6	523.6	-67.0	-63.0
3/31/2007	8125	31	199.4	8.2	-696.2	625.7	-78.2	-58.9
4/30/2007	8155	30	-8.5	6.9	-500.9	609.3	-52.2	-54.6
5/31/2007	8186	31	142.6	8.8	-686.3	658.5	-70.4	-53.2
6/30/2007	8216	30	137.8	8.9	-682.5	660.2	-80.3	-44.2
7/31/2007	8247	31	298.8	10.4	-958.3	780.9	-97.8	-33.9
8/31/2007	8278	31	218.8	9.8	-931.7	828.6	-102.7	-22.8
9/30/2007	8308	30	200.5	9.5	-924.3	833.3	-103.9	-15.1
10/31/2007	8339	31	146.0	10.0	-901.7	865.4	-107.7	-11.9
11/30/2007	8369	30	160.8	10.3	-903.7	848.2	-107.0	-8.5
12/31/2007	8400	31	-469.2	29.0	-128.4	718.3	-125.2	-24.5
1/31/2008	8431	31	-863.2	114.8	164.9	725.5	-89.7	-52.4
2/29/2008	8460	29	-305.9	30.1	-118.9	566.5	-97.8	-74.1
3/31/2008	8491	31	306.5	12.5	-830.5	697.8	-109.5	-76.9
4/30/2008	8521	30	235.6	13.7	-819.9	743.5	-110.3	-62.6
5/31/2008	8552	31	175.0	14.7	-799.2	786.7	-119.2	-58.0

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
6/30/2008	8582	30	171.9	14.2	-799.2	787.1	-121.8	-52.2
7/31/2008	8613	31	337.1	15.6	-1051.5	876.8	-119.4	-58.6
8/31/2008	8644	31	279.9	15.3	-1020.4	913.1	-134.3	-53.6
9/30/2008	8674	30	266.0	14.8	-1011.5	917.2	-140.9	-45.6
10/31/2008	8705	31	203.0	14.9	-985.7	962.0	-151.4	-42.8
11/30/2008	8735	30	-545.5	27.9	-85.3	759.0	-112.1	-43.9
12/31/2008	8766	31	-456.8	32.0	-84.8	679.0	-100.7	-68.8
1/31/2009	8797	31	12.6	10.6	-522.0	721.2	-128.4	-94.0
2/28/2009	8825	28	-656.0	76.0	97.5	630.0	-65.9	-81.7
3/31/2009	8856	31	109.1	10.5	-563.6	667.2	-106.4	-116.8
4/30/2009	8886	30	95.2	11.2	-565.4	685.0	-115.6	-110.4
5/31/2009	8917	31	67.2	11.7	-555.5	709.3	-124.0	-108.7
6/30/2009	8947	30	81.2	11.1	-561.3	696.2	-126.2	-101.0
7/31/2009	8978	31	515.4	13.6	-1118.0	784.0	-112.9	-82.1
8/31/2009	9009	31	387.2	14.7	-1071.8	837.4	-110.9	-56.7
9/30/2009	9039	30	340.1	13.8	-1052.4	854.3	-113.5	-42.5
10/31/2009	9070	31	-291.8	23.8	-282.9	746.1	-158.2	-37.0
11/30/2009	9100	30	415.6	13.3	-1045.6	811.4	-149.0	-45.8
12/31/2009	9131	31	-644.0	36.9	6.7	745.5	-98.7	-46.5
1/31/2010	9162	31	-711.2	59.4	133.7	679.7	-79.3	-82.3
2/28/2010	9190	28	-473.2	44.5	25.8	566.0	-58.1	-104.9
3/31/2010	9221	31	258.1	11.9	-744.9	730.4	-102.1	-153.5
4/30/2010	9251	30	-186.7	16.2	-261.8	654.0	-82.6	-139.1
5/31/2010	9282	31	232.5	13.9	-748.6	766.7	-110.3	-154.3
6/30/2010	9312	30	194.2	13.1	-744.6	803.6	-121.6	-144.6
7/31/2010	9343	31	407.0	17.8	-1078.0	871.3	-82.5	-135.7
8/31/2010	9374	31	321.8	17.9	-1039.4	902.9	-87.2	-116.0
9/30/2010	9404	30	292.1	18.0	-1024.8	908.6	-91.8	-102.0
10/31/2010	9435	31	-530.9	31.1	-83.7	793.2	-96.3	-113.4
11/30/2010	9465	30	202.7	14.0	-765.3	757.7	-85.8	-123.4
12/31/2010	9496	31	-881.4	128.4	166.7	795.4	-82.1	-127.0
1/31/2011	9527	31	79.6	15.9	-545.6	736.1	-127.4	-158.6
2/28/2011	9555	28	-411.1	43.7	-17.1	609.4	-81.7	-143.3
3/31/2011	9586	31	-608.9	82.8	105.9	634.7	-61.4	-153.2
4/30/2011	9616	30	318.6	16.2	-682.4	662.6	-140.9	-174.1
5/31/2011	9647	31	220.8	15.5	-647.5	746.2	-170.2	-164.8
6/30/2011	9677	30	213.5	17.0	-642.3	747.6	-183.4	-152.3
7/31/2011	9708	31	189.1	15.6	-710.5	790.0	-140.4	-143.8
8/31/2011	9739	31	153.7	15.9	-704.7	802.2	-131.1	-136.2
9/30/2011	9769	30	155.6	15.3	-708.1	792.1	-128.9	-126.0

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
10/31/2011	9800	31	-92.1	14.3	-379.7	729.0	-139.1	-132.4
11/30/2011	9830	30	-348.8	24.8	-89.0	651.6	-96.9	-141.6
12/31/2011	9861	31	228.3	14.0	-727.8	746.0	-111.1	-149.4
1/31/2012	9892	31	-251.1	21.1	-188.4	679.3	-110.0	-150.8
2/29/2012	9921	29	442.9	18.3	-925.8	756.3	-149.5	-142.2
3/31/2012	9952	31	-445.0	34.5	-61.7	708.5	-88.7	-147.6
4/30/2012	9982	30	-193.3	23.4	-214.7	624.8	-77.6	-162.6
5/31/2012	10013	31	429.3	19.3	-927.5	778.0	-135.9	-163.1
6/30/2012	10043	30	335.2	19.6	-906.4	837.3	-143.1	-142.6
7/31/2012	10074	31	356.0	15.5	-954.4	798.6	-95.6	-120.1
8/31/2012	10105	31	308.9	15.8	-914.2	789.9	-99.9	-100.5
9/30/2012	10135	30	288.0	15.7	-898.9	785.1	-103.9	-86.0
10/31/2012	10166	31	222.0	15.6	-868.4	823.8	-110.9	-82.2
11/30/2012	10196	30	-55.1	15.5	-597.4	806.9	-78.8	-91.2
12/31/2012	10227	31	-324.1	20.6	-343.6	832.0	-69.8	-115.1
1/31/2013	10258	31	-217.0	15.0	-381.8	785.8	-74.3	-127.6
2/28/2013	10286	28	282.3	8.1	-821.8	709.9	-81.7	-96.8
3/31/2013	10317	31	-46.5	8.5	-549.2	776.8	-88.6	-101.0
4/30/2013	10347	30	219.9	9.0	-789.5	738.6	-91.4	-86.5
5/31/2013	10378	31	168.4	9.7	-763.0	741.1	-99.5	-56.7
6/30/2013	10408	30	177.4	9.9	-763.9	715.3	-101.0	-37.7
7/31/2013	10439	31	458.4	12.1	-1121.9	789.0	-105.8	-32.0
8/31/2013	10470	31	373.5	12.1	-1086.3	827.3	-112.9	-13.8
9/30/2013	10500	30	348.7	12.2	-1076.2	831.1	-116.0	0.1
10/31/2013	10531	31	276.0	11.6	-1043.5	871.4	-125.5	10.0
11/30/2013	10561	30	274.7	10.4	-1042.3	866.3	-124.4	14.2
12/31/2013	10592	31	225.4	11.1	-1020.7	896.5	-131.5	19.3
1/31/2014	10623	31	394.5	11.8	-1225.8	897.1	-100.9	23.3
2/28/2014	10651	28	-717.0	42.2	52.4	699.9	-80.3	2.7
3/31/2014	10682	31	-144.2	19.2	-484.4	728.6	-80.3	-38.8
4/30/2014	10712	30	573.6	11.5	-1308.5	816.5	-63.3	-29.8
5/31/2014	10743	31	411.9	12.8	-1252.6	892.5	-63.0	-1.7
6/30/2014	10773	30	379.8	12.7	-1243.2	897.8	-62.9	15.8
7/31/2014	10804	31	220.8	13.0	-1068.7	915.5	-91.8	11.2
8/31/2014	10835	31	247.0	12.3	-1073.0	906.9	-100.9	7.7
9/30/2014	10865	30	270.2	11.6	-1082.5	890.7	-99.9	10.0
10/31/2014	10896	31	211.7	11.0	-1058.6	928.4	-104.7	12.2
11/30/2014	10926	30	94.7	8.5	-883.3	880.5	-108.9	8.5
12/31/2014	10957	31	-1058.6	69.8	239.4	858.9	-88.4	-21.1
1/31/2015	10988	31	-540.4	25.0	-14.9	692.4	-85.7	-76.6

Flow Budget for the LAS in Pleasant Valley

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
2/28/2015	11016	28	447.3	8.6	-956.0	679.5	-99.9	-79.5
3/31/2015	11047	31	84.5	11.1	-707.6	778.9	-105.3	-61.7
4/30/2015	11077	30	309.3	9.5	-908.4	754.6	-113.1	-51.9
5/31/2015	11108	31	249.5	8.9	-874.9	789.5	-130.0	-42.9
6/30/2015	11138	30	254.6	9.1	-875.0	774.9	-131.3	-32.3
7/31/2015	11169	31	202.8	7.7	-818.5	743.0	-114.9	-20.2
8/31/2015	11200	31	344.2	10.1	-1028.2	783.2	-95.4	-13.9
9/30/2015	11230	30	313.0	9.9	-1024.4	793.3	-85.3	-6.5
10/31/2015	11261	31	240.9	10.0	-998.7	835.9	-86.5	-1.6
11/30/2015	11291	30	249.8	10.5	-1005.8	826.9	-82.6	1.1
12/31/2015	11322	31	190.5	10.5	-984.9	865.4	-84.5	3.0

Flow Budget for the Shallow Aquifer in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley	Las Posas LAS
1/31/1985	31	31	-148.0	292.6	-21.9	333.2	0.8	-456.6
2/28/1985	59	28	-91.9	310.6	-16.3	221.4	0.0	-423.8
3/31/1985	90	31	-48.1	230.5	-21.7	215.6	0.0	-376.3
4/30/1985	120	30	96.3	209.0	-43.7	91.4	0.0	-353.0
5/31/1985	151	31	219.2	210.7	-43.7	-24.1	0.0	-362.1
6/30/1985	181	30	267.0	210.6	-43.7	-87.3	0.0	-346.7
7/31/1985	212	31	329.1	237.5	-40.7	-157.1	0.0	-368.9
8/31/1985	243	31	355.3	234.2	-40.7	-191.9	0.0	-356.9
9/30/1985	273	30	295.2	237.5	-40.7	-148.0	0.0	-344.0
10/31/1985	304	31	250.2	228.4	-40.3	-103.3	0.0	-334.9
11/30/1985	334	30	-0.7	1110.5	-6.3	-62.9	0.0	-1040.5
12/31/1985	365	31	217.8	196.2	-34.8	-66.6	0.0	-312.6
1/31/1986	396	31	-52.8	939.1	-9.6	20.1	0.0	-896.8
2/28/1986	424	28	-400.9	2026.1	-4.7	89.2	0.0	-1709.7
3/31/1986	455	31	-403.8	1341.5	-7.4	311.3	0.8	-1242.5
4/30/1986	485	30	-314.2	230.6	-37.0	508.9	1.0	-389.3
5/31/1986	516	31	-297.7	239.8	-58.7	511.6	0.0	-395.0
6/30/1986	546	30	-66.9	235.8	-58.7	298.8	0.0	-409.0
7/31/1986	577	31	24.8	273.3	-61.9	216.2	0.0	-452.3
8/31/1986	608	31	95.4	267.8	-61.9	142.2	0.0	-443.6
9/30/1986	638	30	218.7	257.3	-37.2	-20.7	0.0	-418.0
10/31/1986	669	31	310.8	263.5	-61.9	-105.3	0.0	-407.1
11/30/1986	699	30	196.3	392.8	-22.4	-70.4	0.0	-496.2
12/31/1986	730	31	294.2	262.5	-61.9	-126.8	0.0	-368.0
1/31/1987	761	31	194.2	336.2	-15.5	-93.2	0.0	-421.6
2/28/1987	789	28	157.2	291.3	-18.6	-71.5	0.0	-358.4
3/31/1987	820	31	91.4	415.6	-14.4	-22.0	0.0	-470.6
4/30/1987	850	30	145.7	301.4	-44.2	-33.0	0.0	-369.9
5/31/1987	881	31	184.9	293.8	-44.2	-58.1	0.0	-376.4
6/30/1987	911	30	171.5	295.3	-44.2	-46.1	0.0	-376.5
7/31/1987	942	31	109.0	309.4	-45.3	27.0	0.0	-400.1
8/31/1987	973	31	140.5	309.3	-45.3	5.6	0.0	-410.2
9/30/1987	1003	30	246.0	307.8	-45.3	-98.7	0.0	-409.8
10/31/1987	1034	31	202.4	367.9	-18.5	-91.8	0.0	-460.0
11/30/1987	1064	30	188.3	407.5	-21.2	-100.5	0.0	-474.1
12/31/1987	1095	31	30.5	876.4	-9.1	-46.0	0.0	-851.8
1/31/1988	1126	31	16.8	679.8	-8.3	7.8	0.3	-696.4
2/29/1988	1155	29	10.1	340.2	-14.9	55.8	1.8	-393.1
3/31/1988	1186	31	26.3	235.1	-32.5	77.3	1.2	-307.4
4/30/1988	1216	30	-235.0	612.7	-8.3	267.7	1.6	-638.7
5/31/1988	1247	31	-144.1	234.8	-32.5	264.0	1.6	-323.9
6/30/1988	1277	30	-85.6	233.9	-32.5	223.9	0.1	-339.8
7/31/1988	1308	31	76.3	317.1	-19.9	68.1	0.0	-441.6
8/31/1988	1339	31	202.5	320.0	-19.9	-49.7	0.0	-452.9
9/30/1988	1369	30	257.6	320.8	-19.9	-111.3	0.0	-447.2
10/31/1988	1400	31	286.3	320.6	-19.9	-138.4	0.0	-448.6
11/30/1988	1430	30	244.5	299.1	-11.0	-119.1	0.0	-413.4
12/31/1988	1461	31	91.7	973.2	-4.4	-90.2	0.0	-970.3
1/31/1989	1492	31	238.1	235.8	-20.7	-106.3	0.0	-346.8
2/28/1989	1520	28	23.4	799.3	-5.0	-23.1	0.1	-794.7
3/31/1989	1551	31	40.6	237.0	-14.3	65.6	0.1	-329.0
4/30/1989	1581	30	32.3	245.4	-21.7	71.8	0.0	-327.8
5/31/1989	1612	31	126.0	244.3	-21.7	-6.8	0.0	-341.8
6/30/1989	1642	30	174.4	244.6	-21.7	-55.1	0.0	-342.2
7/31/1989	1673	31	215.6	276.6	-37.0	-77.2	0.0	-378.0
8/31/1989	1704	31	237.0	277.3	-37.0	-98.4	0.0	-378.8
9/30/1989	1734	30	246.8	278.2	-37.0	-112.5	0.0	-375.5
10/31/1989	1765	31	253.9	277.4	-37.0	-116.5	0.0	-377.8
11/30/1989	1795	30	230.8	238.1	-31.8	-101.7	0.0	-335.3
12/31/1989	1826	31	239.3	281.6	-37.0	-108.4	0.0	-375.4
1/31/1990	1857	31	116.6	535.1	-10.2	-53.1	0.0	-588.3
2/28/1990	1885	28	57.0	441.5	-12.1	-4.0	0.0	-482.5
3/31/1990	1916	31	115.8	315.1	-36.6	-6.8	0.0	-387.6
4/30/1990	1946	30	156.8	314.5	-36.6	-33.8	0.0	-400.9

Flow Budget for the Shallow Aquifer in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley	Las Posas LAS
5/31/1990	1977	31	176.1	253.3	-29.2	-40.6	0.0	-359.6
6/30/1990	2007	30	186.4	320.6	-36.6	-51.4	0.0	-419.0
7/31/1990	2038	31	204.5	313.1	-25.1	-62.0	0.0	-430.5
8/31/1990	2069	31	201.5	313.3	-25.1	-64.0	0.0	-425.8
9/30/1990	2099	30	196.0	312.1	-25.1	-63.8	0.0	-419.1
10/31/1990	2130	31	205.7	315.7	-25.1	-67.2	0.0	-429.1
11/30/1990	2160	30	206.0	298.9	-23.7	-68.7	0.0	-412.5
12/31/1990	2191	31	213.4	305.7	-25.1	-74.2	0.0	-419.8
1/31/1991	2222	31	176.0	236.0	-11.9	-57.3	0.0	-342.8
2/28/1991	2250	28	66.7	519.9	-4.3	-23.8	0.0	-558.5
3/31/1991	2281	31	-460.9	2413.2	-1.1	117.0	0.0	-2068.1
4/30/1991	2311	30	-157.5	236.6	-17.0	353.8	0.0	-416.0
5/31/1991	2342	31	-266.5	239.5	-17.0	410.3	0.0	-366.4
6/30/1991	2372	30	-149.4	237.0	-17.0	291.3	0.0	-361.9
7/31/1991	2403	31	-18.1	279.7	-25.1	184.0	0.0	-420.5
8/31/1991	2434	31	75.9	279.4	-25.1	94.0	0.0	-424.2
9/30/1991	2464	30	129.8	282.2	-25.1	33.2	0.0	-420.1
10/31/1991	2495	31	153.4	279.2	-25.1	13.9	0.0	-421.5
11/30/1991	2525	30	148.5	278.9	-25.1	12.5	0.0	-414.8
12/31/1991	2556	31	-48.3	1093.9	-3.9	55.2	0.0	-1096.9
1/31/1992	2587	31	-25.8	459.4	-3.8	124.0	0.2	-554.1
2/29/1992	2616	29	-541.5	2207.2	-0.9	244.2	3.7	-1912.7
3/31/1992	2647	31	-625.5	1497.2	-1.5	553.1	9.0	-1432.3
4/30/1992	2677	30	-493.2	218.0	-12.4	713.1	10.1	-435.6
5/31/1992	2708	31	-463.4	224.5	-12.4	668.3	8.1	-425.2
6/30/1992	2738	30	-319.4	220.9	-12.4	525.3	5.8	-420.1
7/31/1992	2769	31	-149.9	276.0	-18.9	380.2	4.5	-491.9
8/31/1992	2800	31	5.8	280.1	-18.9	232.7	3.4	-503.0
9/30/1992	2830	30	114.1	277.1	-18.9	112.1	2.3	-486.7
10/31/1992	2861	31	-4.1	328.6	-8.6	206.2	2.6	-524.7
11/30/1992	2891	30	-291.0	274.5	-18.9	488.8	2.3	-455.6
12/31/1992	2922	31	-652.5	1168.1	-2.5	707.5	4.0	-1224.6
1/31/1993	2953	31	-833.3	2462.0	-1.0	640.9	8.7	-2277.2
2/28/1993	2981	28	-623.0	2036.8	-1.0	527.6	14.3	-1954.6
3/31/1993	3012	31	-272.5	816.6	-2.6	551.1	22.4	-1115.0
4/30/1993	3042	30	-372.7	225.5	-13.7	745.9	22.2	-607.2
5/31/1993	3073	31	-380.7	223.7	-13.7	760.3	21.3	-611.0
6/30/1993	3103	30	-94.5	195.8	-12.8	464.7	19.4	-572.6
7/31/1993	3134	31	112.3	265.5	-19.6	247.4	18.2	-623.7
8/31/1993	3165	31	141.2	266.2	-19.6	189.1	16.1	-592.8
9/30/1993	3195	30	2.8	266.1	-19.6	295.3	13.5	-558.0
10/31/1993	3226	31	-172.3	266.5	-19.6	481.9	12.9	-569.3
11/30/1993	3256	30	-180.8	248.8	-16.6	497.3	11.8	-560.5
12/31/1993	3287	31	-170.8	316.4	-8.3	486.7	13.1	-637.2
1/31/1994	3318	31	-71.3	203.4	-13.5	399.4	15.3	-533.3
2/28/1994	3346	28	-263.3	1380.0	-1.6	334.8	14.6	-1464.5
3/31/1994	3377	31	-70.5	619.3	-3.1	347.3	19.6	-912.6
4/30/1994	3407	30	-24.6	209.1	-13.5	327.3	19.6	-517.8
5/31/1994	3438	31	-44.4	205.7	-13.5	351.7	18.9	-518.3
6/30/1994	3468	30	17.8	208.6	-13.5	273.0	16.3	-502.1
7/31/1994	3499	31	181.4	242.9	-20.9	112.8	14.2	-530.4
8/31/1994	3530	31	253.6	245.1	-20.9	20.7	11.9	-510.4
9/30/1994	3560	30	265.3	243.0	-20.9	-22.5	9.8	-474.6
10/31/1994	3591	31	245.5	205.3	-20.9	-11.2	8.6	-427.3
11/30/1994	3621	30	112.2	253.6	-8.7	88.3	7.4	-452.7
12/31/1994	3652	31	77.7	219.0	-14.0	130.6	8.3	-421.5
1/31/1995	3683	31	-815.7	3923.6	-0.4	217.7	9.3	-3334.5
2/28/1995	3711	28	2.6	171.7	-6.3	376.1	17.0	-561.0
3/31/1995	3742	31	-752.5	2088.8	-0.8	629.5	20.4	-1985.4
4/30/1995	3772	30	-121.1	143.4	-9.5	517.5	25.1	-555.5
5/31/1995	3803	31	-203.0	129.3	-8.3	548.7	26.4	-493.0
6/30/1995	3833	30	-198.6	154.0	-10.3	520.7	25.1	-490.9
7/31/1995	3864	31	-70.7	238.7	-23.8	414.2	23.6	-582.0
8/31/1995	3895	31	-54.2	233.8	-23.8	400.5	20.8	-577.2

Flow Budget for the Shallow Aquifer in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley	Las Posas LAS
9/30/1995	3925	30	-73.3	234.9	-23.8	408.4	17.8	-564.1
10/31/1995	3956	31	-117.9	237.1	-23.8	467.8	16.1	-579.5
11/30/1995	3986	30	-118.2	238.4	-23.8	460.8	13.5	-570.6
12/31/1995	4017	31	-189.1	479.3	-6.7	490.0	15.1	-788.6
1/31/1996	4048	31	-90.6	217.8	-7.0	413.2	16.6	-550.0
2/29/1996	4077	29	-476.8	1798.1	-1.1	455.9	16.1	-1792.2
3/31/1996	4108	31	-247.5	515.6	-4.2	585.6	22.6	-872.1
4/30/1996	4138	30	-134.6	185.8	-12.8	476.1	22.3	-536.9
5/31/1996	4169	31	26.5	193.7	-13.0	326.5	20.5	-554.3
6/30/1996	4199	30	184.9	190.6	-13.0	141.2	17.4	-521.2
7/31/1996	4230	31	301.8	270.9	-37.5	28.2	16.3	-579.7
8/31/1996	4261	31	350.8	270.9	-37.5	-37.1	15.3	-562.4
9/30/1996	4291	30	345.3	270.8	-37.5	-65.9	14.4	-527.1
10/31/1996	4322	31	230.9	279.5	-22.3	23.6	17.1	-528.9
11/30/1996	4352	30	53.9	522.5	-9.1	120.9	20.1	-708.3
12/31/1996	4383	31	-332.9	1410.6	-4.3	332.8	24.8	-1431.0
1/31/1997	4414	31	-601.7	1347.1	-4.0	653.9	31.1	-1426.3
2/28/1997	4442	28	-268.2	206.2	-30.5	586.2	30.2	-523.9
3/31/1997	4473	31	-200.2	206.3	-30.5	539.6	30.0	-545.3
4/30/1997	4503	30	-46.7	207.5	-30.5	382.8	25.9	-539.1
5/31/1997	4534	31	145.8	206.7	-30.5	189.7	24.6	-536.4
6/30/1997	4564	30	279.3	206.8	-30.5	22.7	22.6	-500.9
7/31/1997	4595	31	383.7	282.5	-45.6	-91.3	21.9	-551.3
8/31/1997	4626	31	417.2	282.8	-45.6	-146.5	20.4	-528.4
9/30/1997	4656	30	397.5	282.7	-45.6	-151.9	18.8	-501.5
10/31/1997	4687	31	343.2	295.6	-45.6	-100.7	20.3	-512.7
11/30/1997	4717	30	158.0	572.3	-12.7	-1.9	22.5	-738.2
12/31/1997	4748	31	-222.7	1698.5	-4.1	91.1	29.5	-1592.4
1/31/1998	4779	31	-220.8	913.6	-5.1	309.1	40.6	-1037.4
2/28/1998	4807	28	-1367.5	4811.0	-0.8	356.2	67.2	-3866.0
3/31/1998	4838	31	-336.5	871.1	-5.1	534.7	101.6	-1165.7
4/30/1998	4868	30	-475.2	301.2	-10.6	753.8	94.1	-663.3
5/31/1998	4899	31	-675.4	825.0	-4.9	811.5	94.9	-1051.1
6/30/1998	4929	30	-396.9	173.6	-26.2	735.3	89.1	-574.9
7/31/1998	4960	31	-232.9	211.1	-35.2	584.0	84.5	-611.5
8/31/1998	4991	31	9.1	223.1	-35.2	327.5	81.3	-605.7
9/30/1998	5021	30	121.9	216.8	-35.2	187.1	76.9	-567.5
10/31/1998	5052	31	-74.3	210.9	-35.2	381.9	77.0	-560.3
11/30/1998	5082	30	-298.6	198.2	-21.2	589.8	73.5	-541.7
12/31/1998	5113	31	-254.7	211.4	-35.2	588.7	75.4	-585.7
1/31/1999	5144	31	-164.1	406.2	-10.6	435.7	76.1	-743.4
2/28/1999	5172	28	58.1	229.4	-28.3	209.1	70.2	-538.5
3/31/1999	5203	31	-114.5	732.4	-7.6	266.3	78.9	-955.5
4/30/1999	5233	30	-184.5	521.5	-9.0	342.6	80.7	-751.2
5/31/1999	5264	31	3.3	204.2	-34.5	261.6	82.4	-517.0
6/30/1999	5294	30	231.3	204.4	-34.5	34.7	72.3	-508.2
7/31/1999	5325	31	359.4	234.4	-25.2	-98.2	65.3	-535.7
8/31/1999	5356	31	406.1	234.5	-25.2	-157.2	59.1	-517.2
9/30/1999	5386	30	381.7	234.4	-25.2	-160.2	54.1	-484.7
10/31/1999	5417	31	315.3	247.8	-25.2	-92.5	50.0	-495.4
11/30/1999	5447	30	222.9	245.2	-15.3	-37.7	49.8	-465.0
12/31/1999	5478	31	317.3	244.4	-25.2	-127.3	57.0	-466.2
1/31/2000	5509	31	224.5	391.4	-10.0	-110.0	61.1	-556.9
2/29/2000	5538	29	-179.3	1665.6	-2.7	-29.8	65.7	-1519.5
3/31/2000	5569	31	-126.2	578.8	-7.8	203.7	77.7	-726.3
4/30/2000	5599	30	-342.3	515.1	-7.4	398.4	76.5	-640.3
5/31/2000	5630	31	-77.7	265.2	-28.3	230.2	74.6	-464.1
6/30/2000	5660	30	133.0	266.5	-28.3	45.2	60.1	-476.5
7/31/2000	5691	31	268.9	235.4	-21.5	-75.4	52.2	-459.7
8/31/2000	5722	31	306.2	234.9	-21.5	-128.1	47.9	-439.3
9/30/2000	5752	30	264.3	234.0	-21.5	-104.9	45.0	-416.8
10/31/2000	5783	31	-17.5	231.2	-12.8	162.9	50.7	-414.6
11/30/2000	5813	30	-136.1	234.2	-21.5	293.3	50.0	-419.8
12/31/2000	5844	31	34.5	231.9	-21.5	156.0	49.1	-450.0

Flow Budget for the Shallow Aquifer in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley	Las Posas LAS
1/31/2001	5875	31	-158.7	1452.3	-7.6	81.2	57.5	-1424.7
2/28/2001	5903	28	-365.2	1897.8	-6.2	131.3	68.6	-1726.3
3/31/2001	5934	31	-408.8	1048.1	-9.0	416.6	92.3	-1139.2
4/30/2001	5964	30	-357.8	281.3	-23.0	552.7	92.1	-545.2
5/31/2001	5995	31	-176.8	219.1	-46.2	407.1	90.0	-493.2
6/30/2001	6025	30	67.3	219.3	-46.3	165.4	82.1	-487.9
7/31/2001	6056	31	235.5	207.6	-84.6	37.5	79.5	-475.5
8/31/2001	6087	31	300.1	207.7	-84.4	-45.7	74.0	-451.7
9/30/2001	6117	30	216.0	207.5	-84.4	9.1	67.4	-415.5
10/31/2001	6148	31	-80.0	220.3	-84.9	304.6	66.5	-426.6
11/30/2001	6178	30	-387.2	745.0	-21.9	487.8	64.9	-888.6
12/31/2001	6209	31	-98.5	239.6	-49.7	328.2	70.3	-489.9
1/31/2002	6240	31	-7.1	235.6	-25.8	213.0	71.1	-486.7
2/28/2002	6268	28	111.2	193.8	-47.7	91.2	62.9	-411.4
3/31/2002	6299	31	200.0	194.1	-48.0	16.5	66.3	-428.9
4/30/2002	6329	30	236.8	194.1	-47.9	-39.2	61.5	-405.4
5/31/2002	6360	31	265.7	194.4	-47.9	-74.9	61.2	-398.5
6/30/2002	6390	30	259.6	194.6	-47.8	-87.4	57.3	-376.3
7/31/2002	6421	31	308.7	268.9	-74.4	-120.1	56.7	-439.8
8/31/2002	6452	31	317.5	281.0	-74.5	-129.6	54.0	-448.3
9/30/2002	6482	30	294.1	300.2	-74.4	-112.0	49.6	-457.6
10/31/2002	6513	31	261.6	290.3	-74.5	-69.0	49.2	-457.6
11/30/2002	6543	30	-60.1	1151.2	-13.2	23.1	52.2	-1153.2
12/31/2002	6574	31	-73.1	850.3	-15.5	90.3	65.6	-917.6
1/31/2003	6605	31	122.0	171.5	-37.4	28.3	68.4	-352.8
2/28/2003	6633	28	-195.4	1238.7	-6.3	55.7	68.7	-1161.3
3/31/2003	6664	31	-174.4	970.9	-7.6	130.0	86.7	-1005.7
4/30/2003	6694	30	5.0	189.3	-20.1	115.8	84.3	-374.3
5/31/2003	6725	31	-73.9	273.0	-17.2	162.0	84.9	-428.9
6/30/2003	6755	30	-2.4	171.7	-37.4	132.0	77.2	-341.2
7/31/2003	6786	31	127.9	237.1	-66.2	35.8	69.3	-403.9
8/31/2003	6817	31	196.0	237.6	-66.3	-26.0	61.1	-402.3
9/30/2003	6847	30	232.3	236.0	-66.2	-65.5	54.8	-391.4
10/31/2003	6878	31	253.3	236.8	-66.3	-82.3	53.0	-394.5
11/30/2003	6908	30	152.7	227.6	-31.7	-27.7	50.6	-371.5
12/31/2003	6939	31	121.8	316.6	-30.0	-22.3	58.6	-444.7
1/31/2004	6970	31	154.8	167.2	-36.4	-42.2	65.0	-308.5
2/29/2004	6999	29	-207.8	1309.1	-5.8	68.3	69.3	-1233.1
3/31/2004	7030	31	59.0	196.8	-35.7	81.6	78.7	-380.4
4/30/2004	7060	30	-4.7	200.6	-36.6	117.0	73.2	-349.5
5/31/2004	7091	31	59.2	207.5	-36.8	67.7	66.3	-363.9
6/30/2004	7121	30	147.6	201.3	-36.7	-11.9	52.1	-352.3
7/31/2004	7152	31	192.9	241.2	-39.1	-49.3	45.2	-390.9
8/31/2004	7183	31	222.1	241.5	-39.2	-65.9	38.4	-396.9
9/30/2004	7213	30	242.3	241.2	-39.2	-84.3	33.5	-393.5
10/31/2004	7244	31	-40.5	1217.9	-7.4	-28.7	48.7	-1190.1
11/30/2004	7274	30	182.5	233.7	-38.6	-33.3	58.9	-403.3
12/31/2004	7305	31	-174.0	1383.3	-6.5	36.9	74.6	-1314.2
1/31/2005	7336	31	-723.4	2997.4	-2.0	160.3	110.0	-2542.4
2/28/2005	7364	28	-777.3	2104.1	-2.2	400.6	133.6	-1858.8
3/31/2005	7395	31	-576.8	733.9	-4.6	651.0	137.8	-941.2
4/30/2005	7425	30	-603.4	193.4	-11.7	814.3	113.8	-506.4
5/31/2005	7456	31	-580.8	203.8	-14.7	846.1	104.7	-559.2
6/30/2005	7486	30	-448.7	208.0	-15.0	745.9	92.0	-582.2
7/31/2005	7517	31	-347.0	214.1	-11.5	680.8	88.2	-624.6
8/31/2005	7548	31	-136.5	213.2	-11.3	480.3	83.6	-629.2
9/30/2005	7578	30	-100.0	212.6	-11.5	425.0	76.4	-602.4
10/31/2005	7609	31	-269.0	239.6	-7.6	592.9	79.0	-634.8
11/30/2005	7639	30	-55.9	214.6	-11.1	373.0	78.2	-598.8
12/31/2005	7670	31	126.8	208.7	-11.3	191.2	79.4	-594.8
1/31/2006	7701	31	-48.8	697.7	-7.6	258.1	82.2	-981.6
2/28/2006	7729	28	-154.4	833.2	-6.6	277.9	79.2	-1029.3
3/31/2006	7760	31	-303.7	896.6	-6.4	421.7	92.9	-1101.1
4/30/2006	7790	30	-583.0	826.9	-6.4	713.5	94.3	-1045.2

Flow Budget for the Shallow Aquifer in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley	Las Posas LAS
5/31/2006	7821	31	-515.0	287.2	-11.0	803.3	95.9	-660.4
6/30/2006	7851	30	-191.1	243.4	-20.8	516.1	86.6	-634.3
7/31/2006	7882	31	69.6	213.2	-24.8	301.5	82.0	-641.5
8/31/2006	7913	31	240.1	210.4	-24.7	107.1	79.3	-612.3
9/30/2006	7943	30	245.9	206.5	-24.7	63.1	73.8	-564.6
10/31/2006	7974	31	92.0	204.3	-25.0	213.8	72.1	-557.2
11/30/2006	8004	30	85.1	201.7	-24.6	206.4	68.1	-536.8
12/31/2006	8035	31	181.9	181.3	-17.8	101.8	72.4	-519.6
1/31/2007	8066	31	105.9	490.6	-15.4	94.8	77.1	-753.0
2/28/2007	8094	28	206.0	207.3	-38.0	12.8	73.3	-461.4
3/31/2007	8125	31	248.5	221.8	-50.1	-3.3	81.4	-498.3
4/30/2007	8155	30	229.4	183.5	-37.5	-10.5	78.9	-443.7
5/31/2007	8186	31	313.2	220.6	-50.0	-94.6	81.4	-470.8
6/30/2007	8216	30	336.0	221.0	-49.9	-144.2	77.6	-440.5
7/31/2007	8247	31	337.5	238.8	-23.4	-171.3	77.8	-459.4
8/31/2007	8278	31	354.3	238.3	-23.5	-192.3	75.1	-451.9
9/30/2007	8308	30	307.2	237.7	-23.4	-158.2	71.9	-435.2
10/31/2007	8339	31	172.0	245.2	-23.5	-19.8	71.0	-444.9
11/30/2007	8369	30	119.0	254.5	-23.4	37.2	62.4	-449.7
12/31/2007	8400	31	16.3	610.8	-8.2	78.9	66.1	-764.0
1/31/2008	8431	31	-472.5	1965.7	-5.4	209.1	86.7	-1783.6
2/29/2008	8460	29	-271.5	373.7	-16.2	424.2	90.7	-601.0
3/31/2008	8491	31	-355.0	231.8	-42.9	593.1	91.1	-518.1
4/30/2008	8521	30	-126.4	242.2	-43.3	415.8	80.8	-569.1
5/31/2008	8552	31	154.1	257.2	-43.4	162.2	76.5	-606.6
6/30/2008	8582	30	306.7	246.0	-43.3	-10.8	66.9	-565.5
7/31/2008	8613	31	383.2	300.8	-45.7	-79.0	60.1	-619.3
8/31/2008	8644	31	410.6	298.3	-45.8	-111.4	51.9	-603.7
9/30/2008	8674	30	392.4	297.5	-45.6	-113.4	46.0	-576.8
10/31/2008	8705	31	197.7	299.6	-45.8	76.2	46.3	-574.0
11/30/2008	8735	30	-105.3	485.6	-16.2	271.3	53.3	-688.7
12/31/2008	8766	31	-12.9	595.1	-13.8	125.8	70.1	-764.4
1/31/2009	8797	31	180.3	213.3	-31.4	27.4	71.8	-461.4
2/28/2009	8825	28	-144.1	1224.8	-5.6	60.4	71.3	-1206.9
3/31/2009	8856	31	152.2	211.5	-31.1	60.4	86.7	-479.8
4/30/2009	8886	30	140.2	218.0	-31.5	53.2	82.7	-462.7
5/31/2009	8917	31	199.6	221.3	-31.6	7.0	72.3	-468.6
6/30/2009	8947	30	254.8	218.7	-31.5	-44.7	54.7	-451.9
7/31/2009	8978	31	302.1	285.3	-32.2	-85.0	48.3	-518.6
8/31/2009	9009	31	322.5	281.9	-32.4	-102.2	45.2	-515.0
9/30/2009	9039	30	305.3	281.2	-32.3	-100.3	47.7	-501.6
10/31/2009	9070	31	157.2	508.8	-11.6	-43.6	61.5	-672.3
11/30/2009	9100	30	183.2	283.1	-31.6	-27.0	61.0	-468.9
12/31/2009	9131	31	-17.3	792.9	-10.0	56.5	68.0	-890.1
1/31/2010	9162	31	-368.8	1403.1	-8.7	196.7	92.2	-1314.6
2/28/2010	9190	28	-286.9	927.5	-12.5	219.6	98.6	-946.3
3/31/2010	9221	31	-15.9	229.4	-64.1	226.0	110.8	-486.4
4/30/2010	9251	30	-74.6	294.4	-29.5	211.6	103.1	-505.0
5/31/2010	9282	31	82.8	243.6	-64.4	123.4	105.8	-491.3
6/30/2010	9312	30	168.3	233.9	-64.6	58.6	92.7	-489.0
7/31/2010	9343	31	228.1	310.0	-37.8	-8.0	80.4	-572.7
8/31/2010	9374	31	277.0	308.5	-38.1	-39.4	68.2	-576.2
9/30/2010	9404	30	308.2	315.1	-38.0	-73.1	60.7	-572.9
10/31/2010	9435	31	192.9	531.0	-13.3	-34.1	72.1	-748.5
11/30/2010	9465	30	127.8	252.0	-25.3	37.8	79.4	-471.7
12/31/2010	9496	31	-457.6	2158.9	-4.3	145.2	97.9	-1940.1
1/31/2011	9527	31	-113.0	224.5	-64.4	368.6	110.0	-525.7
2/28/2011	9555	28	-439.5	629.8	-17.1	507.6	103.7	-784.5
3/31/2011	9586	31	-716.9	1478.2	-8.7	539.2	129.5	-1421.3
4/30/2011	9616	30	-338.8	223.5	-65.2	600.0	128.5	-548.0
5/31/2011	9647	31	-301.0	206.1	-62.6	605.3	124.4	-572.2
6/30/2011	9677	30	7.7	223.9	-65.9	321.1	108.7	-595.5
7/31/2011	9708	31	146.7	277.2	-26.9	163.8	94.1	-654.9
8/31/2011	9739	31	220.1	282.2	-26.9	85.3	76.7	-637.3

Flow Budget for the Shallow Aquifer in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet					
			STORAGE	RECHARGE	Pumping from Wells	Oxnard Basin	Pleasant Valley	Las Posas LAS
9/30/2011	9769	30	242.9	278.6	-26.8	40.4	61.9	-597.0
10/31/2011	9800	31	59.3	311.5	-16.8	193.6	70.0	-617.6
11/30/2011	9830	30	-120.4	384.7	-13.1	310.7	84.3	-646.3
12/31/2011	9861	31	21.3	275.9	-26.5	197.8	93.6	-562.2
1/31/2012	9892	31	73.9	301.6	-45.4	151.5	96.9	-578.5
2/29/2012	9921	29	175.7	293.6	-87.1	68.2	83.4	-533.8
3/31/2012	9952	31	89.3	539.4	-31.3	85.4	90.3	-773.1
4/30/2012	9982	30	87.2	373.7	-41.2	71.6	100.5	-591.7
5/31/2012	10013	31	172.9	298.2	-87.0	50.7	91.5	-526.4
6/30/2012	10043	30	243.3	296.2	-87.2	16.4	67.8	-536.4
7/31/2012	10074	31	282.9	328.6	-74.3	-5.6	61.1	-592.7
8/31/2012	10105	31	297.8	328.7	-74.4	-19.9	56.6	-588.9
9/30/2012	10135	30	292.7	327.4	-74.2	-23.0	49.1	-572.1
10/31/2012	10166	31	282.5	352.1	-74.3	-5.8	47.1	-601.7
11/30/2012	10196	30	156.0	334.9	-39.6	75.5	45.4	-572.2
12/31/2012	10227	31	101.7	542.8	-22.6	60.6	61.0	-743.5
1/31/2013	10258	31	109.1	279.9	-28.0	45.9	79.4	-486.2
2/28/2013	10286	28	144.5	229.2	-55.4	14.2	69.1	-401.6
3/31/2013	10317	31	129.9	188.8	-38.5	25.1	77.6	-382.9
4/30/2013	10347	30	148.1	233.8	-55.7	3.5	71.1	-400.9
5/31/2013	10378	31	145.9	238.8	-55.9	-10.8	56.7	-374.7
6/30/2013	10408	30	156.9	240.1	-55.9	-26.2	41.1	-356.0
7/31/2013	10439	31	210.8	280.1	-40.4	-61.2	30.9	-420.3
8/31/2013	10470	31	240.3	281.1	-40.3	-72.1	21.8	-430.8
9/30/2013	10500	30	245.5	281.4	-40.2	-73.3	15.3	-428.7
10/31/2013	10531	31	257.5	277.8	-40.3	-75.6	13.3	-432.6
11/30/2013	10561	30	246.0	246.5	-36.2	-68.9	12.1	-399.4
12/31/2013	10592	31	257.6	272.8	-40.2	-74.8	11.4	-426.8
1/31/2014	10623	31	252.2	274.1	-47.4	-64.6	13.8	-428.2
2/28/2014	10651	28	5.7	948.4	-9.7	-24.8	14.0	-933.5
3/31/2014	10682	31	151.3	269.8	-27.2	-29.4	28.0	-392.4
4/30/2014	10712	30	149.2	273.4	-46.8	-34.0	47.2	-389.0
5/31/2014	10743	31	172.7	279.8	-47.3	-32.4	42.0	-414.9
6/30/2014	10773	30	196.7	277.2	-47.3	-35.9	25.0	-415.7
7/31/2014	10804	31	207.2	271.9	-47.0	-25.5	18.3	-424.8
8/31/2014	10835	31	207.4	267.9	-47.0	-23.6	15.3	-419.8
9/30/2014	10865	30	205.8	261.4	-47.0	-22.7	12.6	-410.1
10/31/2014	10896	31	213.4	258.0	-47.1	-20.7	11.6	-415.2
11/30/2014	10926	30	185.2	214.0	-37.4	-9.9	10.8	-362.7
12/31/2014	10957	31	-53.5	1066.5	-8.5	10.6	16.3	-1031.4
1/31/2015	10988	31	11.6	530.3	-12.1	24.4	34.2	-588.3
2/28/2015	11016	28	79.3	207.5	-42.5	18.1	47.5	-309.8
3/31/2015	11047	31	89.0	195.1	-42.8	28.2	43.5	-312.9
4/30/2015	11077	30	110.3	210.6	-43.2	28.9	24.9	-331.5
5/31/2015	11108	31	132.0	200.5	-43.4	24.8	18.6	-332.4
6/30/2015	11138	30	141.5	209.8	-43.4	16.4	14.5	-338.8
7/31/2015	11169	31	135.0	247.4	-54.7	21.1	12.4	-361.2
8/31/2015	11200	31	142.4	247.9	-54.7	20.6	11.2	-367.2
9/30/2015	11230	30	145.8	246.3	-54.7	18.6	9.8	-365.8
10/31/2015	11261	31	155.6	249.1	-54.8	18.1	9.4	-377.4
11/30/2015	11291	30	154.8	254.5	-54.7	17.3	8.6	-380.5
12/31/2015	11322	31	158.4	251.3	-54.8	20.6	8.6	-384.0

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
1/31/1985	31	31	-235.5	111.9	128.8	-513.5	16.7	456.6	36.0	-0.973
2/28/1985	59	28	-208.9	115.7	136.3	-505.6	12.1	423.8	35.7	-9.041
3/31/1985	90	31	133.1	61.5	96.1	-680.4	11.3	376.3	24.9	-22.78
4/30/1985	120	30	980.0	0.0	50.0	-1309.1	8.9	353.0	-36.0	-46.817
5/31/1985	151	31	1039.0	0.0	50.9	-1309.1	7.1	362.1	-77.3	-72.728
6/30/1985	181	30	1094.9	0.0	52.4	-1309.1	5.2	346.7	-105.6	-84.487
7/31/1985	212	31	1210.7	0.0	58.7	-1397.5	4.1	368.9	-149.1	-95.696
8/31/1985	243	31	1243.2	0.0	57.8	-1397.5	3.6	356.9	-160.0	-104.007
9/30/1985	273	30	1265.3	0.0	57.8	-1397.5	3.1	344.0	-164.5	-108.199
10/31/1985	304	31	1264.2	0.0	54.9	-1380.5	2.8	334.9	-158.9	-117.446
11/30/1985	334	30	-1674.3	524.7	501.4	-200.5	6.1	1040.5	-102.6	-95.486
12/31/1985	365	31	933.1	1.2	59.4	-1090.8	7.9	312.6	-145.0	-78.398
1/31/1986	396	31	-1411.5	475.8	420.4	-252.8	9.1	896.8	-78.3	-59.483
2/28/1986	424	28	-3609.1	1131.0	953.5	-115.4	14.9	1709.7	-66.0	-18.491
3/31/1986	455	31	-2307.3	620.0	603.1	-167.4	20.5	1242.5	-21.2	9.684
4/30/1986	485	30	524.9	27.6	80.9	-1093.7	16.5	389.3	37.0	17.47
5/31/1986	516	31	939.1	0.0	51.3	-1441.2	12.5	395.0	44.1	-0.834
6/30/1986	546	30	985.1	0.0	50.9	-1441.2	9.4	409.0	8.4	-21.624
7/31/1986	577	31	1092.3	0.0	61.2	-1583.4	7.8	452.3	21.9	-52.094
8/31/1986	608	31	1131.8	0.0	58.3	-1583.4	6.4	443.6	20.0	-76.747
9/30/1986	638	30	499.3	47.9	90.6	-971.4	5.7	418.0	-8.3	-81.887
10/31/1986	669	31	1261.4	0.0	56.7	-1583.4	5.4	407.1	-60.2	-87.001
11/30/1986	699	30	-172.4	148.6	167.2	-517.9	5.6	496.2	-52.8	-74.595
12/31/1986	730	31	1317.1	0.0	56.1	-1583.4	6.1	368.0	-91.5	-72.348
1/31/1987	761	31	138.2	109.0	140.9	-662.4	6.1	421.6	-79.3	-74.125
2/28/1987	789	28	377.3	79.3	112.0	-790.7	6.2	358.4	-79.0	-63.47
3/31/1987	820	31	-139.9	169.3	179.2	-544.9	7.4	470.6	-79.8	-61.853
4/30/1987	850	30	1474.6	0.0	60.6	-1719.1	7.2	369.9	-114.7	-78.52
5/31/1987	881	31	1529.9	0.0	59.2	-1719.1	6.3	376.4	-132.0	-120.544
6/30/1987	911	30	1557.0	0.0	60.6	-1719.1	5.0	376.5	-141.0	-138.958
7/31/1987	942	31	1719.3	0.0	71.8	-1897.7	4.3	400.1	-139.0	-158.718
8/31/1987	973	31	1718.5	0.0	72.0	-1897.7	3.6	410.2	-144.2	-162.386
9/30/1987	1003	30	1745.6	0.0	70.3	-1897.7	3.0	409.8	-170.1	-160.899
10/31/1987	1034	31	216.2	118.8	155.8	-664.7	3.8	460.0	-153.8	-136.194
11/30/1987	1064	30	51.0	136.7	178.9	-609.5	5.5	474.1	-149.4	-87.19
12/31/1987	1095	31	-1134.6	449.5	393.9	-395.0	8.5	851.8	-123.8	-50.171
1/31/1988	1126	31	-842.7	334.2	294.4	-372.7	10.6	696.4	-107.6	-12.736
2/29/1988	1155	29	1.2	139.1	156.7	-613.6	9.9	393.1	-92.2	5.704
3/31/1988	1186	31	1377.1	0.0	53.6	-1625.7	8.9	307.4	-113.7	-7.489
4/30/1988	1216	30	-776.6	320.4	278.3	-411.4	8.8	638.7	-47.1	-11.023
5/31/1988	1247	31	1305.8	0.0	55.3	-1625.7	8.8	323.9	-56.3	-11.692
6/30/1988	1277	30	1307.3	0.0	55.4	-1625.7	6.8	339.8	-47.8	-35.815
7/31/1988	1308	31	1552.8	0.0	67.7	-1899.3	6.2	441.6	-103.0	-66.005
8/31/1988	1339	31	1601.5	0.0	67.8	-1899.2	5.6	452.9	-136.5	-92.119
9/30/1988	1369	30	1648.8	0.0	68.2	-1899.2	4.7	447.2	-164.9	-104.743
10/31/1988	1400	31	1687.8	0.0	67.5	-1899.2	4.3	448.6	-191.0	-117.961
11/30/1988	1430	30	591.6	68.3	106.9	-925.7	4.2	413.4	-156.8	-101.916
12/31/1988	1461	31	-1421.0	510.0	444.0	-327.9	7.7	970.3	-125.3	-57.712
1/31/1989	1492	31	1212.8	0.0	50.1	-1408.6	8.6	346.8	-167.2	-42.458
2/28/1989	1520	28	-1105.4	398.0	338.2	-300.5	8.1	794.7	-109.0	-24.049
3/31/1989	1551	31	568.9	41.0	72.0	-888.6	9.2	329.0	-117.0	-14.559

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
4/30/1989	1581	30	1230.5	0.0	54.6	-1439.4	7.2	327.8	-141.4	-39.265
5/31/1989	1612	31	1266.7	0.0	54.1	-1439.3	6.2	341.8	-166.9	-62.746
6/30/1989	1642	30	1293.8	0.0	54.5	-1439.2	5.7	342.2	-183.1	-73.887
7/31/1989	1673	31	1470.3	0.0	57.6	-1657.3	5.1	378.0	-166.8	-86.857
8/31/1989	1704	31	1479.6	0.0	57.3	-1657.3	4.5	378.8	-164.0	-98.951
9/30/1989	1734	30	1492.2	0.0	57.8	-1657.3	3.9	375.5	-166.9	-105.261
10/31/1989	1765	31	1512.8	0.0	55.3	-1657.3	3.7	377.8	-177.7	-114.645
11/30/1989	1795	30	1332.0	0.0	49.7	-1432.3	3.3	335.3	-173.7	-114.325
12/31/1989	1826	31	1531.0	0.0	55.8	-1657.3	3.1	375.4	-188.4	-119.526
1/31/1990	1857	31	-329.9	251.6	232.9	-498.1	4.6	588.3	-158.2	-91.305
2/28/1990	1885	28	-159.6	214.9	199.7	-567.5	6.4	482.5	-132.0	-44.574
3/31/1990	1916	31	1628.2	0.0	55.9	-1822.9	6.9	387.6	-195.4	-60.317
4/30/1990	1946	30	1663.1	0.0	56.4	-1822.8	6.0	400.9	-211.9	-91.67
5/31/1990	1977	31	1362.6	0.0	48.2	-1446.7	5.4	359.6	-216.1	-113.098
6/30/1990	2007	30	1697.5	0.0	59.8	-1822.8	4.5	419.0	-239.9	-118.2
7/31/1990	2038	31	1683.0	0.0	67.1	-1760.5	4.2	430.5	-300.0	-124.282
8/31/1990	2069	31	1685.3	0.0	66.2	-1760.5	3.8	425.8	-299.1	-121.471
9/30/1990	2099	30	1682.4	0.0	65.6	-1760.5	3.3	419.1	-292.3	-117.698
10/31/1990	2130	31	1680.2	0.0	67.1	-1760.5	3.2	429.1	-298.0	-121.146
11/30/1990	2160	30	1634.9	0.0	60.7	-1713.8	2.9	412.5	-289.0	-108.252
12/31/1990	2191	31	1682.6	0.0	62.1	-1760.5	2.9	419.8	-296.5	-110.283
1/31/1991	2222	31	717.7	48.2	86.8	-861.8	3.3	342.8	-236.1	-100.777
2/28/1991	2250	28	-435.1	242.1	230.6	-391.4	4.7	558.5	-152.4	-56.972
3/31/1991	2281	31	-4446.5	1431.3	1146.7	-92.6	14.7	2068.1	-112.7	-9.006
4/30/1991	2311	30	1056.8	0.0	45.8	-1403.9	17.4	416.0	-127.1	-5.031
5/31/1991	2342	31	1121.4	0.0	47.5	-1403.9	14.2	366.4	-104.2	-41.327
6/30/1991	2372	30	1159.4	0.0	47.3	-1403.9	11.5	361.9	-116.5	-59.766
7/31/1991	2403	31	1342.6	0.0	59.8	-1587.8	10.3	420.5	-167.0	-78.384
8/31/1991	2434	31	1370.4	0.0	59.6	-1587.8	9.0	424.2	-186.3	-89.12
9/30/1991	2464	30	1393.6	0.0	60.5	-1587.7	7.8	420.1	-200.4	-93.829
10/31/1991	2495	31	1415.4	0.0	58.0	-1587.6	7.2	421.5	-213.0	-101.4
11/30/1991	2525	30	1428.8	0.0	57.6	-1587.6	6.8	414.8	-219.1	-101.316
12/31/1991	2556	31	-1711.4	515.3	485.6	-235.3	9.2	1096.9	-102.0	-58.137
1/31/1992	2587	31	-534.9	212.0	210.6	-406.7	12.1	554.1	-53.6	6.548
2/29/1992	2616	29	-4192.7	1264.8	1046.5	-101.4	18.1	1912.7	-3.3	55.311
3/31/1992	2647	31	-3031.4	817.8	705.1	-149.5	27.2	1432.3	90.0	108.603
4/30/1992	2677	30	703.8	0.0	46.8	-1416.3	25.2	435.6	104.0	100.835
5/31/1992	2708	31	731.7	0.0	48.6	-1416.3	21.7	425.2	117.5	71.63
6/30/1992	2738	30	782.2	0.0	50.2	-1416.3	18.0	420.1	94.7	51.018
7/31/1992	2769	31	1040.3	0.0	64.1	-1678.8	16.3	491.9	31.1	35.15
8/31/1992	2800	31	1081.7	0.0	65.2	-1678.8	14.5	503.0	-2.6	16.93
9/30/1992	2830	30	1151.9	0.0	63.3	-1678.8	12.5	486.7	-38.6	2.913
10/31/1992	2861	31	-173.6	130.6	142.0	-671.3	12.7	524.7	28.9	5.936
11/30/1992	2891	30	1131.6	0.0	60.8	-1678.7	11.8	455.6	15.3	3.581
12/31/1992	2922	31	-2305.3	589.9	527.7	-244.7	14.4	1224.6	164.2	29.32
1/31/1993	2953	31	-4937.9	1323.8	1149.6	-94.7	24.3	2277.2	172.7	84.893
2/28/1993	2981	28	-4212.7	1130.9	944.5	-119.6	31.1	1954.6	157.5	113.852
3/31/1993	3012	31	-1975.6	446.4	371.8	-326.9	36.1	1115.0	182.1	151.216
4/30/1993	3042	30	540.1	0.0	53.1	-1512.5	30.8	607.2	156.4	124.968
5/31/1993	3073	31	522.3	0.0	54.1	-1512.5	27.2	611.0	201.6	96.303
6/30/1993	3103	30	278.6	7.8	60.1	-1163.7	23.2	572.6	146.0	75.461

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
7/31/1993	3134	31	784.6	0.0	60.2	-1646.3	21.3	623.7	88.4	68.103
8/31/1993	3165	31	853.3	0.0	60.6	-1646.3	18.8	592.8	59.4	61.334
9/30/1993	3195	30	905.0	0.0	60.1	-1646.3	16.3	558.0	57.8	49.134
10/31/1993	3226	31	858.8	0.0	59.6	-1646.3	15.2	569.3	98.4	45.03
11/30/1993	3256	30	768.3	0.0	53.9	-1568.3	13.3	560.5	126.2	46.219
12/31/1993	3287	31	-467.0	108.7	133.3	-653.5	13.3	637.2	160.7	67.383
1/31/1994	3318	31	492.6	0.0	48.3	-1272.6	12.7	533.3	114.8	70.963
2/28/1994	3346	28	-2896.1	747.8	636.3	-155.6	14.4	1464.5	116.5	72.154
3/31/1994	3377	31	-1419.3	287.5	269.0	-308.9	19.4	912.6	129.5	110.247
4/30/1994	3407	30	537.4	0.0	48.6	-1309.8	17.2	517.8	93.0	95.854
5/31/1994	3438	31	531.2	0.0	48.7	-1281.3	15.4	518.3	95.7	71.984
6/30/1994	3468	30	604.7	0.0	50.5	-1309.8	13.2	502.1	85.3	54.119
7/31/1994	3499	31	851.6	0.0	60.6	-1524.0	12.2	530.4	30.7	38.517
8/31/1994	3530	31	925.4	0.0	60.7	-1523.9	11.0	510.4	-6.7	23.183
9/30/1994	3560	30	1009.0	0.0	59.4	-1523.9	9.7	474.6	-38.0	9.195
10/31/1994	3591	31	788.7	0.0	52.4	-1219.2	9.1	427.3	-57.7	-0.57
11/30/1994	3621	30	182.8	59.1	96.2	-792.6	8.7	452.7	-14.3	7.347
12/31/1994	3652	31	522.1	22.3	81.3	-1055.1	9.0	421.5	-23.5	22.29
1/31/1995	3683	31	-7568.7	2318.3	1876.0	-39.6	25.7	3334.5	-2.1	56.093
2/28/1995	3711	28	-207.2	42.0	82.9	-629.0	28.9	561.0	38.5	82.763
3/31/1995	3742	31	-4296.3	1134.0	974.1	-75.7	32.4	1985.4	136.1	109.953
4/30/1995	3772	30	71.1	0.0	37.1	-933.7	31.0	555.5	117.6	121.359
5/31/1995	3803	31	69.7	0.0	42.4	-880.8	26.8	493.0	136.4	112.45
6/30/1995	3833	30	203.5	0.0	42.9	-986.7	22.6	490.9	129.5	97.127
7/31/1995	3864	31	551.7	0.0	57.9	-1385.3	20.6	582.0	91.3	81.671
8/31/1995	3895	31	587.4	0.0	58.4	-1385.3	18.3	577.2	78.3	65.746
9/30/1995	3925	30	621.0	0.0	58.3	-1385.3	15.8	564.1	73.1	52.919
10/31/1995	3956	31	596.6	0.0	56.5	-1385.3	14.7	579.5	91.1	46.891
11/30/1995	3986	30	606.7	0.0	55.8	-1385.3	12.9	570.6	100.7	38.619
12/31/1995	4017	31	-1039.6	197.9	209.7	-383.3	13.4	788.6	156.2	57.065
1/31/1996	4048	31	-258.3	55.7	86.5	-665.3	13.5	550.0	144.8	72.98
2/29/1996	4077	29	-3794.9	1038.4	836.8	-108.5	18.0	1792.2	140.8	77.205
3/31/1996	4108	31	-1325.4	259.7	224.3	-338.1	23.2	872.1	183.0	101.235
4/30/1996	4138	30	344.4	0.0	43.9	-1177.8	20.1	536.9	150.2	82.3
5/31/1996	4169	31	405.7	0.0	46.7	-1213.3	17.9	554.3	128.0	60.779
6/30/1996	4199	30	508.0	0.0	46.9	-1213.3	15.2	521.2	79.7	42.335
7/31/1996	4230	31	948.5	0.0	60.7	-1638.2	14.0	579.7	17.1	18.201
8/31/1996	4261	31	1025.4	0.0	60.6	-1638.1	12.5	562.4	-18.5	-4.303
9/30/1996	4291	30	1101.5	0.0	60.4	-1638.0	10.9	527.1	-44.8	-17.229
10/31/1996	4322	31	220.9	91.5	119.4	-951.6	11.3	528.9	-13.1	-7.322
11/30/1996	4352	30	-797.5	235.8	226.7	-438.1	12.1	708.3	25.2	27.551
12/31/1996	4383	31	-2820.2	770.8	653.0	-185.4	17.1	1431.0	65.0	68.637
1/31/1997	4414	31	-2907.7	725.1	623.0	-149.9	23.0	1426.3	157.0	103.186
2/28/1997	4442	28	428.0	0.0	50.6	-1264.2	20.7	523.9	160.5	80.453
3/31/1997	4473	31	429.4	0.0	51.3	-1264.2	19.4	545.3	165.3	53.495
4/30/1997	4503	30	495.4	0.0	51.4	-1264.2	16.3	539.1	129.6	32.448
5/31/1997	4534	31	547.8	0.0	52.0	-1264.2	14.8	536.4	91.9	21.243
6/30/1997	4564	30	639.3	0.0	53.6	-1264.1	12.8	500.9	44.8	12.684
7/31/1997	4595	31	1076.3	0.0	58.7	-1670.1	11.9	551.3	-42.4	14.254
8/31/1997	4626	31	1138.2	0.0	60.6	-1670.0	10.7	528.4	-76.2	8.312
9/30/1997	4656	30	1195.1	0.0	60.1	-1670.0	9.4	501.5	-98.5	2.479

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
10/31/1997	4687	31	1194.6	0.0	61.8	-1670.0	9.1	512.7	-109.7	1.469
11/30/1997	4717	30	-796.1	241.4	242.3	-421.6	9.3	738.2	-35.7	22.114
12/31/1997	4748	31	-3104.0	832.3	762.4	-160.5	14.8	1592.4	-4.4	67.038
1/31/1998	4779	31	-1795.5	429.0	393.9	-244.6	19.0	1037.4	57.8	103.006
2/28/1998	4807	28	-8851.1	2610.2	2225.3	-44.1	34.1	3866.0	45.4	114.084
3/31/1998	4838	31	-2073.7	456.4	393.3	-258.9	44.9	1165.7	123.3	149
4/30/1998	4868	30	-790.2	122.1	143.0	-522.4	36.2	663.3	206.9	141.131
5/31/1998	4899	31	-2057.0	502.5	382.6	-288.4	35.3	1051.1	235.1	138.813
6/30/1998	4929	30	269.2	0.0	49.6	-1275.7	31.4	574.9	223.2	127.355
7/31/1998	4960	31	366.6	0.0	47.4	-1321.7	28.0	611.5	164.0	104.196
8/31/1998	4991	31	431.7	0.0	50.3	-1321.7	24.7	605.7	121.5	87.804
9/30/1998	5021	30	522.6	0.0	48.3	-1315.2	21.3	567.5	78.9	76.588
10/31/1998	5052	31	532.1	0.0	46.4	-1321.7	19.8	560.3	90.2	73.053
11/30/1998	5082	30	17.4	26.0	73.4	-914.9	17.6	541.7	169.0	69.813
12/31/1998	5113	31	436.8	0.0	45.1	-1319.5	16.7	585.7	160.4	74.946
1/31/1999	5144	31	-1015.9	190.9	185.7	-395.4	16.4	743.4	195.0	80.006
2/28/1999	5172	28	-78.6	70.7	92.3	-824.6	14.9	538.5	123.0	63.76
3/31/1999	5203	31	-1529.9	326.6	303.0	-269.6	17.1	955.5	129.2	68.153
4/30/1999	5233	30	-1120.7	241.0	227.0	-337.7	17.6	751.2	136.0	85.554
5/31/1999	5264	31	476.4	0.0	51.5	-1281.8	17.1	517.0	136.7	83.125
6/30/1999	5294	30	552.8	0.0	52.7	-1281.8	14.5	508.2	96.1	57.535
7/31/1999	5325	31	772.6	0.0	54.2	-1400.4	13.3	535.7	-5.3	29.788
8/31/1999	5356	31	863.8	0.0	54.5	-1400.4	12.0	517.2	-50.0	2.908
9/30/1999	5386	30	939.4	0.0	54.2	-1400.2	10.5	484.7	-76.8	-11.923
10/31/1999	5417	31	941.9	0.0	58.9	-1400.1	9.9	495.4	-83.7	-22.281
11/30/1999	5447	30	315.3	43.6	76.8	-846.7	9.1	465.0	-46.5	-16.541
12/31/1999	5478	31	971.0	0.0	55.8	-1400.1	9.2	466.2	-88.7	-13.442
1/31/2000	5509	31	-334.8	164.8	173.6	-526.1	9.1	556.9	-38.7	-4.825
2/29/2000	5538	29	-3057.8	908.8	766.3	-154.5	13.9	1519.5	-22.7	26.538
3/31/2000	5569	31	-946.9	283.3	255.7	-409.6	18.8	726.3	16.3	56.059
4/30/2000	5599	30	-843.5	237.5	233.5	-439.9	18.1	640.3	89.8	64.122
5/31/2000	5630	31	965.8	0.0	67.1	-1605.9	17.1	464.1	48.0	43.811
6/30/2000	5660	30	1027.7	0.0	68.6	-1605.6	14.4	476.5	10.2	8.182
7/31/2000	5691	31	799.9	0.0	53.8	-1294.9	13.1	459.7	-31.6	0.08
8/31/2000	5722	31	851.7	0.0	53.4	-1294.7	11.7	439.3	-58.5	-2.822
9/30/2000	5752	30	896.0	0.0	52.8	-1294.7	10.1	416.8	-73.9	-7.2
10/31/2000	5783	31	255.7	54.3	87.1	-801.7	10.0	414.6	-16.4	-3.532
11/30/2000	5813	30	817.5	0.0	55.1	-1294.7	9.2	419.8	-2.3	-4.577
12/31/2000	5844	31	797.1	0.0	53.4	-1294.7	8.9	450.0	-5.5	-9.178
1/31/2001	5875	31	-2846.2	830.8	677.9	-141.3	12.8	1424.7	29.4	11.95
2/28/2001	5903	28	-3655.6	1069.5	886.6	-106.1	19.9	1726.3	17.1	42.314
3/31/2001	5934	31	-2202.0	607.8	492.5	-202.0	26.9	1139.2	65.0	72.667
4/30/2001	5964	30	-412.1	115.6	128.5	-577.9	24.9	545.2	105.1	70.794
5/31/2001	5995	31	585.1	0.0	55.1	-1272.1	22.6	493.2	70.4	45.802
6/30/2001	6025	30	659.3	0.0	55.8	-1272.0	18.9	487.9	27.1	23.072
7/31/2001	6056	31	568.8	0.0	52.0	-1142.5	17.2	475.5	16.3	12.674
8/31/2001	6087	31	629.8	0.0	53.8	-1142.6	15.2	451.7	-12.3	4.359
9/30/2001	6117	30	689.6	0.0	52.4	-1142.7	13.2	415.5	-24.9	-3.25
10/31/2001	6148	31	643.8	0.0	56.0	-1142.2	12.3	426.6	12.0	-8.487
11/30/2001	6178	30	-1494.0	403.0	332.2	-248.7	13.2	888.6	95.4	10.28
12/31/2001	6209	31	-188.4	61.5	102.5	-607.4	14.7	489.9	90.7	36.409

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
1/31/2002	6240	31	-263.5	69.1	93.5	-511.7	13.8	486.7	67.6	44.561
2/28/2002	6268	28	566.8	0.0	47.3	-1083.9	11.5	411.4	20.8	26.215
3/31/2002	6299	31	581.2	0.0	47.4	-1083.5	11.3	428.9	1.4	13.275
4/30/2002	6329	30	634.3	0.0	47.8	-1083.6	9.8	405.4	-19.1	5.483
5/31/2002	6360	31	660.1	0.0	48.6	-1083.6	9.3	398.5	-34.4	1.532
6/30/2002	6390	30	698.7	0.0	49.3	-1083.8	8.5	376.3	-47.3	-1.606
7/31/2002	6421	31	1100.0	0.0	68.7	-1492.9	8.0	439.8	-95.2	-28.323
8/31/2002	6452	31	1145.4	0.0	71.7	-1492.8	7.4	448.3	-120.7	-59.3
9/30/2002	6482	30	1163.8	0.0	77.0	-1492.9	6.6	457.6	-136.7	-75.418
10/31/2002	6513	31	1193.7	0.0	73.4	-1492.8	6.3	457.6	-150.4	-87.852
11/30/2002	6543	30	-1892.2	573.2	513.8	-212.9	8.7	1153.2	-95.7	-48.179
12/31/2002	6574	31	-1419.4	478.8	384.7	-311.5	13.8	917.6	-65.8	1.74
1/31/2003	6605	31	678.5	0.0	45.9	-1036.8	14.0	352.8	-63.3	8.895
2/28/2003	6633	28	-2211.9	603.1	562.4	-128.1	14.0	1161.3	-25.4	24.513
3/31/2003	6664	31	-1830.0	496.8	420.6	-173.0	19.2	1005.7	-1.7	62.431
4/30/2003	6694	30	86.9	50.5	83.3	-671.2	18.2	374.3	3.2	54.728
5/31/2003	6725	31	-334.9	100.6	127.6	-413.2	17.2	428.9	16.5	57.234
6/30/2003	6755	30	588.9	0.0	45.9	-1036.9	15.1	341.2	0.7	45.029
7/31/2003	6786	31	866.4	0.0	55.8	-1306.5	13.7	403.9	-51.2	17.817
8/31/2003	6817	31	910.1	0.0	55.9	-1306.3	12.1	402.3	-70.5	-3.66
9/30/2003	6847	30	954.6	0.0	54.7	-1306.1	10.5	391.4	-88.0	-17.107
10/31/2003	6878	31	973.8	0.0	57.0	-1306.1	9.8	394.5	-103.2	-25.779
11/30/2003	6908	30	435.4	40.0	89.1	-874.3	9.0	371.5	-63.2	-7.524
12/31/2003	6939	31	-124.3	87.9	133.6	-509.0	9.5	444.7	-59.9	17.504
1/31/2004	6970	31	620.4	0.0	43.7	-935.9	9.5	308.5	-67.7	21.51
2/29/2004	6999	29	-2446.2	729.6	600.0	-131.9	11.8	1233.1	-31.4	35.05
3/31/2004	7030	31	624.2	0.0	48.2	-1078.7	14.5	380.4	-36.5	47.917
4/30/2004	7060	30	668.2	0.0	48.6	-1078.8	11.8	349.5	-30.0	30.683
5/31/2004	7091	31	667.0	0.0	51.9	-1078.3	10.7	363.9	-37.1	21.986
6/30/2004	7121	30	704.2	0.0	50.8	-1078.4	9.2	352.3	-52.3	14.123
7/31/2004	7152	31	973.7	0.0	58.6	-1299.6	8.9	390.9	-121.5	-10.944
8/31/2004	7183	31	1025.9	0.0	58.8	-1299.4	8.1	396.9	-151.6	-38.722
9/30/2004	7213	30	1063.9	0.0	58.2	-1299.4	7.2	393.5	-169.3	-54.052
10/31/2004	7244	31	-2036.7	593.3	542.8	-168.3	10.0	1190.1	-106.5	-24.744
11/30/2004	7274	30	1001.3	0.0	54.2	-1300.4	11.3	403.3	-155.2	-14.432
12/31/2004	7305	31	-2421.8	707.9	625.6	-150.6	14.5	1314.2	-89.9	0.033
1/31/2005	7336	31	-5571.8	1691.1	1384.6	-63.5	28.3	2542.4	-58.2	47.223
2/28/2005	7364	28	-4007.6	1139.0	979.0	-91.7	35.3	1858.8	13.8	73.383
3/31/2005	7395	31	-1545.2	344.5	301.3	-266.3	38.2	941.2	87.0	99.34
4/30/2005	7425	30	24.7	21.7	60.6	-868.5	31.9	506.4	136.8	86.348
5/31/2005	7456	31	395.6	0.0	46.1	-1261.8	28.3	559.2	168.3	64.363
6/30/2005	7486	30	405.1	0.0	48.4	-1261.6	23.9	582.2	158.6	43.336
7/31/2005	7517	31	268.8	0.0	52.0	-1173.6	21.9	624.6	161.9	44.407
8/31/2005	7548	31	290.1	0.0	51.4	-1173.8	19.3	629.2	137.2	46.509
9/30/2005	7578	30	357.6	0.0	50.7	-1173.6	16.7	602.4	103.0	43.138
10/31/2005	7609	31	-448.4	56.7	97.3	-566.7	16.0	634.8	153.4	56.913
11/30/2005	7639	30	350.7	0.0	51.7	-1173.3	14.4	598.8	102.4	55.264
12/31/2005	7670	31	405.5	0.0	50.4	-1173.8	13.4	594.8	60.0	49.844
1/31/2006	7701	31	-1501.3	371.8	318.9	-315.4	14.6	981.6	67.0	62.824
2/28/2006	7729	28	-1666.3	410.5	355.5	-275.4	15.9	1029.3	59.9	70.691
3/31/2006	7760	31	-1923.0	463.2	399.5	-243.8	20.1	1101.1	91.3	91.63

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
4/30/2006	7790	30	-1832.0	410.1	362.4	-265.6	21.3	1045.2	159.6	99.092
5/31/2006	7821	31	-635.2	84.0	110.0	-535.3	21.4	660.4	194.7	99.926
6/30/2006	7851	30	444.0	0.0	60.6	-1328.0	18.4	634.3	108.0	62.708
7/31/2006	7882	31	221.7	0.0	56.1	-1073.0	16.7	641.5	87.0	49.946
8/31/2006	7913	31	305.6	0.0	53.9	-1072.9	14.9	612.3	38.1	48.135
9/30/2006	7943	30	393.1	0.0	52.7	-1072.7	12.9	564.6	7.7	41.738
10/31/2006	7974	31	393.3	0.0	50.5	-1072.2	12.0	557.2	19.5	39.717
11/30/2006	8004	30	409.0	0.0	49.6	-1072.3	10.6	536.8	30.8	35.519
12/31/2006	8035	31	71.9	15.9	61.6	-749.4	10.2	519.6	24.7	45.536
1/31/2007	8066	31	-969.7	216.4	215.8	-331.3	10.8	753.0	39.6	65.309
2/28/2007	8094	28	226.8	22.0	79.4	-886.2	10.2	461.4	23.4	63.038
3/31/2007	8125	31	588.1	0.0	55.3	-1226.8	10.4	498.3	15.8	58.917
4/30/2007	8155	30	474.8	0.0	44.9	-1051.2	9.4	443.7	23.9	54.599
5/31/2007	8186	31	638.0	0.0	55.9	-1226.9	8.8	470.8	0.3	53.228
6/30/2007	8216	30	696.3	0.0	56.4	-1227.0	7.9	440.5	-18.3	44.198
7/31/2007	8247	31	885.1	0.0	63.7	-1383.8	7.5	459.4	-65.8	33.913
8/31/2007	8278	31	920.9	0.0	62.1	-1383.7	7.0	451.9	-81.0	22.751
9/30/2007	8308	30	952.7	0.0	60.8	-1383.9	6.3	435.2	-86.2	15.129
10/31/2007	8339	31	927.6	0.0	62.9	-1383.8	6.1	444.9	-69.6	11.911
11/30/2007	8369	30	908.4	0.0	64.7	-1383.8	5.5	449.7	-53.0	8.546
12/31/2007	8400	31	-1037.0	332.8	269.3	-352.8	7.0	764.0	-7.7	24.507
1/31/2008	8431	31	-3844.2	1171.9	921.9	-108.7	15.5	1783.6	7.7	52.357
2/29/2008	8460	29	-629.6	154.1	171.1	-439.0	18.5	601.0	49.8	74.064
3/31/2008	8491	31	652.1	0.0	66.3	-1377.3	17.2	518.1	46.8	76.855
4/30/2008	8521	30	646.9	0.0	68.9	-1377.0	14.1	569.1	15.3	62.552
5/31/2008	8552	31	666.8	0.0	72.2	-1376.8	12.8	606.6	-39.5	57.95
6/30/2008	8582	30	768.9	0.0	70.2	-1376.9	11.0	565.5	-90.8	52.185
7/31/2008	8613	31	1151.2	0.0	78.5	-1735.2	10.2	619.3	-182.6	58.613
8/31/2008	8644	31	1186.9	0.0	77.6	-1735.0	9.2	603.7	-196.0	53.584
9/30/2008	8674	30	1236.5	0.0	76.8	-1735.1	8.4	576.8	-209.0	45.591
10/31/2008	8705	31	1222.5	0.0	77.3	-1734.9	8.2	574.0	-189.8	42.787
11/30/2008	8735	30	-630.1	206.0	210.1	-497.4	8.1	688.7	-29.3	43.93
12/31/2008	8766	31	-904.1	250.1	247.7	-423.4	10.2	764.4	-13.7	68.8
1/31/2009	8797	31	722.7	0.0	53.5	-1259.2	10.1	461.4	-82.6	94.047
2/28/2009	8825	28	-2317.2	648.5	549.4	-169.6	11.5	1206.9	-11.0	81.652
3/31/2009	8856	31	715.4	0.0	53.4	-1295.2	14.1	479.8	-84.3	116.811
4/30/2009	8886	30	752.2	0.0	54.9	-1294.7	11.5	462.7	-97.0	110.428
5/31/2009	8917	31	756.9	0.0	56.4	-1294.4	10.5	468.6	-106.7	108.682
6/30/2009	8947	30	794.7	0.0	54.7	-1294.5	9.1	451.9	-116.9	101.044
7/31/2009	8978	31	1179.4	0.0	72.5	-1673.0	9.0	518.6	-188.6	82.053
8/31/2009	9009	31	1232.1	0.0	71.2	-1672.8	8.2	515.0	-210.3	56.677
9/30/2009	9039	30	1276.2	0.0	70.7	-1672.9	7.3	501.6	-225.3	42.468
10/31/2009	9070	31	-579.0	254.2	226.5	-492.0	8.1	672.3	-127.1	36.953
11/30/2009	9100	30	1292.4	0.0	69.7	-1673.7	8.4	468.9	-211.4	45.757
12/31/2009	9131	31	-1234.0	401.0	350.8	-371.7	10.1	890.1	-92.8	46.501
1/31/2010	9162	31	-2607.2	744.9	633.5	-167.0	15.3	1314.6	-16.5	82.311
2/28/2010	9190	28	-1671.6	438.8	403.5	-251.9	17.4	946.3	12.6	104.932
3/31/2010	9221	31	761.8	0.0	58.0	-1402.9	18.2	486.4	-75.0	153.48
4/30/2010	9251	30	-269.4	106.0	133.1	-619.1	15.8	505.0	-10.5	139.094
5/31/2010	9282	31	767.9	0.0	62.9	-1402.6	14.8	491.3	-88.6	154.264
6/30/2010	9312	30	806.5	0.0	61.6	-1402.3	12.6	489.0	-112.0	144.63

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
7/31/2010	9343	31	1255.9	0.0	76.8	-1868.0	11.6	572.7	-184.7	135.686
8/31/2010	9374	31	1298.9	0.0	77.7	-1867.6	10.5	576.2	-211.7	115.959
9/30/2010	9404	30	1334.2	0.0	78.6	-1867.7	9.2	572.9	-229.2	101.987
10/31/2010	9435	31	-742.5	251.4	235.8	-508.6	10.3	748.5	-108.3	113.354
11/30/2010	9465	30	739.1	14.6	79.6	-1293.3	10.4	471.7	-145.4	123.36
12/31/2010	9496	31	-3949.8	1082.5	955.0	-134.5	16.4	1940.1	-36.6	126.979
1/31/2011	9527	31	762.1	0.0	57.4	-1472.7	19.2	525.7	-50.4	158.577
2/28/2011	9555	28	-1222.1	282.1	270.7	-338.3	16.2	784.5	63.5	143.324
3/31/2011	9586	31	-2904.8	715.3	651.3	-163.5	21.1	1421.3	106.1	153.206
4/30/2011	9616	30	644.2	0.0	58.5	-1490.9	20.6	548.0	45.6	174.101
5/31/2011	9647	31	487.6	0.0	54.2	-1357.3	18.0	572.2	60.5	164.81
6/30/2011	9677	30	660.3	0.0	59.4	-1490.3	15.3	595.5	7.5	152.331
7/31/2011	9708	31	869.7	0.0	72.8	-1698.8	14.0	654.9	-56.5	143.828
8/31/2011	9739	31	909.3	0.0	74.1	-1698.6	12.6	637.3	-70.9	136.154
9/30/2011	9769	30	977.7	0.0	72.3	-1698.6	11.0	597.0	-85.4	125.991
10/31/2011	9800	31	-179.8	102.5	124.7	-787.0	11.1	617.6	-21.5	132.419
11/30/2011	9830	30	-566.3	136.4	163.6	-556.5	11.3	646.3	23.7	141.646
12/31/2011	9861	31	951.8	0.0	69.3	-1698.9	11.2	562.2	-45.0	149.404
1/31/2012	9892	31	-114.8	54.7	109.2	-806.0	10.5	578.5	17.0	150.801
2/29/2012	9921	29	1270.1	0.0	75.8	-1980.6	9.6	533.8	-50.9	142.211
3/31/2012	9952	31	-804.1	186.0	210.6	-515.5	10.2	773.1	-7.8	147.605
4/30/2012	9982	30	-327.8	127.2	153.4	-702.5	10.8	591.7	-15.5	162.649
5/31/2012	10013	31	1271.8	0.0	78.5	-1980.8	11.0	526.4	-70.0	163.112
6/30/2012	10043	30	1302.2	0.0	79.2	-1980.5	9.5	536.4	-89.4	142.633
7/31/2012	10074	31	1299.7	0.0	79.4	-1930.3	8.8	592.7	-170.4	120.117
8/31/2012	10105	31	1336.3	0.0	79.8	-1930.2	8.0	588.9	-183.3	100.523
9/30/2012	10135	30	1378.8	0.0	79.4	-1930.3	7.1	572.1	-193.0	86.012
10/31/2012	10166	31	851.7	113.4	139.8	-1598.0	6.5	601.7	-197.2	82.159
11/30/2012	10196	30	259.0	118.5	141.1	-1084.4	7.0	572.2	-104.6	91.223
12/31/2012	10227	31	-688.6	273.5	237.3	-626.0	8.9	743.5	-63.6	115.091
1/31/2013	10258	31	-207.6	98.1	124.0	-568.0	9.9	486.2	-70.2	127.6
2/28/2013	10286	28	856.0	0.0	56.1	-1282.8	8.3	401.6	-135.9	96.807
3/31/2013	10317	31	642.4	0.0	48.9	-1074.5	8.4	382.9	-109.1	100.96
4/30/2013	10347	30	875.8	0.0	57.7	-1282.5	7.4	400.9	-145.8	86.542
5/31/2013	10378	31	941.7	0.0	60.0	-1282.2	6.9	374.7	-157.9	56.7
6/30/2013	10408	30	984.1	0.0	60.4	-1282.3	6.2	356.0	-162.1	37.698
7/31/2013	10439	31	1173.1	0.0	68.9	-1537.8	5.9	420.3	-162.3	31.951
8/31/2013	10470	31	1195.9	0.0	69.1	-1537.9	5.5	430.8	-177.1	13.823
9/30/2013	10500	30	1224.6	0.0	68.9	-1538.0	4.9	428.7	-189.0	-0.076
10/31/2013	10531	31	1248.5	0.0	67.5	-1537.9	4.6	432.6	-205.3	-10.03
11/30/2013	10561	30	1134.5	0.0	60.9	-1382.9	4.1	399.4	-201.8	-14.152
12/31/2013	10592	31	1280.7	0.0	67.4	-1538.0	3.9	426.8	-221.5	-19.279
1/31/2014	10623	31	1267.1	0.0	67.2	-1489.1	3.7	428.2	-253.6	-23.343
2/28/2014	10651	28	-1401.1	458.0	405.4	-264.9	5.4	933.5	-133.6	-2.714
3/31/2014	10682	31	301.9	67.9	116.3	-766.5	8.0	392.4	-158.8	38.797
4/30/2014	10712	30	1216.1	0.0	64.6	-1489.8	7.0	389.0	-216.8	29.77
5/31/2014	10743	31	1238.9	0.0	68.5	-1489.3	6.6	414.9	-241.3	1.67
6/30/2014	10773	30	1263.3	0.0	67.7	-1489.2	6.1	415.7	-247.8	-15.767
7/31/2014	10804	31	1233.8	0.0	67.6	-1464.1	5.8	424.8	-256.6	-11.187
8/31/2014	10835	31	1182.7	0.0	66.3	-1408.0	5.2	419.8	-258.3	-7.743
9/30/2014	10865	30	1196.9	0.0	64.3	-1408.1	4.6	410.1	-257.7	-10.01

Flow Budget for the LAS in partial Las Posas Basin (West)

Date	Stress	days in month	influx(+) outflux(-); units in Acre-feet							
			STORAGE	San Pedro Outcrop Recharge	RECHARGE	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
10/31/2014	10896	31	1203.1	0.0	62.9	-1408.0	4.4	415.2	-265.4	-12.189
11/30/2014	10926	30	901.2	6.0	61.8	-1095.2	4.1	362.7	-232.1	-8.484
12/31/2014	10957	31	-1663.0	488.3	461.3	-209.8	6.8	1031.4	-136.1	21.13
1/31/2015	10988	31	-710.8	217.0	212.6	-291.5	9.5	588.3	-101.7	76.553
2/28/2015	11016	28	893.9	0.0	51.4	-1172.7	8.1	309.8	-170.1	79.516
3/31/2015	11047	31	799.6	0.0	51.8	-1047.3	7.7	312.9	-186.3	61.71
4/30/2015	11077	30	916.2	0.0	54.6	-1172.9	6.9	331.5	-188.2	51.917
5/31/2015	11108	31	873.3	0.0	49.3	-1109.0	6.6	332.4	-195.5	42.885
6/30/2015	11138	30	941.1	0.0	52.1	-1172.8	5.8	338.8	-197.5	32.346
7/31/2015	11169	31	745.3	34.7	74.5	-1023.0	5.7	361.2	-218.5	20.162
8/31/2015	11200	31	1106.8	0.0	57.3	-1336.1	5.6	367.2	-214.7	13.928
9/30/2015	11230	30	1128.7	0.0	56.8	-1350.5	4.8	365.8	-212.2	6.542
10/31/2015	11261	31	1124.9	0.0	57.2	-1348.6	4.5	377.4	-217.0	1.637
11/30/2015	11291	30	1123.3	0.0	59.4	-1350.5	4.0	380.5	-215.5	-1.141
12/31/2015	11322	31	1126.5	0.0	58.5	-1350.4	3.8	384.0	-219.4	-3.029

Monthly Streamflow Budget
units in Acre-feet

				Rising Groundwater									Stream Percolation								
				System A Rising Groundwater			System B Rising Groundwater			System C Rising Groundwater			System A Stream Percolation			System B Stream Percolation			System C Stream Percolation		
Stress	Year	Month	days in month	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula
1	1985	1	31	-2300.94	-4184.10	-996.51	0.00	-277.14	-161.39	0.00	-118.37	-65.19	5112.24	970.25	62.52	0.00	0.00	162.01	0.00	0.00	0.00
2	1985	2	28	-1897.30	-3720.34	-924.64	0.00	-269.58	-124.95	0.00	-116.28	-55.83	4258.11	899.02	59.65	0.00	0.00	124.34	0.00	0.00	0.00
3	1985	3	31	-2050.91	-3894.01	-985.96	0.00	-312.57	-124.98	0.00	-126.21	-60.45	4691.16	974.67	58.01	0.00	0.00	123.33	0.00	0.00	0.00
4	1985	4	30	-1905.28	-3545.87	-905.64	0.00	-316.12	-109.66	0.00	-117.35	-55.74	3585.25	938.07	61.97	0.00	0.00	109.60	0.00	0.00	0.00
5	1985	5	31	-2486.75	-3335.45	-850.11	0.00	-333.11	-106.48	0.00	-118.66	-55.50	3960.95	924.19	66.20	0.00	0.00	105.96	0.00	0.00	0.00
6	1985	6	30	-1765.90	-2981.11	-762.47	0.00	-322.89	-97.85	0.00	-112.67	-52.30	2964.16	764.89	65.18	0.00	0.00	97.05	0.00	0.00	0.00
7	1985	7	31	-2288.39	-2746.91	-730.29	0.00	-329.77	-97.69	0.00	-114.24	-52.75	3265.42	756.46	67.59	0.00	0.00	97.53	0.00	0.00	0.00
8	1985	8	31	-2267.27	-2433.25	-683.51	0.00	-322.51	-91.11	0.00	-112.08	-51.40	3515.60	740.96	67.68	0.00	0.00	90.65	0.00	0.00	0.00
9	1985	9	30	-2144.47	-2926.93	-744.46	0.00	-302.95	-85.01	0.00	-106.44	-48.44	10679.23	2385.20	320.12	0.00	0.00	84.54	0.00	0.00	0.00
10	1985	10	31	-1835.19	-2060.99	-633.56	0.00	-302.02	-83.78	0.00	-107.96	-48.73	4106.40	858.06	72.33	0.00	0.00	83.72	0.00	0.00	0.00
11	1985	11	30	-2433.60	-2428.29	-719.60	0.00	-313.34	-153.94	0.00	-123.81	-52.72	4384.92	1081.70	72.18	0.00	0.00	159.30	0.00	0.00	0.00
12	1985	12	31	-2620.99	-2576.90	-730.84	0.00	-277.26	-90.23	0.00	-105.52	-50.48	5527.27	977.49	66.13	0.00	0.00	89.11	0.00	0.00	0.00
13	1986	1	31	-2919.04	-2707.81	-765.26	0.00	-294.05	-149.93	0.00	-117.33	-53.06	6720.06	1225.31	62.90	0.00	0.00	150.83	0.00	0.00	0.00
14	1986	2	28	-3519.89	-2819.49	-858.89	0.00	-304.43	-250.14	0.00	-155.14	-58.27	8571.74	2222.79	93.91	0.00	0.00	257.99	0.00	0.00	0.00
15	1986	3	31	-3260.35	-3616.26	-1058.29	0.00	-298.57	-208.90	0.00	-125.31	-63.28	8803.63	1814.75	93.17	0.00	0.00	220.35	0.00	0.00	0.00
16	1986	4	30	-2750.72	-3736.98	-1030.10	0.00	-246.61	-113.29	0.00	-99.06	-52.00	5791.84	1261.86	79.09	0.00	0.00	108.82	0.00	0.00	0.00
17	1986	5	31	-2647.35	-3521.06	-1006.55	0.00	-238.46	-92.21	0.00	-96.50	-47.77	4993.40	1051.82	70.96	0.00	0.00	88.97	0.00	0.00	0.00
18	1986	6	30	-2210.20	-3532.45	-956.57	0.00	-216.35	-81.38	0.00	-91.42	-44.40	3535.75	1176.71	107.32	0.00	0.00	79.17	0.00	0.00	0.00
19	1986	7	31	-2452.60	-3426.91	-990.43	0.00	-209.29	-76.84	0.00	-92.81	-44.72	9019.40	2035.51	277.05	0.00	0.00	77.71	0.00	0.00	0.00
20	1986	8	31	-2638.73	-2566.15	-807.09	0.00	-160.59	-71.61	0.00	-91.15	-43.69	3407.85	616.23	62.93	0.00	0.00	73.71	0.00	0.00	0.00
21	1986	9	30	-1868.98	-2432.01	-768.40	0.00	-122.69	-66.78	0.00	-88.76	-42.35	3490.85	671.79	57.39	0.00	0.00	68.52	0.00	0.00	0.00
22	1986	10	31	-1891.73	-2384.50	-767.32	0.00	-118.26	-66.07	0.00	-88.30	-42.68	3452.64	743.08	60.74	0.00	0.00	68.85	0.00	0.00	0.00
23	1986	11	30	-1997.31	-2422.57	-749.44	0.00	-109.37	-64.75	0.00	-87.99	-41.84	4263.62	790.11	59.28	0.00	0.00	65.54	0.00	0.00	0.00
24	1986	12	31	-1930.98	-2436.88	-766.73	0.00	-104.21	-62.39	0.00	-85.63	-41.89	4486.12	740.43	57.58	0.00	0.00	65.40	0.00	0.00	0.00
25	1987	1	31	-1971.31	-2456.51	-777.75	0.00	-100.04	-70.06	0.00	-87.65	-42.48	4535.16	768.86	63.27	0.00	0.00	69.44	0.00	0.00	0.00
26	1987	2	28	-1744.58	-2274.59	-709.90	0.00	-84.79	-59.48	0.00	-77.09	-38.03	4121.12	682.97	56.57	0.00	0.00	60.25	0.00	0.00	0.00
27	1987	3	31	-1969.90	-2556.87	-774.60	0.00	-92.35	-74.82	0.00	-86.04	-42.46	4551.35	873.02	74.23	0.00	0.00	72.35	0.00	0.00	0.00
28	1987	4	30	-1733.79	-2245.43	-700.75	0.00	-80.64	-57.30	0.00	-77.06	-39.26	3377.33	742.32	61.69	0.00	0.00	59.90	0.00	0.00	0.00
29	1987	5	31	-1703.74	-1922.57	-644.61	0.00	-79.09	-53.30	0.00	-77.53	-39.14	3514.79	730.80	60.13	0.00	0.00	55.66	0.00	0.00	0.00
30	1987	6	30	-2474.02	-2331.82	-698.84	0.00	-72.80	-48.36	0.00	-73.64	-37.19	11138.85	2409.42	282.79	0.00	0.00	50.69	0.00	0.00	0.00
31	1987	7	31	-1996.98	-1895.18	-647.19	0.00	-71.72	-49.22	0.00	-74.69	-37.79	7270.35	1483.20	246.35	0.00	0.00	52.20	0.00	0.00	0.00
32	1987	8	31	-2295.78	-1395.54	-551.16	0.00	-68.48	-47.76	0.00	-73.32	-37.17	4850.72	476.42	72.11	0.00	0.00	50.61	0.00	0.00	0.00
33	1987	9	30	-1610.31	-1215.35	-528.25	0.00	-63.46	-45.71	0.00	-69.68	-35.38	3218.14	382.66	54.41	0.00	0.00	48.55	0.00	0.00	0.00
34	1987	10	31	-1750.02	-1334.66	-541.26	0.00	-64.89	-47.04	0.00	-74.05	-37.27	3988.55	476.02	51.79	0.00	0.00	47.49	0.00	0.00	0.00
35	1987	11	30	-1961.37	-1542.32	-533.33	0.00	-61.47	-37.10	0.00	-71.64	-36.33	3930.05	687.16	55.46	0.00	0.00	36.58	0.00	0.00	0.00
36	1987	12	31	-2422.34	-1755.67	-552.57	0.00	-121.57	-87.92	0.00	-80.87	-40.16	6698.29	785.97	44.15	0.00	0.00	78.60	0.00	0.00	0.00
37	1988	1	31	-2932.93	-2179.26	-666.39	0.00	-86.68	-76.74	0.00	-75.71	-40.35	6543.72	1021.93	70.84	0.00	0.00	71.92	0.00	0.00	0.00
38	1988	2	29	-2530.60	-2264.42	-647.17	0.00	-69.96	-56.20	0.00	-69.31	-36.90	5726.78	1196.51	95.57	0.00	0.00	55.87	0.00	0.00	0.00
39	1988	3	31	-2511.16	-2210.09	-631.44	0.00	-57.12	-41.32	0.00	-66.41	-36.56	5713.21	1278.56	106.27	0.00	0.00	41.46	0.00	0.00	0.00
40	1988	4	30	-2071.19	-2303.21	-652.79	0.00	-101.72	-76.35	0.00	-72.10	-38.48	5143.76	953.36	80.14	0.00	0.00	71.14	0.00	0.00	0.00
41	1988	5	31	-2802.26	-3132.85	-806.09	0.00	-55.69	-45.67	0.00	-64.88	-37.00	11809.11	2259.81	292.47	0.00	0.00	46.85	0.00	0.00	0.00
42	1988	6	30	-1887.50	-1894.40	-603.38	0.00	-52.19	-38.67	0.00	-60.78	-33.62	5755.54	905.32	119.30	0.00	0.00	39.91	0.00	0.00	0.00
43	1988	7	31	-1769.33	-1695.33	-566.78	0.00	-52.38	-40.58	0.00	-61.83	-33.90	3661.56	599.76	57.00	0.00	0.00	42.72	0.00	0.00	0.00
44	1988	8	31	-2228.29	-1435.82	-526.48	0.00	-50.93	-39.34	0.00	-60.87	-33.23	3855.40	509.74	55.95	0.00	0.00	41.36	0.00	0.00	0.00
45	1988	9	30	-2129.36	-1167.46	-480.42	0.00	-47.84	-37.55	0.00	-58.02	-31.57	3858.97	441.37	53.14	0.00	0.00	39.62	0.00	0.00	0.00
46	1988	10	31	-1599.95	-1031.41	-468.85	0.00	-48.14	-37.24	0.00	-59.06	-32.02	3668.22	517.82	53.42	0.00	0.00	39.02	0.00	0.00	0.00
47	1988	11	30	-1570.36	-1070.17	-463.79	0.00	-46.02	-31.56	0.00	-58.94	-31.36	3791.39	683.30	56.19	0.00	0.00	30.82	0.00	0.00	0.00
48	1988	12	31	-2601.84	-1246.94	-435.84	0.00	-108.77	-67.86	0.00	-69.71	-35.87	7884.78	822.43	27.61	0.00	0.00	63.39	0.00	0.00	0.00
49	1989	1	31	-1861.56	-1516.04	-533.32	0.00	-47.90	-36.21	0.00	-57.81	-33.22	4698.77	693.11	56.31	0.00	0.00	35.52	0.00	0.00	0.00
50	1989	2	28	-1874.86	-1440.00	-494.89	0.00	-68.06	-66.34	0.00	-57.57	-31.33	5066.83	1036.84	75.61	0.00	0.00	59.69	0.00	0.00	0.00
51	1989	3	31	-1758.32	-1657.63	-567.24	0.00	-46.96	-33.98	0.00	-56.25	-32.52	4585.22	804.60	66.20	0.00	0.00	32.00	0.00	0.00	0.00
52	1989	4	30	-1587.02	-1441.73	-515.31	0.00	-44.44	-27.90	0.00	-52.86	-29.69	3771.79	682.46	58.11	0.00	0.00	27.16	0.00	0.00	0.00
53	1989	5	31	-1665.89	-1715.87	-548.15	0.00	-44.98	-26.40	0.00	-53.88	-29.88	7610.81	1592.86	143.24	0.00	0.00	25.35	0.00	0.00	0.00
54	1989	6	30	-2169.76	-1153.85	-443.26	0.00	-42.70	-24.77	0.00	-51.44	-28.33	4060.43	562.90	53.79	0.00	0.00	23.79	0.00	0.00	0.00
55	1989	7	31	-1551.93	-1086.97	-428.78	0.00	-43.35	-28.58	0.00	-52.44	-28.79	3339.33	391.60	55.97	0.00	0.00	28.59	0.00	0.00	0.00
56	1989	8	31	-1505.69	-996.73	-406.63	0.00	-42.63	-28.48	0.00	-51.73	-28.31	2866.25	219.88	61.30	0.00	0.00	28.35	0.00	0.00	0.00
57	1989	9	30	-2048.70	-910.60	-372.25	0.00	-40.64	-27.59	0.00	-49.40	-26.93	3624.15	167.40	57.56	0.00	0.00	27.55	0.00	0.00	0.00
58	1989	10	31	-1569.82	-914.04	-361.41	0.00	-41.41	-27.31	0.00	-50.40	-27.35	3808.85	163.05	54.15	0.00	0.00	26.93	0.00	0.00	0.00
59	1989	11	30	-1543.58	-876.45	-347.22	0.00	-39.56	-26.38	0.00	-48.14	-26.02	3616.50	148.01	55.39	0.00	0.00	26.09	0.00	0.00	0.00
60	1989	12	31	-1580.17	-874.18	-350.70	0.00	-40.40	-26.14	0.00	-49.12	-26.42	3613.89	146.93	61.51	0.00	0.00	25.51	0.00	0.00	0.00
61	1990	1	31	-1849.89	-1083.10	-370.07	0.00	-72.98	-44.06	0.00	-56.82	-29.43	4852.16	641.20	68.15	0.00	0.00	42.82	0.00	0.00	0.00
62	1990	2	28	-1855.90	-1111.07	-354.61	0.00	-60.27	-51.38	0.00	-51.36	-27.78	4957.94	851.64	55.89	0.00	0.00	51.33	0.00	0.00	0.00
63	1990	3	31	-2321.00	-1098.36	-368.54	0.00	-41.51	-29.63	0.00	-48.54	-27.67	4963.18	642.57	61.18	0.00	0.00	28.77	0.00	0.00	0.00
64	1990	4	30	-2140.02	-888.99	-310.26	0.00	-39.64	-25.12	0.00	-45.59	-25.05	4897.36	276.39	60.99	0.00	0.00	24.39	0.00	0.00	0.00
65	1990	5	31	-1553.64	-846.87	-297.27	0.00	-40.45	-20.54	0.00	-46.55	-25.36	3451.10	148.44	68.30	0.00	0.00	18.03	0.00	0.00	0.00
66	1990	6	30	-1488.60	-737.53	-260.03	0.00	-38.71	-23.04	0.00	-44.51	-24.13	3238.01	139.16	66.69	0.00	0.00	22.09	0.00	0.00	0.00
67	1990	7	31	-2093.19	-683.14	-248.37	0.00	-39.58	-24.58	0.00	-45.45	-24.58	3778.81	142.32	75.98	0.00	0.00	23.61	0.00	0.00	0.00
68	1990	8	31	-1530.34	-628.98	-231.87	0.00	-39.19	-24.13	0.00	-44.92	-24.25	3479.38	141.48	72.02	0.00	0.00	23.05	0.00	0.00	0.00
69	1990	9	30	-2085.30	-574.78	-221.53	0.00	-37.59	-23.57	0.00	-42.97	-23.15	3979.59	135.99	69.37	0.00	0.00	22.64	0.00	0.00	0.00
70	1990	10	31	-1540.69	-564.02	-226.93	0.00	-38.53	-23.21	0.00	-43.90	-23.58	3366.64	152.74	73.38	0.00	0.00	21.94	0.00	0.00	0.00
71	1990	11	30	-1534.34	-514.12	-212.69	0.00	-37.00	-22.55	0.00	-42.01	-22.50	3634.04	147.88	69.19	0.00	0.00	21.44	0.00	0.00	0.00
72	1990	12	31	-1560.60	-511.40	-224.09	0.00	-37.97	-22.15	0.00	-42.92	-22.91	3340.15	159.22	75.66	0.00	0.00	20.68	0.00	0.00	0.00
73	1991	1	31	-1644.16	-547.76	-217.56	0.00	-38.86	-20.01	0.00	-45.75	-24.05	3835.84	297.46	75.14	0.00	0.00	15.49	0.00	0.00	0.00
74	1991	2	28	-1610.38	-631.70	-210.03	0.00	-62.17	-38.45	0.00	-44.57	-22.85	4012.37	557.82	70.67	0.00	0.00	37.39	0.00	0.00	0.00
75	1991	3	31	-4198.00	-979.65	-371.17	0.00	-292.20	-180.25	0.00	-156.63	-35.46	9860.75	3727.40	193.12	0.00	0.00	173.59	0.00	0.00	0.00
76	1991	4	30	-2101.48	-1007.03	-355.82	0.00	-78.31	-40.17	0.00	-44.52	-27.86	3966.69	1879.79	173.24	0.00	0.00	37.36	0.00	0.00	0.00
77	1991	5	31	-1590.05	-778.62	-335.60	0.00	-49.64	-21.70	0.00	-41.56	-24.31	4669.60	1300.73	134.79	0.00	0.00	18.58	0.00	0.00	0.00
78	1991	6	30	-1549.85	-652.05	-308.47	0.00	-46.66	-19.40	0.00	-39.80	-22.65	3575.80	843.86	104.82	0.00	0.00	16.50	0.00	0.00	0.00
79	1991	7	31	-2065.79	-611.31	-298.54	0.00	-46.98	-21.01	0.00	-40.72	-23.03	3401.45	372.67	81.88	0.00	0.00	18.64	0.00	0.00	0.00
80	1991	8	31	-1939.63	-555.01	-282.07	0.00	-45.86	-19.66	0.00	-40.31	-22.75	2944.04	182.85	82.97	0.00	0.00	17.24	0.00	0.00	0.00
81	1991	9	30	-1417.34	-487.81	-257.63	0.00	-43.42	-19.06	0.00	-38.63	-21.74	2524.59	157.54	80.54	0.00	0.00	16.87	0.00	0.00	0.00
82	1991	10	31	-1529.16	-760.92	-288.51	0.00	-43.98	-19.08	0.00	-39.55	-22.17	12742.65	3667.96	467.01	0.00	0.00	16.55	0.00	0.00	0.00
83	1991	11	30	-2160.23	-506.68	-245.21	0.00	-41.78	-18.44	0.00	-37.92	-21.16	5144.32	850.10	189.43	0.00	0.00	16.13	0.00	0.00	0.00
84	1991	12	31	-2255.04	-611.15	-244.32	0.00	-111.69	-64.47	0.00	-51.11	-25.40	4986.60	646.06	47.01	0.00	0.00	59.77	0.00	0.00	0.00
85	1992	1	31	-2132.14	-773.76	-287.92	0.00	-53.76	-38.85	0.00	-44.67	-25.15	5243.98	1286.99	77.09	0.00	0.00	35.33	0.00	0.00	0.00
86	1992	2	29	-4602.74	-1061.13	-390.35	0.00	-275.22	-179.40	0.00	-147.24	-33.36	14055.43	4788.33	186.21	0.00	0.00	174.36	0.00	0.00	0.00
87	1992	3	31	-3545.53	-1456.88	-499.17	0.00	-227.60	-157.10	0.00	-90.64	-36.43	9526.75	3562.34	269.28	0.00	0.00	140.47	0.00	0.00	0.00
88	1992	4	30	-2914.51	-1598.23	-584.36	0.00	-58.35	-31.69	0.00	-39.50	-27.61	8890.09	2291.98	368.31	0.00	0.00	26.90	0.00	0.00	0.00
89	1992	5	31	-2645.31	-1083.11	-436.75	0.00	-58.05	-18.23	0.00	-38.33	-24.92	5656.60	1444.06	125.73	0.00	0.00	13.14	0.00	0.00	0.00
90	1992	6	30	-1597.40	-958.75	-406.63	0.00	-54.21	-17.13	0.00	-36.75	-23.16	3720.81	1060.44	95.97	0.00	0.00	12.29	0.00	0.00	0.00
91	1992	7	31	-1536.61	-902.07	-388.89	0.00	-54.18	-19.26	0.00	-37.64	-23.32	3110.10	1007.62	87.41	0.00	0.00	16.46	0.00	0.00	0.00
92	1992	8	31	-1492.36	-821.56	-362.92	0.00	-52.53	-19.13	0.00	-37.29	-23.00	2729.93	674.29	78.93	0.00	0.00	16.31	0.00	0.00	0.00
93	1992	9	30	-1441.84	-918.96	-337.76	0.00	-49.42	-18.53	0.00	-35.77	-21.97	6993.33	1648.73	176.76	0.00	0.00	15.98	0.00	0.00	0.00
94	1992	10	31	-1776.36	-1273.95	-412.33	0.00	-51.35	-21.65	0.00	-40.68	-23.84	11567.44	3688.73	579.11	0.00	0.00	16.88	0.00	0.00	0.00
95	1992	11	30	-2422.83	-1169.91	-401.47	0.00	-46.72	-18.34	0.00	-35.66	-22.03	8770.28	2859.19	445.83	0.00	0.00	15.69	0.00	0.00	0.00
96	1992	12	31	-2755.16	-1227.40	-441.86	0.00	-143.98	-60.16	0.00	-61.51	-26.93	6341.45	1740.10	159.95	0.00	0.00	53.86	0.00	0.00	0.00
97	1993	1	31	-4782.79	-1911.91	-531.60	0.00	-290.69	-177.96	0.00	-148.08	-36.98	12318.77	4644.98	196.20	0.00	0.00	168.57	0.00	0.00	0.00
98	1993	2	28	-4200.21	-2596.44	-664.06	0.00	-259.93	-221.14	0.00	-127.93	-37.26	12127.12	5028.29	366.93	0.00	0.00	214.67	0.00	0.00	0.00
99	1993	3	31	-4934.59	-3295.58	-790.07	0.00	-188.57	-133.51	0.00	-53.43	-35.63	16451.97	3185.06	341.84	0.00	0.00	120.50	0.00	0.00	0.00
100	1993	4	30	-4532.41	-3042.47	-672.79	0.00	-67.30	-40.08	0.00	-36.31	-27.91	11904.33	1814.28	258.02	0.00	0.00	36.08	0.00	0.00	0.00
101	1993	5	31	-5772.15	-3087.29	-721.64	0.00	-66.48	-22.52	0.00	-36.13	-26.23	9393.57	1525.33	382.56	0.00	0.00	18.25	0.00	0.00	0.00
102	1993	6	30	-3885.56	-2143.87	-455.20	0.00	-61.64	-17.56	0.00	-34.67	-24.53	6804.61	930.21	96.82	0.00	0.00	12.89	0.00	0.01	0.00
103	1993	7	31	-3367.33	-2119.03	-455.70	0.00	-61.17	-19.13	0.00	-35.60	-24.79	5274.75	866.56	100.17	0.00	0.00	16.31	0.00	0.09	0.00
104	1993	8	31	-3288.93	-1990.02	-424.89	0.00	-58.85	-18.99	0.00	-35.41	-24.34	6141.23	801.18	104.16	0.00	0.00	16.14	0.00	0.21	0.00
105	1993	9	30	-3106.29	-1816.74	-397.86	0.00	-54.94	-18.43	0.00	-34.07	-23.16	7237.27	776.63	124.33	0.00	0.00	15.83	0.00	0.31	0.00
106	1993	10	31	-3692.59	-1777.60	-415.83	0.00	-54.89	-18.78	0.00	-35.00	-23.57	6842.52	814.18	137.18	0.00	0.00	15.86	0.00	0.43	0.00
107	1993	11	30	-2936.86	-1814.27	-424.93	0.00	-51.48	-17.64	0.00	-33.69	-22.48	5841.81	801.85	117.31	0.00	0.00	13.29	0.00	0.52	0.00
108	1993	12	31	-2819.06	-2010.19	-452.68	0.00	-53.15	-21.81	0.00	-37.40	-24.13	5879.15	802.92	82.02	0.00	0.00	17.12	0.00	0.02	0.00
109	1994	1	31	-2593.65	-2131.01	-436.60	0.00	-50.27	-17.16	0.00	-34.69	-23.13	6294.23	1026.00	93.58	0.00	0.00	12.34	0.00	0.57	0.00
110	1994	2	28	-3138.00	-2274.36	-461.59	0.00	-161.50	-67.65	0.00	-67.86	-25.83	5876.73	1500.08	127.33	0.00	0.00	53.35	0.00	0.01	0.00
111	1994	3	31	-3041.65	-2813.22	-510.08	0.00	-63.50	-43.33	0.00	-40.83	-28.07	5912.41	1110.05	84.32	0.00	0.00	40.11	0.00	0.00	0.00

Monthly Streamflow Budget
units in Acre-feet

				Rising Groundwater									Stream Percolation								
				System A Rising Groundwater			System B Rising Groundwater			System C Rising Groundwater			System A Stream Percolation			System B Stream Percolation			System C Stream Percolation		
Stress	Year	Month	days in month	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula
112	1994	4	30	-3117.32	-2508.74	-458.77	0.00	-50.39	-18.49	0.00	-33.57	-23.79	6009.42	890.11	68.29	0.00	0.00	14.18	0.00	0.65	0.00
113	1994	5	31	-3027.96	-2384.43	-442.64	0.00	-50.62	-17.72	0.00	-34.13	-22.99	6032.65	924.00	64.38	0.00	0.00	13.09	0.00	1.02	0.00
114	1994	6	30	-2290.48	-2289.91	-438.14	0.00	-47.55	-17.08	0.00	-32.84	-21.65	4193.27	769.90	81.04	0.00	0.00	12.71	0.00	1.08	0.00
115	1994	7	31	-2806.57	-2124.60	-435.51	0.00	-47.87	-18.41	0.00	-33.73	-22.03	3998.79	752.56	79.78	0.00	0.00	15.11	0.00	1.20	0.00
116	1994	8	31	-2684.85	-1888.38	-410.14	0.00	-46.71	-18.23	0.00	-33.54	-21.73	4733.51	779.76	106.25	0.00	0.00	14.88	0.00	1.29	0.00
117	1994	9	30	-3318.10	-2516.49	-425.62	0.00	-44.21	-17.61	0.00	-32.28	-20.70	9405.66	2470.98	352.51	0.00	0.00	14.52	0.00	1.33	0.00
118	1994	10	31	-3264.96	-2559.25	-428.89	0.00	-44.76	-16.91	0.00	-33.18	-21.07	8118.90	2058.91	372.37	0.00	0.00	11.37	0.00	1.45	0.00
119	1994	11	30	-2371.58	-1933.76	-384.23	0.00	-42.75	-18.73	0.00	-33.25	-20.71	6126.55	1027.61	168.14	0.00	0.00	14.18	0.00	0.88	0.00
120	1994	12	31	-2142.07	-1713.13	-344.10	0.00	-43.94	-17.61	0.00	-34.94	-21.70	7289.01	626.66	53.30	0.00	0.00	12.10	0.00	0.60	0.00
121	1995	1	31	-5809.89	-3296.06	-644.62	0.00	-363.69	-283.49	0.00	-234.94	-42.99	10882.75	5377.96	447.42	0.00	0.00	246.23	0.00	0.01	0.00
122	1995	2	28	-4999.39	-4466.92	-943.93	0.00	-180.54	-64.72	0.00	-40.04	-32.39	7738.72	2245.77	990.81	0.00	0.00	59.12	0.00	0.00	0.00
123	1995	3	31	-4413.15	-3609.64	-781.76	0.00	-242.96	-197.10	0.00	-101.95	-35.86	11470.99	2713.36	323.75	0.00	0.00	187.95	0.00	0.00	0.00
124	1995	4	30	-4610.39	-4011.38	-763.17	0.00	-64.20	-44.10	0.00	-34.55	-28.76	8505.31	1467.15	257.49	0.00	0.00	38.38	0.00	0.87	0.00
125	1995	5	31	-6440.47	-4755.65	-1134.98	0.00	-63.88	-23.82	0.00	-35.18	-26.45	7747.70	1714.84	708.96	0.00	0.00	17.76	0.00	0.85	0.00
126	1995	6	30	-3578.54	-2817.32	-521.85	0.00	-59.10	-17.48	0.00	-32.40	-24.19	5812.78	890.04	94.74	0.00	0.00	11.80	0.00	1.52	0.00
127	1995	7	31	-6906.78	-4246.92	-676.25	0.00	-58.78	-18.56	0.00	-33.14	-24.01	8692.94	2323.19	381.36	0.00	0.00	14.92	0.00	1.78	0.00
128	1995	8	31	-5173.87	-3406.87	-597.55	0.00	-56.68	-18.42	0.00	-32.94	-23.50	8209.30	1852.71	368.84	0.00	0.00	14.77	0.00	1.85	0.00
129	1995	9	30	-4363.14	-3118.00	-550.34	0.00	-53.03	-17.85	0.00	-31.69	-22.32	7126.27	1859.14	366.37	0.00	0.00	14.49	0.00	1.86	0.00
130	1995	10	31	-4145.72	-3088.57	-552.49	0.00	-53.12	-18.18	0.00	-32.56	-22.71	7571.24	2053.86	401.82	0.00	0.00	14.50	0.00	1.99	0.00
131	1995	11	30	-3981.79	-2944.31	-533.93	0.00	-49.97	-17.60	0.00	-31.33	-21.67	7113.81	1817.28	345.61	0.00	0.00	14.19	0.00	1.98	0.00
132	1995	12	31	-2522.03	-2133.28	-487.44	0.00	-51.57	-27.92	0.00	-34.16	-23.66	5667.22	716.29	64.87	0.00	0.00	25.01	0.00	1.22	0.00
133	1996	1	31	-2351.83	-2250.53	-489.32	0.00	-49.07	-19.11	0.00	-33.48	-23.54	5138.66	764.56	61.89	0.00	0.00	13.60	0.00	1.44	0.00
134	1996	2	29	-3053.74	-2160.94	-517.01	0.00	-157.47	-94.58	0.00	-71.24	-30.35	7312.39	1244.39	52.62	0.00	0.00	82.60	0.00	0.06	0.00
135	1996	3	31	-2827.69	-2666.68	-588.57	0.00	-53.52	-33.99	0.00	-35.90	-29.48	8229.39	841.79	44.35	0.00	0.00	28.65	0.00	0.53	0.00
136	1996	4	30	-3128.38	-2526.01	-534.70	0.00	-48.86	-17.40	0.00	-31.19	-23.98	8829.17	627.79	38.22	0.00	0.00	12.81	0.00	2.00	0.00
137	1996	5	31	-2542.77	-2602.86	-530.90	0.00	-49.02	-17.60	0.00	-31.85	-23.08	5526.14	674.53	54.72	0.00	0.00	12.79	0.00	2.32	0.00
138	1996	6	30	-2520.25	-2490.71	-505.62	0.00	-46.22	-16.97	0.00	-30.66	-21.65	3427.29	653.03	76.42	0.00	0.00	12.45	0.00	2.30	0.00
139	1996	7	31	-2322.87	-2217.71	-472.10	0.00	-46.63	-18.32	0.00	-31.52	-21.94	3419.88	500.13	75.26	0.00	0.00	14.89	0.00	2.44	0.00
140	1996	8	31	-2737.57	-1904.01	-427.40	0.00	-45.59	-18.14	0.00	-31.35	-21.63	4140.74	398.34	77.56	0.00	0.00	14.68	0.00	2.49	0.00
141	1996	9	30	-3332.93	-2426.83	-436.49	0.00	-43.23	-17.53	0.00	-30.19	-20.64	7813.28	2069.00	292.67	0.00	0.00	14.34	0.00	2.47	0.00
142	1996	10	31	-3481.99	-2584.19	-440.28	0.00	-46.62	-27.24	0.00	-34.58	-23.96	9608.12	1968.12	372.44	0.00	0.00	23.19	0.00	0.97	0.00
143	1996	11	30	-2800.91	-2202.24	-469.77	0.00	-44.98	-30.63	0.00	-33.24	-24.16	5285.87	1293.22	194.47	0.00	0.00	28.70	0.00	0.90	0.00
144	1996	12	31	-3045.70	-2015.38	-476.45	0.00	-142.38	-91.75	0.00	-64.24	-31.51	6823.17	1884.45	110.53	0.00	0.00	75.92	0.00	0.04	0.00
145	1997	1	31	-3752.19	-2785.09	-643.13	0.00	-108.20	-118.81	0.00	-43.84	-32.35	7957.50	1680.80	188.68	0.00	0.00	105.29	0.00	0.00	0.00
146	1997	2	28	-2639.86	-2762.10	-604.54	0.00	-43.72	-24.77	0.00	-28.63	-23.87	6024.11	896.14	130.15	0.00	0.00	20.50	0.00	1.92	0.00
147	1997	3	31	-2760.26	-2217.13	-485.10	0.00	-47.18	-17.45	0.00	-31.01	-23.38	10339.29	703.62	37.28	0.00	0.00	12.27	0.00	2.78	0.00
148	1997	4	30	-2768.98	-2323.52	-498.98	0.00	-44.60	-16.79	0.00	-30.00	-21.73	5855.57	640.44	62.33	0.00	0.00	11.92	0.00	2.89	0.00
149	1997	5	31	-2234.40	-2384.28	-508.82	0.00	-45.10	-17.04	0.00	-31.00	-21.88	3450.60	629.42	81.31	0.00	0.00	11.87	0.00	3.19	0.00
150	1997	6	30	-2062.47	-2138.92	-459.55	0.00	-42.78	-16.41	0.00	-30.00	-20.84	2952.50	443.64	81.54	0.00	0.00	11.53	0.00	3.27	0.00
151	1997	7	31	-2939.85	-2081.74	-429.01	0.00	-43.40	-17.77	0.00	-31.00	-21.25	4575.15	581.95	97.79	0.00	0.00	14.04	0.00	3.57	0.00
152	1997	8	31	-3387.35	-2585.94	-448.88	0.00	-42.66	-17.59	0.00	-31.00	-20.97	9827.17	2252.91	365.36	0.00	0.00	13.82	0.00	3.76	0.00
153	1997	9	30	-2979.44	-2173.79	-397.23	0.00	-40.65	-16.99	0.00	-30.00	-20.02	7466.83	1721.15	355.29	0.00	0.00	13.50	0.00	3.82	0.00
154	1997	10	31	-3713.53	-2136.57	-381.01	0.00	-41.40	-17.23	0.00	-31.00	-20.37	8895.17	1845.69	391.87	0.00	0.00	13.39	0.00	4.12	0.00
155	1997	11	30	-2385.60	-1651.80	-358.84	0.00	-47.97	-28.95	0.00	-32.17	-22.36	5302.77	717.65	101.68	0.00	0.00	26.16	0.00	1.58	0.00
156	1997	12	31	-3152.63	-1728.18	-406.85	0.00	-106.78	-71.41	0.00	-42.06	-27.04	6046.47	1120.94	62.55	0.00	0.00	56.60	0.00	0.12	0.00
157	1998	1	31	-2609.24	-1900.72	-432.28	0.00	-59.64	-64.47	0.00	-33.63	-26.63	6652.13	1144.97	34.92	0.00	0.00	62.37	0.00	1.10	0.00
158	1998	2	28	-6070.42	-3116.58	-890.63	0.00	-278.37	-394.78	0.00	-166.18	-41.95	13842.52	5741.86	446.02	0.00	0.00	305.95	0.00	0.04	0.00
159	1998	3	31	-6523.93	-3868.86	-1018.21	0.00	-137.43	-144.29	0.00	-38.54	-38.94	14679.92	2127.50	250.25	0.00	0.00	134.06	0.00	0.31	0.00
160	1998	4	30	-6096.57	-3656.89	-928.86	0.00	-55.25	-51.18	0.00	-31.96	-29.12	10506.19	1685.86	275.34	0.00	0.00	45.56	0.00	1.57	0.00
161	1998	5	31	-6777.82	-3945.95	-979.79	0.00	-101.15	-83.22	0.00	-36.14	-31.06	9379.47	1725.27	206.00	0.00	0.00	78.78	0.00	0.25	0.00
162	1998	6	30	-7296.70	-4198.07	-1050.27	0.00	-52.54	-23.97	0.00	-30.18	-26.65	7619.26	1377.92	360.78	0.00	0.00	18.09	0.00	3.03	0.00
163	1998	7	31	-7266.85	-4071.09	-1275.06	0.00	-52.63	-18.25	0.00	-31.00	-25.20	7314.52	1599.10	605.99	0.00	0.00	13.80	0.00	4.09	0.00
164	1998	8	31	-2499.91	-2436.46	-543.59	0.00	-51.12	-17.76	0.00	-31.00	-24.46	5996.42	713.02	56.97	0.00	0.00	13.30	0.00	4.28	0.00
165	1998	9	30	-5329.31	-3326.51	-668.32	0.00	-47.99	-17.10	0.00	-30.00	-23.18	8071.31	1904.33	272.21	0.00	0.00	12.82	0.00	4.32	0.00
166	1998	10	31	-4695.04	-3225.92	-740.50	0.00	-48.23	-17.52	0.00	-31.00	-23.54	8232.84	2053.04	395.87	0.00	0.00	13.03	0.00	4.65	0.00
167	1998	11	30	-5133.24	-3059.04	-735.52	0.00	-45.96	-18.03	0.00	-30.53	-23.10	8669.75	1888.68	360.43	0.00	0.00	13.21	0.00	3.81	0.00
168	1998	12	31	-4551.61	-3041.31	-732.51	0.00	-45.98	-17.28	0.00	-31.00	-23.22	9465.78	1873.93	346.43	0.00	0.00	12.66	0.00	4.79	0.00
169	1999	1	31	-2743.73	-2182.50	-625.20	0.00	-46.68	-27.55	0.00	-32.47	-25.12	6999.17	841.03	77.46	0.00	0.00	23.72	0.00	2.77	0.00
170	1999	2	28	-2237.91	-1994.56	-555.74	0.00	-40.15	-18.07	0.00	-28.90	-22.71	6048.60	678.12	46.35	0.00	0.00	13.31	0.00	2.86	0.00
171	1999	3	31	-2572.25	-2288.04	-631.42	0.00	-45.49	-33.76	0.00	-32.55	-26.26	6554.84	702.14	39.66	0.00	0.00	32.43	0.00	2.56	0.00
172	1999	4	30	-3097.80	-2057.51	-590.24	0.00	-43.11	-29.35	0.00	-31.34	-25.28	9491.96	774.54	24.68	0.00	0.00	26.13	0.00	2.59	0.00
173	1999	5	31	-2922.00	-2149.50	-586.13	0.00	-42.14	-17.87	0.00	-31.00	-23.78	7381.80	626.09	30.50	0.00	0.00	13.51	0.00	5.04	0.00
174	1999	6	30	-2495.52	-2162.28	-549.65	0.00	-40.19	-16.99	0.00	-30.00	-21.73	5448.02	581.28	50.82	0.00	0.00	12.90	0.00	5.41	0.00
175	1999	7	31	-2635.54	-2248.66	-560.42	0.00	-40.98	-17.42	0.00	-31.00	-21.93	2451.63	600.15	81.90	0.00	0.00	13.21	0.00	5.74	0.00
176	1999	8	31	-2278.30	-1988.56	-506.03	0.00	-40.47	-17.24	0.00	-31.00	-21.60	2713.06	471.90	76.74	0.00	0.00	12.99	0.00	5.89	0.00
177	1999	9	30	-3656.58	-2651.71	-512.53	0.00	-38.71	-16.65	0.00	-30.00	-20.62	8968.02	2242.77	328.03	0.00	0.00	12.67	0.00	5.83	0.00
178	1999	10	31	-2840.80	-2117.66	-496.55	0.00	-39.59	-16.89	0.00	-31.00	-21.00	6428.99	1249.15	272.52	0.00	0.00	12.55	0.00	6.17	0.00
179	1999	11	30	-2109.86	-1601.31	-445.09	0.00	-37.94	-16.31	0.00	-30.00	-20.04	3933.79	372.90	67.88	0.00	0.00	11.37	0.00	6.10	0.00
180	1999	12	31	-2143.19	-1595.38	-444.80	0.00	-38.85	-16.56	0.00	-31.00	-20.41	3927.42	506.35	67.32	0.00	0.00	12.12	0.00	6.43	0.00
181	2000	1	31	-2224.67	-1636.53	-451.09	0.00	-39.39	-21.66	0.00	-31.92	-21.52	4401.19	647.50	70.12	0.00	0.00	16.32	0.00	5.08	0.00
182	2000	2	29	-2981.84	-1590.64	-464.41	0.00	-123.92	-96.61	0.00	-55.66	-27.91	8471.17	1479.30	79.35	0.00	0.00	87.96	0.00	0.39	0.00
183	2000	3	31	-2868.67	-2126.01	-573.15	0.00	-44.39	-51.97	0.00	-32.68	-27.17	8548.18	1329.81	103.15	0.00	0.00	49.54	0.00	2.66	0.00
184	2000	4	30	-2421.05	-2140.84	-611.33	0.00	-41.98	-60.23	0.00	-31.46	-24.30	4985.33	1127.89	103.02	0.00	0.00	58.16	0.00	3.55	0.00
185	2000	5	31	-2702.54	-1893.51	-536.95	0.00	-40.80	-20.84	0.00	-31.00	-22.52	5981.28	742.17	59.82	0.00	0.00	16.53	0.00	6.11	0.00
186	2000	6	30	-2434.94	-1397.55	-386.96	0.00	-38.99	-17.12	0.00	-30.00	-20.35	7627.64	523.49	22.52	0.00	0.00	13.14	0.00	6.45	0.00
187	2000	7	31	-2036.67	-1683.32	-477.96	0.00	-39.83	-16.88	0.00	-31.00	-20.51	3359.96	518.25	72.51	0.00	0.00	12.00	0.00	6.80	0.00
188	2000	8	31	-1940.54	-1462.39	-450.94	0.00	-39.40	-16.66	0.00	-31.00	-20.23	2959.43	442.39	72.97	0.00	0.00	11.77	0.00	6.93	0.00
189	2000	9	30	-2960.86	-2007.55	-461.04	0.00	-37.76	-16.04	0.00	-30.00	-19.31	11384.62	2872.52	434.25	0.00	0.00	11.46	0.00	6.83	0.00
190	2000	10	31	-3230.74	-2273.85	-514.20	0.00	-39.83	-21.45	0.00	-32.45	-21.55	9413.22	2233.49	500.33	0.00	0.00	15.84	0.00	4.80	0.00
191	2000	11	30	-2563.13	-1767.89	-484.86	0.00	-37.17	-15.76	0.00	-30.00	-19.64	5951.25	1149.83	232.81	0.00	0.00	11.12	0.00	6.56	0.00
192	2000	12	31	-2102.78	-1433.49	-453.51	0.00	-38.12	-15.98	0.00	-31.00	-19.37	3922.49	599.50	68.25	0.00	0.00	10.98	0.00	7.32	0.00
193	2001	1	31	-2761.48	-1734.94	-491.66	0.00	-156.64	-62.40	0.00	-63.54	-26.19	6024.45	1093.09	90.79	0.00	0.00	45.33	0.00	0.58	0.00
194	2001	2	28	-3508.18	-2138.76	-562.60	0.00	-195.84	-102.16	0.00	-81.35	-28.43	7209.64	2238.51	189.81	0.00	0.00	89.77	0.00	0.00	0.00
195	2001	3	31	-3336.60	-3031.83	-745.97	0.00	-133.16	-157.05	0.00	-53.46	-31.66	8915.10	2996.43	328.67	0.00	0.00	141.95	0.00	0.00	0.00
196	2001	4	30	-3131.77	-2993.10	-691.71	0.00	-52.09	-33.85	0.00	-31.88	-26.54	6265.39	1063.11	114.68	0.00	0.00	27.85	0.00	2.19	0.00
197	2001	5	31	-2238.36	-2621.46	-627.28	0.00	-50.47	-17.68	0.00	-31.00	-23.29	4403.28	810.98	93.75	0.00	0.00	12.70	0.00	6.11	0.00
198	2001	6	30	-2069.49	-2151.08	-534.07	0.00	-47.35	-16.97	0.00	-30.00	-20.93	4262.74	710.57	86.54	0.00	0.00	12.33	0.00	6.57	0.00
199	2001	7	31	-2098.03	-1975.51	-514.08	0.00	-47.61	-16.95	0.00	-31.00	-20.90	3349.50	698.76	84.80	0.00	0.00	11.46	0.00	6.94	0.00
200	2001	8	31	-2567.06	-1816.88	-487.77	0.00	-46.43	-16.73	0.00	-31.00	-20.49	3156.75	651.99	80.41	0.00	0.00	11.26	0.00	7.09	0.00
201	2001	9	30	-3123.04	-2427.17	-506.11	0.00	-43.91	-15.98	0.00	-30.00	-19.54	11385.33	2991.32	455.61	0.00	0.00	10.84	0.00	6.99	0.00
202	2001	10	31	-3172.68	-2366.46	-533.56	0.00	-44.44	-16.31	0.00	-31.00	-19.92	9140.06	2326.89	499.98	0.00	0.00	10.86	0.00	7.35	0.00
203	2001	11	30	-3059.27	-2362.77	-550.03	0.00	-68.68	-38.08	0.00	-32.44	-21.92	6436.22	1279.24	221.77	0.00	0.00	35.73	0.00	3.09	0.00
204	2001	12	31	-2336.66	-2171.18	-522.87	0.00	-45.44	-19.47	0.00	-32.12	-21.93	5435.02	658.65	66.48	0.00	0.00	13.13	0.00	4.77	0.00
205	2002	1	31	-2234.99	-2268.27	-528.46	0.00	-43.53	-17.47	0.00	-31.71	-20.76	5082.88	671.54	70.87	0.00	0.00	10.65	0.00	5.97	0.00
206	2002	2	28	-1964.15	-1998.61	-472.08	0.00	-38.42	-14.53	0.00	-28.00	-17.81	3877.63	618.97	70.44	0.00	0.00	9.42	0.00	6.64	0.00
207	2002	3	31	-2069.90	-1969.55	-473.54	0.00	-41.89	-15.91	0.00	-31.00	-19.19	4714.32	658.86	70.89	0.00	0.00	9.81	0.00	7.70	0.00
208	2002	4	30	-1946.27	-1772.45	-432.32	0.00	-39.96	-15.21	0.00	-30.00	-18.30	4143.57	628.13	69.28	0.00	0.00	9.39	0.00	7.57	0.00
209	2002	5	31	-2523.34	-1736.93	-430.06	0.00	-40.74	-15.54	0.00	-31.00	-18.66	3899.70	627.16	75.29	0.00	0.00	9.34	0.00	7.94	0.00
210	2002	6	30	-1800.06	-1558.88	-393.42	0.00	-38.95	-14.87	0.00	-30.00	-17.81	3168.40	518.34	70.56	0.00	0.00	8.94	0.00	7.79	0.00
211	2002	7	31	-2389.08	-1436.42	-369.39	0.00	-39.79	-15.85	0.00	-31.00	-18.18	3605.72	489.10	70.43	0.00	0.00	11.27	0.00	8.15	0.00
212	2002	8	31	-2035.27	-1280.17	-354.85	0.00	-39.37	-15.67	0.00	-31.00	-17.95	2319.59	522.78	79.65	0.00	0.00	11.04	0.00	8.26	0.00
213	2002	9	30	-2185.52	-1767.88	-356.88	0.00	-37.74	-15.14	0.00	-30.00	-17.15	10895.64	3005.91	458.21	0.00	0.00	10.78	0.00	8.09	0.00
214	2002	10	31	-1921.31	-1159.07	-323.33	0.00	-38.66	-15.33	0.00	-31.00	-17.48	2934.03	581.85	88.73	0.00	0.00	10.59	0.00	8.46	0.00
215	2002	11	30	-2295.04	-1438.34	-368.03	0.00	-90.83	-45.66	0.00	-33.02	-20.14	3870.28	745.59	80.43	0.00	0.00	38.81	0.00	3.06	0.00
216	2002	12	31	-2455.96	-1686.22	-389.27	0.00	-89.35	-41.97	0.00	-33.97	-22.62	6053.64	773.04	44.81	0.00	0.00	37.99	0.00	2.36	0.00
217	2003	1	31	-2012.23	-1780.34	-421.77	0.00	-41.92	-15.35	0.00	-31.00	-19.06	4699.91	683.10	71.80	0.00	0.00	8.48	0.00	7.48	0.00
218	2003	2	28	-2627.27	-1547.63	-367.21	0.00	-112.02	-47.49	0.00	-39.95	-19.91	6462.38	1079.89	58.79	0.00	0.00	39.71	0.00	1.72	0.00
219	2003	3	31	-2535.11	-2039.78	-460.90	0.00	-80.19	-60.00	0.00	-33.66	-22.40	6440.47	1120.17	73.38	0.00	0.00	58.38	0.00	2.54	0.00
220	2003	4	30	-2586.00	-1768.14	-375.53	0.00	-44.79	-19.66	0.00	-31.50	-20.31	8169.48	914.41	35.43	0.00	0.00	12.34	0.00	4.76	0.00
221	2003	5	31	-2007.30	-2135.60	-479.58	0.00	-46.17	-22.98	0.00	-32.70	-20.89	4827.78	1201.88	122.26	0.00	0.00	17.27	0.00	5.04	0.00
222	2003	6	30	-1777.00	-1904.41	-450.24	0.00	-41.86	-15.17	0.00	-30.00	-18.37	3741.74	687.98	76.37	0.00	0.00	8.66	0.00	7.55	0.00

Monthly Streamflow Budget
units in Acre-feet

Stress	Year	Month	days in month	Rising Groundwater									Stream Percolation								
				System A Rising Groundwater			System B Rising Groundwater			System C Rising Groundwater			System A Stream Percolation			System B Stream Percolation			System C Stream Percolation		
				Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula
223	2003	7	31	-1740.67	-1701.42	-436.66	0.00	-42.51	-16.18	0.00	-31.00	-17.81	3140.26	638.16	73.76	0.00	0.00	11.57	0.00	8.42	0.00
224	2003	8	31	-1657.07	-1488.30	-413.56	0.00	-41.82	-15.96	0.00	-31.00	-17.59	2705.96	612.41	73.33	0.00	0.00	11.33	0.00	8.53	0.00
225	2003	9	30	-2029.07	-1950.89	-428.28	0.00	-39.89	-15.38	0.00	-30.00	-16.81	11468.81	2962.48	445.11	0.00	0.00	11.06	0.00	8.35	0.00
226	2003	10	31	-2247.32	-1623.63	-405.17	0.00	-40.67	-15.55	0.00	-31.00	-17.16	6802.21	1368.95	248.91	0.00	0.00	10.86	0.00	8.73	0.00
227	2003	11	30	-1864.64	-1439.94	-368.33	0.00	-41.17	-28.36	0.00	-32.14	-18.13	4338.49	620.83	60.79	0.00	0.00	25.66	0.00	4.94	0.00
228	2003	12	31	-1988.83	-1590.52	-369.67	0.00	-44.95	-20.97	0.00	-33.05	-19.90	5439.57	729.55	53.56	0.00	0.00	15.25	0.00	4.82	0.00
229	2004	1	31	-1934.47	-1513.87	-348.71	0.00	-39.57	-14.68	0.00	-31.00	-17.73	6053.44	630.60	45.65	0.00	0.00	8.23	0.00	8.19	0.00
230	2004	2	29	-2611.43	-1658.29	-370.84	0.00	-155.90	-61.02	0.00	-62.03	-22.13	7485.11	1424.63	70.53	0.00	0.00	46.20	0.00	0.89	0.00
231	2004	3	31	-2768.40	-1810.95	-396.51	0.00	-44.08	-16.97	0.00	-31.08	-19.93	7077.92	785.21	52.26	0.00	0.00	10.99	0.00	6.73	0.00
232	2004	4	30	-1783.51	-1735.32	-415.22	0.00	-41.85	-14.57	0.00	-30.00	-16.77	3817.15	693.68	76.27	0.00	0.00	8.75	0.00	8.39	0.00
233	2004	5	31	-2378.63	-1588.65	-393.33	0.00	-42.50	-14.87	0.00	-31.00	-17.02	4301.07	649.92	73.65	0.00	0.00	8.71	0.00	8.78	0.00
234	2004	6	30	-1674.40	-1396.39	-353.50	0.00	-40.47	-14.20	0.00	-30.00	-16.28	3478.34	579.11	68.32	0.00	0.00	8.37	0.00	8.60	0.00
235	2004	7	31	-1642.22	-1253.35	-344.52	0.00	-41.21	-15.35	0.00	-31.00	-16.63	2789.92	501.94	73.09	0.00	0.00	10.84	0.00	8.98	0.00
236	2004	8	31	-1618.21	-1054.68	-313.61	0.00	-40.65	-15.16	0.00	-31.00	-16.41	3037.70	471.44	71.91	0.00	0.00	10.63	0.00	9.08	0.00
237	2004	9	30	-2100.12	-919.19	-289.86	0.00	-38.85	-14.65	0.00	-30.00	-15.68	3227.38	333.89	74.15	0.00	0.00	10.44	0.00	8.88	0.00
238	2004	10	31	-2855.00	-1638.32	-333.02	0.00	-162.26	-55.87	0.00	-65.49	-22.13	12160.73	2875.29	307.75	0.00	0.00	42.97	0.00	1.15	0.00
239	2004	11	30	-2033.43	-1334.76	-333.39	0.00	-43.28	-15.00	0.00	-30.05	-18.46	4410.87	703.53	76.04	0.00	0.00	10.77	0.00	6.88	0.00
240	2004	12	31	-2821.72	-1478.91	-333.02	0.00	-196.78	-84.75	0.00	-81.12	-24.76	8315.88	1810.56	62.70	0.00	0.00	68.28	0.00	0.78	0.00
241	2005	1	31	-6429.60	-3084.91	-605.40	0.00	-336.60	-284.76	0.00	-207.34	-42.09	17981.96	5810.06	391.73	0.00	0.00	255.23	0.00	0.00	0.07
242	2005	2	28	-5665.26	-3441.83	-766.33	0.00	-253.84	-215.40	0.00	-105.87	-37.26	15755.06	4371.63	356.29	0.00	0.00	222.13	0.00	0.00	0.00
243	2005	3	31	-5414.85	-4117.31	-896.49	0.00	-173.13	-94.37	0.00	-34.57	-30.61	14552.29	2198.76	327.17	0.00	0.00	90.29	0.00	1.52	0.00
244	2005	4	30	-4616.38	-3865.95	-825.38	0.00	-67.32	-20.87	0.00	-30.00	-23.66	11469.44	1409.70	292.05	0.00	0.00	13.84	0.00	6.46	0.00
245	2005	5	31	-5515.47	-3663.77	-834.34	0.00	-66.47	-17.29	0.00	-31.00	-22.28	11160.24	1399.79	411.92	0.00	0.00	10.82	0.00	7.56	0.00
246	2005	6	30	-6748.76	-3713.56	-1129.44	0.00	-61.61	-16.51	0.00	-30.00	-20.80	8764.41	1787.49	779.67	0.00	0.00	10.41	0.00	7.47	0.00
247	2005	7	31	-3516.61	-2366.34	-440.06	0.00	-61.13	-16.95	0.00	-31.00	-20.97	6775.43	732.07	97.30	0.00	0.00	11.88	0.00	7.88	0.00
248	2005	8	31	-4928.86	-3047.23	-529.16	0.00	-58.80	-16.74	0.00	-31.00	-20.56	6623.04	1404.14	197.12	0.00	0.00	11.70	0.00	8.03	0.00
249	2005	9	30	-4866.07	-3082.25	-552.93	0.00	-54.89	-16.13	0.00	-30.00	-19.58	9229.58	2168.42	437.84	0.00	0.00	11.44	0.00	7.90	0.00
250	2005	10	31	-3370.16	-2449.70	-494.12	0.00	-55.76	-17.83	0.00	-32.00	-21.02	7719.12	1178.29	204.70	0.00	0.00	11.61	0.00	6.65	0.00
251	2005	11	30	-2439.93	-2115.28	-461.94	0.00	-51.47	-15.58	0.00	-30.00	-19.60	5510.35	628.60	53.65	0.00	0.00	10.45	0.00	7.82	0.00
252	2005	12	31	-2494.09	-2172.24	-456.22	0.00	-51.69	-16.04	0.00	-31.00	-19.59	5564.20	684.23	56.86	0.00	0.00	10.99	0.00	8.50	0.00
253	2006	1	31	-2711.43	-2098.76	-429.55	0.00	-125.37	-44.23	0.00	-44.29	-24.48	8528.65	1186.02	29.87	0.00	0.00	38.67	0.00	1.93	0.00
254	2006	2	28	-2523.86	-2290.00	-413.02	0.00	-107.62	-25.40	0.00	-35.11	-24.05	7572.61	1026.53	21.97	0.00	0.00	21.48	0.00	0.49	0.00
255	2006	3	31	-4434.27	-2756.21	-528.89	0.00	-122.22	-59.20	0.00	-40.92	-27.07	11428.94	1394.52	51.24	0.00	0.00	52.39	0.00	0.96	0.00
256	2006	4	30	-4854.52	-3130.89	-599.63	0.00	-134.78	-76.72	0.00	-44.69	-26.47	11474.35	2365.68	128.70	0.00	0.00	68.82	0.00	0.54	0.00
257	2006	5	31	-5265.42	-3568.61	-666.56	0.00	-57.45	-25.47	0.00	-31.94	-24.74	9976.59	864.03	98.75	0.00	0.00	20.11	0.00	5.29	0.00
258	2006	6	30	-4860.58	-2991.14	-579.59	0.00	-53.35	-16.96	0.00	-30.00	-21.23	7909.18	726.01	88.12	0.00	0.00	12.84	0.00	7.67	0.00
259	2006	7	31	-3956.03	-3063.85	-552.19	0.00	-53.40	-16.59	0.00	-31.00	-20.72	4201.87	783.82	106.97	0.00	0.00	11.38	0.00	8.35	0.00
260	2006	8	31	-7011.38	-3878.22	-643.20	0.00	-51.86	-16.36	0.00	-31.00	-20.14	7409.60	2084.68	402.25	0.00	0.00	11.14	0.00	8.48	0.00
261	2006	9	30	-4474.84	-3086.35	-559.99	0.00	-48.76	-15.73	0.00	-30.00	-19.16	6914.65	1796.86	390.31	0.00	0.00	10.82	0.00	8.32	0.00
262	2006	10	31	-4369.03	-3039.20	-551.25	0.00	-48.93	-15.94	0.00	-31.00	-19.57	7925.56	1937.79	413.99	0.00	0.00	10.68	0.00	8.72	0.00
263	2006	11	30	-2647.28	-2160.89	-474.65	0.00	-46.15	-15.33	0.00	-30.00	-18.68	4798.63	795.42	117.67	0.00	0.00	10.36	0.00	8.55	0.00
264	2006	12	31	-2385.52	-2146.93	-467.16	0.00	-46.56	-15.70	0.00	-31.00	-19.00	4590.19	681.83	78.73	0.00	0.00	9.21	0.00	8.94	0.00
265	2007	1	31	-2381.55	-2251.39	-470.47	0.00	-47.69	-27.64	0.00	-32.62	-20.80	5549.32	693.21	65.42	0.00	0.00	23.72	0.00	6.33	0.00
266	2007	2	28	-2179.93	-2114.07	-425.26	0.00	-41.60	-15.80	0.00	-29.24	-18.80	5380.93	616.76	63.59	0.00	0.00	10.28	0.00	5.78	0.00
267	2007	3	31	-2925.69	-2226.67	-456.77	0.00	-43.95	-15.33	0.00	-31.00	-19.18	5439.14	685.22	78.82	0.00	0.00	9.65	0.00	8.70	0.00
268	2007	4	30	-2119.82	-2043.39	-423.69	0.00	-41.79	-15.78	0.00	-30.00	-17.84	4570.08	643.38	74.18	0.00	0.00	9.68	0.00	8.89	0.00
269	2007	5	31	-2119.26	-2007.05	-421.58	0.00	-42.48	-14.99	0.00	-31.00	-18.21	3854.04	645.31	78.17	0.00	0.00	9.21	0.00	9.28	0.00
270	2007	6	30	-2564.65	-1779.18	-385.75	0.00	-40.50	-14.34	0.00	-30.00	-17.41	3778.02	610.58	77.92	0.00	0.00	8.85	0.00	9.07	0.00
271	2007	7	31	-2495.35	-1725.60	-373.58	0.00	-41.27	-14.65	0.00	-31.00	-17.78	3425.03	608.92	83.67	0.00	0.00	8.85	0.00	9.47	0.00
272	2007	8	31	-2686.22	-2196.40	-374.65	0.00	-40.73	-14.49	0.00	-31.00	-17.55	8476.31	2123.82	272.59	0.00	0.00	8.63	0.00	9.55	0.00
273	2007	9	30	-2594.88	-2072.24	-357.88	0.00	-38.96	-13.87	0.00	-30.00	-16.77	8735.94	2176.37	435.84	0.00	0.00	8.30	0.00	9.33	0.00
274	2007	10	31	-3430.79	-2120.55	-364.43	0.00	-39.82	-14.18	0.00	-31.00	-17.12	10045.82	2295.48	475.03	0.00	0.00	8.22	0.00	9.72	0.00
275	2007	11	30	-2112.32	-1481.69	-328.20	0.00	-38.14	-13.58	0.00	-30.00	-16.36	4790.89	784.85	127.76	0.00	0.00	7.91	0.00	9.49	0.00
276	2007	12	31	-2234.14	-1619.92	-348.24	0.00	-67.28	-35.67	0.00	-34.28	-19.44	6094.84	758.56	55.48	0.00	0.00	34.67	0.00	4.45	0.00
277	2008	1	31	-4176.38	-2172.16	-484.12	0.00	-261.84	-127.92	0.00	-119.48	-30.97	10889.57	3266.75	191.49	0.00	0.00	123.88	0.00	0.19	0.00
278	2008	2	29	-3480.90	-2614.18	-519.01	0.00	-52.84	-29.99	0.00	-31.71	-23.93	9075.18	1675.77	259.82	0.00	0.00	24.30	0.00	3.19	0.00
279	2008	3	31	-3054.54	-2569.65	-542.46	0.00	-48.57	-15.57	0.00	-31.00	-19.96	8121.41	1114.25	166.27	0.00	0.00	8.95	0.00	8.60	0.00
280	2008	4	30	-1976.46	-1975.89	-441.25	0.00	-45.76	-14.90	0.00	-30.00	-17.83	5489.47	787.53	73.65	0.00	0.00	8.64	0.00	8.97	0.00
281	2008	5	31	-2060.50	-1987.40	-445.38	0.00	-46.16	-15.18	0.00	-31.00	-17.90	4604.37	778.33	87.38	0.00	0.00	8.58	0.00	9.37	0.00
282	2008	6	30	-2560.53	-1740.42	-387.73	0.00	-43.69	-14.48	0.00	-30.00	-17.16	5547.11	647.75	66.57	0.00	0.00	8.23	0.00	9.16	0.00
283	2008	7	31	-1984.83	-1674.61	-376.62	0.00	-44.23	-15.29	0.00	-31.00	-17.54	4263.10	642.95	73.37	0.00	0.00	10.30	0.00	9.57	0.00
284	2008	8	31	-2592.05	-1438.36	-333.30	0.00	-43.39	-15.08	0.00	-31.00	-17.34	5572.91	618.69	64.57	0.00	0.00	10.08	0.00	9.66	0.00
285	2008	9	30	-3076.17	-2247.30	-364.11	0.00	-41.27	-14.55	0.00	-30.00	-16.58	12631.56	3262.40	533.08	0.00	0.00	9.87	0.00	9.43	0.00
286	2008	10	31	-3002.84	-2078.45	-372.85	0.00	-41.97	-14.71	0.00	-31.00	-16.92	10262.81	2627.65	598.00	0.00	0.00	9.66	0.00	9.83	0.00
287	2008	11	30	-2320.59	-1573.97	-354.29	0.00	-52.49	-26.19	0.00	-32.29	-17.60	5453.23	680.18	71.36	0.00	0.00	22.65	0.00	5.74	0.00
288	2008	12	31	-2339.21	-1790.80	-370.69	0.00	-55.01	-24.91	0.00	-33.09	-19.28	6318.28	717.57	52.45	0.00	0.00	20.48	0.00	5.58	0.00
289	2009	1	31	-2160.22	-1855.05	-366.97	0.00	-41.34	-14.12	0.00	-31.00	-17.34	5840.97	709.56	66.70	0.00	0.00	6.41	0.00	9.18	0.00
290	2009	2	28	-2649.09	-1607.55	-335.24	0.00	-130.73	-45.36	0.00	-51.28	-20.02	9077.00	1278.95	45.47	0.00	0.00	37.09	0.00	1.73	0.00
291	2009	3	31	-2899.18	-2046.05	-368.88	0.00	-44.48	-14.39	0.00	-31.02	-18.82	8166.02	815.37	59.50	0.00	0.00	6.72	0.00	7.98	0.00
292	2009	4	30	-2666.90	-1935.60	-350.07	0.00	-42.22	-13.81	0.00	-30.00	-16.37	6061.02	695.39	68.88	0.00	0.00	7.25	0.00	9.42	0.00
293	2009	5	31	-2131.55	-1956.73	-361.81	0.00	-42.86	-14.10	0.00	-31.00	-16.64	3887.49	685.15	87.76	0.00	0.00	7.16	0.00	9.82	0.00
294	2009	6	30	-2004.14	-1735.97	-333.58	0.00	-40.80	-13.48	0.00	-30.00	-15.90	3252.15	656.64	87.66	0.00	0.00	6.87	0.00	9.59	0.00
295	2009	7	31	-1996.43	-1620.32	-320.26	0.00	-41.52	-13.80	0.00	-31.00	-16.25	2825.10	594.94	91.28	0.00	0.00	7.99	0.00	9.99	0.00
296	2009	8	31	-1916.83	-1400.49	-289.09	0.00	-40.94	-13.64	0.00	-31.00	-16.05	2893.66	609.51	88.83	0.00	0.00	7.79	0.00	10.06	0.00
297	2009	9	30	-2699.43	-1843.88	-286.50	0.00	-39.12	-13.17	0.00	-30.00	-15.34	9860.68	2551.18	376.07	0.00	0.00	7.65	0.00	9.81	0.00
298	2009	10	31	-3284.79	-2401.35	-338.36	0.00	-81.85	-35.05	0.00	-35.04	-18.91	9716.80	2322.58	495.87	0.00	0.00	32.81	0.00	3.71	0.00
299	2009	11	30	-2244.08	-1585.11	-293.38	0.00	-40.02	-13.11	0.00	-30.00	-16.99	5509.57	846.18	129.06	0.00	0.00	7.53	0.00	8.60	0.00
300	2009	12	31	-2508.89	-1527.36	-276.46	0.00	-103.44	-36.26	0.00	-37.03	-19.63	7180.00	849.75	31.39	0.00	0.00	34.97	0.00	4.30	0.00
301	2010	1	31	-3201.74	-1906.14	-368.24	0.00	-154.87	-62.42	0.00	-58.33	-23.52	9011.97	1599.53	65.25	0.00	0.00	45.65	0.00	0.82	0.00
302	2010	2	28	-2841.38	-2113.86	-387.10	0.00	-101.51	-57.76	0.00	-33.76	-20.92	7631.25	1314.34	72.51	0.00	0.00	54.12	0.00	2.09	0.00
303	2010	3	31	-2901.85	-2132.45	-378.27	0.00	-49.04	-16.22	0.00	-31.00	-18.90	10549.57	870.27	51.60	0.00	0.00	8.60	0.00	8.59	0.00
304	2010	4	30	-2967.16	-2011.09	-351.73	0.00	-49.91	-21.78	0.00	-32.12	-18.88	11214.62	838.99	44.24	0.00	0.00	15.65	0.00	5.99	0.00
305	2010	5	31	-2105.01	-2091.86	-354.02	0.00	-46.64	-14.37	0.00	-31.00	-17.97	6087.62	714.52	50.71	0.00	0.00	6.90	0.00	9.07	0.00
306	2010	6	30	-2146.75	-2158.50	-362.58	0.00	-44.09	-13.73	0.00	-30.00	-16.15	3362.89	664.65	88.96	0.00	0.00	6.61	0.00	9.48	0.00
307	2010	7	31	-2132.96	-1980.56	-351.78	0.00	-44.60	-14.28	0.00	-31.00	-16.49	2348.15	675.72	100.04	0.00	0.00	8.81	0.00	9.89	0.00
308	2010	8	31	-2054.28	-1762.02	-324.81	0.00	-43.72	-14.10	0.00	-31.00	-16.29	2192.80	664.07	101.60	0.00	0.00	8.61	0.00	9.97	0.00
309	2010	9	30	-2812.83	-2057.65	-310.96	0.00	-41.56	-13.61	0.00	-30.00	-15.57	7900.84	2111.13	315.47	0.00	0.00	8.47	0.00	9.73	0.00
310	2010	10	31	-3420.84	-2600.34	-368.47	0.00	-45.02	-22.62	0.00	-32.68	-16.71	9613.78	2420.51	556.52	0.00	0.00	16.90	0.00	7.28	0.00
311	2010	11	30	-2781.37	-2222.75	-332.82	0.00	-41.38	-14.89	0.00	-31.67	-17.25	6466.16	1278.77	258.01	0.00	0.00	8.05	0.00	6.60	0.00
312	2010	12	31	-3737.37	-2096.98	-390.71	0.00	-246.97	-83.75	0.00	-102.89	-26.26	9084.66	1911.53	104.01	0.00	0.00	73.25	0.00	0.50	0.00
313	2011	1	31	-3542.31	-2714.39	-456.43	0.00	-50.09	-15.72	0.00	-31.41	-21.06	6621.64	966.94	168.15	0.00	0.00	8.42	0.00	7.05	0.00
314	2011	2	28	-2881.37	-1998.44	-351.65	0.00	-104.12	-47.15	0.00	-34.98	-19.69	7414.05	1003.01	50.75	0.00	0.00	42.90	0.00	2.95	0.00
315	2011	3	31	-4059.91	-2509.32	-448.02	0.00	-188.09	-89.72	0.00	-72.05	-27.02	12990.61	2351.31	78.89	0.00	0.00	76.21	0.00	0.18	0.02
316	2011	4	30	-3473.70	-2552.01	-427.97	0.00	-53.41	-17.49	0.00	-30.10	-21.25	12057.48	1051.53	71.31	0.00	0.00	10.67	0.00	6.91	0.00
317	2011	5	31	-3339.58	-2845.40	-483.87	0.00	-53.40	-15.11	0.00	-31.00	-18.47	6766.36	856.86	106.98	0.00	0.00	7.14	0.00	9.32	0.00
318	2011	6	30	-2786.90	-2278.90	-391.07	0.00	-50.17	-14.18	0.00	-30.00	-16.94	6218.60	701.27	53.78	0.00	0.00	7.42	0.00	9.14	0.00
319	2011	7	31	-2519.59	-2452.14	-430.57	0.00	-50.33	-14.43	0.00	-31.00	-17.12	3364.43	715.04	92.61	0.00	0.00	8.35	0.00	9.56	0.00
320	2011	8	31	-2344.41	-2213.17	-397.65	0.00	-48.82	-14.23	0.00	-31.00	-16.98	3388.69	648.31	84.44	0.00	0.00	8.15	0.00	9.67	0.00
321	2011	9	30	-3437.23	-2780.91	-410.73	0.00	-46.02	-13.60	0.00	-30.00	-16.24	7967.96	2337.49	395.11	0.00	0.00	7.86	0.00	9.45	0.00
322	2011	10	31	-3466.92	-2921.12	-438.52	0.00	-47.04	-15.03	0.00	-32.19	-16.99	8720.41	1896.05	454.68	0.00	0.00	7.03	0.00	7.81	0.00
323	2011	11	30	-2360.83	-2227.35	-388.56	0.00	-46.10	-15.10	0.00	-31.50	-17.17	5508.88	609.94	84.09	0.00	0.00	7.54	0.00	6.67	0.00
324	2011	12	31	-2271.30	-2217.62	-380.18	0.00	-44.59	-13.62	0.00	-31.00	-16.74	5337.62	624.51	68.59	0.00	0.00	7.42	0.00	9.42	0.00
325	2012	1	31	-2916.67	-2334.05	-385.01	0.00	-44.47	-13.52	0.00	-31.80	-16.68	4988.71	680.90	90.42	0.00	0.00	6.19	0.00	8.50	0.00
326	2012	2	29	-2050.42	-1980.16	-330.01	0.00	-40.25	-12.49	0.00	-29.00	-15.26	4447.08	821.72	79.19	0.00	0.00	6.78	0.00	9.11	0.00
327	2012	3	31	-2315.07	-2039.52	-331.57	0.00	-59.28	-30.22	0.00	-33.40	-18.56	6142.05	964.16	56.28	0.00	0.00	27.30	0.00	6.01	0.00
328	2012	4	30	-2218.37	-2103.39	-321.81	0.00	-49.76	-22.20	0.00	-32.18	-18.79	6406.18	757.99	46.93	0.00	0.00	17.13	0.00	5.32	0.00
329	2012	5	31	-2217.04	-2323.59	-353.35	0.00	-42.14	-13.29	0.00	-31.00	-16.96	4507.70	638.64	81.83	0.00	0.00	6.78	0.00	9.32	0.00
330	2012	6	30	-2046.86	-1993.75	-322.02	0.00	-40.18	-12.74	0.00	-30.00	-15.50	2899.63	606.43	88.67	0.00	0.00	6.55	0.00	9.75	0.00
331	2012	7	31	-1982.87	-1803.64	-308.46	0.00	-40.96	-14.55	0.00	-31.00	-15.79	2849.33	575.36	88.12	0.00	0.00	10.60	0.00	10.16	0.00
332	2012	8	31	-2471.39	-1612.94	-293.66	0.00	-40.44	-14.43	0.00	-31.00	-15.58	3102.92	566.47	91.73	0.00	0.00	10.44	0.00	10.24	0.00
333	2012	9	30	-2800.81	-2123.76	-307.67	0.00	-38.69	-14.04	0.00	-30.00	-14.88	10403.11	2768.61	487.01	0.00	0.00	10.39	0.00	9.98	0.00

Monthly Streamflow Budget
units in Acre-feet

Stress	Year	Month	days in month	Rising Groundwater									Stream Percolation								
				System A Rising Groundwater			System B Rising Groundwater			System C Rising Groundwater			System A Stream Percolation			System B Stream Percolation			System C Stream Percolation		
				Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula
334	2012	10	31	-2947.80	-2065.37	-318.87	0.00	-39.55	-13.05	0.00	-31.00	-13.34	8815.93	2204.82	539.75	0.00	0.00	7.44	0.00	10.39	0.00
335	2012	11	30	-2109.06	-1559.18	-289.43	0.00	-39.55	-17.03	0.00	-31.61	-14.41	3984.46	591.38	86.13	0.00	0.00	10.65	0.00	7.53	0.00
336	2012	12	31	-2180.19	-1823.26	-321.24	0.00	-40.93	-23.23	0.00	-32.51	-15.60	4604.58	600.96	76.76	0.00	0.00	18.66	0.00	7.42	0.00
337	2013	1	31	-2129.39	-1962.24	-334.87	0.00	-40.21	-16.04	0.00	-32.41	-14.53	4183.43	645.43	85.65	0.00	0.00	9.22	0.00	7.65	0.00
338	2013	2	28	-1825.71	-1651.54	-285.30	0.00	-34.66	-12.80	0.00	-28.00	-11.65	3982.07	595.97	76.52	0.00	0.00	9.20	0.00	9.00	0.00
339	2013	3	31	-2549.31	-1633.90	-299.08	0.00	-38.10	-13.21	0.00	-31.00	-12.47	4927.18	657.58	82.67	0.00	0.00	7.04	0.00	10.48	0.02
340	2013	4	30	-2397.17	-1453.96	-275.74	0.00	-36.62	-13.16	0.00	-30.00	-11.88	4465.27	620.62	79.96	0.00	0.00	8.77	0.00	10.21	0.04
341	2013	5	31	-1765.85	-1343.87	-264.88	0.00	-37.60	-13.33	0.00	-31.00	-12.11	3361.35	558.57	82.46	0.00	0.00	8.55	0.00	10.61	0.07
342	2013	6	30	-2183.89	-1171.98	-248.66	0.00	-36.17	-12.97	0.00	-30.00	-11.56	3078.70	477.69	84.06	0.00	0.00	8.54	0.00	10.34	0.09
343	2013	7	31	-2156.47	-1069.09	-244.66	0.00	-37.18	-13.46	0.00	-31.00	-11.79	3057.02	438.25	85.74	0.00	0.00	9.04	0.00	10.74	0.12
344	2013	8	31	-1573.96	-947.56	-238.61	0.00	-36.99	-13.38	0.00	-31.00	-11.62	2327.39	368.35	89.02	0.00	0.00	8.93	0.00	10.81	0.15
345	2013	9	30	-1501.37	-852.02	-223.56	0.00	-35.63	-13.05	0.00	-30.00	-11.09	2548.52	309.76	83.06	0.00	0.00	8.96	0.00	10.51	0.15
346	2013	10	31	-1601.46	-838.81	-221.86	0.00	-36.67	-13.24	0.00	-31.00	-11.30	3272.84	326.27	79.54	0.00	0.00	8.75	0.00	10.92	0.16
347	2013	11	30	-1583.06	-801.64	-211.30	0.00	-35.35	-12.47	0.00	-30.00	-10.78	3897.22	337.57	71.80	0.00	0.00	7.74	0.00	10.62	0.15
348	2013	12	31	-1647.92	-819.43	-216.10	0.00	-36.39	-13.10	0.00	-31.00	-10.97	3881.60	365.35	75.03	0.00	0.00	8.56	0.00	11.03	0.16
349	2014	1	31	-1616.04	-774.24	-207.75	0.00	-36.27	-14.04	0.00	-31.00	-10.82	3895.12	360.27	77.72	0.00	0.00	10.81	0.00	11.08	0.16
350	2014	2	28	-1828.64	-837.04	-202.44	0.00	-78.81	-32.16	0.00	-30.95	-13.66	4864.05	759.54	62.91	0.00	0.00	31.81	0.00	5.22	0.15
351	2014	3	31	-1965.92	-1064.98	-232.12	0.00	-46.77	-16.75	0.00	-33.31	-15.67	4844.10	1374.00	132.95	0.00	0.00	9.97	0.00	6.33	0.18
352	2014	4	30	-1553.54	-886.99	-219.22	0.00	-36.83	-13.67	0.00	-30.00	-13.78	3295.95	741.68	94.49	0.00	0.00	10.77	0.00	9.92	0.16
353	2014	5	31	-2057.18	-779.60	-213.24	0.00	-37.78	-13.85	0.00	-31.00	-11.08	3368.25	540.67	89.79	0.00	0.00	10.56	0.00	10.99	0.16
354	2014	6	30	-1487.63	-654.36	-188.52	0.00	-36.32	-13.55	0.00	-30.00	-10.51	3142.64	268.87	77.20	0.00	0.00	10.63	0.00	10.68	0.15
355	2014	7	31	-1410.59	-632.40	-204.32	0.00	-37.30	-13.01	0.00	-31.00	-10.71	2270.04	259.07	88.74	0.00	0.00	8.74	0.00	11.10	0.16
356	2014	8	31	-1279.04	-596.90	-201.24	0.00	-37.09	-12.94	0.00	-31.00	-10.57	1922.37	251.30	88.87	0.00	0.00	8.65	0.00	11.14	0.16
357	2014	9	30	-1303.81	-542.77	-188.16	0.00	-35.71	-12.64	0.00	-30.00	-10.09	2172.41	216.27	83.11	0.00	0.00	8.71	0.00	10.84	0.15
358	2014	10	31	-1505.11	-528.76	-184.66	0.00	-36.73	-12.80	0.00	-31.00	-10.28	2771.56	273.97	81.97	0.00	0.00	8.47	0.00	11.24	0.16
359	2014	11	30	-1547.55	-506.73	-166.91	0.00	-35.39	-11.87	0.00	-30.00	-9.81	3679.36	327.52	73.29	0.00	0.00	6.18	0.00	10.93	0.15
360	2014	12	31	-2550.72	-632.33	-134.29	0.00	-95.23	-37.68	0.00	-36.53	-14.49	7528.13	1087.04	41.37	0.00	0.00	36.12	0.00	5.99	0.17
361	2015	1	31	-2009.57	-748.06	-179.09	0.00	-40.46	-14.99	0.00	-32.41	-14.69	6249.86	956.58	64.84	0.00	0.00	7.23	0.00	7.83	0.17
362	2015	2	28	-2091.21	-671.89	-179.68	0.00	-34.74	-10.29	0.00	-28.00	-10.40	4250.16	723.99	81.16	0.00	0.00	4.85	0.00	9.66	0.15
363	2015	3	31	-2244.34	-681.02	-182.32	0.00	-38.16	-11.29	0.00	-31.00	-10.25	4710.46	756.48	83.71	0.00	0.00	3.63	0.00	11.20	0.17
364	2015	4	30	-1496.31	-609.20	-182.98	0.00	-36.65	-11.35	0.00	-30.00	-9.76	3102.74	577.34	82.22	0.00	0.00	6.04	0.00	10.90	0.16
365	2015	5	31	-1584.21	-592.22	-161.48	0.00	-37.61	-11.07	0.00	-31.00	-9.95	4377.19	461.39	74.47	0.00	0.00	3.77	0.00	11.31	0.16
366	2015	6	30	-1463.31	-544.49	-176.43	0.00	-36.17	-11.23	0.00	-30.00	-9.51	2776.83	270.16	82.41	0.00	0.00	5.85	0.00	10.99	0.15
367	2015	7	31	-1666.48	-598.08	-174.87	0.00	-37.15	-10.96	0.00	-31.00	-9.69	2811.07	291.22	90.53	0.00	0.00	2.55	0.00	11.41	0.16
368	2015	8	31	-1602.50	-537.00	-174.06	0.00	-36.95	-12.29	0.00	-31.00	-9.55	2358.55	216.15	90.23	0.00	0.00	7.75	0.00	11.45	0.16
369	2015	9	30	-1383.58	-470.66	-148.75	0.00	-35.59	-10.49	0.00	-30.00	-9.12	2869.81	238.57	80.18	0.00	0.00	4.10	0.00	11.13	0.15
370	2015	10	31	-1508.57	-456.38	-159.07	0.00	-36.61	-12.15	0.00	-31.00	-9.30	2807.02	246.35	82.48	0.00	0.00	7.54	0.00	11.53	0.16
371	2015	11	30	-1494.21	-401.54	-149.71	0.00	-35.29	-11.87	0.00	-30.00	-8.87	3043.47	294.55	79.03	0.00	0.00	7.63	0.00	11.21	0.15
372	2015	12	31	-1568.03	-382.65	-148.72	0.00	-36.33	-12.00	0.00	-31.00	-9.03	3407.05	327.04	78.60	0.00	0.00	7.33	0.00	11.62	0.16

Fillmore and Piru Basins
Groundwater Sustainability Agency

Appendix E-2

Implementation of Groundwater and Surface Water Model Inputs for Simulations in Support of Groundwater Sustainability Plan Development by the Mound, Fillmore and Piru Groundwater Sustainability Agencies Technical Memorandum (United, 2021b)

TECHNICAL MEMORANDUM

IMPLEMENTATION OF GROUNDWATER AND SURFACE WATER MODEL INPUTS FOR SIMULATIONS IN SUPPORT OF GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT BY THE MOUND, FILLMORE AND PIRU GROUNDWATER SUSTAINABILITY AGENCIES

UNITED WATER CONSERVATION DISTRICT

JUNE 2021

This document describes selected modeling stresses and assumptions used by United Water Conservation District to conduct simulations of future hydrologic conditions considered in the Groundwater Sustainability Plans prepared by the Mound Basin Groundwater Sustainability Agency and the Fillmore and Piru Basins Groundwater Sustainability Agency that may not be described in detail in the Groundwater Sustainability Plans.

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1 INTRODUCTION

The Fillmore and Piru Basins Groundwater Sustainability Agency (FPBGSA) and the Mound Basin Groundwater Sustainability Agency (MBGSA), with the assistance of their consultants, Daniel B. Stephens and Associates and INTERA Incorporated, respectively, are developing the Groundwater Sustainability Plans (GSPs) for the Piru, Fillmore, and Mound subbasins of the Santa Clara River Valley groundwater basin (Figure 1) in compliance with the 2014 Sustainability Groundwater Management Act (SGMA). The United Water Conservation District (UWCD or United) is supporting the analysis of the GSPs for the Piru, Fillmore, and Mound subbasins by using its recently expanded MODFLOW-based Regional Groundwater Flow Model ("Regional Model") (UWCD, 2021; 2018).

In supporting the GSP development efforts of the FPBGSA and MBGSA, this document details the implementation of selected modeling stresses used for the GSP simulations for three future scenarios: (1) future baseline reference, (2) near future (2030 climate change factors), and (3) late future (2070 climate change factors). All future scenarios use the period 1943-2019 as the past reference period for hydrological inputs, the longest period possible with good recorded hydrologic data. The document contains two main sections which describe selected processes and assumptions used in the simulations by UWCD to conduct simulations for the Groundwater Sustainability Plans: Section 3 *Groundwater Flow Modeling Inputs*, and Section 4 *Surface Water Hydrology Modeling*. Section 4 details the modeling of several surface water hydrology spreadsheet models that provide input data to the groundwater model. The groundwater model reports (UWCD, 2021, 2018) detail the construction and calibration of the Regional Model. Specific to the GSP modeling presented here, this document provides additional detail regarding how the surface water and groundwater forecasting for the future runs requested by FPBGSA and MBGSA was implemented into the Regional Model.

2 INTERACTIONS BETWEEN GROUNDWATER FLOW MODEL AND SURFACE WATER HYDROLOGY MODELS

Surface water hydrology inputs to the Regional Model (UWCD, 2021) were determined using a number of hydrological models used for reservoir operations, streamflow routing and Freeman Diversion operations. Figure 2 provides a schematic of the model integration employed for the GSP supporting work. Figure 3 shows the streamflow locations used in Figure 2, as well as stream gages described in Section 4. A more detailed explanation of each surface water hydrology model is also provided in Section 4. The modeling workflow consists of the following four elements:

1) Groundwater Flow Model upstream of Freeman Diversion facility.

The Regional Model simulates streamflow, groundwater levels and water balances for the Piru, Fillmore and Santa Paula basins. Hydrological models are used to calculate Lake Piru outflows (including spills), Castaic Lake reservoir releases, and streamflow in the Santa Clara River (SCR) upstream of the confluence with Castaic Creek. Estimated future discharges from water reclamation facilities (WRFs) in the Santa Clarita Valley (SCV) are combined with simulated Castaic Lake releases and streamflow in the SCR upstream of Castaic Creek to calculate streamflow in the SCR upstream of the confluence with Piru Creek. Lake Piru outflows and streamflow in the SCR upstream of Piru Creek are used as inputs to the Regional Model. Additionally, the Regional Model incorporates inputs for tributary flows, weather, recharge, pumping, diversions and WRF discharges in Ventura County.

2) Diversions and bypass flows at the Freeman Diversion

Stream flow in the Santa Clara River just upstream of the Freeman Diversion facility was calculated using United's Upper Basins Routing Model. Diversions and Santa Clara River flows just downstream of the Freeman Diversion ("bypass flows") were calculated by United's Hydrological Operations Simulation System (HOSS). The HOSS requires inputs for groundwater elevations for selected wells in the Oxnard Forebay. Since the HOSS is not integrated with the Regional Model, the first HOSS model run for a scenario is generally run using historical groundwater elevations or estimates from a prior run. Model outputs are then input to the Oxnard Plain Surface Water Distribution Model (SWDM, see below), which provides inputs to the Regional Model. Selected groundwater elevation outputs from the Regional Model are then used as inputs for a second run of the HOSS, the SWDM and the Regional Model. This iterative process is repeated until groundwater elevations converge.

While the Regional Model also calculates streamflow at the Freeman Diversion, its simulated streamflow at the Freeman Diversion was not able to adequately reproduce the historical daily flow magnitudes and trends during model calibration, although the simulated monthly-average streamflow was close to the historical monthly records. The MODFLOW Stream Package (STR) used by the Regional Model is based on a simplistic concept of stream routing which does not include the streamflow travel time in the stream channel, leading to the limitation that the STR package is more suitable for the relatively stable streams. Although the Reginal Model may not

be able to adequately simulate the daily SCR streamflow rates, it should be noted that the Regional Model was able to simulate the groundwater levels in the basins of the SCR valley with good calibration.

3) Artificial recharge and surface water deliveries by United

The Oxnard Plain Surface Water Distribution Model (SWDM) was used to calculate the volumes of artificial recharge to each of United's recharge basins and surface water deliveries to the Pumping-Trough-Pipeline (PTP) and the Pleasant Valley (PV) pipeline, based on diversions calculated by the HOSS. The SWDM also calculates pumping demands in United's surface water delivery service areas (PTP and PV) as the deficit between total demand and surface water deliveries. Conejo Creek diversions are also incorporated in the SWDM, and are an important water supply to the PV service area. The SWDM requires inputs for groundwater elevations for selected wells in the Oxnard Forebay. Since the SWDM is not integrated with the Regional Model, iterative runs are performed in a similar manner as with the HOSS model.

4) Groundwater Flow Model downstream of Freeman Diversion Facility.

The Regional Model uses inputs provided by the upgradient portion of the model (groundwater fluxes from Santa Paula basin), the SWDM (artificial recharge, surface water deliveries, pumping) and HOSS (diversions, bypass flows) to simulate streamflow, groundwater levels and water balances for the Mound, Oxnard, Pleasant Valley and western Las Posas Valley basins. Selected groundwater elevations from wells in the Oxnard Forebay are exported to the HOSS and SWDM operations models for iterative runs until groundwater elevations for wells in the Oxnard Forebay and fluxes to Mound basin converge (as described in the previous paragraphs and in Sections 4.6 and 4.7). Generally two-to-four model runs are required, depending on how well initial water levels assumed for the HOSS and SWDM runs match the Regional Model outputs.

3 GROUNDWATER FLOW MODELING INPUTS

This section describes the various data inputs that were required for simulations by the Regional Model in support of the GSP analysis in cooperation with FPBGSA and MBGSA and their consultants. Some of these components have previously been described within the Regional Model documentation (UWCD, 2021, 2018), while some are specific to the scenarios simulated for the GSP development.

3.1 WEATHER DATA

Precipitation used over the model domain and reference evapotranspiration (ET) used in riparian stream channel reaches were estimated based on the California Department of Water Resources (DWR) datasets and guidelines for the preparation of GSPs (DWR, 2018a). DWR provided Variable Infiltration Capacity (VIC) model output for precipitation and reference ET at 1/16th degree resolution spatial resolution and monthly temporal resolution (monthly totals) for a reference simulation over 1915-2011 that represents a historical simulation with the temperature detrended as well as monthly total change factors for each month for two future climate periods representing the near future (2030) and the late future (2070).

United, FPBGSA, and MBGSA selected three weather datasets based on a single historical climate cycle (1943-2019). The historical climate cycle was adjusted by the two DWR climate factors provided for precipitation and reference ET corresponding to the DWR baseline reference simulation and recommended central tendency scenarios for each climate periods for the near future (2030) and the late future (2070). This resulted in a total of three 77-year climate datasets to be used for model simulations.

Using the monthly totals for precipitation and reference ET from the DWR baseline reference simulation, near future (2030) and late future (2070) estimates were calculated for input into the Regional Model future climate simulations. A crop coefficient of 1.0 was used for riparian vegetation. Monthly total values for precipitation and ET were then mapped from the VIC grid cells to MODFLOW grid cells based on the VIC grid cell that the center of a MODFLOW grid cell was determined to be located within (Figure 4). Monthly totals of precipitation and ET were then uniformly distributed across each month.

Lastly, as the DWR precipitation and reference ET change factors were available for model years 1915-2011 as monthly totals, input for recent model years 2012-2019 were determined by selecting analogous water years in the historical record and applying the precipitation and reference evapotranspiration change factors published for these analogous water years. The analogous year selection criteria were chosen based on streamflow analysis, and more detail related to those methods is presented in Section 4.8.

3.2 RECHARGE

The Regional Model was used to simulate groundwater recharge resulting from various sources and uses of surface water, as described below. The recharge from different sources and/or uses were summed as total recharge in the recharge package (RCH) in the Regional Model. The groundwater recharge from various sources and/or usages of surface water is detailed in the following subsections. The recharge rates used were based on the calibration result of the Regional Model (UWCD; 2021, 2018).

3.2.1 PRECIPITATION

In relation to areal recharge calculations, monthly evapotranspiration (ET) was assumed to be 0.75 inch. If the monthly precipitation was less than 0.75 inch, no recharge from the precipitation was simulated. If the monthly precipitation was greater than 0.75 inch, the recharge was assumed to increase linearly, proportional to the monthly precipitation, with a maximum recharge rate of 30 percent. The recharge from precipitation was implemented as follows:

- If monthly precipitation was less than 0.75 inch, then no recharge was assigned in that area;
- If monthly precipitation was 0.75 to 1 inch, then recharge was assigned from 0 to 10 percent of precipitation (on a sliding scale);
- If monthly precipitation was 1 to 3 inches, then recharge was assigned from 10 to 30 percent of precipitation
- If monthly precipitation was greater than 3 inches, then recharge was assigned as 30 percent of precipitation.

3.2.2 EXTRACTED WATER FROM WELLS

The extracted groundwater from wells serves agricultural need as well as municipal and industrial (M&I) use. The extracted groundwater for agriculture was assumed to have higher recharge rate than M&I use.

The agricultural water recharge rate was assumed to be 25% for Oxnard subbasin and 20% for all other basins (Piru, Fillmore, Santa Paula, Mound, Pleasant Valley, and West Las Posas). If the precipitation recharge rate was higher than the assumed agricultural water recharge rate (20% or 25%) particularly during wet months, the agricultural water recharge rate was replaced by the higher precipitation recharge rate. The M&I water recharge rate was assumed to be 5% (of delivered water) for all basins.

3.2.3 APPLIED WATER

Regardless of the source, for modeling purposes water use is classified so that return flows to the systems can be characterized properly. The recharge rates for agricultural and M&I uses were

calculated in the same manner as described in Section 3.2.2 *Extracted Water from Wells*, above. Cities, and various local water companies and mutuals pump and deliver water to users, in addition to a multitude of private groundwater wells that are operated within the model domain. Several surface water diversions are also maintained and operated. Cities on the Oxnard Plain import water from the State Water Project (via Calleguas Municipal Water District (CMWD)), but direct deliveries of State Water does not yet occur in the Piru, Fillmore, Santa Paula or Mound basins. In a few instances extracted water is transported by pipeline to other basins.

3.2.4 UWCD Recharge Activities and Surface Water Deliveries

UWCD diverts streamflow from the Santa Clara River for artificial recharge within its spreading basins and delivers a portion of diverted SCR water via pipelines to Pumping Trough Pipeline (PTP) users and Pleasant Valley County Water District (PVCWD) users for agricultural irrigation. Additionally, Camrosa Water District (Camrosa) diverts water from Conejo Creek to supply PVCWD users and users within their own service area. The recharge resulting from surface water deliveries from the water diverted and delivered water by UWCD and Camrosa was calculated as agricultural return flow in the same manner as described in Section 3.2.2 *Extracted Water from Wells*, above. The recharge occurring in UWCD's spreading basins was calculated without loss based on a series of surface water hydrology and operational models, as detailed in *Section 4 Surface Water Hydrology Modeling*. United is not currently operating their Piru Spreading Grounds and there are no UWCD surface water deliveries within Piru, Fillmore, or Mound basins. Recharge activities related to conservation releases from Lake Piru and other releases along the Santa Clara River are detailed in *Section 4 Surface Water Hydrology Modeling*.

3.3 MOUNTAIN FRONT RECHARGE

There are some areas outside of the Regional Model domain that are part of surface watersheds associated with the Oxnard, Pleasant Valley, West Las Posas, Mound, Santa Paula, Fillmore, and Piru groundwater basins. Precipitation that falls on these areas may contribute mountain front recharge to the aquifers. The precipitation is calculated based on the surface watershed areas outside of the Regional Model. The sum of precipitation is multiplied by the same precipitation recharge ratio used in calculating the precipitation recharge detailed in Section 3.2.1 *Precipitation*, which is presented above.

3.4 STREAMFLOW, INTER-BASIN SUBSURFACE FLOW, AND DIVERSIONS

The Regional Model simulated flows in the Santa Clara River and several tributaries, Conejo Creek, Arroyo Las Posas, and Calleguas Creek. The streamflow rates at the Freeman Diversion were calculated as detailed in Section 4.5 *Santa Clara River Upstream of Freeman Diversion Facility*, below. UWCD simulated SCR flow from Piru basin to the ocean. The simulated SCR streamflow at the Los Angeles Country boundary in Piru and the simulated streamflows of its tributaries (Piru, Hopper, Pole, Sespe, and Santa Paula Creeks) were calculated as described in

Section 4. *Surface Water Hydrology Inputs*. Diversions along the Santa Clara River and tributaries were implemented similarly as described in the 2020 Regional Model documentation (UWCD, 2021) with future monthly total estimates calculated as the average for the available reported data 2010-2019.

The streamflow in Conejo Creek entering the Regional Model was based on data provided by the Fox Canyon Groundwater Management Agency (FCGMA)'s consultant, DUDEK, for the previous future modeling of the lower basins (UWCD, 2019). Estimates based on a relationship between monthly precipitation for a nearby VIC grid cell (DWR, 2018a) and historical observed Conejo Creek streamflow were previously provided to UWCD. For the future simulations presented here, the relationship was modified slightly using a VIC grid cell (ID 9894) that was within the Conejo Creek watershed and produced a slightly improved relationship between the VIC precipitation and historical observed Conejo Creek streamflow. This relationship was then applied to the 1915-2011 DWR records, adjusted for 2030 and 2070 change factors and the 2012-2019 years were determined by selecting analogous water years in the historical record in the same manner as mentioned in Section 3.1, above, and detailed in 4.8, below. The discharge to Conejo Creek by Camarillo Sanitation District was included in the Stream (STR) package, as was the flow diversion by Camrosa.

The streamflow in Arroyo Las Posas enters the Regional Model from East Las Posas. There was also an inter-basin flow between East Las Posas and the PV basin in the form of subsurface flow (groundwater flux) beneath Arroyo Las Posas. Similar to Conejo Creek, streamflow entering the Regional Model was based on data provided by the FCGMA's consultant, DUDEK for the previous future modeling of the lower basins (UWCD, 2019) based on a relationship between monthly precipitation for a nearby VIC grid cell (DWR, 2018a) and historical observed Arroyo Las Posas Creek streamflow. The same relationship was used and applied to estimated streamflow for the future baseline, 2030 and 2070 simulations, and the 2012-2019 years were determined by selecting analogous water years in the historical record in the same manner as mentioned in Section 3.1, above, and detailed in 4.8, below.

The inter-basin flow between the East Las Posas and the Pleasant Valley basins were previously simulated by a groundwater model developed by CMWD's consultant, INTERA and previously provided to UWCD (UWCD, 2019). The 1930-1979 inter-basin flow for the 2030 and 2070 future climates were used to fill associated years in the 1943-2019 records. 1980-2019 was filled with 1930-1979 monthly averages, adjusted for the difference between the 1970-1979 average and the 1930-1979 average. In the absence of future baseline information, future baseline was filled with estimated 2030 data over 1943-2019.

3.5 PUMPING

Pumping within the Piru, Fillmore, and Mound Basins were prescribed for the future baseline, 2030, and 2070 simulations by FPBGSA and MBGSA. Because the Santa Paula basin is

adjudicated, the pumping within the Santa Paula basin uses average 2015-2019 pumping for future baseline, 2030, and 2070 simulations. Future pumping related to the Oxnard basin, Pleasant Valley basin, and Las Posas basin was previously prescribed by FCGMA in accordance with their GSPs (FCGMA, 2019a, 2019b, 2019c), and the implementation in the future scenarios is detailed in previous modeling documentation (UWCD, 2019).

4 SURFACE WATER HYDROLOGY INPUTS

A number of hydrological models were used to simulate reservoir operations, streamflow routing and Freeman diversion operations. All models were run using historical hydrology for the period 1943-2019 for the future baseline scenarios, and with adjustments for climate change according to the DWR Guidance Document for the Sustainable Management of Groundwater. All models were calculated and calibrated in daily time steps. Hydrology models were spreadsheet models, calculated in Microsoft Excel, except for the runoff model used to calculate change factors to account for development in the Santa Clarita Valley. A description of all surface water hydrology models and major assumptions is presented here. More detailed information is available in other published reports, as referenced.

4.1 CASTAIC RESERVOIR RELEASES

The California Department of Water Resources (DWR) completed construction of Castaic Dam in 1973. The current operations of Castaic Reservoir include flood flow releases to the Downstream Water Users (DWUs), of which United is member. Flood flow releases are implemented according to a 1978 agreement between DWR and the DWUs, allowing for storage and later release of natural inflows in excess of 100 cfs into Castaic Reservoir. Storage of flood flows is contingent on availability of sufficient storage volume, and all stored water is to be releases by May 1. Any remaining water can be appropriated by DWR. United coordinates the flood flow release program for the DWUs and makes the requests for water storage and release to DWR.

Simulation of releases from Castaic Reservoir was performed using a Castaic Reservoir operations model. While daily operations logs with releases are available for the 1977-2019 period, an operations model allows calculation of releases for the entire 1943-2019 modeling period, and allows simulated releases for different climate change scenarios.

The Castaic Reservoir model was developed as a simple water balance model in Microsoft Excel. Reservoir inflows were calculated as follows (Figure 3):

- 1/1/1943 – 9/30/1946: estimated based on correlation with gage USGS 11108500 SANTA CLARA RIVER AT L.A.-VENTURA CO. LINE CA
- 10/1/1946 - 12/31/1976: Gage USGS 11108145 CASTAIC C NR SAUGUS CA
- 1/1/1977 – 12/31/2019: natural inflows from DWR Southern Field Division Water Operations Logs.

The following assumptions were made for calculating flood flow releases:

- Inflow-outflow regime is implemented when reservoir inflows are less than 100 cfs.
- Flood flow releases occur between February and April.
- Flood flow releases are initiated when stored flood flows exceed 10,000 acre-feet (February), 4,000 acre-feet (March) or 0 acre-feet (April)

- Maximum flood flow release rates are determined as such that flows in the Santa Clara River downstream of the Castaic Creek confluence do not exceed 75 cfs (February) or 200 cfs (March-April).
- Percolation losses in Castaic Creek during flood flows releases equal 10% of flow.
- When reservoir inflows exceed 5000 cfs (daily), 50% of inflows are released as inflow-outflow and 50% are stored for later release (if storage capacity is available).
- Inflow-outflow regime is implemented when stored flood flows exceed 15,000 to 45,000 acre-feet (depending on month).
- All flood flows are appropriated by DWR when cumulative inflows exceed 40,000 acre-feet (indicating wet years when historically no flood flow releases were requested).

The Castaic Reservoir model was calibrated by comparing modeled and observed annual total releases (including flood flow releases and releases during inflow-outflow operations) for the 1979-2020 period, and by comparing modeled and observed flood flow releases for the 1998-2020 period (Figure 5). Figure 6 shows an example of how simulated reservoir releases differ from historical flows in Castaic Creek before construction of Castaic Reservoir.

4.2 SANTA CLARA RIVER NATURAL RUNOFF UPSTREAM OF CASTAIC CREEK

The historical record of “natural” (no WRF discharges”) streamflow in the Santa Clara River upstream of Castaic Creek was calculated by subtracting historical Valencia WRF discharges and Castaic Creek discharges from the flows at Santa Clara River downstream of Castaic Creek. The latter were compiled using the following records (Figure 3):

- 1943-1946: estimated based on correlations with gage USGS 11108000 SANTA CLARA R NR SAUGUS CA.
- 1947-1952: sum of flows from gages USGS 11108000 SANTA CLARA R NR SAUGUS CA and USGS 11108145 CASTAIC C NR SAUGUS CA.
- 1952-1996: Gage USGS 11108500 SANTA CLARA RIVER AT L.A.-VENTURA CO. LINE CA
- 1996-2019: Gage USGS 11109000 SANTA CLARA R NR PIRU CA.

Significant development occurred in the Santa Clarita Valley between 1943 and 2019. Therefore, for future modeling efforts, the historical flow record for the Santa Clara River upstream of Castaic Creek was adjusted to reflect the current rainfall-to-runoff response associated with a higher degree of urban development and land use with impervious surfaces. It was assumed that future developments will not significantly alter the current percentage of effective impervious area, and therefore the flow record was not further adjusted for future land use changes. This assumption is based on the expectation of infill development and the implementation of stormwater Best Management Practices in most future developments.

Adjustment of historical flows to reflect current levels of impervious area was performed as follows:

1) Daily runoff in the Santa Clara River upstream of Castaic Creek was simulated for 1960-2005 using the calibrated and validated Santa Clara River hydrology model developed by the Ventura County Watershed Protection District using the U.S. EPA Hydrologic Simulation Program – FORTRAN (HSPF) (VCWPD, 2009). This model run used the 2001 Southern California Association of Governments (SCAG) land use data. Flows were simulated for station RCH190 in the HSPF model (Figure 3).
2) The HSPF model was run as before but with impervious area reflecting 1950s, 1970s and 1990s land use. Land use coverage in the HSPF model was adjusted by reducing the impervious land use proportional to the reduction in population in the Santa Clarita Valley between 2000 (pop. 190,000) and the earlier periods. Impervious land use was reduced by 94% (pop. 12,000), 70% (pop. 58,000) and 28% (pop 136,000) for the 1950s, 1970s and 1990s, respectively. The area corresponding to the impervious land use reductions was assigned to open space and agriculture according to available historical land use data (Price et al., 2007, Robson, 1972).
3) For each of the HSPF runs with reduced impervious area (1950s, 1970s, 1990s), the difference in runoff with the 2000s land use run was calculated. The only variables that were different between model runs were the percentages of impervious, agricultural and open space land use. Relationships were established between the reduction in runoff with reduced impervious land use and modeled discharge, separately for peak flows and flows on receding limb of hydrograph, for the 1950s, 1970s and 1990s model runs (Figure 7).
4) The relationships from step 3 for the 1950s, 1970s and 1990s were applied to the historical record of 1943-1959, 1960-1979, and 1980-1999, respectively, effectively increasing daily flows during storm peaks and hydrograph receding limbs (only storm runoff exceeding 50 cfs). The historical record from year 2000 onwards was not adjusted for land use changes. The resulting flow record and a comparison with the historical record is shown in Figure 8.

4.3 SANTA CLARA RIVER DOWNSTREAM OF CASTAIC CREEK

Daily discharge in the Santa Clara River downstream of Castaic Creek (Figure 3) was calculated as the sum of the flows upstream of Castaic Creek (Section 4.2), releases from Castaic Reservoir (Section 4.1) and estimated discharges from the Valencia, Saugus and future Newhall Ranch WRFs. Future discharges from the WRFs were assumed to be constant at 30 cfs, no streamflow losses were applied. United's estimate of WRFs discharges corresponds well with the total WRF discharges assumed by Santa Clarita Valley Water Agency (SCVWA) for their GSPs future water balance (Dirk Marks, personal communications). SCVWA assumes average monthly discharges between 25 and 37 cfs, or 29 cfs on average.

4.4 LAKE PIRU RESERVOIR OUTFLOWS

The Lake Piru reservoir model is a water balance model calculating water levels and storage in Lake Piru based on historical data or assumed scenarios for inputs and outputs. Water inputs

include inflows from the Middle Piru Creek watershed (natural flows, State Water imports, releases from Pyramid Lake) and rainfall; outputs include releases through the Santa Felicia Dam (SFD) outlet works (conservation releases, migration releases, habitat releases), spills and evaporation. Inflows from Middle Piru Creek were compiled based on gages USGS 11110000 PIRU C NR PIRU CA (1943-1955) and USGS 11109600 PIRU CREEK ABOVE LAKE PIRU CA (1955-2019) (Figure 3).

Important assumptions and inputs include:

- Lake Piru storage area and volume were gradually decreased to reflect the current rate of sedimentation in the reservoir. Storage capacities and corresponding areas were reduced gradually every 5 years from 82,000 AF (1943-1947 model years) to 69,384 AF (2013-2019 model years). The starting storage capacity was based on a 2020 bathymetry survey, and the 5-year sediment loads to the reservoir were calculated based on the average annual rainfall for each 5-year period using the equation 5-yr sediment load (AF) = 126.5 * average rainfall (inches) – 1,653. This relationship was developed from the 1985, 1996, 2005, 2015 and 2020 Lake Piru bathymetry surveys.
- Historical inflows from Middle Piru Creek includes periods when Pyramid Lake operations were different from current operations (inflow-outflow).
- Habitat and migration releases are simulated using operational rules that mimic releases according to operations specified in the Santa Felicia Water Release Plan (UWCD, 2012).
- Conservation releases are simulated using operational rules that mimic current operations. Conservation releases were started in September with maximum release rates of 400 cfs during dry and normal years, and started in August with a maximum release rate of 300 cfs during wet years. Minimum carry-over storage volumes during dry, normal and wet years were 15,000 AF, 30,000 AF and 50,000 AF, respectively.
- UWCD has a State Water Project Table A allocation of 3,150 AF. Annual allocations of Table A water were based on DWR's modeling of the State Water Project's existing delivery capability, which includes current flow regulations and adjusted to account for land-use changes (DWR, 2018b). To simulate current operations, it was assumed that UWCD would not purchase Table A water during wet years (water year rainfall at Santa Paula gage #245 < 25" or 3-year running average for Sespe runoff > 200,000 AF when rainfall at gage #245 > 10") and during years when the conservation release exceeds 31,000 AF.

4.5 SANTA CLARA RIVER UPSTREAM OF FREEMAN DIVERSION FACILITY

Streamflow in the Santa Clara River at the Freeman Diversion facility was calculated using the Upper Basins Surface Water Model. This model calculates surface flows, recharge to groundwater and rising groundwater for the reaches of the Santa Clara River overlying the Piru, Fillmore and Santa Paula basins (Figure 9). Model inputs include releases from Lake Piru (Section 4.4), Santa Clara River flows from Los Angeles County (Section 4.3), tributary flows (Hopper Creek, Sespe Creek, Santa Paula Creek), and historical available storage in Piru and Fillmore basins. Model outputs include available storage in the Piru and Fillmore basins for model scenarios, and river flows at the Freeman Diversion. Empirical relationships (based on observations) are used to model the following processes: recharge to groundwater in the Piru and Fillmore basins, rising groundwater at the Piru/Fillmore and Fillmore/Santa Paula basin boundaries, underflow between Piru and Fillmore basins, and losses in surface flows across Santa Paula basin. The model calculates the change in available storage in Piru and Fillmore basins for a modeling scenario compared to historical trends in available storage (based on a water mass balance for each basin), and subsequently adjusts fluxes for recharge, rising groundwater and underflow for the modeling scenario based on the calculated available storage and the established empirical relationships. The groundwater basin water balances for Piru and Fillmore only include fluxes for stream recharge, rising groundwater and underflow. Other fluxes including groundwater pumping, recharge not associated with the stream channel and evapotranspiration are assumed to remain unchanged between the historical hydrology and modeled scenarios. The influxes and outfluxes calculated for each reach are summarized in Table 1.

Two additional calculations were included in the model to improve model calibration.

- A multiplication factor of 1.2 was applied to gaged daily streamflows from major tributaries (Hopper Creek, Sespe Creek, and Santa Paula Creek). The correction factor improves calibration by accounting for bank storage and inflows from minor tributaries that were not included in the model.
- Simulated daily streamflow at the Freeman Diversion Facility was adjusted for model bias by subtracting the modeling error obtained from simulating historical hydrology and operations. This bias correction improves the model results when the unadjusted model would consistently over- or under predict streamflow for a period of time (e.g. during a conservation release, or on the receding limb of hydrograph for a specific storm event).

Model calibration results for streamflow just upstream of the Freeman Diversion Facility for the Upper Basins Surface Water Model and the Regional Model, and simulated diversions based on these streamflows, are compared in Figure 10. While both models perform well, the Regional Model underpredicts long-term average streamflow, leading to an underprediction of simulated diversions. Diversions simulated by the HOSS (simulating bypass flows proposed in United's Multiple Species Habitat Conservation Plan; UWCD, 2020) based on observed historical streamflows are 65,060 AF/yr, while simulated diversions based on streamflows from the Upper

Basins Surface Water Model and the Regional Model are 65,700 AF/yr and 57,300 AF/yr, respectively. Therefore, the Upper Basins Surface Water Model was used to simulate future streamflow at the Freeman Diversions.

4.6 DIVERSIONS AND BYPASS FLOWS AT FREEMAN DIVERSION FACILITY

Diversions are calculated based on total river flows entering the Freeman Diversion facility (imported from the Upper Basins Surface Water Model), and operational simulations using the Hydrological Operations Simulation System (HOSS) model.

The HOSS is a hydrology-based operations model that simulates diversions and flow magnitudes in the Santa Clara River downstream of the Freeman Diversion (bypass flows), and the amount of water that is lost or gained to/from groundwater in the "critical reach" of the SCR in the Oxnard Forebay. The HOSS is based upon several decades of historical flow gage data, groundwater conditions in the Forebay, and diversion flow rates, and has been peer-reviewed by R2 Resource consultants (R2 Resource Consultants, 2016).

Since some modeled operations in the HOSS depend on groundwater levels, iterative runs were performed where diversions from the HOSS were used in the SWDM and Regional Model, and groundwater level outputs from the groundwater model run (forecasted groundwater elevations at three wells) were then used to re-run the same scenario in the HOSS and SWDM until model runs converged (see also Section 4.7).

For groundwater modeling for GSP development, bypass flow and diversion operations were implemented as follows:

- 1943-1945 model years (2020-2022): Bypass flow operations as currently implemented by United, based on the reasonable and prudent alternative 2 (RPA 2(a) and 2(b)) as contained in the 2008 Biological Opinion issued by National Marine Fisheries Service (NMFS, 2008). These operations require increased bypass flows for steelhead migration compared to historical operations. Operations correspond to Scenario 4 (UWCD, 2016).
- 1946-1949 model years (2023-2026): Bypass flow operations proposed by United in its Freeman Diversion Multiple Species Habitat Conservation Plan (UWCD, 2020), without infrastructure improvements. These operations are designed to provide adequate bypass flows for fish migration while increasing diversions compared to the operations based on the Biological Opinion, and represents a realistic scenario for future diversion operations. No updates to United's facilities are implemented during these years.
- 1950-2019 model years (2027-2096): Bypass flow operations as for the prior period, but with implementation of Freeman Expansion Phase 1 project. This project will connect the Ferro basin and make improvements to the existing desilting basin and headworks. Maximum diversion rates are 375 cfs as before, but diversion of water with higher suspended sediment concentrations is possible (up to 7,000 mg/l total suspended solids compared to 4,000 mg/l prior).

4.7 ARTIFICAL RECHARGE AND SURFACE WATER DELIVERIES ON OXNARD PLAIN

The Oxnard Plain Surface Water Distribution Model was used to calculate the amounts of artificial recharge at UWCD's facilities and surface water deliveries to the PTP and the PVWCD surface water delivery systems. The Oxnard Plain Surface Water Distribution Model is a water routing model that simulates amounts of groundwater recharge and surface water deliveries based on a series of adjustable hydrologic inputs (e.g. total river flow, diversions, obtained from the HOSS model) and operational assumptions. Some modeled operations in the Surface Water Distribution Model depend on available storage in the Oxnard Forebay and groundwater mounding in the vicinity of the Saticoy Recharge Facility, which is determined based on groundwater levels for three wells in the Oxnard Forebay. Therefore, iterative runs were performed where outputs from the Surface Water Distribution Model (spreading at recharge basins and calculated groundwater extractions) were used in the groundwater model, and groundwater level outputs from the groundwater model run were then used to re-run the same scenario in the Surface Water Distribution Model. The model runs were repeated until groundwater elevations in two wells in the Oxnard Forebay (2N22W12R01S and 2N22W12E04S) and fluxes between the Oxnard Forebay and Mound basin converged (daily water levels mostly within 5 ft and monthly fluxes within 20 AF between consecutive runs).

The Surface Water Distribution Model was also used to calculate pumping demands in the PTP and PV service areas, based on the difference between surface water deliveries and total agricultural demands within the respective service areas. Baseline total agricultural demands were based on the average historical demand for the years 2015-2017, and were reduced by 35% in the Oxnard Basin and 20% in Pleasant Valley basin during the first 20-year period. These demand assumptions are the same as those used for the scenario with projects in the Groundwater Sustainability Plans for the Oxnard Basin and Pleasant Valley Basin (FCGMA, 2019a, 2019b).

Water resource inputs to the Surface Water Distribution Model include diversion amounts, pumping from Saticoy wells and Conejo Creek diversions. Operational assumptions govern how the distribution of surface water is prioritized among recharge basins and surface water deliveries, and change based on season and hydrologic conditions (dry, normal or wet years). The following assumptions were made regarding water inputs:

- Surface water from the Freeman Diversion can supply all recharge basins and surface water delivery systems, while water occasionally pumped from UWCD's Saticoy well field is restricted to the PTP and PVCWD surface water delivery pipelines. Surface water from Conejo Creek diversions are restricted to the PVCWD delivery pipeline.
- Diversions calculated in the HOSS were reduced by 10% for days when bypass flows were provided, in order to account for inefficiencies in diversion operations due to flushing, maintenance and other reasons.

- The Saticoy well field is used to pump down the groundwater mound that sometimes develops beneath the Saticoy recharge basins in wet years. The production capacity of the Saticoy well field is dependent upon groundwater elevation. The well field does operate during periods of significant spreading in the recharge basins, because pipeline demands can normally be met with diverted surface water at these times.
- Surface water deliveries to PVCWD from the Conejo Creek diversion were estimated at 4,500 AF/year by Camrosa Water District.

Water routing prioritization indicates the order in which recharge basins and surface water delivery systems receive available water. A priority assignment of 1 is the highest priority. Facilities assigned a priority of 3 or greater often receive no water, as all available surface water has been used by facilities with higher priority. Prioritization rules for water routing are summarized in Table 2, and depend on the following factors:

- Water year hydrology: defined as dry, normal, wet, based on streamflow magnitude (R2 Resource Consultants, 2016).
- Season: summer is defined as beginning on July 1st and continuing to the first significant storm event of the winter (equal to first turn-out of the season); winter is the remaining period. During summer dry and normal conditions, the highest priorities for surface water routing are El Rio, PTP and PV (percentages to each facility are detailed in Table 2). During the winter season and wet summers, the highest priority is surface water deliveries (equally divided between PTP and PV), followed by recharge at El Rio and then other recharge basins.
- Forebay available storage: the estimated volume of additional groundwater that could be stored in the Forebay, calculated based on groundwater elevations in two key wells. Conditions with available storage > 70,000 AF indicate dry conditions, with increased priority for recharge in El Rio.
- Suspended sediment concentrations: when sediment levels in the river exceed 3,000 NTUs, diversions are routed to the Ferro basin (from 2027 onwards), and the Noble and Rose recharge basins first, to avoid clogging of the surface layer in the Saticoy and El Rio recharge basins. Sediment levels in the river were estimated based on a historical empirical correlation between average daily streamflow and sediment concentration.

Water deliveries to recharge basins and surface water delivery pipelines are limited by conveyance capacity, basin infiltration rates and demands for surface water deliveries to the PTP and PV pipelines.

- The modeled instantaneous conveyance capacity limits for facilities are: 350 cfs for Saticoy, 180 cfs for Noble, 80 cfs for Rose, 0 cfs (2020-2026) and 375 cfs (2027-2096) for Ferro, 120 cfs for El Rio, 65 cfs for PTP and PV systems (individually), and 75 cfs for PTP and PV systems combined.
- When modeled groundwater elevations in well 02N22W12R01S were less than 95 ft amsl, the maximum infiltration rates in each of the recharge basins were 145 cfs for Saticoy, 100

cfs for Noble, 52 cfs for Rose, 151 cfs for Ferro and 100 cfs for El Rio, for a maximum combined artificial recharge rate in the Oxnard Forebay of 397 cfs without Ferro basin, and 548 cfs with Ferro basin. When groundwater elevations at well 02N22W12R01S exceeded 95 ft amsl, combined maximum infiltration rates were gradually reduced according to the relationship shown in Figure 11. For example, at a groundwater elevation of 120 ft in well 02N22W12R01S, artificial recharge to the Oxnard Forebay is limited to 191 cfs (without Ferro basin) and 263 cfs (with Ferro basin). These maximum and reduced infiltration rates due to mounding were based on field observations.

- Demand for surface water deliveries was estimated on a daily basis using historical surface water delivery data, and accounts for seasonal, daily and weather-related variability in demand.

4.8 SURFACE FLOW INPUTS UNDER CLIMATE CHANGE SCENARIOS

All hydrology models presented in Section 4 require daily inputs for streamflow. For scenario runs that simulate climate change, daily flows from tributaries and drainage areas that feed into the models were adjusted using the 2030 and 2070 future conditions streamflow change factors provided by DWR. The following historical records were adjusted for climate change (see locations in Figure 3):

- Castaic Reservoir inflows. Historical records were compiled based on USGS gage records and DWR operations logs as detailed in Section 4.1.
- Santa Clara River upstream of Castaic Creek. Historical records were compiled based on USGS gage records and adjusted for current development as detailed in Section 4.2.
- Middle Piru Creek (inflows to Lake Piru). Historical records were compiled based on USGS gage records as detailed in Section 4.4.
- Pole Creek. Historical records were compiled from VCWPD Station 713 Pole Creek at Sespe Ave (1974-2018). Missing data were estimated based on correlations with Hopper Creek. Flows from Pole Creek were exclusively used by the Regional Groundwater Flow Model.
- Hopper Creek. Historical records from USGS gage 11110500 Hopper Creek near Piru CA, and VCWPD Station 701 Hopper Creek at Hwy 126 near Piru. Flows from Hopper Creek were also used by the Regional Groundwater Flow Model.
- Sespe Creek. Historical records are from gage USGS 11113000 SESPE C NR FILLMORE. Flows from Sespe Creek were also used by the Regional Groundwater Flow Model.
- Santa Paula Creek. Historical records are from gage USGS 11113500 SANTA PAULA C NR SANTA PAULA. Flows from Santa Paula Creek were also used by the Regional Groundwater Flow Model.

Daily historical flow records were adjusted to 2030 and 2070 future conditions using the HUC8_18070102 annual and monthly streamflow change factors provided by the DWR, using the

methodology for application of time series change factor data described in the Guidance Document for Climate Change Data Use during Groundwater Sustainability Plan Development (DWR, 2018a). The methodology was applied to the daily flow data using the same methods as recommended for monthly data.

DWR streamflow change factors were available for model years 1916-2011. Change factors for model years 2012-2019 were determined by selecting analogous water years in the historical record, and applying the streamflow change factors published for these analogous water years. Analogous water years were determined using the monthly precipitation record for VCWPD rain gage 245 (Santa Paula), which has a complete data record from 1915-2019, and is representative of the average annual precipitation observed in large portions of the watershed. Analogous water years for each of the 2012-2020 water years were determined by calculating the root mean square error (RMSE) based on monthly precipitation with each water year from 1915-2011. Monthly precipitation for each of the 2012-20 water years was compared with the two 1915-2011 water years with lowest RMSE (see example in Figure 12). Generally, the year with the lowest RMSE was selected as the analogous water year, except for WY 2017. For 2017, the year with the lowest RMSE had significantly higher precipitation, and therefore the water year with second-lowest RMSE was selected. The analogous water years, annual precipitation and RMSEs for 2012-2020 are tabulated in Table 3.

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6 TABLES

Table 1. Model reaches and influxes/outfluxes for the Santa Clara River Upper Basins Surface Water Model.

Reach No.	Reach Description	Influxes	Outfluxes
1	Piru Creek SFD dam to SCR confluence	- Flows from SFD (from Lake Piru model)	- Piru Creek diversions - Percolation Piru Creek - Piru Creek flow upstream SCR confluence
2	SCR Newhall to Torrey	- Piru Creek flow upstream SCR confluence - SCR flow upstream of Piru Creek	- Percolation Newhall to Torrey - SCR flow Torrey
3	SCR Torrey to Piru/Fillmore basin boundary	- SCR flow Torrey - Hopper Creek flow - Piru basin rising groundwater	- Percolation Torrey to Piru basin boundary - Percolation Hopper Creek - SCR flow Cavin
4	SCR Piru/Fillmore basin boundary to Sespe confluence	- SCR flow Cavin	- Percolation Cavin to Sespe - SCR flow upstream Sespe confluence
5	SCR Sespe confluence to Fillmore/Santa Paula basin boundary	- SCR flow upstream Sespe confluence - Sespe Creek flow - Fillmore basin rising groundwater	- Percolation Sespe Creek - Percolation SCR downstream Sespe - SCR flow at Fillmore basin boundary
6	SCR Fillmore/ Santa Paula basin boundary to Freeman diversion	- SCR flow at Fillmore basin boundary - Santa Paula Creek	- Percolation Santa Paula Creek - Santa Paula basin losses (percolation and diversions) - SCR flows at Freeman

Table 2. Prioritization order for water resources supply to recharge basins and PTP/PV systems. When facilities are assigned identical priorities, the percentages of supply received for each facility are included in parentheses.

Facility	Summer (dry)	Summer (normal-wet), winter	Forebay storage > 70,000 AF	NTU > 3,000
El Rio basin	1 (50%)	2	1	5
PTP system	1 (25%)	1 (50%)	2 (50%)	6 (50%)
PV system	1 (25%)	1 (50%)	2 (50%)	6 (50%)
Saticoy basin	2	3	3	4
Noble basin	3	4	4	2
Rose basin	4	5	5	3
Ferro basin	5	6	6	1

Table 3. Summary of analogous water years for water years 2012-2020 for the purpose of calculating streamflow change factors, with annual precipitation for each year and calculated root mean square error (RMSE).

WY	WY analog	WY precip	WY analog precip	RMSE (monthly)
2012	1925	10.18	10.01	0.68
2013	2002	6.03	6.98	0.53
2014	1959	6.12	6.67	0.85
2015	1949	10.63	9.79	0.76
2016	1930	9.63	11.59	0.43
2017	1973	21.65	23.32	1.62
2018	1981	8.84	11.88	0.62
2019	1973	22.23	23.32	1.33
2020	1942	15.04	14.19	0.99

7 FIGURES

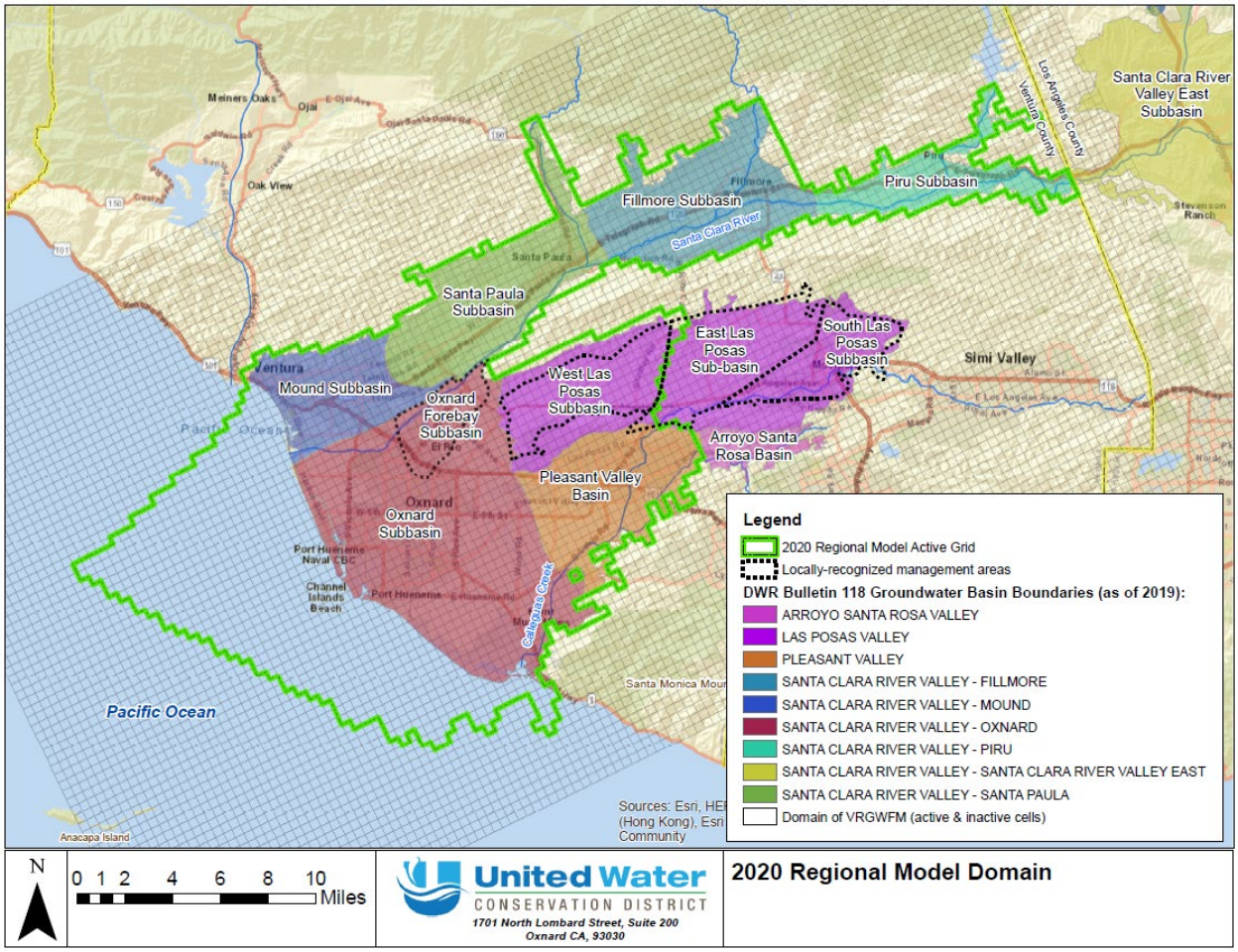


Figure 1. Regional Model Domain with Santa Clara River Valley Expansion.

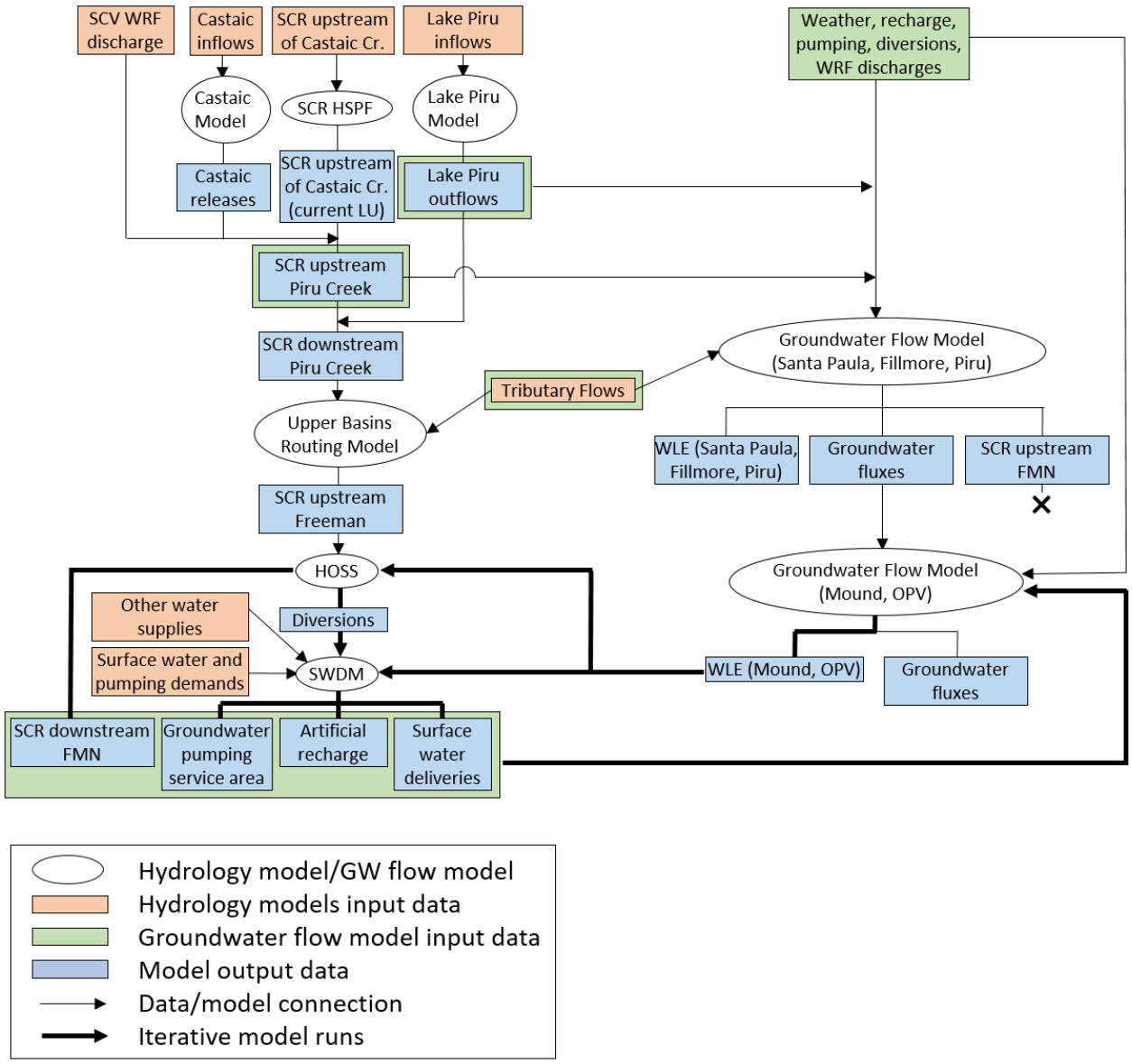
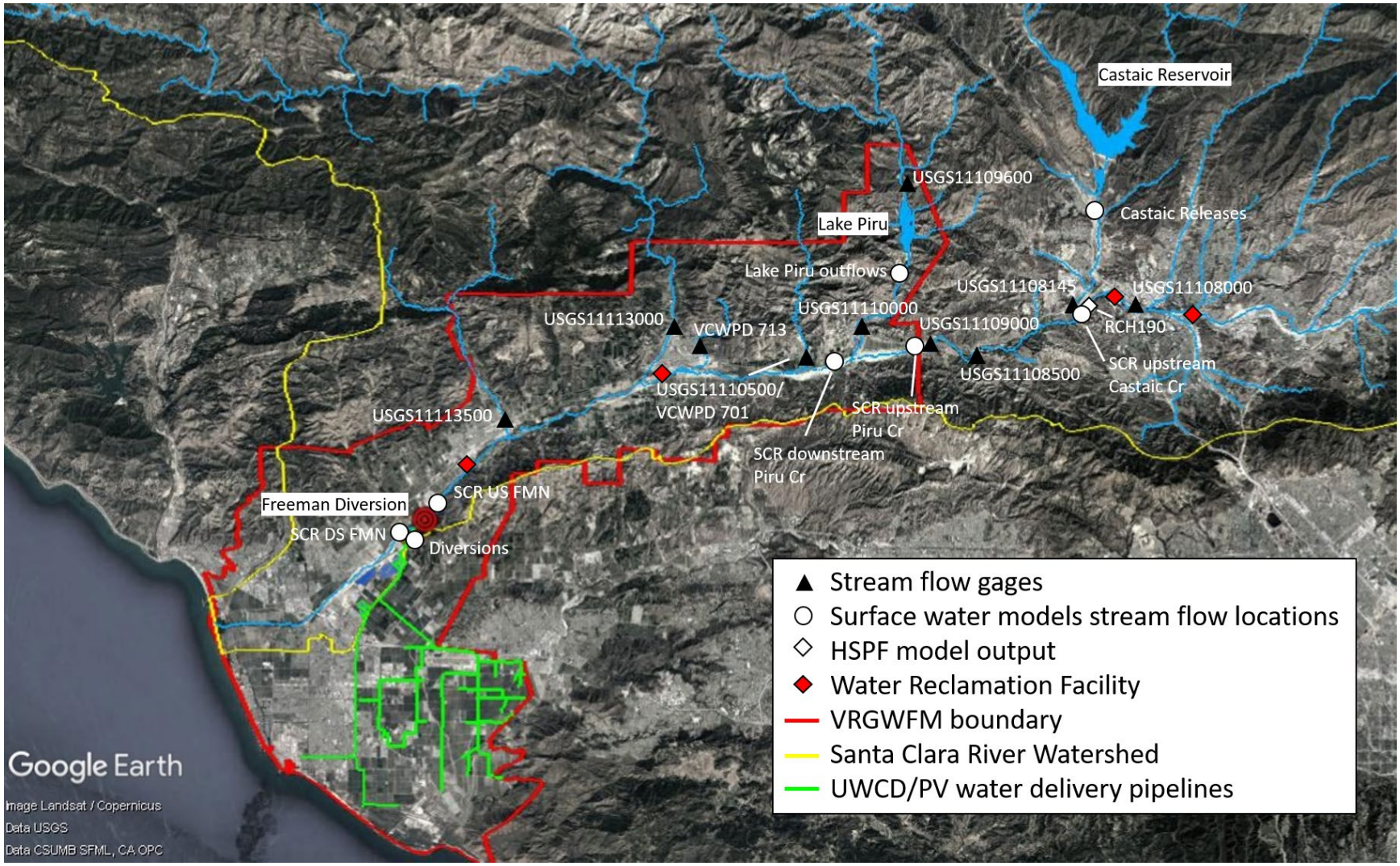


Figure 2. Schematic of the interaction between surface water hydrology models and Ventura Regional Groundwater Flow Model.



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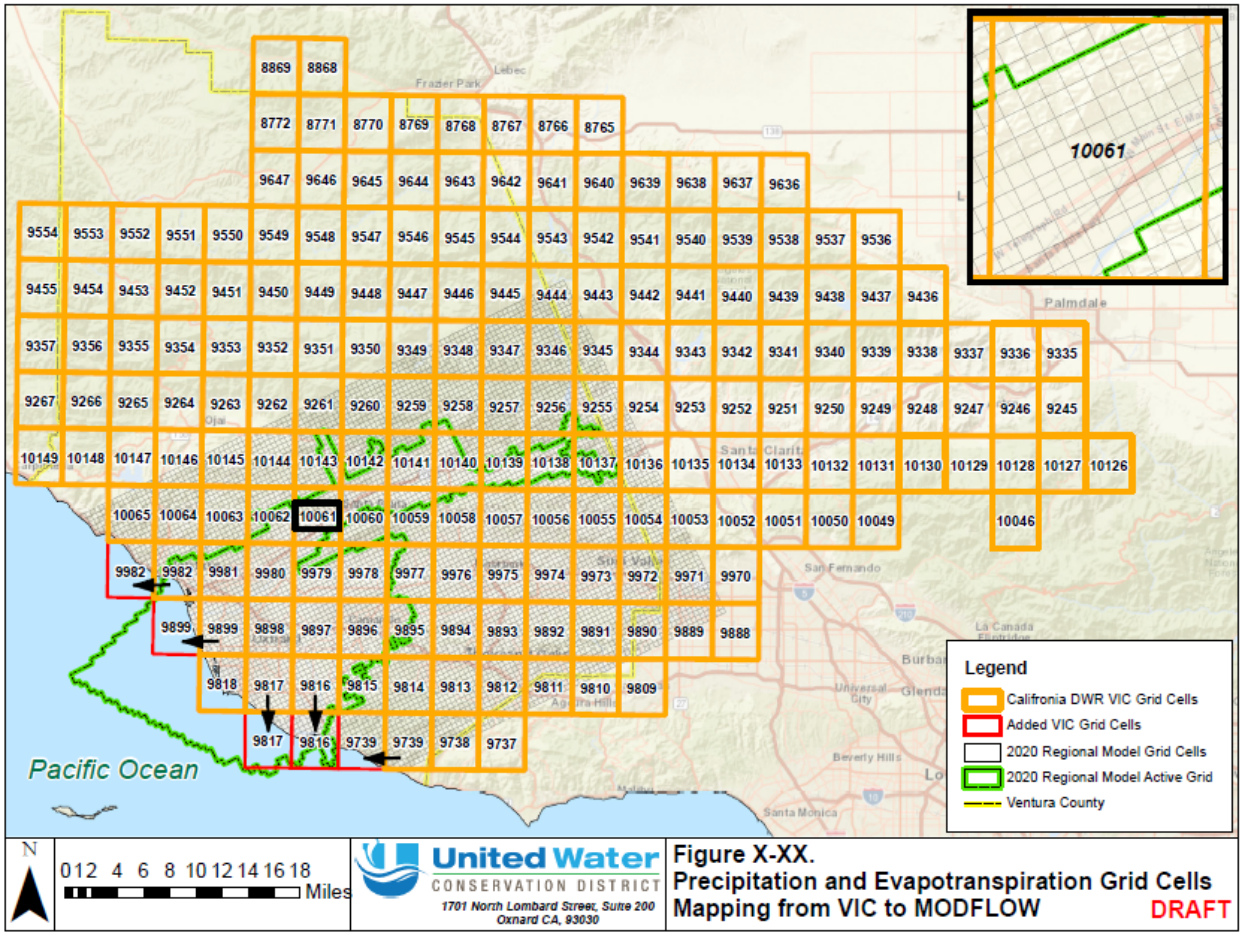

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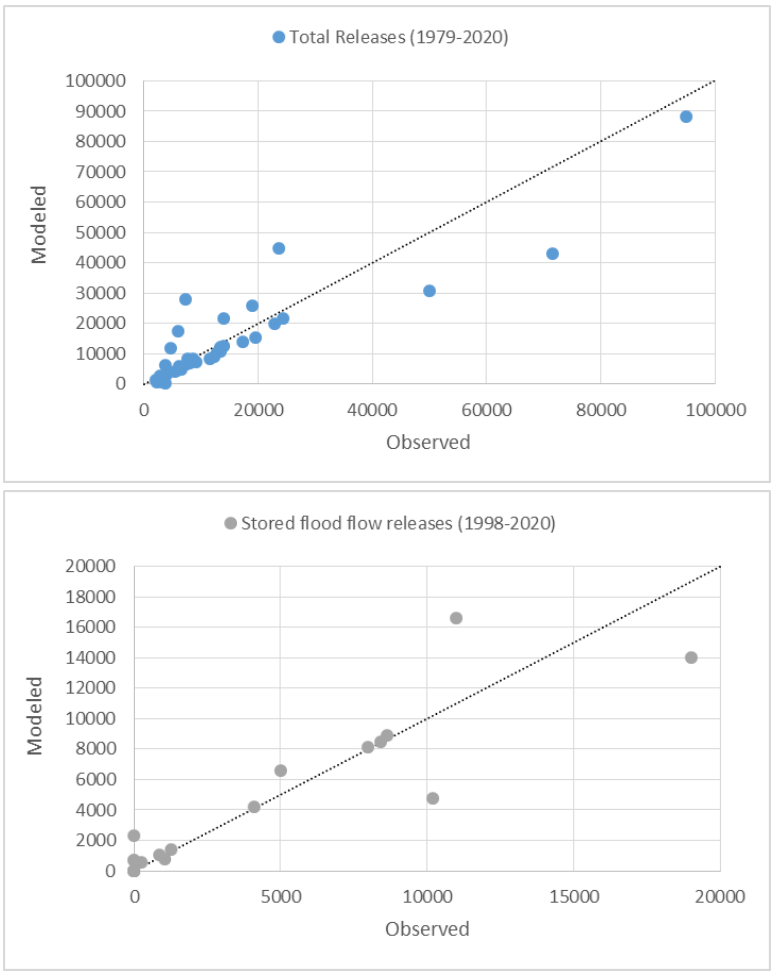

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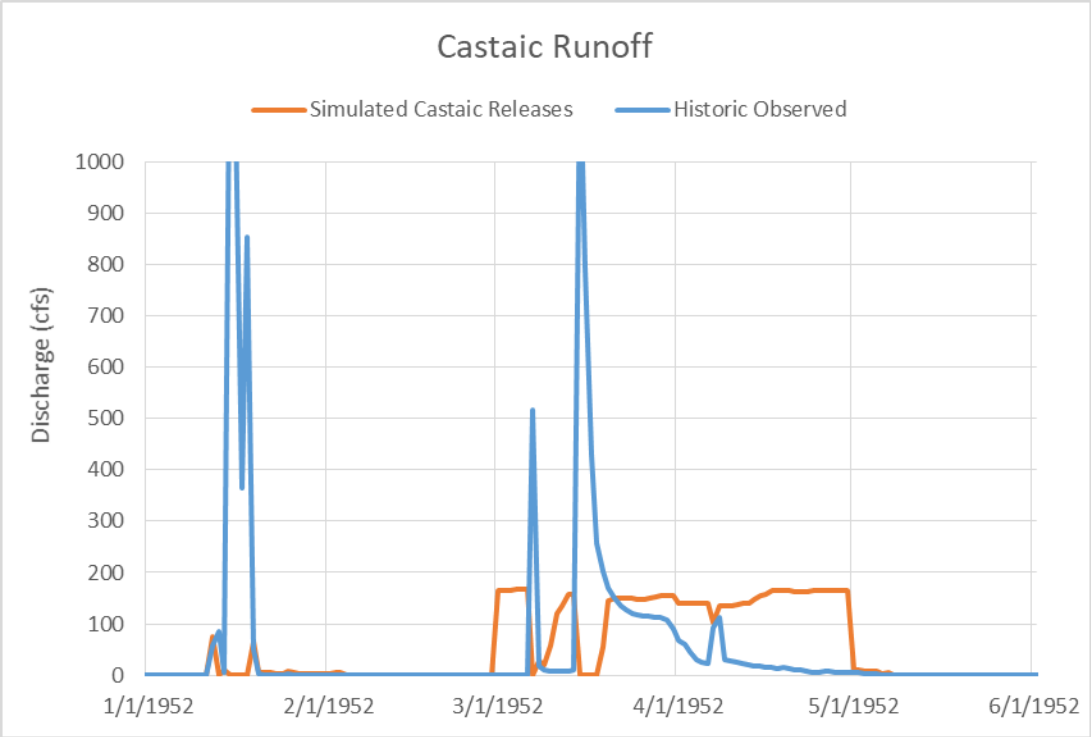

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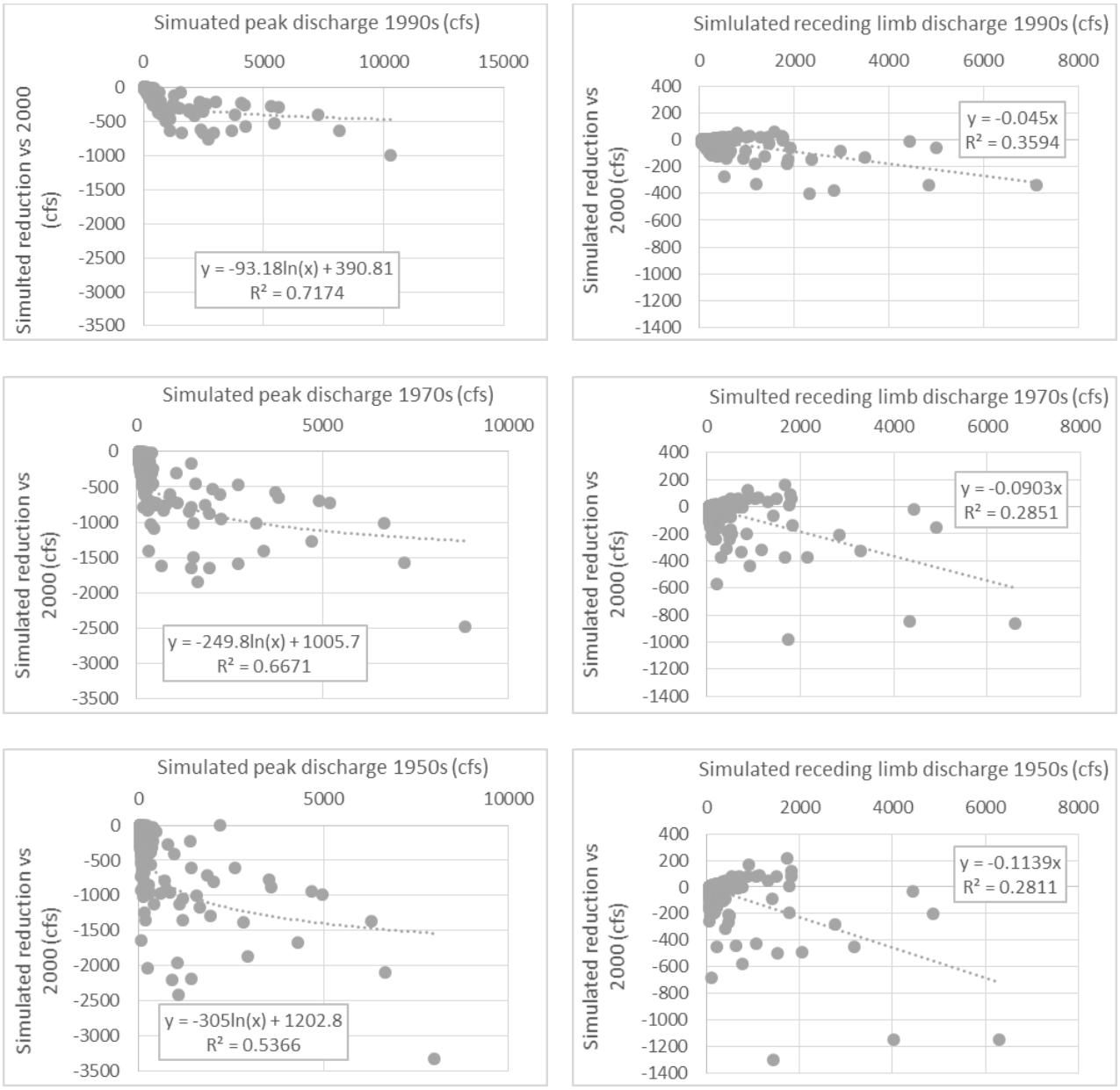

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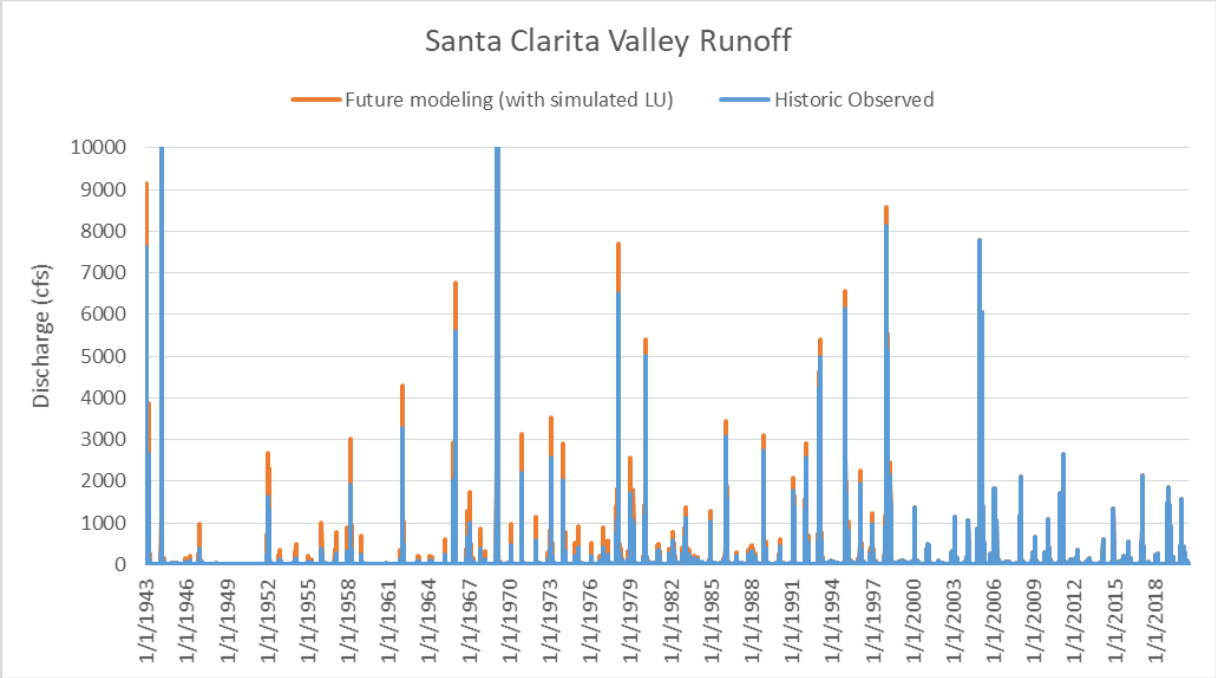

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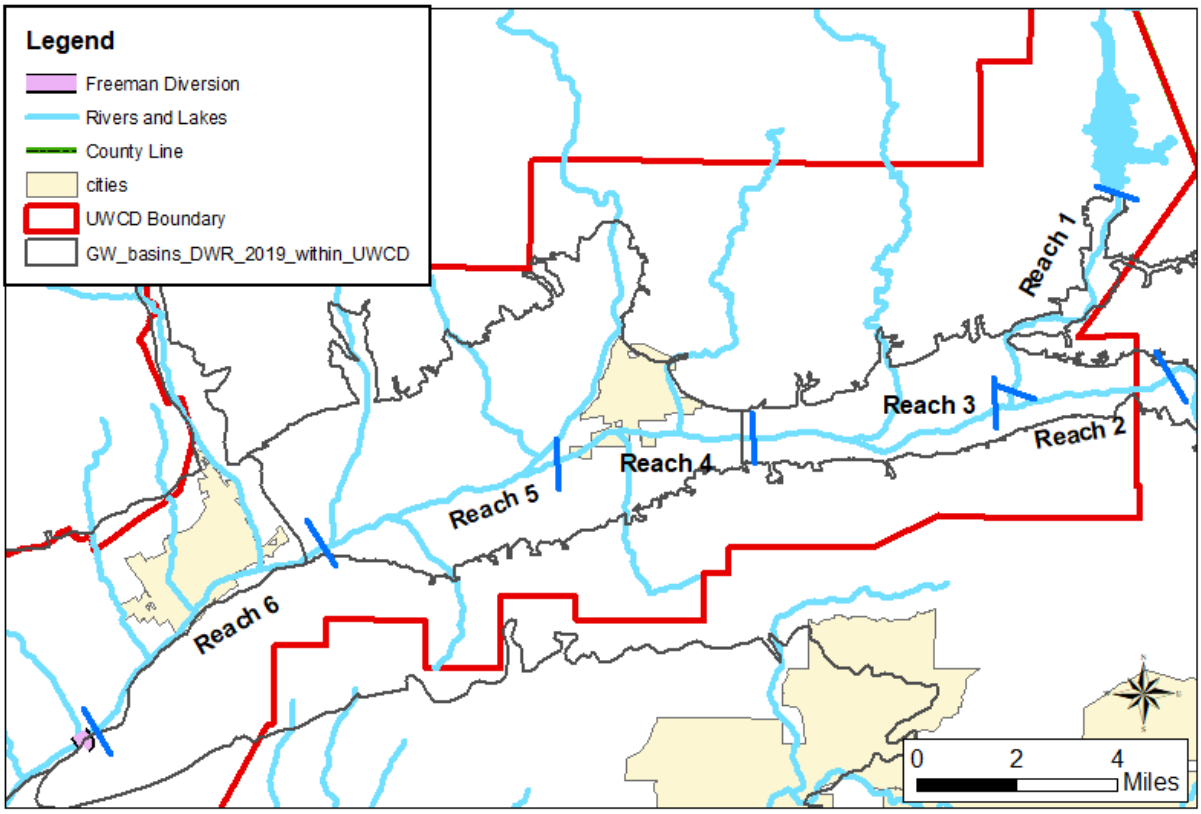

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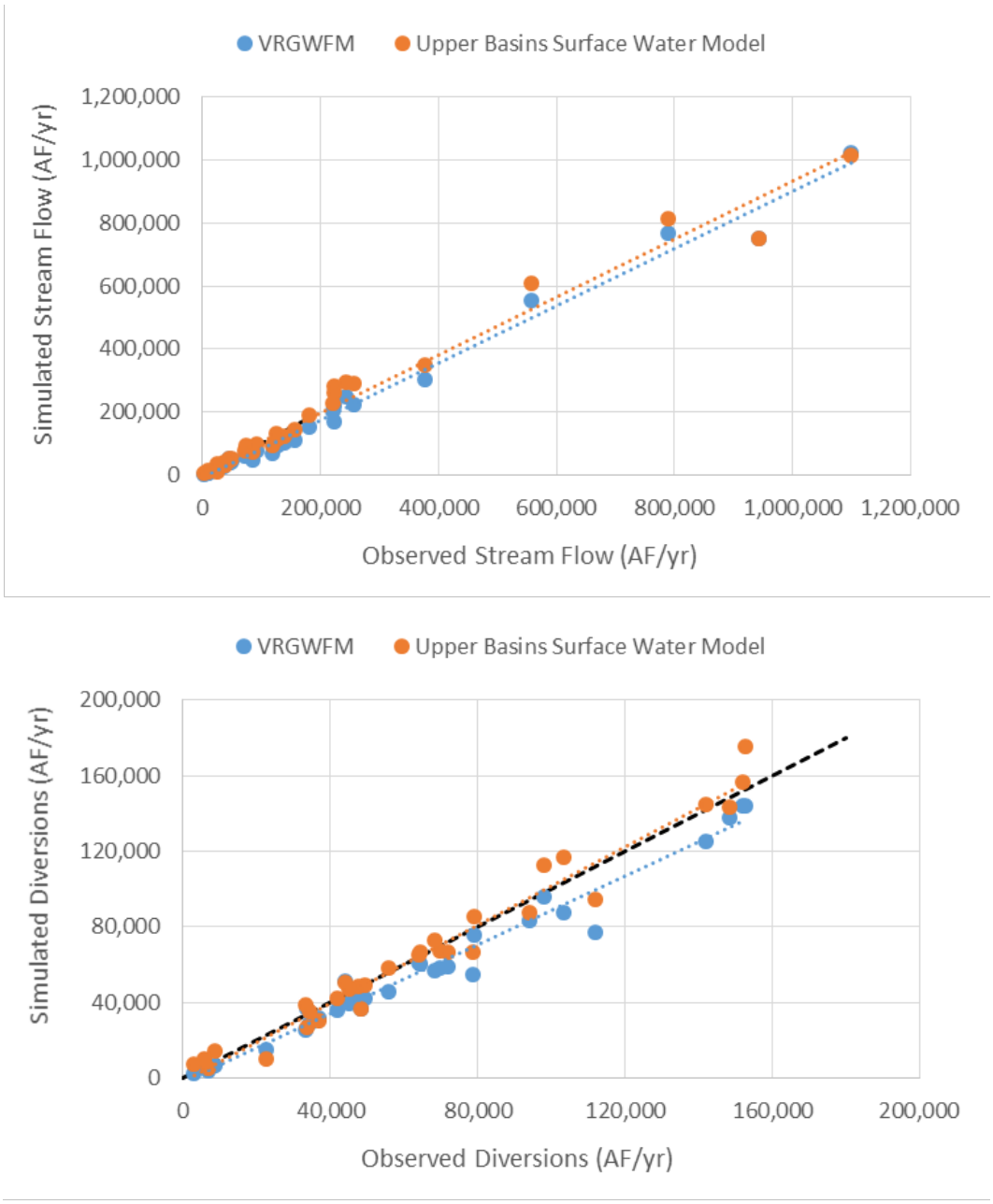

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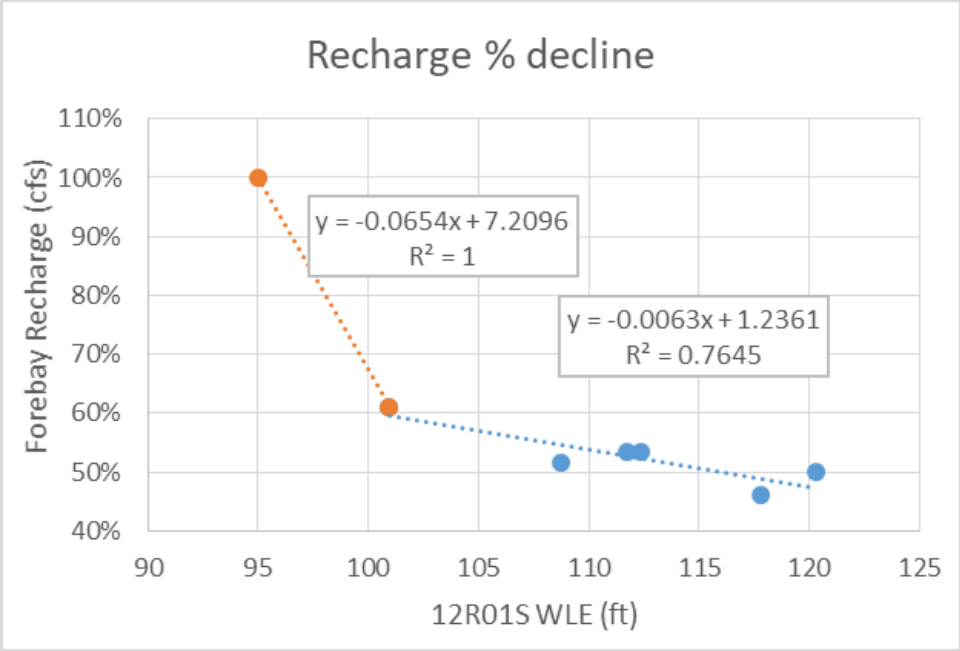

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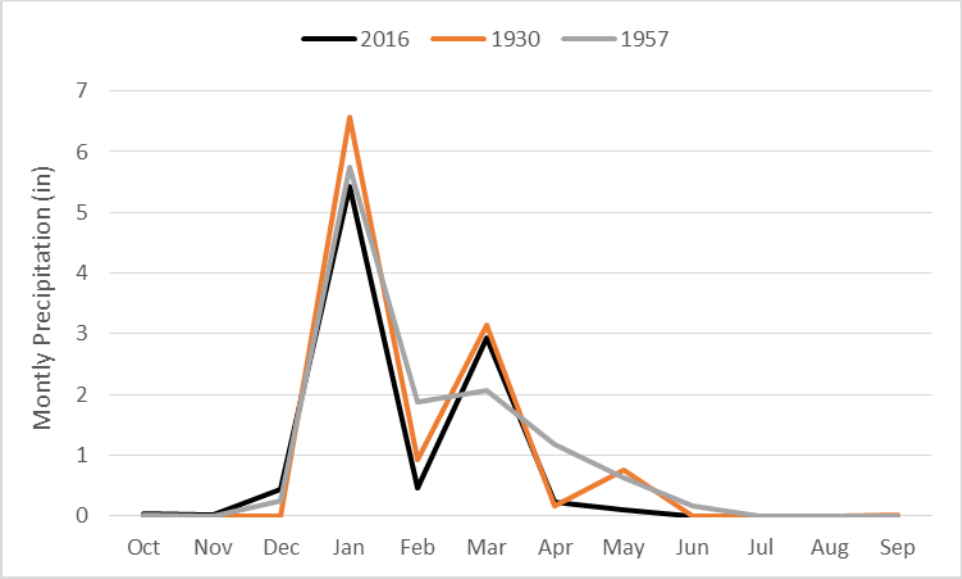

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Fillmore and Piru Basins
Groundwater Sustainability Agency

Appendix E-3

Ventura Regional Groundwater Flow Model 2016-2019 Update for the Piru, Fillmore, Santa Paula, Mound, Oxnard, Pleasant Valley, and West Las Posas Groundwater Basins (United, 2021e)

VENTURA REGIONAL GROUNDWATER FLOW MODEL 2016-2019 UPDATE FOR THE PIRU, FILLMORE, SANTA PAULA, MOUND, OXNARD, PLEASANT VALLEY, AND WEST LAS POSAS VALLEY GROUNDWATER BASINS

United Water Conservation District
Open-File Report 2021-02
September 2021

United Water
CONSERVATION DISTRICT

WATER RESOURCES DEPARTMENT
UNITED WATER CONSERVATION DISTRICT

THIS REPORT IS PRELIMINARY AND SUBJECT TO MODIFICATION BASED UPON FUTURE ANALYSIS AND EVALUATIONS

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PREPARED BY

WATER RESOURCES DEPARTMENT

SEPTEMBER 2021

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Principal Authors: Dr Jason Sun, PE, Dr Bram Sercu, Dr Zachary Hanson, and Dan Detmer, PG, CHG

EXECUTIVE SUMMARY

A regional groundwater flow model (Regional Model) was built and calibrated by United Water Conservation District (UWCD or United) in 2020 (UWCD, 2021a). The Regional Model covers the seven groundwater basins within United's District boundaries, and areas of the Pleasant Valley and West Las Posas Valley basins that are outside District boundaries. The simulation and calibration period for the Regional Model was for the years 1985 through 2015, using a daily time step to capture surface water dynamics along the Santa Clara River and United's water diversions. The 2020 Regional Model was an expansion of United's 2018 groundwater flow model, which simulated the Oxnard, Pleasant Valley, Mound and West Las Posas Valley basins and used a monthly time step The expanded Regional Model was reviewed by an expert panel comprised of three nationally recognized experts on groundwater flow models: Dr Sorab Panday, Mr. Jim Rumbaugh, and Mr John Porcello The expert panel concluded that "The model calibration to both heads and streamflows is very good" (GSI Water Solutions and others, 2021)

As hydrologic data from years 2016 through 2019 became available, United was able to extend the simulation period of the Regional Model through the end of the year 2019 The model update through 2019 is presented in this report. Updating the model included the following steps.

- Collection of precipitation and areal recharge data, streamflow measurements, data related to United's conservation releases from Lake Piru, streamflow diversion records, groundwater extraction records, and groundwater elevation measurements, from 2016 to 2019
- Pre-processing the 2016-2019 data into the model input files
- Model simulation for the years 2016-2019
- Post-processing the model output to generate simulated groundwater elevations, streamflow rates, gaining and losing stream reaches, and water budget components for the years 2016-2019
- Comparison of simulated groundwater elevations and modeled streamflow with measured values to evaluate the model calibration with the 2016-2019 record set that is independent of the original model calibration record set (years 1985-2015).

United staff started the data collection in early 2020 and completed the model update in fall 2020 In this Model Update Report, it is shown that the Regional Model's simulation of the 2016-2019 groundwater elevations closely approximates the measured 2016-2019 groundwater elevations Streamflow and surface water-groundwater interaction along the Santa Clara River is also well simulated. The uniform numerical model grid size of 2000 feet by 2000 feet implies that the Regional Model may be used to support basin-scale groundwater analysis but one should be cautious when using the model to interpret smaller/local scale projects or conditions.

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1 INTRODUCTION

United Water Conservation District (United or UWCD) is a California special district (i e , a public agency) with a service area of approximately 335 square miles (214,000 acres) in southern Ventura County United's service area includes the Ventura County portion of the Santa Clara River Valley and much of the Oxnard coastal plain, including the lower part of the Calleguas Creek watershed, as shown on Figure 1-1. United serves as a steward for managing the surface water and groundwater resources within all or part of seven groundwater basins It is governed by a seven-person board of directors elected by region, and receives revenue from property taxes, pump charges, recreation fees, and water delivery charges. United is authorized under the California Water Code to conduct water resource investigations, acquire water rights, build facilities to store and recharge water, construct wells and pipelines for water deliveries, commence actions involving water rights and water use, prevent interference with or diminution of stream/river flows and their associated natural subterranean supply of water, and to acquire and operate recreational facilities (California Water Code, section 74500 et al)

This report documents the update of the Regional Model for the years 2016-2019, covering the groundwater basins of the coastal plain and the Santa Clara River (SCR) valley within Ventura County, California. The groundwater conditions on the coastal plain, which includes the Oxnard, Pleasant Valley, Mound, and West Las Posas Valley basins are distinctly different from the basin setting and groundwater conditions in the basins of the SCR Valley subbasins, which include the Piru, Fillmore and Santa Paula basins (Figure 1-2). For example, the SCR basins are largely unconfined, and seasonally recharged by SCR streamflow and conservation releases conducted by UWCD, resulting in rapid groundwater elevation rebound in the SCR basins in wet years. The largely confined basins of the Oxnard coastal plain basins are predominantly influenced by the availability of surface water for artificial recharge in the Oxnard Forebay area and direct water deliveries to offset pumping in the more central and coastal portions of these basins.

As a note related to basin naming terminology, for the sake of brevity, groundwater subbasins are commonly referred to as "basins" throughout this report. Additionally, the Forebay portion of the Oxnard basin and the western portion of Las Posas Valley basin (West Las Posas Valley) are not recognized basins or subbasins by California Department of Water Resource (DWR), but are locally-recognized and established management areas. As such, these management areas are referenced for analysis during this report due to their relevance to local understanding and consistency with previous reporting and analysis.

Since the 1990s, United's Board of Directors has endeavored to have a regional groundwater flow model covering all the above-mentioned basins, for water resources planning and management purposes (USGS, 2003; FCGMA and others, 2007, UWCD, 2018a, UWCD, 2021a) In 2020 United staff completed construction and calibration of a regional model covering its service area and some adjacent areas outside its jurisdiction (in the West Las Posas Valley basin and the

northern Pleasant Valley basin) (UWCD, 2021a) The simulation period for the expanded Regional Model is from 1985 to 2015 with a daily time step, specifically for surface water inputs. The Regional Model was reviewed by an expert panel comprised of three nationally recognized experts in groundwater modeling. Dr Sorab Panday, Mr Jim Rumbaugh, and Mr John Porcello. The expert panel concluded that "The model calibration to both heads and streamflows is very good" (UWCD, 2021a)

When hydrologic data for 2016 to 2019 period became available, the simulation period of the Regional Model was extended through 2019 This report documents the first update of the Regional Model, which was completed in the fall of 2020. Model input data for 2016-2019 (the "Update Period") were implemented with the same methodologies as the 1985-2015 "Calibration Period" data, except for a single streamflow and single subsurface underflow component (see Section 2 2; Conejo Creek and Arroyo Las Posas subsurface underflow) which no longer had the same data available for the Update Period. Overall, the model and the processes for data acquisition and implementation were not revised, and this report documents the update for the 2016-2019 time period.

Generally, when a groundwater flow model is constructed, a historical data set is used to calibrate the model Over time, as recent data sets become available, the newly available data sets can be used to extend the simulation period of the model The new data sets can also be used to evaluate model calibration and help assess whether further model calibration is necessary. United's Regional Model (UWCD, 2021a) was calibrated with data available from calendar years 1985 through 2015 As data became available in ensuing years, the new data were gathered and evaluated as described in Section 2, and then was used to evaluate the calibration of the Regional Model and extend the simulation period with calendar years 2016 through 2019. Simulated groundwater elevations, streamflow and surface flow pattern results for the Update Period were processed and compared with observed groundwater elevation data and measured streamflows and surface water flow patterns for the same period. In this report, it is shown that the Regional Model simulates groundwater elevations for the Update Period with sufficient accuracy Streamflow rates and surface water-groundwater interactions along the Santa Clara River are also reasonably simulated on a monthly basis during the Update Period In general, model performance during the 2016-2019 Update Period is considered good and in line with model performance from the 1985-2015 Calibration Period

2 UPDATED MODEL INPUTS AND DATA SETS FOR 2016-2019 PERIOD

With the inclusion of data from 2016 through 2019, the simulation period of the Regional Model is extended through December 2019. The various data sets necessary for the model update and comparison process included: (1) precipitation for implementation into the areal recharge component of the numerical model, (2) streamflow records and subsurface underflow estimates for implementation into the streamflow and related underflow components, (3) streamflow diversions for implementation into the streamflow components, (4) groundwater extraction records for implementation into the well pumping component of the numerical model (5) areal recharge from agricultural and municipal and industrial return flows for implementation into the areal recharge component of the numerical model, (6) wastewater treatment plant discharges for implementation into the areal recharge component of the numerical model, and (7) groundwater elevation records for comparison This section will describe the data sets gathered, and the methodology used to acquire and process the data sets for implementation in the numerical model.

2.1 PRECIPITATION DATA

Precipitation records were updated in order to estimate monthly total precipitation across the entire domain of the Regional Model. Daily precipitation data were collected for 110 rainfall gage stations located within and near Ventura County that have data available during the 2016-2019 Update Period (Table 2-1 and Figure 2-1). The daily precipitation records were downloaded from the Ventura County Watershed Protection District (VCWPD; http://www.vcwatershed.net/hydrodata/). Previously, Ventura County had 180 gages active during the 1985-2015 Calibration Period. The same procedures were used in the Update Period as were performed in the Calibration Period: daily data were aggregated to monthly data and Kriging was used to generate monthly precipitation distributions across Ventura County The monthly precipitation distributions were then mapped to the numerical grid of the Regional Model for use as an input when calculating areal recharge.

Precipitation records from VCWPD Gage 245A over the modeling period (1985-2019) is representative of precipitation over the model area for both periods (Figure 2-2) Gage 245A was discontinued by VCWPD after water Year 2010, and the VCWPD Gage record was continued using nearby VCWPD Gage 245B (Figure 2-1) However, United continued to record precipitation data through year 2019 at Gage 245A. Figure 2-2 shows that the average calendar year rainfall at VCWPD Gage 245A was very similar between the Calibration Period (17 13 inches) and the Update Period (17.37 inches) Also, the Calibration Period contained some very wet years (e.g. 1998 and 2005) as well as significant drought conditions (2011-2015), leading to basin conditions being severely depleted at the beginning of the Update Period When comparing 2011-2015

rainfall to the 2016-2019 Update Period, there is a significant increase in recorded precipitation, with average annual rainfall nearly doubling from 8.89 inches from 2011-2015 to 17.37 inches per year for the 2016-2019 Update Period.

2.2 STREAMFLOW AND SUBSURFACE UNDERFLOW

Streamflow was updated for the 2016-2019 Update Period with data acquired from the USGS and VCWPD. The methods used for estimating streamflow and subsurface underflow for Arroyo Las Posas, and streamflow for Conejo Creek, which no longer had data available for the Update Period, are described below in this Section. For the SCR and tributaries, streamflow data was available through the USGS, VCWPD, and United's records at Freeman Diversion (Table 2-2 and Figure 2-3).

Annual average streamflow along the SCR near Piru (USGS gage 11109000) was higher in 2017 and 2019 due to significant releases from Castaic Lake (15,200 AF in 2017, 19,000 AF in 2019) Note that the 2017 Castaic Lake release included 10,000 AF of imported State Water Project (Article 21 water purchase) Field monitoring by United staff indicated that most (75-95%) of the released water percolated to Piru basin, while the remainder percolated in the Castaic Creek streambed upstream Groundwater underflow into Piru basin along the SCR near County Line remained the same as during the Regional Model Calibration Period (5000 AFY, UWCD, 2021a). Although average annual precipitation is similar for the Update and Calibration Periods (Figure 2-2), streamflow gages in the SCR basins indicate decreased annual average streamflow during the Update Period compared to the Calibration Period The decrease in streamflow is due to dry antecedent conditions in all watersheds following the drought conditions from fall 2011 through 2015, as mentioned above Measurements of rising groundwater at the Piru-Fillmore and Fillmore-Santa Paula basin boundaries were performed by United staff and are available for the 2016-2019 Update Period. Measurements were obtained by manually measuring streamflow in the Santa Clara River upstream and downstream of the rising groundwater reach, which varies spatially, and subtracting upstream flows from downstream flows. Streamflow measurements are generally within 5-10% accuracy Rising groundwater measurements are generally available for dry months only, as it is difficult to accurately measure rising groundwater when streamflow is high and dynamic. Rising groundwater measurements were not used as an input to the Regional Model, but are used in evaluation of the streamflow as detailed in Section 3.3.4. Similarly, measurements of percolation of streamflow to the groundwater basins are made by United staff, and that data is described briefly in Section 2 3, below, as well as Section 3 3.2

In the Pleasant Valley basin, data was not available for the surface water flows into the model domain at the Arroyo Las Posas and Conejo Creek locations (Figure 2-3) Arroyo Las Posas streamflow was estimated based on a relationship developed between observed monthly precipitation (VCWPD site 190) and monthly simulated streamflow that was provided by Calleguas Municipal Water District's Las Posas Valley Model (CMWD, 2018) that was previously

used in the Coastal Plain model (UWCD, 2018a) from 1985 – 2015 (coefficient of determination, R^2 = 0.74). As the 1985-2015 period contained both wet and dry conditions, the relationship is assumed to hold reasonably well for the 2016-2019 period. Conejo Creek streamflow data was unavailable from Ventura County Watershed Protection District, and therefore, streamflow entering the model domain was estimated over 2016-2019 based on dry weather (June – August) streamflow measurements provided by The City of Thousand Oak's Hill Canyon Treatment Plant and applied equally across the year of measurement. Although this data does not capture wet season storms, Conejo Creek flows are dominated by discharge from the treatment plant, which serve as a reasonable estimate of total flow in Conejo Creek. Low percolation rates are also expected to be associated with the Conejo Creek flows Estimates of annual average streamflow discharge for Arroyo Las Posas and Conejo Creek are shown in Table 2-3 Subsurface underflow along Arroyo Las Posas for the 2016-2019 Update Period was unavailable from the Calleguas Las Posas Valley Model (CMWD, 2018) United estimated the subsurface underflow from the East Las Posas basin into the Pleasant Valley basin along Arroyo Las Posas for the 2016-2019 time period based on a relationship developed between monthly simulated underflow available from then Calleguas Las Posas Valley Model (CMWD, 2018) for 2014-2015 and available groundwater elevation records from well 02N20W17J06S (R^2 = 0 70), which was determined to be the well with best available data for an estimation of the Arroyo Las Posas underflow into the Regional Model domain (Table 2-4).

2.3 LAKE PIRU CONSERVATION RELEASES

Lake Piru stores natural runoff from the Piru Creek watershed and State Water purchases that are released from Lake Pyramid, located on Piru Creek upstream of Lake Piru. Conservation releases from Lake Piru are conducted to provide direct groundwater recharge to the Piru, Fillmore, Santa Paula and Oxnard basins at times when natural runoff in the SCR watershed is limited Daily release volumes from Lake Piru are measured below Santa Felicia Dam at USGS gage 11109800 Conservation releases provide recharge to the basins and help to sustain rising groundwater at the Piru/Fillmore and Fillmore/Santa Paula basin boundaries Released water that does not percolate into the Piru and Fillmore basins flows downstream to the Santa Paula basin, and is diverted at the Freeman Diversion for subsequent surface water deliveries and managed aquifer recharge operations in the Oxnard and Pleasant Valley basins. Groundwater underflow also exists between these groundwater basins. United's conservation releases typically last from over a month to several months, and are scheduled in order to optimize the distribution of the recharge occurring in downstream basins and to optimize the distribution of diverted surface water in the coastal basins

Streamflow percolation to the groundwater basins is estimated using manual measurements of streamflow made at the basin boundaries Measurements by United staff were available for conservation releases during the 2016-2019 Update Period (Table 2-5) Table 2-5 shows the measured distribution of released water to each basin over the 2016-2019 Update Period and

compares these with the averages over the 1985-2015 Calibration Period (note that measurements of the distribution of released water are only available from 1999 onwards). Annual average conservation release volumes during the Update Period (14,204 AFY) were a little more than half of those during the Calibration Period (25,184 AFY), due to continued drought conditions that reduce inflows into the Lake Piru, and thus limit the volume of stored runoff available for release This illustrates the severity of the recent drought conditions and the impacts it had on watershed drainage for local replenishment. The 2019 release volume form Lake Piru included 15,000 AF of imported State Water Project (Article 21) Without this imported water, the total and average release volume over the Update Period would have been substantially lower

United is also required to release water continuously from Lake Piru to maintain fish habitat in lower Piru Creek. Current habitat water release requirements range between 7 and 20 cfs, depending on cumulative annual rainfall at the Piru-Temescal Guard Station rain gage at Lake Piru (VCWPD Gage 160; see Figure 2-1) (UWCD, 2012). Much of the water released for habitat requirements flows down Piru Creek and provides recharge to the Piru basin. Piru Mutual Water Company and Rancho Temescal operate permitted diversions on lower Piru Creek, diverting a portion of the creek flow for agricultural uses, as discussed in detail in Section 2.3.8 of the Regional Model Expansion Report (UWCD, 2021a) and briefly in the next section Additional information related to Lake Piru conservation releases can be found in Section 2.3.2.1 of the Regional Model Expansion Report (UWCD, 2021a)

2.4 DIVERSIONS

The Regional Model 2016-2019 Update Period adopts the same methodologies utilized in the Regional Model Expansion Report (UWCD, 2021a), relying largely on reported data to the State The Update Period includes the same 15 diversions in addition to United's Freeman Diversion as the model for the Calibration Period (Figure 2-4)

- Camulos Ranch (Santa Clara River, Piru basin)
- Isola (Santa Clara River, Piru basin)
- Rancho Temescal 1 (Piru Creek, Piru basin),
- Rancho Temescal 2 (Piru Creek, Piru basin),
- Piru Mutual (Piru Creek, Piru basin),
- United's Piru Diversion (Piru Creek, Piru basin)
- Fillmore Irrigation Company (Sespe Creek, Fillmore basin)
- Limoneira (minor; Boulder Creek, Filmore basin)
- Beans Ranch (Boulder Creek, Fillmore basin)
- Canyon and Farmer's Irrigation Companies (Santa Paula Creek, Santa Paula basin)
- Zaragosa (minor; Santa Clara River, Santa Paula basin)

- Diversions related to Hyde Ditch (Santa Clara River, Santa Paula basin)
- Southfork Ranch (Santa Clara River, Santa Paula basin)
- UWCD Freeman Diversion (Santa Clara River, Santa Paula basin)
- Camrosa Water District Diversion (Conejo Creek, Pleasant Valley basin)

During the 2016-2019 Update Period, several active diversions from the Calibration Period remained unused, including Isola (inactive after 2005), UWCD's Piru Diversion (diversion and spreading grounds inactive after 2008), Fillmore Irrigation Company (inactive after 2008), and Limoneira (no 2016-2019 use). Diversion data was obtained from monthly data reported to the California State Water Resources Control Board's Water Rights Information Management System, which are available to the public (https://ciwqs.waterboards.ca.gov/ciwqs/ewrims/EWMenuPublic.jsp). Where necessary, data gaps were filled in a manner similar to that used during the model expansion effort (see Piru Mutual; Section 2.3.8.1 in UWCD, 2021a). Monthly records were acquired or estimated for diversions within the model domain and reported monthly diversion totals were distributed equally across the days of each month in the model. Reported and estimated annual average diversion rates over the 2016-2019 Update Period are shown in Table 2-6.

Surface water diversions were implemented with the stream (STR) package in MODFLOW-NWT (Niswonger and others, 2011) for the reported diversion locations and rates detailed here, except for Freeman Diversion As detailed in the Regional Model Expansion report (UWCD, 2021a) and the Technical Memorandum on Model Inputs for Simulations in Support of GSPs (UWCD, 2021b), United used separate surface water models to estimate daily streamflow (Upper Basins Surface Water Model) as well as diversions at the Freeman Diversion (Hydrological Operations Simulation System, HOSS) The use of these surface water models provides more accurate estimates of diversions and downstream flows compared to relying solely on MODFLOW-NWT Additionally, an operational model (Surface Water Distribution Model) was used to calculate the portion of the diverted water that was delivered to United's recharge facilities and to surface water deliveries via the Pumping Trough Pipeline (PTP) and Pleasant Valley Pipeline (PVP) systems. Both the application of surface water to the spreading basins for recharge and streamflow downstream of Freeman were implemented into the Regional Model using the same methods that areal spreading and streamflow were implemented upstream of Freeman (see Sections 3 5.2.1 and 3 5.2 3 in [UWCD, 2021a])

Annual average diversions decreased significantly from 63,133 AFY during the Calibration Period to 14,596 AFY during the Update Period This decrease is in part due to reduced streamflow in the SCR basins due to drought conditions (Tables 2-2 and 2-3), but is also attributed to reductions in allowable diversion due to increased environmental regulatory requirements The reduction in allowed surface water diversions at Freeman Diversion reduces both artificial recharge activities in the Oxnard Forebay area and surface water deliveries to the PTP and PVP for agriculture use

Additional information regarding diversions and the application of diverted water can be found in previous modeling reports (UWCD, 2018a; UWCD, 2021a)

2.5 PUMPING FROM WATER-SUPPLY WELLS

Since 1980 and 1985, respectively, United and the Fox Canyon Groundwater Management Agency (FCGMA) have required semi-annual reporting of groundwater extractions by well owners and operators within their service areas, greatly improving the understanding and accuracy of groundwater pumping in the study area. Further details related to pumping operations within the Regional Model domain are available in previous reports (UWCD, 2018a, UWCD, 2021a). Reported locations and the relative magnitude of groundwater pumping from active wells for the Update Period in the Regional Model domain are shown in Figures 2-5 through and 2-8 For wells located in both the United and FCGMA boundaries (FCGMA boundaries include the Oxnard, Pleasant Valley, and Las Posas Valley basins), United staff worked with FCGMA staff to reconcile any large discrepancies between production records reported to the two agencies and to reconcile any omissions in extraction reporting between the two agencies. Many of the water-supply wells that exist in the study area are screened across multiple aquifers to maximize water production rates.

The FCGMA Board adopted Emergency Ordinance E in 2014 in response to the severely depleted groundwater conditions in the coastal basins following the onset of drought conditions in fall 2011 Temporary extraction allocations were applied to wells within the FCGMA, adding additional pumping restrictions. In February 2015, the County of Ventura passed a well ordinance prohibiting the construction of new wells in High and Medium Priority basins, as designated by CA DWR, which includes all basins within the model domain. Construction of replacement wells is allowed, as the ordinance was intended to prevent increased groundwater use rather than to limit existing use. Pumping extractions in nearly all the groundwater basins located within the Regional Model was reduced during the Update Period compared to the Calibration Period, and few new wells were constructed. The exception is West Las Posas Valley basin, which saw a slight increase in reported production.

2.6 RECHARGE

The Regional Model implements areal recharge as a combination of recharge derived from precipitation and recharge derived from agricultural and municipal and industrial return flows. Other areal recharge sources included in the Regional Model are United's artificial recharge activities, and the percolation ponds at wastewater treatment plants The Regional Model adopts the same methodologies used in the Update Period that were used in the Calibration Period (UWCD, 2021a). There are nine wastewater treatment plants located within the expanded study area that are considered for both their discharges and distribution of recycled water; their locations are shown on Figure 2-9 and the annual discharges to percolation or application are shown in

Table 2-7 Treated wastewater from plants in the SCR basins is discharged to percolation basins (Fillmore also distributes water for landscape irrigation) Downstream, Ventura's Wastewater Reclamation Facility distributes water to nearby golf courses, and Oxnard's Advanced Water Purification Facility began supplying recycled water to several agriculture users in the southern Oxnard basin beginning in 2016 (it was not active during the calibration period of 1985-2015). Camarillo's Wastewater Treatment Plant and Camrosa's Water Reclamation Facility have supplied Pleasant Valley County Water District (PVCWD) with treated water for agricultural uses.

In addition to areal recharge, the Regional Model adopts the same assumptions and methodologies for the Update Period as were used for the Calibration Period (UWCD, 2021a) for streamflow percolation, which recharges the underlying groundwater aquifers from surface water sources, as well as mountain front recharge, which is directly related to the observed precipitation (Figure 2-1) that falls on the various areas in the Regional Model domain. Section 3.3 of this report describes the analysis of the modeling results related to the interaction between the groundwater and surface water components along the Santa Clara River within the Piru, Fillmore, and Santa Paula basins The percolation and rising groundwater that recharges to, and discharges from the groundwater aquifer below the river is often an important component of the groundwater budget within these basins, especially in the Piru and Fillmore basins.

2.7 RIPARIAN VEGETATION

Riparian evapotranspiration (ET) was implemented in the same way as described in in the extended Regional Model calibration (see Section 3.5.2.6 in UWCD, 2021a) Within the coastal basins, the maximum ET flux is 0 01 feet per day over the area of stream channel and wetland. The ET surface elevation is assumed at 3 feet below ground surface, and the ET extinction depth is set at 5 feet. In the Piru, Fillmore, and Santa Paula basins, the maximum ET flux was increased to 0 014 feet per day (5.2 feet per year) in order to account for higher estimated water use with the presence of Arundo donax within the SCR corridor along with other vegetation species. To account for seasonal variation in ET, the maximum ET rates were adjusted according to percentages for each month.

2.8 GROUNDWATER ELEVATION RECORDS

As described in the Regional Model Expansion report (UWCD, 2021a), United's groundwater elevation database includes historical groundwater elevation data for 1,369 wells within the Regional Model domain (as of May 2020) The groundwater elevation database is a compilation of information provided by several cooperating entities, with data collection protocols among the agencies in the area being fairly consistent. In this report, the term "groundwater elevations" is used to describe the measured or simulated elevation of the water column in a well, and refers to both unconfined water table elevations and potentiometric surface elevations in confined aquifers. Groundwater elevations are normally measured in wells that are not pumping; these

measurements are referred to as "static." When evaluating trends in long-term groundwater elevations, static groundwater elevation measurements are preferred. However, the groundwater elevation in a non-pumping well may remain depressed for some time due to residual drawdown in the well being monitored, or because of pumping interference from a nearby well. Although it is not possible to eliminate all effects of pumping when manually measuring groundwater elevations in a developed groundwater basin, UWCD and other parties take care to measure wells when residual drawdown is not expected, and nearby wells are not known to be pumping. When groundwater elevations are measured during the low-irrigation season (winter and early spring), potential pumping effects on the measurements are typically reduced Some area wells are equipped with pressure transducers that collect frequent measurements and seasonal high and low groundwater elevations can be assessed with greater confidence United's groundwater elevation database records are updated on a continuous basis, and all available groundwater elevation records were utilized for the 2016-2019 period for update purposes, as described in Section 3 of this report. Additional background and details regarding the database can be found in Section 2 7 of the Regional Model Expansion Report (UWCD, 2021a) Time series plots of measured groundwater elevations and simulated groundwater elevations in area wells were used in evaluating model calibration.

All available groundwater elevation measurements were also paired with the simulated groundwater elevations in scatter plots. As detailed in Section 4.1.1 in the Regional Model Expansion Report (UWCD, 2021), the simulated groundwater elevations from wells with screen interval spanning multiple aquifers is plotted as the maximum of the simulated groundwater elevation in the individual model layers.

2.9 SUMMARY OF UPDATE PERIOD CONDITIONS

From the hydrologic input datasets described previously in this section, this 2016-2019 Update Period can be characterized as an atypical period While the precipitation during the entire Update Period is about average, with two very dry years and two wet years, due to the 2011-2015 drought conditions, the watersheds did not yield much water This is evident from (1) the reduced observed streamflow entering the Regional Model domain (see Table 2-2), (2) the below-average volume of conservation releases and (3) measured surface water inputs that were lower than would be expected under the actual rainfall amounts that occurred in the area. The reduced surface water flows resulted in reductions in diversions in the SCR basins, including at the Freeman Diversion (Table 2-6), and those reductions in diversions had impacts on the amount of water available for recharging and replenishing the coastal basins following the 2011-2015 drought conditions. Although the drought conditions and reduced streamflow into the Regional Model domain persisted for much of the Update Period, supplemental State Water imports of Article 21 water allowed for increased water releases from Castaic Lake (in 2017) and Lake Piru (in 2019) These releases benefited the groundwater basins of the Santa Clara River Valley as well as the coastal groundwater basins. Overall, the Update Period is considered to be a period with significant hydrologic stress and fluctuation within the 35-year modeling period.

3 NUMERICAL MODEL RESULTS COMPARISON

The comparison for groundwater elevations was performed by evaluating the residual statistics, scatter plots, hydrographs, and flow budget. Residual statistics are the statistical values for an overall evaluation of model calibration. Scatter plots combine all groundwater elevation measurements paired with simulated groundwater elevations in one figure for visual inspection of model calibration Hydrographs provide an evaluation for individual wells Groundwater budgets provide an evaluation of inflow and outflow for the major components of groundwater flow The comparisons for streamflow also relied on scatter plots to compare simulated and observed data, but also used heat maps to evaluate spatial and temporal trends of simulated and observed flows. The simulation results from 2016 to 2019 were paired with the calibration results from 1985 to 2015 (reported in the Regional Model Expansion Report [UWCD, 2021a]) to evaluate any significant difference. It is noted that years 2016 and 2017 combine the last year of a record drought and the following wet year with significant rebound of groundwater elevation and streamflow conditions, which posed challenges for the Regional Model in some cases. The following sections provide background on the model setup, and then detail the comparison of the model's ability to simulate groundwater and surface water conditions during the 2016-2019 Update Period.

3.1 MODEL SETUP

Updates to the model input conditions for the model simulation from 2016 to 2019 include updates to the areal recharge components, streamflow components, and pumping components as discussed previously in Section 2 of this report. The input conditions were implemented in the same way as the period from 1985 to 2015, and the uniform numerical model grid size of 2000 feet by 2000 feet remained the same between the Calibration Period and the Update Period. The model input implementation is detailed in the Regional Model Expansion Report (UWCD, 2021a) and the Coastal Plain Model Report (UWCD, 2018a). The initial head used in the 2016-2019 simulation is from the simulated head on December 31, 2015. The aquifer systems and layering within the Regional Model are identical between the Calibration Period and the Update Period, as detailed in the Regional Model Expansion Report (see Sections 2 and 3, and Figure 2-23 in UWCD, 2021a)

3.2 GROUNDWATER RESULTS COMPARISON

The groundwater results comparison was performed based on all basins combined, and also for each basin individually Note that the individual basins referred to here include the basins as defined by Department of Water Resources (DWR, 2019). However, the unconfined Forebay area of the Oxnard basin is separated from the confined majority portion of the basin for characterization

3.2.1 RESIDUAL STATISTICS

As detailed in Section 4.1.1 in the Regional Model Expansion Report (UWCD, 2021a), residual mean (RM), absolute residual mean (ARM), root mean square (RMS), and standard deviation (Std Dev) were calculated for all the basins together and for each individual basin to evaluate model calibration for the Update Period. The ARM, RMS, and Std Dev should be less than 10% of the range of groundwater elevation measurement for a well-calibrated model, and RM should be close to zero. Residual statistics were prepared for all groundwater elevation measurements, and for a data set excluding several outlier wells and wells with less than 10 groundwater elevation measurements. The residual statistics based on the groundwater elevation measurements excluding the outlier wells and wells with less than 10 measurements are used for groundwater results comparison. The residuals statistics based on all groundwater elevation data is included for information purposes.

Tables 3-1 to 3-3 show the residual statistics from 2016 to 2019 for all basins combined and for each basin separately For comparison, the residual statistics from 1985 to 2015 are listed in Tables 3-4 and 3-5 By comparing the residual statistics between the two periods, 1985 to 2015 and 2016 to 2019, it is noted that:

- For all the basins together, the residual statistics meets the criteria of a well-calibrated model The ARM, RMS, and Std Dev were less than 3% of the range of groundwater elevation data.
- For the Piru, Fillmore, Santa Paula, Oxnard Forebay area, and Oxnard Plain basins, the residual statistics meets the criteria of a well-calibrated model. The ARM, RMS, and Std Dev were less than 10% of the range of groundwater elevation data.
- The RM for Santa Paula basin is about -10 feet for both periods: 1985-2015 and 2016-2019, indicating a consistent overestimation of groundwater elevations The ARMS, RMS and Std Dev percentages are slightly higher for the Update Period compared to the Calibration Period
- For Pleasant Valley basin, the residual statistics increase from the 1985-2015 period to the 2016-2019 period The ARM percentage remains less than 10% while the percentages of RMS and Std Dev increase to more than 11% The increase in ARM, RMS, and Std Dev suggest that the Regional Model is less calibrated from 2016-2019
- For Mound basin, the initial ARM, RMS, and Std Dev percentages were significantly higher in the 2016-2019 period than the 1985-2015 period After further examination, it was noted that the range of the 2016-2019 groundwater elevations, 78 1 ft, was much smaller than the range of the 1985-2015 groundwater elevations, 132 ft. By using the 1985 to 2015 groundwater elevation range to calculate the percentages of ARM, RMS, and Std Dev, the adjusted statistics are shown in Table 3-3 The adjusted percentage of ARM, RMS, and Std Dev are less than 10%, and less than or about equal to the percentages for the Calibration Period.
- For West Las Posas basin, the initial ARM, RMS, and Std Dev percentages were significantly higher in the 2016-2019 period than the 1985-2015 period After further examination, it was noted that the range of the 2016-2019 groundwater elevations, 303.1

ft, was much smaller than the range of the 1985-2015 groundwater elevations, 651 3 ft. By using the 1985 to 2015 groundwater elevation ranges to calculate the percentages of ARM, RMS, and Std Dev, the adjusted statistics are shown in Table 3-3. The adjusted percentage of ARM is 7 96% The percentage of RMS, and Std Dev are 11.09% and 10.74%, very similar to those of the Calibration Period.

3.2.2 SCATTER PLOTS

A scatter plot uses measured groundwater elevation as the X-axis and simulated groundwater elevation as the Y-axis By plotting the simulated groundwater elevation corresponding to the groundwater elevation measurements on a scatter plot, the correlation between simulated groundwater elevation and measured groundwater elevation may be evaluated. Scatter plots for the 2016-2019 and 1985-2015 periods were also compared. Scatter plots for all the basins, with all groundwater elevation data from all wells with measured data, and for individual basins are shown on Figures 3-1 to 3-9 Note that most, but not all, scatter plot points are represented on hydrographs available in Section 3.2.3 and Appendix A.

- All the basins. Figure 3-1 shows that there is no significant difference between the 1985-2015 period and the 2016-2019 period
- Piru basin: Figures 3-2a and 3-2b show there is no significant difference between the 1985-2015 period and the 2016-2019 period. Piru basin calibrates well during both periods, except data points from a few wells screened in both Aquifer Systems B and C where the simulated groundwater elevation is higher than the measured data, and data points in Aquifer System A underpredicting heads during the Update Period.
- Fillmore basin: Figures 3-3a and 3-3b show there is no significant change between the 1985-2015 period and 2016-2019 period, except for a few wells screened in Aquifer System C, where simulated groundwater elevations are higher than the measured data for the Update Period.
- Santa Paula basin: Figures 3-4a and 3-4c show there is no significant change between the 1985-2015 period and 2016-2019 period The wells with unknown screen depths were assigned an assumed screen interval based on their groundwater elevation measurements Simulated groundwater elevations from Aquifer System B and unknown screen interval are closer to the measurements
- Mound basin: Figures 3-5a and 3-5d show there is no significant change between the 1985-2015 period and 2016-2019 period.
- Oxnard Forebay area: Figures 3-6a and 3-6b show there is a noticeable change between the 1985-2015 period and 2016-2019 period. The 2016-2019 simulated groundwater elevations tend to be lower than the measured groundwater elevations in both the Upper Aquifer System (UAS) and the Lower Aquifer System (LAS)
- Oxnard basin: Figures 3-7a and 3-7b show there is no significant change between the 1985-2015 period and 2016-2019 period.
- Pleasant Valley basin: Figures 3-8a and 3-8b show there is no significant change between the 1985-2015 period and 2016-2019 period.

- West Las Posas basin: Figures 3-9a to 3-9c show there is no significant change between the 1985-2015 period and 2016-2019 period.

3.2.3 HYDROGRAPHS

The simulated hydrographs in select wells for each basin are compared to observed groundwater elevations for the Calibration Period (1985-2015, shown in blue) and the Update Period (2016-2019, shown in red) in Figures 3-13 through 3-23. Additionally, Figures 3-24 through 3-36 show locations of all wells that have hydrographs available in Appendix A (not all wells with data, as shown in the scatter plots, have hydrographs available, but this report does include a substantial number of hydrographs between those presented in this section and in Appendix A) Comparing the Calibration Period and the Update Period, the following observations are noted:

- Piru basin. The hydrographs from 1985 to 2019 for wells in Piru basin are shown in Figure 3-10 (additional well locations with hydrographs in Appendix A are also shown on Figures 3-24 and 3-25). From all the hydrographs, it is noted that the simulated 2016-2019 groundwater elevations are close to the observed groundwater elevations for most wells, and the recovery from drought conditions is generally captured well. However for a number of wells on the western side of the basin (e g. 04N19W34K01S and 04N18W31D04S in Figure 3-10), the observed groundwater elevation increases following the 2016 drought period are somewhat underestimated. The underestimation of recovery of groundwater elevations following drought conditions is generally apparent for both the Update Period and the Calibration Period (following the 1987-1991 drought, when data is available)
- Fillmore basin: The hydrographs from 1985 to 2019 for wells in Fillmore basin are shown in Figure 3-11 (additional well locations with hydrographs in Appendix A are also shown on Figures 3-26 and 3-27) From all the hydrographs, it is noted that the simulated 2016-2019 groundwater elevations are generally close to the observed groundwater elevations for most wells, though not quite as well as in Piru basin For several wells, simulated groundwater elevations during the drought in 2016 (and during the preceding drought years of 1987-1991) were higher than the measured groundwater elevations (e.g., 03N20W08A01S in Figure 3-11). Where observed, overestimation of low groundwater elevations during drought conditions was apparent in both the Update Period and Calibration Period. Overall, the model performs consistently in both the Calibration Period and the Update Period
- Santa Paula basin The hydrographs from 1985 to 2019 for wells in Santa Paula basin are shown in Figure 3-12 (additional well locations with hydrographs in Appendix A are also shown on Figures 3-28 and 3-29) From all the hydrographs, it is noted that the Regional Model performs similarly in the Update Period and the Calibration Period. For the wells with simulated groundwater elevations higher than measured in the Calibration Period, the simulated groundwater elevations are also higher than the measurements in the Update Period. Similarly, for the wells with simulated groundwater elevations lower than measured in the Calibration Period, the simulated groundwater elevations are also lower than the measurements in the Update Period For several wells, simulated groundwater elevations during the 2012-2016 drought period were higher than measured groundwater elevations (e.g., 03N21W31L01S, 03N21W09R04S), indicating that in some wells the model underpredicts the rate of decline during droughts and the

subsequent rate of recovery Note that groundwater elevation declines during drought conditions are much less in Santa Paula basin compared to the Fillmore and Piru basins. Overall, the model performs consistently in both the Calibration Period and the Update Period.

- Mound basin (additional well locations with hydrographs in Appendix A are also shown on Figure 3-30) The hydrographs from 1985 to 2019 for wells in Mound basin are shown in Figure 3-13. From all the hydrographs, it is noted that the simulated 2016-2019 groundwater elevations are close to the observed groundwater elevations for many wells. It should be noted that there are a few wells with outlier groundwater elevation measurements, potentially influenced by very local geology (faults) which the groundwater model cannot simulate For most wells, the groundwater model performs consistently in both the Calibration Period and the Update Period. Several wells screened in LAS are identified as outliers. These outlier wells (02N22W09K05S, 02N22W09L03S, and 02N22W09L04S) have groundwater elevation measurements higher than groundwater elevation measurements from a nearby well (02N22W09K04S) where heads are simulated well by the model
- Oxnard Forebay area: The hydrographs from 1985 to 2019 for wells in Forebay area are shown in Figures 3-14 and 3-15 (additional well locations with hydrographs in Appendix A are also shown on Figures 3-31 and 3-32) From all the hydrographs, it is noted that the simulated 2016-2019 groundwater elevations are close to the observed groundwater elevations for most wells Several wells screened across both the UAS and the LAS (e.g., 02N22W02R05S) did not capture the groundwater elevation rebound during the Update Period, while many wells screened only in the UAS (e g , wells 02N21W07L06S and02N22W23B08S) or only in the LAS (e.g. 02N22W23B04S) did capture the groundwater elevation rebound recorded during in the Update Period. Several wells screened only in the UAS (e.g., 02N22W15R02S and 02N22W23B02S) and only in the LAS (e g , 02N22W23B06S) underpredict the rate of decline of groundwater elevations during most recent drought conditions, resulting in overestimated groundwater elevations during the end of the Calibration Period and portions of the Update Period for these well locations within the Oxnard Forebay area.
- Oxnard basin: The hydrographs from 1985 to 2019 for wells in Oxnard basin are shown in Figures 3-16 to 3-20 (additional well locations with hydrographs in Appendix A are also shown on Figures 3-33 and 3-35) From all the hydrographs, it is noted that the simulated 1985-2015 and 2016-2019 groundwater elevations are close to the observed groundwater elevations for most wells. The groundwater model performs consistently in both the Calibration Period and the Update Period
- Pleasant Valley basin: The hydrographs from 1985 to 2019 for wells in Pleasant Valley basin are shown in Figure 3-20 and 3-21 (additional well locations with hydrographs in Appendix A are also shown on Figure 3-36) From all the hydrographs, it is noted that the simulated 1985-2015 and 2016-2019 groundwater elevations are close to the observed groundwater elevations for most wells The groundwater model performs consistently in both the Calibration Period and the Update Period
- West Las Posas basin: The hydrographs from 1985 to 2019 for wells in West Las Posas basin are shown in Figures 3-22 and 3-23 (additional well locations with hydrographs in Appendix A are also shown on Figure 3-37) From all the hydrographs, it is noted that the model calibration in West Las Posas basin is generally not as good as the above-mentioned basins For wells with good calibration in the Calibration Period, the simulated groundwater elevation in the Update Period is reasonably close to the groundwater

elevation measurements (e.g., 02N20W06R01S and 02N21W18H03S) The complex hydrogeology in the shallow layer (hundreds of feet thick) between ground surface and the groundwater table, and the known geologic faults along the base of South Mountain poses a challenge in the model calibration for West Las Posas basin in both the Calibration Period and the Update Period (e.g., 02N21W01L01S and 02N21W11J06S)

3.2.4 SIMULATED GROUNDWATER ELEVATION CONTOURS

Simulated groundwater elevations, also known as potentiometric heads, or heads, were also contoured for each of the model layers in the Regional Model for December 2017 and December 2019. These dates include the central time of the Update Period, which corresponds with dry-to-normal conditions, as well as the end of the Update Period, which saw slightly wetter conditions. These groundwater-elevation contours are shown on Figures 3-37 through 3-62 (layers 11 through 13 are not present in the Piru, Fillmore and Santa Paula basins). The Regional Model Expansion Report (UWCD, 2021a) included simulated groundwater elevation contours for December 2015, which is representative of the most-recent major drought conditions. The simulated groundwater elevation contours are not presented for direct comparison to measured groundwater elevations, but rather are provided as a supplemental visualization of the simulated groundwater elevations from the Update Period, as discussed in the above sections.

Inspection of these figures shows that simulated groundwater elevations in all applicable layers (1 through 10) of the Piru, Fillmore, and Santa Paula basins reasonably simulates the observed westerly groundwater flow down the SCR Valley, generally following the elevation changes along the valley floor, as well as the steeper gradients down the hillslopes and tributaries discharging into SCR Valley from the north. The model does capture the variation in groundwater elevations between the dry and wet periods, most notably along the valley floor and areas near the basin boundaries, where rising water typically occurs (e.g., for Model Layer 3, compare Figures 3-39 and 3-52). Simulated groundwater elevations in all applicable layers (1 through 13) of the coastal plain basins capture the significant areas of depressed groundwater elevations associated with high groundwater extraction rates. The model also simulates onshore gradients in coastal areas during the drought conditions, and increasing heads during the wetter conditions towards the end of the Update Period (e.g., for Model Layer 7, compare the steep depression in the southern portion of the model domain on Figure 3-43 [December 2017] with the shallower depression shown on Figure 3-56 [December 2019]).

3.2.5 GROUNDWATER BUDGETS

In this section, the annual average groundwater flow budgets for the Regional Model groundwater basins during the 2016-2019 Update Period are compared with the annual averages from the 1985-2015 Calibration Period.

For context, readers are directed to the annual groundwater budget components for the SCR basins (presented as separately for Piru, Fillmore, and Santa Paula) as historically estimated by other investigations (see Tables 2-15 and 2-16 in [UWCD, 2021a]) as well as annual groundwater budgets components for the Coastal Plain Model basins (presented as combined for Mound, Oxnard, Pleasant Valley, and West Las Posas) as estimated by other investigations (see Table 2-2 in [UWCD, 2018a]). Comparison and discussion of simulated groundwater flow budgets for

the Calibration Period and the estimated groundwater budgets are presented in previous reports (UWCD, 2018 and 2021a) The flow budgets from United's Regional Model are within the range of the flow budget estimated by other investigators (UWCD, 2018a and 2021a)

Monthly groundwater flow budgets based on the Update Period model outputs are provided in Appendix B These monthly groundwater budgets show the variability in a basin's groundwater flow budgets from wet to dry periods. Tables 3-6 to 3-12 show the annual average groundwater flow budgets during the Update Period for the seven DWR basins as well as by aquifer zone. As described previously in this report, the Update Period followed substantial drought conditions at the end of the Calibration Period, resulting in declined groundwater elevations in most of the Regional Model domain at the beginning of the Update Period.

The water budgets calculated from the Regional Model represent volumetric budgets that are based on volumes of water and volumetric flow rates Continuity of flow must be satisfied numerically, meaning that the total change of storage should equal the difference between the inflows and the outflows over a given amount of time Following this convention, wet years and drought years are reflected in the change-in-storage component in the flow budget in the following way:

- negative change-in-storage volumes represent accumulation in storage, which is the excess of net groundwater flow, and stores that volume in the aquifer. Total groundwater recharge (inflows) exceeds total groundwater discharge and extraction (outflows), resulting in an increase in the volume of water stored as groundwater and an increase in groundwater elevations;
- positive change-in-storage volumes represent storage release, which compensates for the deficit of net groundwater flow Total groundwater recharge (inflows) is less than total groundwater discharge and extraction (outflows), resulting in a decrease in the volume of water stored as groundwater and a decrease in groundwater elevations.

The Piru, Fillmore, and Santa Paula basin experienced a rebound from the 2013-2016 drought years during the wetter period from 2017 to 2019, as reflected in the change-in-storage component. The 2016-2019 average annual change-in-storage volumes for Piru, Fillmore and Santa Paula basins are -12,090, -5,720, and -1,978 acre-ft, respectively, representing an increase in the volume of stored groundwater (Tables 3-6 to 3-8) Groundwater elevations generally declined over the 1985-2015 Calibration Period, largely due to the severe drought at the end of the period This is reflected by the positive annual change-in-storage volumes for the 1985-2015 period for Piru, Fillmore and Santa Paula basins (2,119, 4,334, and 3,487 acre-ft, respectively).

Although there was a rebound in storage and groundwater elevations within the SCR basins, simulated riparian evapotranspiration (ET) within all SCR basins (Piru, Fillmore, and Santa Paula) as well as other basins with simulated riparian ET (Mound, Oxnard, Pleasant Valley) was lower during 2016-2019 compared with 1985-2015 This occurred as a result of the lowering of

groundwater elevations during the 2012-2016 drought period and therefore reduced connection with riparian vegetation, even was groundwater elevations generally rose during the Update Period When groundwater elevations are low, there is a reduction in simulated ET as rates drop to zero if the water table drops below the extinction depth of 5 feet below ground surface elevation.

Also related to reduced simulated groundwater elevations during the Update Period as a result of dry antecedent conditions, all SCR stream percolation and rising groundwater volumes were reduced compared to the Calibration Period. Similarly, net percolation for Arroyo Las Posas were also reduced during the Update Period in Pleasant Valley basin.

As discussed in Section 2.4 above, significant decreases in diversion volumes from the SCR at Freeman Diversion resulted in a significant reduction (approximately 50%) of United's artificial recharge in the Forebay area of the Oxnard basin. The reduction in recharge to the Oxnard basin and continued groundwater extraction in excess of recharge to the basin resulted in lower groundwater elevations. Simulated groundwater inflow from adjacent basins that witnessed less groundwater elevation decline (Santa Paula, Mound, Pleasant Valley, and West Las Posas) increased. Similarly, the reduction in groundwater elevations due to reduced recharge and changes in inter-basin flows resulted in increased coastal flux from areas offshore of the Mound and Oxnard basins. With the exception of West Las Posas, all basins reported a reduction in pumping during the Update Period

3.2.6 GROUNDWATER MODEL UPDATE PERIOD SUMMARY

The following model evaluation and comparison for the Update Period is summarized for all basins combined, as well as for each basin individually, as follows

- All the basins. From the residual statistics, and the scatter plots described in Sections 3.2 1 and 3.2.2, the model performs consistently in both the Calibration Period and the Update Period
- Piru basin: From the residual statistics, scatter plots, and hydrographs for Piru basin detailed in Sections 3.2.1, 3.2.2, and 3.2 3, the Regional Model performs equally well between the Calibration Period and the Update Period For some wells, simulated groundwater elevations were lower than measured values during recovery from severe droughts.
- Fillmore basin: From the residual statistics, scatter plots, and hydrographs for Fillmore basin detailed in Sections 3.2.1, 3.2.2, and 3.2.3, the Regional Model performs equally well between the Calibration Period and the Update Period. Simulated groundwater elevations in drought years are higher than measured values in several wells, but consistently in both the Calibration Period and the Update Period
- Santa Paula basin: From the residual statistics, scatter plots, and hydrographs for Santa Paula basin detailed in Sections 3.2.1, 3.2.2, and 3.2.3, the Regional Model performs equally well between the Calibration Period and the Update Period, and it is noted that

the modeling simulates an overestimation of groundwater elevations in some wells during both the Calibration Period and the Update Period

- Mound basin From the residual statistics, scatter plots, and hydrographs for Mound basin detailed in Sections 3.2 1, 3.2.2, and 3.2.3, the Regional Model performs equally well between the Calibration Period and the Update Period.
- Oxnard Forebay area. From the residual statistics, scatter plots, and hydrographs for Oxnard Forebay detailed in Sections 3.2 1, 3.2.2, and 3.2.3, the Regional Model performs equally well between the Calibration Period and the Update Period except several wells that are screened across both the UAS and LAS, capture some but not the full rebounds in the groundwater elevations from recharge activities in the area. Several wells underpredict the rate of decline of groundwater elevations during most recent drought conditions, resulting in overestimated groundwater elevations during the end of the Calibration Period and portions of the Update Period
- Oxnard basin: From the residual statistics, scatter plots, and hydrographs for Oxnard Plain detailed in Sections 3 2 1, 3.2.2, and 3.2 3, the Regional Model performs equally well between the Calibration Period and the Update Period.
- Pleasant Valley basin. From the residual statistics, scatter plots, and hydrographs for Pleasant Valley detailed in Sections 3.2.1, 3.2.2, and 3.2.3, the Regional Model performs equally well between the Calibration Period and the Update Period.
- West Las Posas basin: From the residual statistics, scatter plots, and hydrographs for West Las Posas detailed in Sections 3.2 1, 3.2 2, and 3.2 3, wells screened in the thick shallow layer and along the edge of South Mountain do not perform as well compared to elsewhere within the basin, and this was consistent between both the Calibration and Update Periods.

3.3 STREAMFLOW RESULTS COMPARISON

Significant effort was expended during development of the Regional Model to simulate the complex surface water flow patterns in the Santa Clara River, characterized by highly variable and intermittent flows, and the frequent occurrence of alternating wet and dry reaches in dry seasons and years (UWCD, 2021a). The analyses that were performed to assess streamflow calibration for the 1985-2015 Calibration Period were repeated for the 2016-2019 Update Period, and included a detailed assessment of how well historic spatial and temporal patterns of streamflow, stream channel recharge (percolation) and rising groundwater were simulated. Three criteria were used to evaluate streamflow simulations by the Regional Model during the Update Period. stream channel recharge (Sections 3.3.1 and 3.3.2), rising groundwater (Section 3 3.4), and streamflow patterns and magnitude (Sections 3.3.2, 3.3.3, and 3 3.5) These were the same criteria as used to evaluate model calibration for the 1985-2015 period.

For most analyses presented here, results are described for the model Update Period, and compared to results for the Calibration Period that were described in the Regional Model Expansion Report (UWCD, 2021a). For Piru and Fillmore basins the focus was on simulation of

recharge (percolation) and surface flow, as these basins are where the most natural recharge percolates into the groundwater basins of the Regional Model In Santa Paula basin the focus was on streamflow at the Freeman Diversion facility, as less direct streamflow percolation occurs in this basin and accurate percolation measurements are not available While model runs were performed using daily time steps, results were generally shown using averaged (monthly or seasonal) data The analysis was largely based on assessing the correlation between simulated and observed data, but also by visualization of flow patterns using "heat maps" and comparing to known spatiotemporal flow trends

3.3.1 BASIN RESPONSE DUE TO RECHARGE DURING RAINY SEASON

Direct measurements of stream channel recharge during the rainy season are very limited due to (1) the difficulty of accurately and safely performing manual discharge measurements during high flows for calculating recharge rates, and (2) a lack of appropriate locations for automated gaging stations at the downstream end of Piru and Fillmore basins (because of the high degree and variability of sediment scour and deposition in the sandy river channel associated with large storm events). Therefore, evaluation of stream channel recharge during the rainy season in these two basins consisted of evaluating simulated versus measured groundwater basin responses, which are largely driven by stream channel recharge during the rainy season. More specifically, this was done by comparing simulated and observed groundwater elevation increases between January 1 and May 1 for key wells in the Piru and Fillmore basins (wells with a long historical record that are used by United to represent basin conditions and calculate available storage) Changes in groundwater elevations were calculated by subtracting January 1 elevations from May 1 elevations, resulting in one data point for each year at each well for comparing the observed and simulated increases in groundwater elevation

For the model Update Period for Piru basin, simulated basin responses correlated well with observed basin responses, as was also achieved for the model Calibration Period (Figure 3-63) Note that observed groundwater elevation changes were not available for the years 2016 and 2017 as the key well for the Piru basin went dry due to ongoing drought conditions. For Fillmore basin, simulated basin responses for the model Update Period were under-predicted for three out of the four years, when observed groundwater elevation changes between January 1 and May 1 were 8 ft or more (Figure 3-64) Two of the observed groundwater elevation changes for the model Update Period were well outside the range observed for the model Calibration Period and were significantly under predicted by the Regional Model. A hydrograph for the key well in the Fillmore basin (well 03N20W02A01S; see Figure 3-72B) confirms that the simulations during the model Update Period do not completely capture the groundwater elevation declines during drought years and the subsequent recovery in groundwater elevations during the winter period of years with normal or above-normal rainfall, which explains the reduced performance in predicting groundwater elevation changes as identified in the previous discussions in Section 3.2.3 regarding the groundwater analysis during the Update Period Similar observations were made

for some of the other wells located in Fillmore basin (see Figure 3-11), where simulated groundwater elevation increases during winter were much smaller than observed groundwater elevation increases during winter for the model Update Period (e.g., 03N21W01P02S and 04N20W26C02S in Figure 3-11) Overall, results suggest that stream channel recharge during the rainy season is well-predicted for Piru basin, but under-predicted for Fillmore basin following dry periods when stream channel recharge is high Stream channel recharge to Fillmore basin originates from the mainstem SCR as well as from Sespe Creek upstream of the confluence with the SCR and is more complex than in Piru basin.

3.3.2 SURFACE FLOWS AND BASIN RESPONSE DURING CONSERVATION RELEASES

United monitors streamflow at multiple locations in the watershed during conservation releases, in order to monitor the progress of the release and allow calculation of recharge benefits to each of the groundwater basins upstream of the Freeman Diversion Facility Two significant conservation releases from Lake Piru occurred during the model Update Period, in 2017 (3 weeks in late spring,) and 2019 (8 weeks in late spring and early summer) (Table 2-5)

3.3.2.1 PIRU BASIN

Simulated and observed monthly streamflow at the downstream end of Piru basin (upstream of the rising groundwater) correlate well during the model Update Period, similarly as for the Calibration Period (Figure 3-65) Recharge to Piru basin was also reasonably well-predicted for both years with conservation releases, with a similar accuracy as for the Calibration Period (Figure 3-66) Figure 3-67 displays the hydrograph for simulated daily streamflow at the downstream end of Piru basin Streamflow measurements were performed during releases and occasionally during periods with low flows during the period 2000-2019, and match the simulated streamflows closely in most cases, during both the Calibration Period and the Update Period. The response of Piru basin to recharge during the conservation releases was assessed by comparing simulated and observed groundwater elevation changes in the Piru basin key well. Groundwater elevation increases were calculated by subtracting elevations just before release from elevations just after release, resulting in one data point each for observed and simulated groundwater elevation increases during release years. The increase in groundwater elevations in the Piru basin key well (04N18W29M02S) due to conservation releases during the model Update Period was well simulated by the Regional Model (Figure 3-68 A) Groundwater elevation changes were slightly underestimated, but within the range observed during the Calibration Period. It should be noted that the hydrograph for this key well (04N18W29M02S) generally shows a very good calibration during the model Update Period (Figure 3-68 B). The hydrograph also shows that increases in groundwater elevations during the winter season were greater than increases during conservation releases, which occurred shortly after the end of the rainy season In 2017, releases from Castaic

Lake resulted in additional groundwater elevation increases after the end of the conservation release from Lake Piru

3.3.2.2 FILLMORE BASIN

Monthly simulated and observed streamflow at the downstream end of Fillmore basin (upstream of the rising groundwater) generally correlated well during the model Update Period, similarly as for the Calibration Period (Figure 3-69). Simulated flows for one month during the 2019 release were somewhat under predicted. Recharge to Fillmore basin was better predicted for 2017 than for 2019, but generally within the accuracy observed for the Calibration Period (Fig 3-70) The under-prediction of recharge for the 2019 release was related at least in part to the under-prediction of surface flow at the basin boundary (Figure 3-65) Figure 3-71 displays the hydrograph for simulated daily streamflow at the downstream end of Fillmore basin. Streamflow measurements were performed during the releases and occasionally during periods of low flow during the period 2000-2019, and these measurements match the simulated streamflows closely in most cases, during both the Calibration Period and the Update Period.

Fillmore basin response to recharge during the conservation releases was assessed by comparing simulated and observed groundwater elevation changes in the Fillmore basin key well. Groundwater elevation increases were calculated by subtracting groundwater elevations just before the release from elevations just after release, resulting in one data point for observed and simulated groundwater elevation increases during release years. The increase in groundwater elevations in the Fillmore basin key well 03N20W02A01S resulting from conservation releases during the model Update Period was well-simulated by the Regional Model (Figure 3-72 A) As observed during the Calibration Period, groundwater elevations changed little in response to conservation releases. Note that the hydrograph for key well 03N20W02A01S shows relatively poor-calibration during the model Update Period, especially during the 2015 and 2016 drought years (Figure 3-72 B). However, calibration was better during years with conservation releases. Similarly, as observed in Piru basin, groundwater elevation increases in the Fillmore key well occurred predominantly during the rainy season (with recharge from SCR mainstem and Sespe Creek), but smaller or no increases we simulated during the conservation releases

3.3.3 SURFACE FLOW PATTERNS

3.3.3.1 PIRU BASIN

A heat map for flows in Piru basin shows spatial and temporal trends in simulated monthly flows, compared to observed losing and gaining reaches (Figure 3-73). The heat map rows represent monthly time steps, from the oldest on top to the most recent at the bottom (in this case October 2017 to December 2019) The heat map columns represent location along the SCR stream channel (each column is one model grid cell along the stream channel, or "stream cell"), in this

case from Ventura/Los Angeles County line to near the Fillmore Fish Hatchery Flow direction is from left-to-right, corresponding to the general flow direction from east-to-west. The value in each cell is the simulated monthly streamflow (cfs) Each row essentially provides a monthly snapshot of the streamflow from upstream (left) to downstream (right), with changes in streamflow driven by surface water-groundwater interactions Blue colors indicate high flows, yellow colors intermediate flows, and red colors low flows. Watershed features are listed for reference in the top row above the heat map, and colors in the top row indicate known losing reaches (red), gaining reaches (green) or stable reaches (yellow)

The Piru losing reach (also known as the "dry gap") starts downstream of USGS gage 11109000. Simulated streamflows rapidly decreases to zero in this area, except during the wettest months when surface flows persisted across the basin (as shown inside the "A" box on Figure 3-73). During a conservation release, simulated flow inputs from Piru Creek decreased due to channel percolation, but surface flows persisted across the basin, matching field observations, as shown for the 2019 release (inside the "B" box on Figure 3-73)

Simulated flows in the area of rising groundwater near the western basin boundary accurately reflect the mostly dry conditions prior to 2019 (as shown inside the upper half of the "C" box on Figure 3-73). However, the Regional Model does not capture the return of the wetted stream channel due to rising groundwater in Piru basin following the 2019 rainy season and the late spring/early summer conservation release in 2019 (as shown inside the lower half of the "C" box on Figure 3-73) Under-prediction of Piru basin rising groundwater flows is also observed for the Calibration Period. In general, simulated flow patterns in Piru basin for the model Update Period are similar to those for the Calibration Period

3.3.3.2 FILLMORE BASIN

A heat map for flows in Fillmore basin shows spatial and temporal trends in the simulated monthly flows, compared to observed losing and gaining reaches for the period January 2017 to August 2019 (Figure 3-74) The Fillmore basin losing reach starts downstream of the Fillmore Fish Hatchery (top row colored red) During conservation releases, simulated flows decrease in this reach, as they should based on field measurements (as shown inside the "A" box on Figure 3-74). During drier periods with lower flows, simulated surface flows persist across the basin (as shown inside the "B" box on Figure 3-74), which does not quite match field observations. Field observations have shown that low flows from Piru basin (or rising groundwater from Piru-Fillmore basin boundary) generally percolate completely to groundwater in Fillmore basin Recharge of these low flows in Fillmore basin are a small part of the basin water balance, and simulated groundwater elevations are therefore not very sensitive to this component

Simulated flows in the area of rising groundwater at the western end of the basin during the model Update Period did not reflect the observed rising groundwater there. Instead, simulated flows were constant (less than 1 cfs difference entering and exiting the rising groundwater reach) or

indicated a consistently dry reach (as shown inside the "C" box on Figure 3-74). In contrast, field measurements documented 4 to 10 cfs of rising groundwater in the area in 2017 and 2018 (after the 2017 winter season), resulting in a wetted stream channel at the western end of Fillmore basin. Under-prediction of Fillmore basin rising groundwater flows was also observed for the Calibration Period. In general, simulated flow patterns in Fillmore basin for the model Update Period were similar as those for the Calibration Period.

3.3.4 RISING GROUNDWATER IN PIRU AND FILLMORE BASINS

Measurements of rising groundwater at the Piru-Fillmore and Fillmore-Santa Paula basin boundaries are available for the period 2011-2019, which includes periods with both high and low groundwater elevations. Observations are available for dry months only, as it is difficult to measure rising groundwater when streamflow is high and dynamic. For both basins, observed rising groundwater correlates well with groundwater elevations at selected wells (non-linear correlation, see observed data in Figure 3-75 A and Figure 3-76 A).

Simulated rising groundwater during dry months in western Piru basin was zero during the entire model Update Period. The relationship between simulated rising groundwater and groundwater elevations was very similar to the one observed for the Calibration Period, with both periods significantly under-predicted rates of rising groundwater as a function of groundwater elevation (Figure 3-75 A) In addition, the under-prediction of rising groundwater in Piru basin was also due to the slight under-prediction of groundwater elevations during the 2017-2019 period when water levels generally rose in the basin (Figure 3-75 B)

In the Fillmore basin, simulated rising groundwater during dry periods varied between 0 and 1 cfs for the model Update Period The relationship between simulated rising groundwater and groundwater elevations was very similar to the one observed for the Calibration Period, with both periods showing significantly (up to tenfold) under-predicted rates of rising groundwater (Figure 3-76 A) For Fillmore basin, under prediction of rising groundwater was not associated with under-prediction of groundwater elevations, as groundwater elevations were generally over-predicted (except during most of 2019, see Figure 3-76 B). Due to the importance of Fillmore rising groundwater for dry season diversions at the Freeman Diversion, improving rising groundwater simulations there will be considered in future model updates

3.3.5 STREAMFLOW AND DIVERSION AT FREEMAN DIVERSION FACILITY

In the Santa Paula basin, simulated and observed daily streamflow just upstream of the Freeman Diversion correlated well for the Update Period, as they did during the Calibration Period (Figure 3-77) Simulated streamflow just upstream of the Freeman Diversion was generally lower during the Update Period than during the Calibration Period As observed during calibration, there was

significant scatter in the low to moderate flow ranges, which are most relevant to operations of the Freeman Diversion (up to about 3,000 cfs) (Figure 3-78) Figure 3-79 compares hydrographs for simulated and observed daily streamflow at the Freeman Diversion, for the Calibration Period and the Update Period Simulated streamflow generally captures the magnitude and seasonal variability of observed streamflow well Streamflow simulations are slightly better during the Update Period, as in some cases flows less than approximately 20 cfs were overestimated during the Calibration Period

To better understand the impact of streamflow simulation discrepancy on simulated diversions, the Hydrological Operations Simulation System (HOSS) model was used to calculate simulated diversion volumes at Freeman Diversion, once based on observed streamflows, and once based on simulated streamflows upstream of the diversion This was conducted for the Update Period, as was previously done for the Calibration Period. For the purpose of this comparison, the HOSS model calculated diversion volumes based on the bypass flow operations proposed in United's Freeman Diversion Multiple Species Habitat Conservation Plan, without any infrastructure improvements. A more detailed description of the HOSS and modeling scenarios for future simulations is available in the Regional Model documentation report (UWCD, 2021b). Simulated annual diversions based on observed and simulated streamflow correlate well for the Update Period, as they did for the Calibration Period (Figure 3-80) Note that calculated diversions for the Calibration Period are consistently lower when based on simulated streamflow compared to when based on observed streamflow. This was not apparent for the Update Period, likely because of the limited number of observations (four years with comparatively low annual diversions volumes)

As explained in more detail in the Regional Model expansion report (UWCD, 2021a) and United's Technical Memorandum on model inputs for simulations in support of GSPs (UWCD, 2021b), United opted to use its Surface Water Hydrology Model for the upper basins to simulate streamflow at the Freeman Diversion, instead of the Regional Model Simulated streamflow and diversions based on the Surface Water Hydrology Model matched the observations better than those based on the Regional Model.

3.3.6 STREAMFLOW UPDATE PERIOD SUMMARY

Three criteria were used to evaluate streamflow simulations by the Regional Model during the 2016-2019 Update Period: stream channel recharge, rising groundwater, and streamflow These were the same criteria as used to evaluate model calibration of the 1985-2015 period. In general, the results of the surface water flow comparisons for the Update Period are very much in line with results of model Calibration Period. The conclusions regarding streamflow calibration that were made in the Regional Model expansion report (UWCD, 2021a) therefore remain valid:

- Recharge from stream channels. The simulated recharge to groundwater from streams in the Piru and Fillmore basins during conservation releases is well-predicted by the Regional Model The location and seasonal occurrence of the dry gap in Piru basin was

also accurately simulated. Outside the conservation release periods, recharge of natural baseflows to the groundwater system in Fillmore basin was slightly under-estimated (during the rainy season as well as the dry season), however the calibration of groundwater elevations in the basin was not affected. Recharge from stream channels was not assessed for Santa Paula basin as recharge is relatively low there

- Rising groundwater: The locations of simulated rising groundwater is generally in agreement with observed locations, i.e at Piru-Filmore and Fillmore-Santa Paula basin boundaries. The volume of rising groundwater is under-estimated by the model, especially in the Fillmore basin The simulated groundwater elevations in the areas of rising groundwater are generally well-calibrated, but tend to be under-predicted in Fillmore basin, which may cause the under-estimation of rising groundwater Because the simulated rising groundwater is sensitive to groundwater elevation changes of less than one foot to a few feet, it may be too sensitive for the numerical model to simulate the rising groundwater adequately Rather than simulating the flow downstream as surface flow stemming from the rising groundwater, the model may simulate that flow as shallow underflow. In this case groundwater elevation calibrations are not affected as the volumetric flow rate downstream would be comparable to one another, although not in the same component (groundwater flow versus surface water flow).
- Streamflow: The streamflow patterns and magnitudes across the Piru and Fillmore basins were generally well simulated during conservation releases and outside the winter season. Streamflow calibration within those basins could not directly be assessed for flows exceeding approximately 350 cfs due to the lack of manual observations in that flow range. Streamflow in the Santa Paula basin at the Freeman Diversion Facility, was consistently under-predicted, resulting in a significant under prediction of annual average diversions there. Therefore, United opted to use an alternative surface water spreadsheet model to simulate streamflow at the Freeman Diversion. The numerical groundwater model has limited surface water routing capabilities, and was not expected to fully capture the highly flashy streamflow conditions in the SCR on a daily basis across the entire flow range

Based on the above summary, the Regional Model is well-calibrated for simulating basin recharge from streamflow, which was one of the main goals of the groundwater model. Daily streamflow patterns and magnitudes were adequately captured, but as expected the numerical groundwater flow model alone was inherently limited for the purpose of daily streamflow simulations

4 CONCLUSIONS

The Regional Model update with the 2016-2019 data sets provides an opportunity to evaluate the calibration quality of the Regional Model and helped identify a few areas for model improvement. When evaluating the Regional Model as a whole, local imperfections in model calibration in certain areas is generally not affecting the model calibration on the regional scale. The uniform numerical model grid size of 2000 feet by 2000 feet implies that the Regional Model may be used to support basin-scale groundwater analysis, but caution should be taken when using the model to interpret smaller/local scale projects or conditions. From the discussion included in Section 3, it is concluded that the Regional Model is well-calibrated with the 2016-2019 data when all basins are evaluated overall.

When evaluating the basins individually, local model imperfections suggest areas for further model improvement. The Regional Model performs equally well in both the Calibration Period (1985-2015) and the Update Period (2016-2019) in the Oxnard, Pleasant Valley and Mound basins. The areas for potential future model improvement are summarized in the following:

- Piru basin: Groundwater elevations are well-calibrated. The simulation of rising groundwater may be further improved near the Fish Hatchery at the downstream basin boundary
- Fillmore basin: Groundwater elevations along SCR between the Fillmore Fish Hatchery and the City of Fillmore may be improved, as simulated groundwater elevations in a few wells along the SCR are noticeable underestimated. The rising groundwater near the basin boundary with Santa Paula may be further improved
- Santa Paula basin: Simulated groundwater elevations trend slightly higher than the observed groundwater elevations. Further investigation of the SCR stream interaction and the complex geologic transition from the river basins to coastal plain basins might improve model calibration
- Oxnard Forebay area: The simulated groundwater elevation rebound in the 2016-2019 Update Period was less than the measured groundwater elevation recovery in several wells, and may be further calibrated.
- West Las Posas basin: Groundwater elevations in wells located along South Mountain are influenced by local faults, and wells that are screened in the shallow aquifer pose a challenge to the Regional Model. Additional calibration efforts related to model parameterization, such as aquifer layering, aquifer parameters and revising the fault lines, can be expected to improve calibration this area of the Regional Model

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TABLES

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Table 2-1.

Precipitation Stations Used for Input to Regional Model over 2016-2019 Update Period

VCWPD Site ID	Site Description	Elevation (ft amsl)	Easting	Northing
004A	Casitas Dam	360	6,160,010.91	1,958,955.34
017C	Port Hueneme - Oxnard Sewer Plant	10	6,202,612.24	1,876,061.34
020B	Ventura River County Water District	570	6,170,758.70	1,981,130.10
25	Piru-Newhall Ranch	825	6,343,123.88	1,969,310.51
030D	Ojai-County Fire Station	760	6,190,467 13	1,987,706.04
032A	Oxnard Civic Center	53	6,204,789.76	1,897,291.08
036A	Piru-County Fire Station	700	6,321,351.01	1,973,815.88
59	Ojai-Thacher School	1,440	6,205,907.61	1,994,283.67
064B	Upper Ojai-Happy Valley	1,320	6,202,885.48	1,983,618.91
065A	Upper Ojai Summit-County Fire Station	1,550	6,219,449.62	1,983,278.49
066E	Ventura-Downtown (City Hall-Historic Courthouse)	120	6,171,185.26	1,927,708.89
85	Canada Larga	760	6,190,598.14	1,963,078.28
101A	Piru-Camulos Ranch	725	6,333,332.60	1,971,015.62
106A	Piru RAWS	614	6,317,366.66	1,970,481.35
121C	Lake Sherwood-County Fire Station	975	6,296,513.06	1,874,846.97
122	Ventura-Kingston Reservoir	205	6,170,807.24	1,949,698.08
126A	Moorpark - Ventura County Yard	725	6,296,498.89	1,931,079.69
128C	Thousand Oaks APCD APCD	795	6,298,492.31	1,899,996.39
130B	Chuchupate Ranger Station	5,277	6,257,382.24	2,117,386.68
134B	Matilija Dam	1,060	6,168,203.04	2,000,997.89
140	Oak View-County Fire Station	520	6,169,171.47	1,968,715.20
152	Piedra Blanca Guard Station	3,065	6,210,318.65	2,028,386.86
153A	Ojai-Bower Tree Farm	780	6,193,259.19	1,985,249.48
160	Piru-Temescal Guard Station	1,105	6,332,314.04	1,995,886.74
163C	Sulphur Mountain	2,450	6,207,309.68	1,973,378.94
165	Ojai-Stewart Canyon	970	6,185,297.19	1,992,310.81
167	Ventura-Hall Canyon	180	6,181,192.34	1,926,836.47
168	Oxnard Airport	34	6,196,509.92	1,897,957.19
169A	Thousand Oaks Civic Center	850	6,304,980.44	1,887,209.50
171	Fillmore-Fish Hatchery	465	6,294,702.26	1,966,783.81
172	Piru Canyon	1,160	6,333,401.68	2,010,027.87
173A	Santa Paula Canyon-Ferndale Ranch	1,010	6,233,981.10	1,979,605.84
175A	Saticoy-County Yard	150	6,216,995.42	1,926,675 70
177A	Camarillo-Pacific Sod	24	6,237,051.88	1,880,691.87
180A	Ortega Hill (Type C)	5,215	6,169,656.59	2,032,959 70
188A	Newbury Park-County Fire Station #35	645	6,280,378.29	1,891,465.74
189	Somis-Deboni	520	6,237,481.43	1,927,918.91
190	Somis-Bard	460	6,257,126.22	1,926,683.02
193A	Santa Susana	960	6,347,291.26	1,920,641.77
194A	Camarillo-Adohr (Sanitation Plant)	110	6,258,557 72	1,895,499 74
196C	Tapo Canyon - County Park	1,380	6,347,001.76	1,940,710.05

Table 2-1.

Precipitation Stations Used for Input to Regional Model over 2016-2019 Update Period

VCWPD Site ID	Site Description	Elevation (ft amsl)	Easting	Northing
197A	Topa Topa	2,500	6,255,748.03	2,032,448.62
199A	Fillmore Sanitation	390	6,278,113.78	1,965,774.18
206B	Somis-Fuller	733	6,265,744.08	1,936,974.70
207C	Matilija Canyon	1,400	6,153,846.48	2,007,743.73
209A	Lockwood Valley-County Yard	5,163	6,230,083.75	2,091,074.52
211A	Alamo Mountain	6,705	6,266,686.74	2,067,523.99
215	Channel Islands Harbor	5	6,191,789.69	1,883,600.23
215A	Channel Is Harbor - Kiddie Beach	15	6,191,890.63	1,882,471.50
216C	Ventura Harbor	12	6,179,264.01	1,916,713.49
218	Meiners Oaks-County Fire Station	730	6,174,196.93	1,986,656.64
219A	Camarillo-Hauser	192	6,251,232.81	1,910,261.08
219B	Camarillo - CHD	167	6,246,294.05	1,909,285.64
221B	Sea Cliff - County Fire Station	10	6,133,025.30	1,951,120.06
222A	Ventura-County Government Center	280	6,195,762.90	1,921,839.48
224A	Sespe-Westates	2,870	6,295,734.01	1,997,948.69
225	Wheeler Canyon	900	6,215,927.31	1,966,562.48
227	Lake Bard	1,030	6,311,199.14	1,911,833.57
230A	Ventura-Sexton Canyon	880	6,191,509.93	1,938,304.60
232	Santa Monica Mts-Deals Flat	1,475	6,268,508.25	1,856,193.20
234B	Las Llajas Canyon	1,160	6,353,216.94	1,933,069.75
235A	Piru-L.A./Ventura County Line	800	6,349,004.67	1,968,584.50
237	San Guillermo	5,125	6,209,751.14	2,063,561.73
238	South Mountain-Shell Oil	1,624	6,257,058.81	1,944,644.71
239	El Rio-UWCD Spreading Grounds	105	6,213,198.85	1,911,502.97
242	Tripas Canyon	2,500	6,330,865.14	1,956,896.70
244	Cuddy Valley-Cuddy Ranch	5,500	6,243,779.26	2,129,751.59
245B	Santa Paula - Wilson Ranch	405	6,243,086.17	1,959,223.84
246A	Simi Sanitation Plant	660	6,316,423.15	1,926,755.02
250	Moorpark-Happy Camp Canyon	1,410	6,304,945.44	1,949,562 15
254	Casitas Station Station Canyon	630	6,148,134.04	1,973,671.64
259	Camarillo-PVWD	90	6,238,341.98	1,901,620.25
264	Wheeler Gorge	1,900	6,179,131.33	2,012,365.69
268	Last Chance (Type C)	4,510	6,245,359 76	2,003,549.85
272	Sage Ranch	2,045	6,357,157.87	1,910,272.42
273A	Oxnard NWS	63	6,217,788.37	1,899,732.49
279	Borracho Saddle (Type C)	4,350	6,287,889.19	2,043,867.99
280	Circle X Ranch (Type B)	1,700	6,278,074.76	1,863,577 77
281	Oak Park Fire Station	1,096	6,331,412.60	1,889,247.99
300	Senior Gridley Canyon (Type B)	2,514	6,197,406.84	1,999,945.09
301	Old Man Mountain (Type C)	4,370	6,127,959.25	2,009,046.46
302	Canada Larga-Verde Canyon (Type B)	1,590	6,195,219.04	1,953,482.70
303	Nordhoff Ridge (Type C)	4,112	6,190,904.54	2,010,205.12

Table 2-1.

Precipitation Stations Used for Input to Regional Model over 2016-2019 Update Period

VCWPD Site ID	Site Description	Elevation (ft amsl)	Easting	Northing
304	Matilija Hot Springs at No Fork (Type B)	1,142	6,168,013.37	2,004,259 19
305	La Granada Mountain (Type B)	2,230	6,132,137 17	1,977,451.39
306	White Ledge Peak (Type C)	4,405	6,142,028.70	1,997,262.35
307	Upper Matilija Canyon (Type C)	4,440	6,148,481.82	2,022,194.58
308	Red Mountain (Type B)	2,075	6,157,218.33	1,952,181.82
309	La Conchita Schaefer Ranch	734	6,126,614.29	1,958,994.90
400	Fillmore-Grand Ave (Type B)	580	6,282,064.84	1,984,441.53
401	Sycamore Canyon (Type C)	4,811	6,237,367 55	2,036,357 76
402	Tommys Creek (Type C)	5,287	6,193,989.88	2,044,352.38
403	Silverstrand Alert (Type B)	18	6,192,883.46	1,880,190.61
404	Sisar North ALERT (Type C)	5,170	6,219,025.53	2,008,956.33
405	Choro Grande (Type C)	4,594	6,159,597.90	2,046,385.27
406	Fagan Canyon West (Type B)	700	6,233,836.94	1,961,275.67
408	Rose Valley Alert (Type C)	3,331	6,204,812.73	2,022,246.68
409	Hopper Mountain (Type C)	4,200	6,300,989.02	1,998,286.59
410	Pyramid Lake Visitors Center (Type B)	2,680	6,331,873.34	2,063,588.68
500A	Camrosa Water District	200	6,269,287.47	1,910,664.24
501	Rocky Peak (Type B)	2,430	6,367,258.62	1,929,842.08
502	Santa Rosa Valley Basin 2	410	6,294,226 70	1,912,082 33
505	Camarillo CSUCI (Type B)	58	6,247,267.45	1,889,157.81
506	Wood Ranch - Sycamore Canyon Dam (Type B)	810	6,320,088.63	1,915,931.84
507	South Mountain East (Type B)	965	6,246,056.69	1,933,756.38
508	Moorpark Home Acres ALERT (Type B)	400	6,282,260.64	1,922,392.56
509	Spanish Hills - Las Posas Res (Type B)	300	6,233,302.06	1,906,536.16
510	Lang Ranch (Type B)	1,600	6,314,046.86	1,898,453.98
512	Camarillo - Upland (Type B)	207	6,257,148.69	1,911,053.90
513	Rancho Sierra Vista Big Sycamore Canyon (Type B)	885	6,269,566.68	1,877,111.49

Table 2-2: Santa Clara River Basins Annual Average Streamflow (CFS)

Santa Clara River basins Streamgage Flows (CFS) Annual Average

Calendar Year	Santa Clara River LA County Line (USGS 11108500) Near Piru, CA (USGS 11109000)	Piru Creek* (USGS 11109800)	Hopper Creek (USGS 11110500)	Pole Creek (VCWPD 713)	Sespe Creek (USGS 11113000)	Santa Paula Creek (USGS 11113500)	UWCD Freeman
2016	25.32	9.13	1.80	0.12	9.76	2.13	10.32
2017	80.00	37.47	13.44	3.71	129.66	21.18	134.93
2018	31.68	8.93	0.62	0.35	27.31	6.23	15.56
2019	87.34	68.90	8.50	2.55	204.20	32.80	296.74
2016 - 2019 Average	**56.08**	**31.11**	**6.09**	**1.68**	**92.73**	**15.59**	**114.39**
1985 - 2015 Average	77.83	62.22	8.68	3.00	144.06	27.46	272.45

Data from USGS and VCWPD; and United Units: CFS;

**Value includes Santa Felicia Dam releases and spills*

Table 2-3: Coastal Basins Annual Average Streamflow (CFS)

Location	Arroyo Las Posas	Conejo Creek
2016	6.25	16.32 (89%)
2017	10.83	19.78 (78%)
2018	6.48	19.09 (79%)
2019	14.40	21.82 (73%)
2016 - 2019 Average	**9.49**	**19.24 (79%)**
1985 - 2015 Average	2.27	30.26

Note Percentage of Thousand Oaks Hill Canyon Treatment Plant annual average effluent discharge to total dry season Conejo Creek measured discharge is provided in parenthesis. Conejo Creek data from 1985-2015 represents data from VCWPD Gage 800 and 800A. Data for these gages were not available for the 2016-2019 Update Period

Table 2-4: Arroyo Las Posas Subsurface Underflow Entering Regional Model Domain (AFY)

Streamgage	Arroyo Las Posas Subsurface Underflow (AFY)
2016	1301.65
2017	1361.64
2018	1141.67
2019	1379.54
2016 - 2019 Average	**1296.13**
1985 - 2015 Average	1646.39

Arroyo Las Posas underflow: United estimation based on relationship developed between available observed (02N20W17J06S) WLE records and monthly Intera Model GW output from 2014 – 2015 (R^2 = 0.70)

Table 2-5. Benefits of the Santa Felicia Dam (SFD) Conservation Releases, 2016-2019

Year	Start Date	End Date	Total conservation release from SFD	Direct deliveries (AF) of SFD Release to:					
				Recharge Piru Basin	Recharge Fillmore Basin	Recharge + Diversions Santa Paula Basin	Diversions at Freeman	Recharge	Surface water
			(AF)					(Saticoy and El Rio)	(Deliveries PTP & PV)
2016	12/7/2016	12/15/2016	970	970	0	0	0	*0*	0
2017	5/29/2017	6/19/2017	15,300	11,700	2,000	700	800	800	0
2018	6/8/2018	7/11/2018	1,103	1,103	0	0	0	0	0
2019	6/3/2019	7/28/2019	39,444	11,776	5,800	3,600	17,100	16,000	970
Total			56,817	25,549	7,800	4,300	17,900	16,800	970
2016-2019 Average			**14,204**	**6,387**	**1,950**	**1,075**	**4,475**	**4,200**	**243**
1999-2015 Average			25,184	9,597	3,453	n/a	4,718*	10,177*	1,957

*Includes recharge to Santa Paula basin (benefits to Santa Paula basin were not measured separately prior to 2016)

Table 2-6: Average Annual Streamflow Diversions in Regional Model Domain (AFY)

Diversion	Isola	Camulos	Rancho Temescal 1	Rancho Temescal 2	Piru Mutual	Fillmore Irr. Co.	Beans Ranch	Limoneira	Canyon Irr. Co.	Farmers Irr. Co.	Zaragosa	Hyde-Turner Ditch	South Fork	United -Piru	United Freeman	Camrosa*
Approximate Area (ac)	210	770	242	314	546	1,105	82	126	784	3,178	2	346	159	47	416	11,984
								Total Diversions (AFY)								
Year																
2016	0	2,000	1,130	278	1,261	0	85	0	119	0	0.4	377	390	0	2,927	7,469
2017	0	1,800	1,052	166	1,350	0	59	0	522	123	0.4	326	301	0	10,261	9,326
2018	0	1,756	1,011	181	1,300	0	62	0	432	128	0.3	329	298	0	3,741	8,858
2019	0	1,118	655	152	1,343	0	79	0	1,062	588	0.4	415	570	0	41,455	9,190
2016 - 2019 Average	**0**	**1,669**	**962**	**194**	**1,314**	**0**	**71**	**0**	**534**	**210**	**0.4**	**362**	**390**	**0**	**14,596**	**8,711**
1985-2015 Average	318	1,438	385	53	1,456	1,670	66	13	551	56	0.1	493	378	2,792	63,113	9,021

*Area of application within Model domain is Pleasant Valley only; Camrosa utilizes diverted water outside of model domain and with other sources

Table 2-7: Annual Average Wastewater Discharge in Regional Model Domain (AFY)

Wastewater Plant	Piru WWTP[1]	Fillmore WWTP[1]	Santa Paula WRF[1]	Todd Rd. Co. Jail WWTP[1]	Jose Flores (Saticoy)[1]	Ventura WWTP (Recycled Water)[2]	Oxnard AWPF (Recycled Water)[3]	Camrosa WWTP (Recycled Water)[4]	Camarillo WWTP (Discharge to Conejo Creek)[5]	Camarillo WWTP (Recycled Water)[5]
2016	135	959	2,025	41	86	700	1,024	1,250	1,771	2,102
2017	134	951	2,296	46	107	700	1,568	1,250	1,792	2,097
2018	139	949	2,077	48	87	700	2,770	1,250	2,138	1,797
2019	142	966	2,198	48	105	700	685	1,250	1,995	1,946
2016 - 2019 Average	137	956	2,149	46	96	700	1,512	1,250	1,924	1,985
1985 - 2015 Average	172	1,288	2,279	29	71	534	0	1,250	3,073	1,392

Units. AFY; [1]Data from data submitted to State Water Resources Control Board, [2]Data from Ventura Water's 2015 Urban Water Management Plan projections (Ventura Water, 2016); [3]Data from 2016 – 2019 Recycled Water Management Impact Analysis Reports (UWCD, 2016; 2017, 2018, 2019); [5]Data from correspondence with Camrosa Staff; [5]Data from correspondence with Camarillo Sanitary District Staff; WWTP – Wastewater Treatment Plant; WWRP – Wastewater Recycling Plant; WRF – Water Reclamation Facility, WWRF – Wastewater Reclamation Facility, AWPF – Advanced Water Purification Facility

Table 3-1: 2016-2019 Residual Statistics with All Groundwater Elevation Data Included

Basin	Data No.	RM	ARM	ARM %	RMS	RMS %	Std Dev	Std Dev %	WL Range	WL Min	WL Max
All Basins	18,376	-2.15	19.0	1.48%	30.6	2.40%	30.5	2.39%	1,278.0	-265.9	1,012.1
Piru	1,137	6.25	17.1	6.97%	21.7	8.85%	20.8	8.48%	245.0	427.4	672.4
Fillmore	992	5.07	17.3	3.93%	28.3	6.44%	27.9	6.34%	439.4	243.9	683.2
Santa Paula	2,630	-10.88	14.5	6.27%	22.2	9.57%	19.3	8.35%	231.8	41.0	272.8
Mound	843	20.40	25.5	12.16%	35.0	16.65%	28.4	13.53%	210.1	-65.0	145.1
Forebay	3,470	8.98	20.9	6.95%	26.6	8.83%	25.0	8.31%	301.2	-182.3	118.9
Oxnard Plain	7,068	-5.95	12.0	3.77%	17.4	5.47%	16.4	5.15%	318.0	-265.9	52.1
Pleasant Valley	1,518	-4.80	26.4	8.95%	34.5	11.70%	34.2	11.59%	294.6	-220.1	74.5
West Las Posas	623	-34.75	85.2	18.55%	106.8	23.26%	101.1	22.01%	459.3	-213.1	246.2

Note 1. Data No. = Number of data points; RM = Residual Mean (feet); ARM = Absolute Residual Mean (feet); ARM % = Absolute Residual Mean percentage of the range of measurements; RMS = Root Mean Square (feet); RMS % = Root Mean Square percentage of the range of measurements; Std Dev = Standard Deviation (feet); Std Dev % = Standard Deviation percentage of the range of measurements; WL Range = range of (water level) measurements (feet); WL Min = Minimum value of (water level) measurements (feet); WL Max = Maximum value of (water level) measurements (feet);

Note 2: The ARM%, RMS%, and Std Dev% are in RED font and highlighted in Yellow if the percentage >10%

Table 3-2: 2016-2019 Residual Statistics Excluding Outlier Wells and Wells with less than 10 Groundwater Elevation Records

Basin	Data No.	RM	ARM	ARM %	RMS	RMS %	Std Dev	Std Dev %	WL Range	WL Min	WL Max
All Basins	17,224	-2.57	16.8	1.77%	25.1	2.65%	25.0	2.63%	949.1	-265.9	683.2
Piru	1,111	6.27	16.9	6.91%	21.4	8.75%	20.5	8.38%	245.0	427.4	672.4
Fillmore	938	5.04	17.0	3.87%	28.4	6.45%	27.9	6.36%	439.4	243.9	683.2
Santa Paula	2,604	-10.67	14.4	6.20%	21.9	9.47%	19.2	8.27%	231.8	41.0	272.8
Mound	544	3.31	11.3	14.44%	13.5	17.25%	13.1	16.74%	78.1	-65.0	13.1
Forebay	3,379	9.10	21.0	6.98%	26.7	8.86%	25.1	8.33%	301.2	-182.3	118.9
Oxnard Plain	6,667	-6.92	11.7	3.69%	17.4	5.47%	16.0	5.02%	318.0	-265.9	52.1
Pleasant Valley	1,503	-4.78	26.1	8.87%	34.2	11.59%	33.8	11.48%	294.6	-220.1	74.5
West Las Posas	391	-18.32	51.9	17.12%	72.2	23.84%	70.0	23.09%	303.1	-198.3	104.8

Note 1. Data No. = Number of data points; RM = Residual Mean (feet); ARM = Absolute Residual Mean (feet); ARM % = Absolute Residual Mean percentage of the range of measurements; RMS = Root Mean Square (feet); RMS % = Root Mean Square percentage of the range of measurements; Std Dev = Standard Deviation (feet); Std Dev % = Standard Deviation percentage of the range of measurements; WL Range = range of (water level) measurements (feet); WL Min = Minimum value of (water level) measurements (feet); WL Max = Maximum value of (water level) measurements (feet);

Note 2: The ARM%, RMS%, and Std Dev% are in RED font and highlighted in Yellow if the percentage >10%

Note 3: The WL range for Mound and West Las Posas highlighted in yellow are much less than the WL range in the Calibration Period (1985-2015)

Table 3-3: 2016-2019 Adjusted Residual Statistics Excluding Outlier Wells and Wells with less than 10 Groundwater Elevation Records

Basin	Data No.	RM	ARM	Adjusted ARM %	RMS	Adjusted RMS %	Std Dev	Adjusted Std Dev %	1985-2015 WL Range	1985-2015 WL Min	1985-2015 WL Max
Mound	544	3.31	11.3	8.54%	13.5	10.20%	13.1	9.90%	132.0	-55.4	76.6
West Las Posas	391	-18.32	51.9	7.96%	72.2	11.09%	70.0	10.74%	651.3	-367 5	283.8

Note 1. Data No. = Number of data points; RM = Residual Mean (feet); ARM = Absolute Residual Mean (feet); ARM % = Absolute Residual Mean percentage of the range of measurements; RMS = Root Mean Square (feet); RMS % = Root Mean Square percentage of the range of measurements; Std Dev = Standard Deviation (feet); Std Dev % = Standard Deviation percentage of the range of measurements; WL Range = range of (water level) measurements (feet); WL Min = Minimum value of (water level) measurements (feet); WL Max = Maximum value of (water level) measurements (feet);

Note 2. The ARM%, RMS%, and Std Dev% are in RED font and highlighted in Yellow if the percentage >10%

Note 3: The WL range for Mound and West Las Posas highlighted in yellow

Table 3-4: 1985-2015 Residual Statistics with All Groundwater Elevation Data Included

Basin	Data No.	RM	ARM	ARM %	RMS	RMS %	Std Dev	Std Dev %	WL Range	WL Min	WL Max
All Basins	90,502	0.61	13.4	1.11%	22.3	1.85%	22.3	1.85%	1203.5	-367.5	836.0
Piru	5,481	-3.10	9.7	3.88%	12.6	5.03%	12.2	4.88%	249.5	449.4	698.9
Fillmore	4,827	2.48	11.6	2.47%	16.3	3.47%	16.1	3.43%	470.8	220.7	691.5
Santa Paula	16,684	-10.04	12.1	4.71%	18.4	7.13%	15.4	5.97%	258.0	28.0	286.0
Mound	4,035	9.06	16.4	7.96%	25.7	12.53%	24.1	11.73%	205.5	-55.4	150.1
Forebay	18,428	4.01	9.8	3.06%	15.2	4.74%	14.7	4.57%	321.6	-183.1	138.5
Oxnard Plain	29,656	2.51	11.0	2.51%	16.3	3.72%	16.1	3.67%	438.4	-324.5	113.9
Pleasant Valley	7,355	-0.46	19.6	5.67%	25.8	7.48%	25.8	7.48%	344.9	-200.8	144.1
West Las Posas	3,315	16.84	48.6	7.46%	69.2	10.63%	67.2	10.31%	651.3	-367.5	283.8

Note 1. Data No. = Number of data points; RM = Residual Mean (feet); ARM = Absolute Residual Mean (feet); ARM % = Absolute Residual Mean percentage of the range of measurements; RMS = Root Mean Square (feet); RMS % = Root Mean Square percentage of the range of measurements; Std Dev = Standard Deviation (feet); Std Dev % = Standard Deviation percentage of the range of measurements; WL Range = range of (water level) measurements (feet); WL Min = Minimum value of (water level) measurements (feet); WL Max = Maximum value of (water level) measurements (feet);

Note 2: The ARM%, RMS%, and Std Dev% are in RED font

Table 3-5: 1985-2015 Residual Statistics Excluding Outlier Wells and Wells with less than 10 Groundwater Elevation Records

Basin	Data No.	RM	ARM	ARM %	RMS	RMS %	Std Dev	Std Dev %	WL Range	WL Min	WL Max
All Basins	88,754	-0.30	12.4	1.16%	19.1	1.79%	19.1	1.79%	1063.4	-367.5	695.9
Piru	5,451	-3.09	9.6	3.90%	12.4	5.03%	12.0	4.87%	246.5	449.4	695.9
Fillmore	4,737	2.57	11.5	4.69%	15.8	6.46%	15.6	6.38%	244.2	220.7	464.9
Santa Paula	16,622	-9.99	12.1	5.01%	18.2	7.54%	15.3	6.31%	241.8	44.2	286.0
Mound	3,322	0.17	9.0	6.80%	11.7	8.90%	11.7	8.90%	132.0	-55.4	76.6
Forebay	18,345	3.95	9.8	3.05%	15.2	4.71%	14.6	4.55%	321.6	-183.1	138.5
Oxnard Plain	29,483	2.52	11.0	2.91%	16.0	4.26%	15.8	4.21%	376.5	-262.6	113.9
Pleasant Valley	7,326	-0.31	19.5	5.65%	25.6	7.43%	25.6	7.43%	344.9	-200.8	144.1
West Las Posas	2,781	2.15	34.6	5.31%	48.4	7.43%	48.3	7.42%	651.3	-367.5	283.8

Note 1. Data No. = Number of data points; RM = Residual Mean (feet); ARM = Absolute Residual Mean (feet); ARM % = Absolute Residual Mean percentage of the range of measurements; RMS = Root Mean Square (feet); RMS % = Root Mean Square percentage of the range of measurements; Std Dev = Standard Deviation (feet); Std Dev % = Standard Deviation percentage of the range of measurements; WL Range = range of (water level) measurements (feet); WL Min = Minimum value of (water level) measurements (feet); WL Max = Maximum value of (water level) measurements (feet);

Note 2: The ARM%, RMS%, and Std Dev% are in RED font

Table 3-6. Summary of Simulated Annual-Average (AFY) Groundwater Budgets in Piru Basin

Aquifer System A	Change in Storage	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Outside of Basin, within Model Domain	Underflow from Eastern Basin (LA County)	Internal Flow from Aquifer Above	Internal Flow to Aquifer Below (B)	Underflow to Fillmore Basin (A)	Stream Percolation	Rising Groundwater	Net Stream Percolation	Total Inflows	Total Outflows
	-6,102	968	-2,239	7,970	-1,334	15	5,000	--	-39,960	-6,226	65,064	-23,152	41,912	79,017	-79,012
Aquifer System B	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Eastern Basin (LA County)**	**Internal Flow from Aquifer Above (A)**	**Internal Flow to Aquifer Below (C)**	**Underflow to Fillmore Basin (B)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-5,660	4,772	--	--	-10,351	--	--	39,960	-6,184	-22,536	--	--	--	44,732	-44,732
Aquifer System C	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Eastern Basin (LA County)**	**Internal Flow from Aquifer Above (B)**	**Internal Flow to Aquifer Below**	**Underflow to Fillmore Basin (C)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-329	--	--	--	86	--	--	6,184	--	-5,942	--	--	--	6,270	-6,270
Sum (2016-2019 Average)	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Eastern Basin (LA County)**	**Internal Flow from Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow to Fillmore Basin**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-12,090	**5,740**	**-2,239**	**7,970**	**-11,599**	**15**	**5,000**	**46,144**	**-46,144**	**-34,704**	**65,064**	**-23,152**	**41,912**	**129,933**	**-129,928**
1985-2015 Average	2,119	5,473	-3,802	10,358	-12,630	14	5,000	47,241	-47,241	-47,124	72,991	-32,394	40,598	143,196	-143,191

Notes: Units are in acre-feet per year (AFY); Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration
Positive pumping from wells results from internal flows in wells screened across multiple model layers

Table 3-7. Summary of Simulated Annual-Average (AFY) Groundwater Budgets in Fillmore Basin

Aquifer System A	Change in Storage	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Outside of Basin, within Model Domain	Underflow from Piru Basin (A)	--	Internal Flow to Aquifer Below (B)	Underflow to Santa Paula Basin (A)	Stream Percolation	Rising Groundwater	Net Stream Percolation	Total Inflows	Total Outflows
	-3,715	1,131	-2,215	17,783	-4,732	-156	6,226	--	-18,768	-2,683	12,726	-5,599	7,127	37,866	-37,866
Aquifer System B	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Piru Basin (B)**	**Internal Flow from Aquifer Above (A)**	**Internal Flow to Aquifer Below (C)**	**Underflow to Santa Paula Basin (B)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-1,112	3,495	--	854	-33,146	395	22,536	18,768	-1,083	-9,928	0	-780	-780	46,049	-46,049
Aquifer System C	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Piru Basin (C)**	**Internal Flow from Aquifer Above (B)**	**--**	**Underflow to Santa Paula Basin (C)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-893	2,392	--	91	-4,585	901	5,942	1,083	--	-4,594	105	-442	-337	10,514	-10,514
Sum (2016-2019 Average)	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Piru Basin**	**Internal Flow from Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow to Santa Paula Basin**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-5,720	**7,018**	**-2,215**	**18,728**	**-42,462**	**1,141**	**34,704**	**19,852**	**-19,852**	**-17,205**	**12,831**	**-6,820**	**6,010**	**94,274**	**-94,274**
1985-2015 Average	4,334	6,723	-4,406	20,796	-47,028	1,858	47,124	9,026	-9,026	-17,965	13,740	-25,178	-11,438	103,601	-103,603

Notes: Units are in acre-feet per year (AFY); Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration

Table 3-8. Summary of Simulated Annual-Average (AFY) Groundwater Budgets in Santa Paula Basin

Aquifer System A	Change in Storage	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Outside of Basin, within Model Domain	Underflow from Fillmore Basin (A)	--	Internal Flow to Aquifer Below (B)	Underflow to Mound Basin (Shallow)	Underflow to Mound Basin (UAS)	Underflow to Mound Basin (LAS)	Underflow to Oxnard Basin (UAS)	Underflow to Oxnard Basin (LAS)	Stream Percolation	Rising Groundwater	Net Stream Percolation	Total Inflows	Total Outflows
	-1,357	--	-712	12,322	-1,189	-230	2,683	--	-7,244	0	0	--	-4,009	--	1,319	-1,584	-264	16,324	-16,324
Aquifer System B	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Fillmore Basin (B)**	**Internal Flow to Aquifer Above (A)**	**Internal Flow to Aquifer Below (C)**	**Underflow to Mound Basin (Shallow)**	**Underflow to Mound Basin (UAS)**	**Underflow to Mound Basin (LAS)**	**Underflow to Oxnard Basin (UAS)**	**Underflow to Oxnard Basin (LAS)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-308	1,392	--	3,055	-19,343	792	9,928	7,244	322	--	-348	-2,644	-2	-9	144	-224	-79	22,877	-22,877
Aquifer System C	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Fillmore Basin (C)**	**Internal Flow to Aquifer Above (B)**	**--**	**Underflow to Mound Basin (Shallow)**	**Underflow to Mound Basin (UAS)**	**Underflow to Mound Basin (LAS)**	**Underflow to Oxnard Basin (UAS)**	**Underflow to Oxnard Basin (LAS)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-313	6	--	431	-1,041	-61	4,594	-322	--	--	--	-3,148	--	-21	3	-155	-153	5,034	-5,060
Sum (2016-2019 Average)	**Change in Storage**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Outside of Basin, within Model Domain**	**Underflow from Fillmore Basin**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow to Mound Basin (Shallow)**	**Underflow to Mound Basin (UAS)**	**Underflow to Mound Basin (LAS)**	**Underflow to Oxnard Basin (UAS)**	**Underflow to Oxnard Basin (LAS)**	**Stream Percolation**	**Rising Groundwater**	**Net Stream Percolation**	**Total Inflows**	**Total Outflows**
	-1,978	1,398	-712	15,808	-21,573	502	17,205	6,923	-6,923	0	-348	-5,792	-4,011	-30	1,466	-1,963	-496	43,302	-43,328
1985-2015 Average	3,487	1,394	-2,291	15,796	-24,561	750	17,965	3,628	-3,628	1	-387	-5,621	-2,278	-22	2,165	-6,399	-4,233	45,186	-45,187

Notes: Units are in acre-feet per year (AFY); Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration

Table 3-9. Summary of Simulated Annual-Average (AFY) Groundwater Budgets in Mound Basin

Shallow Aquifer System	Change in Storage	Tile Drains	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Underflow from Santa Paula Basin (A)	Underflow from Santa Paula Basin (B)	Underflow from Santa Paula Basin (C)	Internal Flow to Aquifer Below (UAS)	Underflow with Oxnard Basin (Shallow)	Coastal Flux	Net Stream Percolation (SCR)	Total Inflows	Total Outflows
	-105	-5	--	-226	2,692	--	0	--	--	--	362	-257	-863	3,054	-3,040
Upper Aquifer System	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow from Santa Paula Basin (A)**	**Underflow from Santa Paula Basin (B)**	**Underflow from Santa Paula Basin (C)**	**Internal Flow to Aquifer Above (Shallow)**	**Internal Flow to Aquifer Below (LAS)**	**Underflow with Oxnard Basin (UAS)**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Total Inflows**	**Total Outflows**
	796	--	--	--	161	-2,007	0	348	--	1,585	-395	-2,230	1,729	--	4,619	-4,632
Lower Aquifer System	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow from Santa Paula Basin (A)**	**Underflow from Santa Paula Basin (B)**	**Underflow from Santa Paula Basin (C)**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Underflow with Oxnard Basin (LAS)**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Total Inflows**	**Total Outflows**
	-283	--	2,585	--	546	-4,437	--	2,644	3,148	395	--	-5,333	735	--	10,053	-10,053
Sum (2016-2019 Average)	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow from Santa Paula Basin (A)**	**Underflow from Santa Paula Basin (B)**	**Underflow from Santa Paula Basin (C)**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Underflow with Oxnard Basin**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Total Inflows**	**Total Outflows**
	407	**-5**	**2,585**	**-226**	**3,399**	**-6,444**	**0**	**2,992**	**3,148**	**1,979**	**-1,979**	**-7,202**	**2,207**	**-863**	**16,718**	**-16,718**
1985-2015 Average	1,092	-129	2,485	-665	3,719	-7,371	27	2,869	3,112	2,166	-2,166	-3,236	-371	-1,541	15,469	-15,479

Notes: Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;
ET = Evapotranspiration; UAS = Upper Aquifer System; LAS = Lower Aquifer System
Net Streamflow percolation in shallow aquifer represents all aquifer systems;
Totals represent net streamflow percolation and not total inflow or outflow

Table 3-10. Summary of Simulated Annual-Average (AFY) Groundwater Budgets in Oxnard Basin

Semi-Perched Aquifer System	Change in Storage	Tile Drains	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Underflow with Santa Paula Basin	Underflow with Mound Basin	Underflow with Pleasant Valley Basin	Underflow with Las Posas Basin (West)	Internal Flow to Aquifer Above	Internal Flow to Aquifer Below (UAS)	Coastal Flux	Net Stream Percolation (SCR)	Net Stream Percolation (Calleguas Creek)	Total Inflows	Total Outflows
	2,798	-4,204	--	-6,246	21,008	-44	--	-362	2,301	0	--	-19,193	152	372	3,418	30,048	-30,048
Upper Aquifer System	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge (Volcanic Outcrop)**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Santa Paula Basin**	**Underflow with Mound Basin**	**Underflow with Pleasant Valley Basin**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (Semi-Perched)**	**Internal Flow to Aquifer Below (LAS)**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	1,194	0	12	0	16,546	-39,023	4,011	2,230	4,053	-1,259	19,193	-21,190	12,620	1,562	--	61,421	-61,472
Lower Aquifer System	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Santa Paula Basin**	**Underflow with Mound Basin**	**Underflow with Pleasant Valley Basin**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	-1,047	--	--	--	29	-37,773	30	5,333	1,576	1,720	21,190	--	8,913	--	--	38,791	-38,820
Sum (2016-2019 Average)	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Santa Paula Basin**	**Underflow with Mound Basin**	**Underflow with Pleasant Valley Basin**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Coastal Flux**	**Net Stream Percolation (SCR)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	2,944	**-4,204**	**12**	**-6,246**	**37,583**	**-76,841**	**4,040**	**7,202**	**7,930**	**461**	**40,383**	**-40,383**	**21,685**	**1,934**	**3,418**	**127,592**	**-127,673**
1985-2015 Average	4,417	-10,225	11	-8,797	74,334	-84,324	2,300	3,236	5,105	-1,222	30,239	-30,239	9,001	3,104	3,046	134,794	-134,806

Notes:

Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;

ET = Evapotranspiration; SCR = Santa Clara River; UAS = Upper Aquifer System; LAS = Lower Aquifer System;

Totals represent net streamflow percolation and not total inflow or outflow

Oxnard Basin includes the Forebay that has major United spreading activities that add to the areal recharge.

Table 3-11. Summary of Simulated Annual-Average (AFY) Groundwater Budgets in Pleasant Valley Basin

Semi-Perched Aquifer System	Change in Storage	Tile Drains	Mountain Front Recharge	ET	Areal Recharge	Pumping from Wells	Underflow to Oxnard Basin	Underflow from Las Posas Basin (East)	Underflow with Las Posas Basin (West)	Internal Flow to Aquifer Above	Internal Flow to Aquifer Below (UAS)	Net Stream Percolation (Arroyo Las Posas)	Net Stream Percolation (Conejo Creek)	Net Stream Percolation (Calleguas Creek)	Total Inflows	Total Outflows
	-65	-288	--	-2	4,433	-275	-2,301	--	--	--	-11,941	847	5,026	4,566	14,872	-14,872
Upper Aquifer System	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow to Oxnard Basin**	**Underflow from Las Posas Basin (East)**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (Semi-Perched)**	**Internal Flow to Aquifer Below (LAS)**	**Net Stream Percolation (Arroyo Las Posas)**	**Net Stream Percolation (Conejo Creek)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	720	--	1,625	-1,658	661	-6,327	-4,053	1,296	-319	11,941	-9,233	2,843	2,504	--	21,590	-21,590
Lower Aquifer System	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow to Oxnard Basin**	**Underflow from Las Posas Basin (East)**	**Underflow with Las Posas Basin (West)**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Net Stream Percolation (Arroyo Las Posas)**	**Net Stream Percolation (Conejo Creek)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	-307	--	--	--	266	-6,899	-1,576	--	-723	9,233	--	--	--	--	9,499	-9,504
Sum (2016-2019 Average)	**Change in Storage**	**Tile Drains**	**Mountain Front Recharge**	**ET**	**Areal Recharge**	**Pumping from Wells**	**Underflow to Oxnard Basin**	**Underflow from Las Posas Basin (East)**	**Underflow with Las Posas Basin (West)**	**Internal Flow with Aquifer Above**	**Internal Flow with Aquifer Below**	**Net Stream Percolation (Arroyo Las Posas)**	**Net Stream Percolation (Conejo Creek)**	**Net Stream Percolation (Calleguas Creek)**	**Total Inflows**	**Total Outflows**
	349	**-288**	**1,625**	**-1,660**	**5,360**	**-13,501**	**-7,930**	**1,296**	**-1,042**	**21,175**	**-21,175**	**3,689**	**7,530**	**4,566**	**45,590**	**-45,595**
1985-2015 Average	-1,513	-894	1,421	-1,865	6,653	-15,671	-5,105	1,646	-795	19,664	-19,664	4,260	7,300	4,561	45,505	-45,506

Notes:

Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows; Rounded to nearest whole number;

ET = Evapotranspiration; SCR = Santa Clara River; UAS = Upper Aquifer System; LAS = Lower Aquifer System;

Totals represent net streamflow percolation and not total inflow or outflow

Table 3-12. Summary of Simulated Annual-Average (AFY) Groundwater Budgets in West Las Posas Valley Basin

Semi-Perched and UAS	Change in Storage	Mountain Front Recharge	Areal Recharge	Pumping from Wells	Underflow with Oxnard Basin	Underflow with Pleasant Valley Basin	Internal Flow to Aquifer Above	Internal Flow to Aquifer Below (LAS)	Outside of Basin, within Model Domain	Total Inflows	Total Outflows
	62	--	5,559	-461	1,259	319	--	-6,738	--	7,199	-7,199
Lower Aquifer System	**Change in Storage**	**Mountain Front Recharge**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Oxnard Basin**	**Underflow with Pleasant Valley Basin**	**Internal Flow to Aquifer Above (UAS)**	**Internal Flow to Aquifer Below**	**Outside of Basin, within Model Domain**	**Total Inflows**	**Total Outflows**
	3,542	1,621	2,272	-13,295	-1,720	723	6,738	--	119	15,015	-15,015
Sum (2016-2019 Average)	**Change in Storage**	**Mountain Front Recharge**	**Areal Recharge**	**Pumping from Wells**	**Underflow with Oxnard Basin**	**Underflow with Pleasant Valley Basin**	**Internal Flow to Aquifer Above**	**Internal Flow to Aquifer Below**	**Outside of Basin, within Model Domain**	**Total Inflows**	**Total Outflows**
	3,604	1,621	7,831	-13,755	-461	1,042	6,738	-6,738	119	20,954	-20,954
1985-2015 Average	2,115	1,710	7,377	-13,367	1,222	795	7,487	-7,487	149	20,854	-20,854

Notes:

Units are in acre-feet per year; Positive values indicate inflows, negative values indicate outflows;

Rounded to nearest whole number;

ET = Evapotranspiration; SCR = Santa Clara River; UAS = Upper Aquifer System; LAS = Lower Aquifer System;

FIGURES

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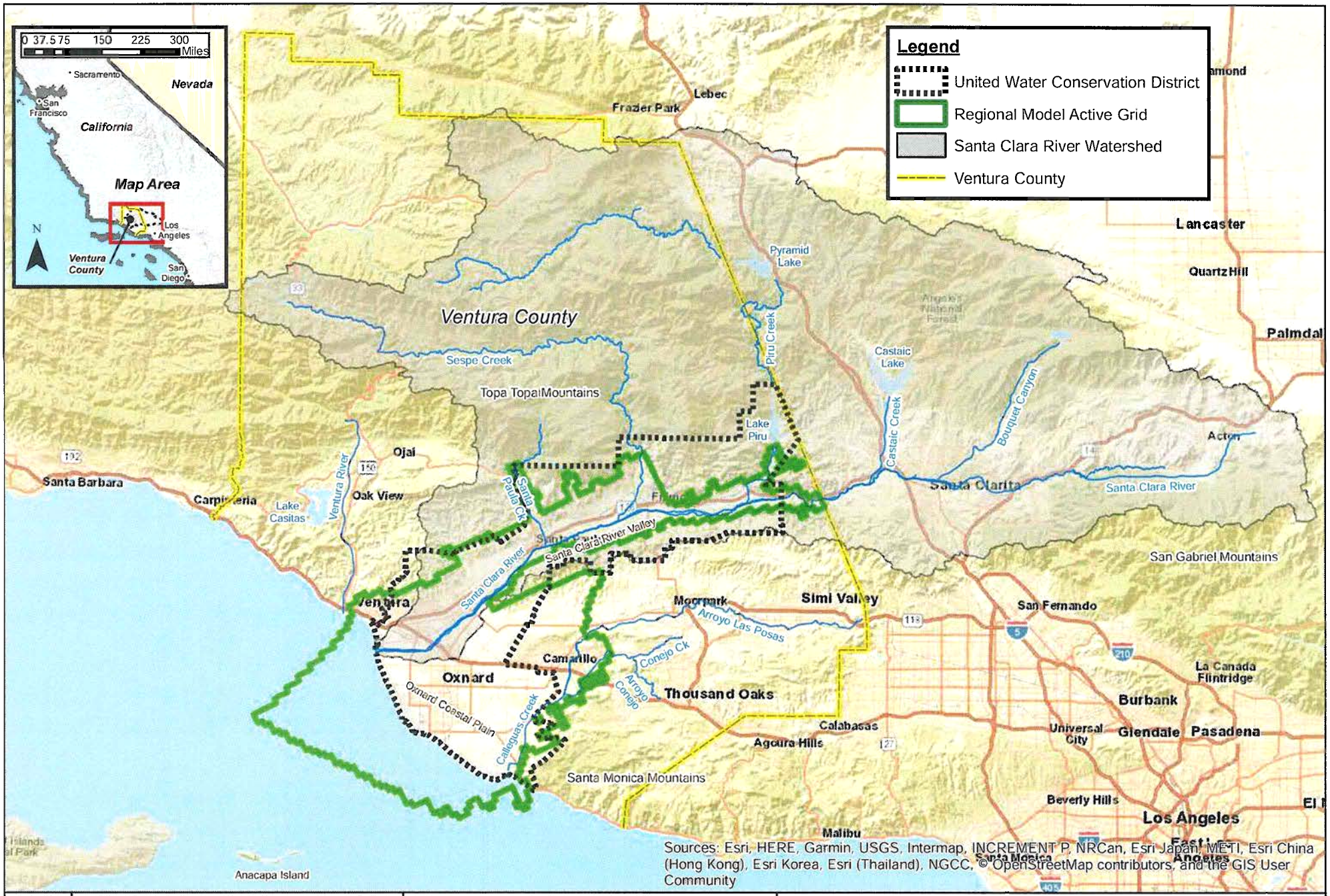

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Figure 1-1.
Location Map

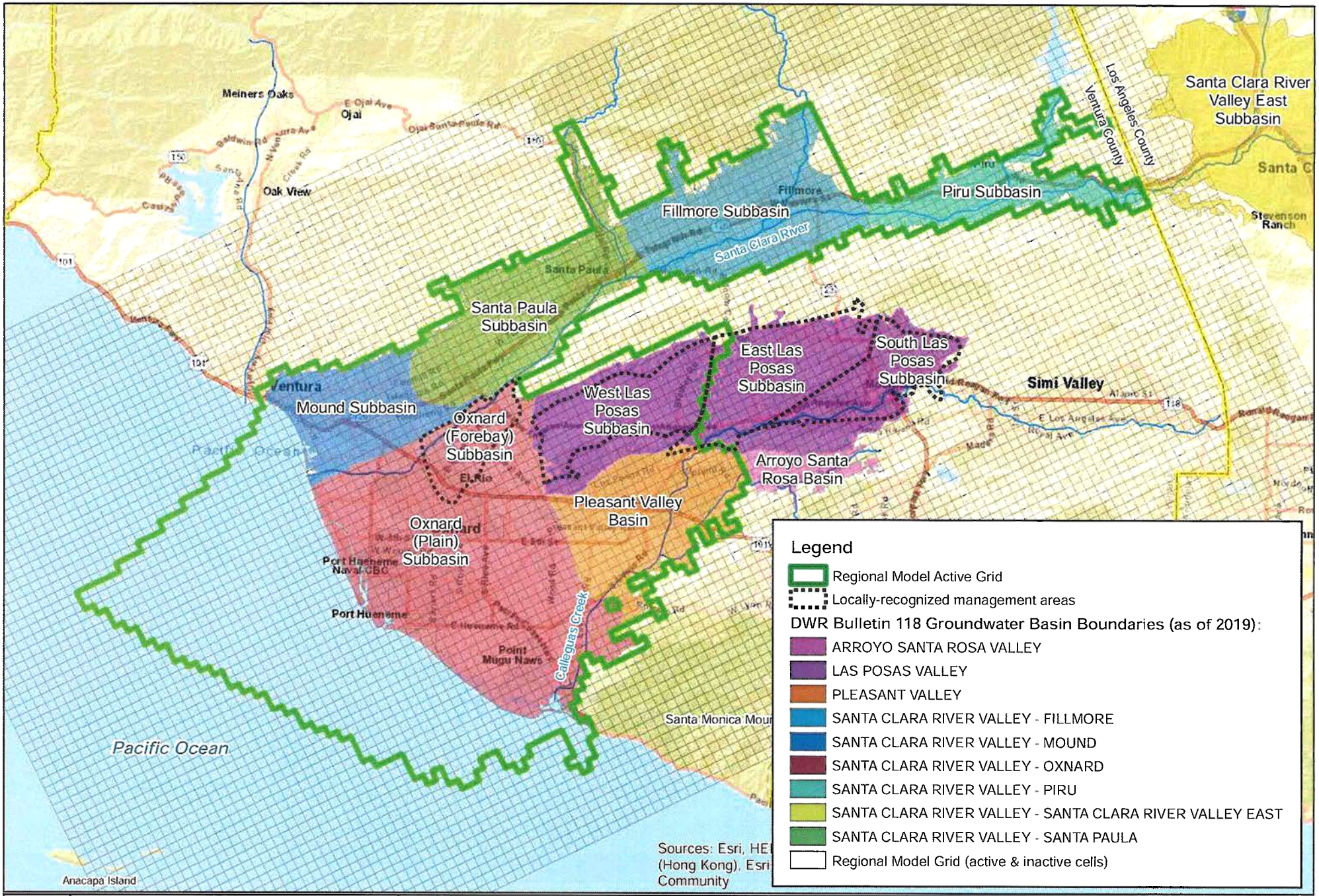

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Figure 1-2.
Regional Model Domain

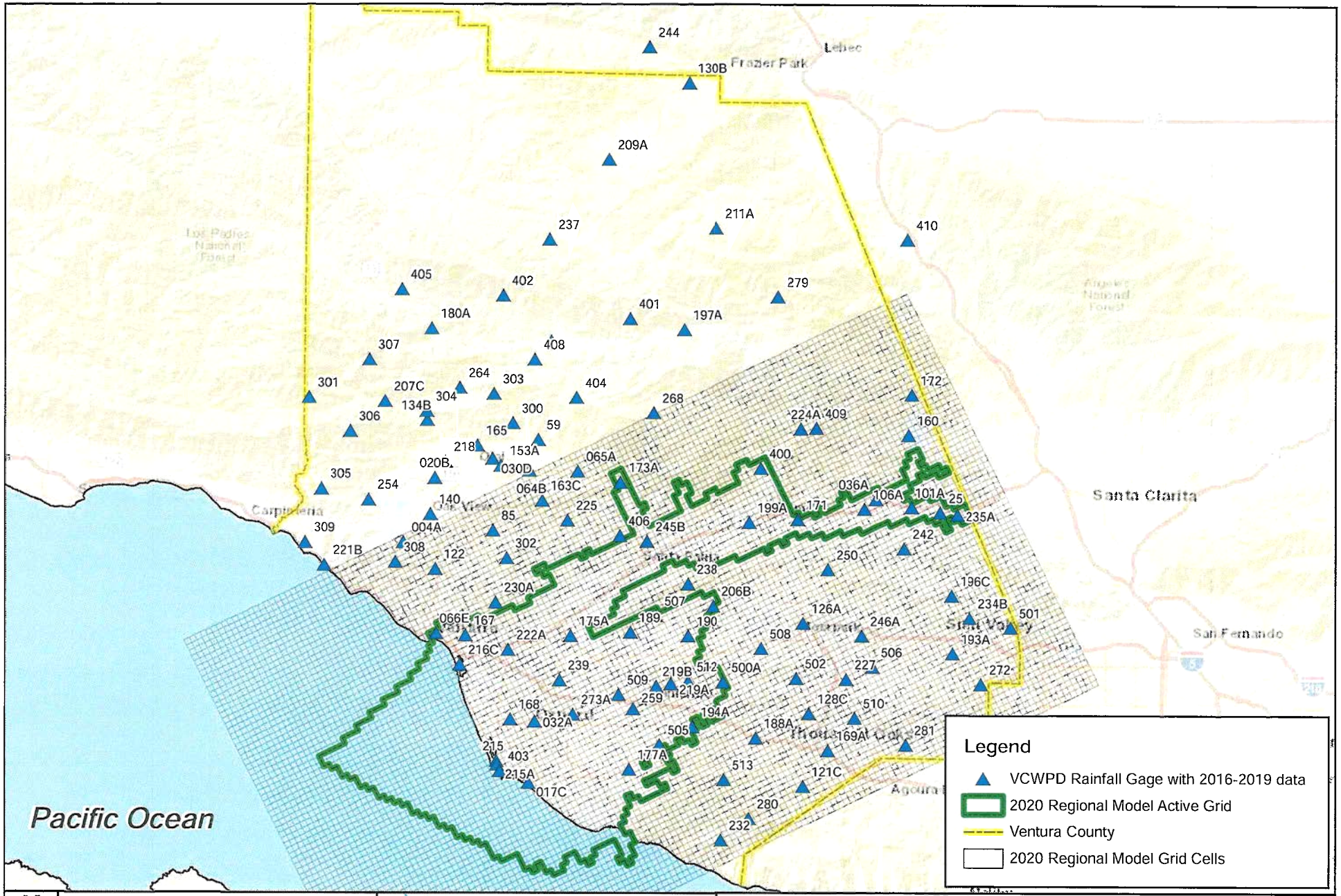

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Figure 2-1.
Ventura County Watershed Protection District (VCWPD) Rainfall Gages with 2016-2019 Data

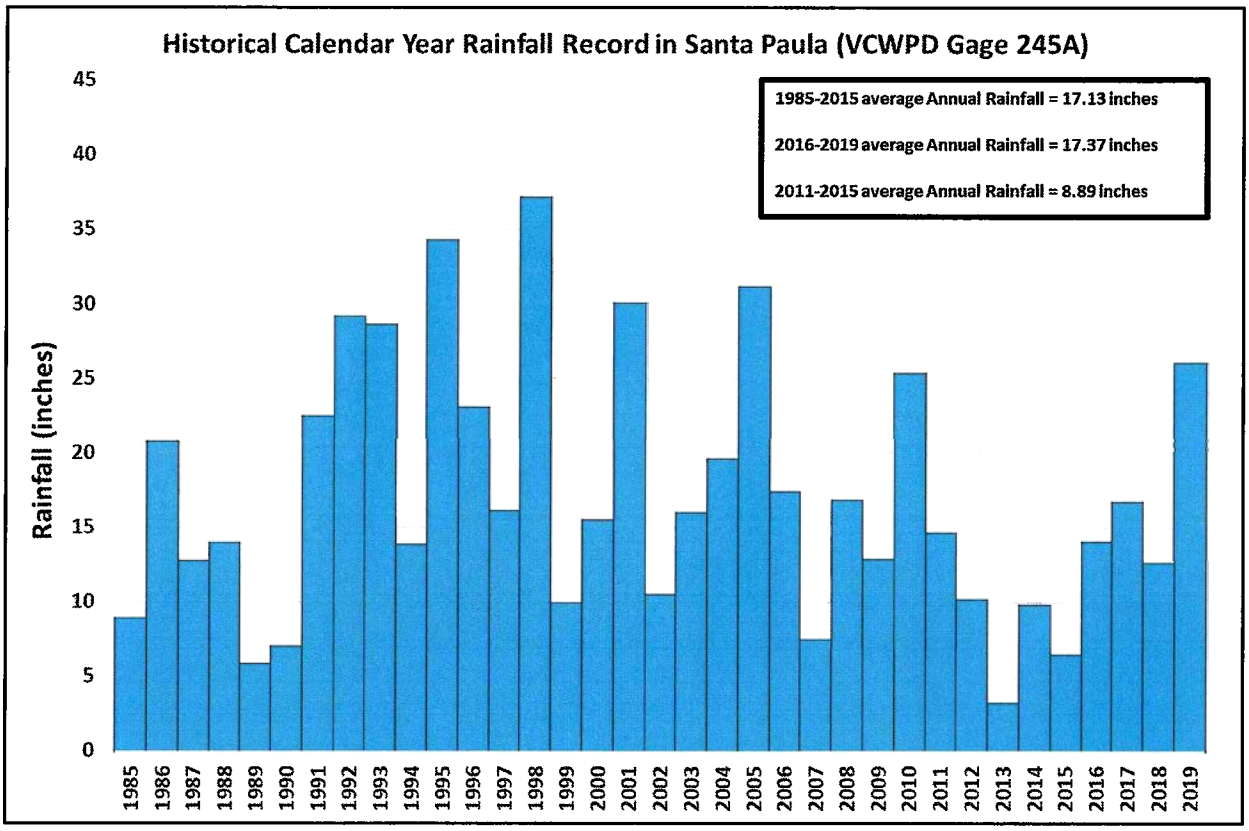

Figure 2-2. Calendar Year Precipitation Records for Regional Model Representative Location in Santa Paula Basin

Note: Santa Paula Station Ventura County Watershed Protection District (VCWPD) Gage 245A was discontinued by VCWPD after water Year 2010 and VCWPD records continued Gage 245 records nearby at Gage 245B. However, United continued maintaining and recording precipitation data through the year 2019 at Gage 245A. Gage 245A is used for this presentation.

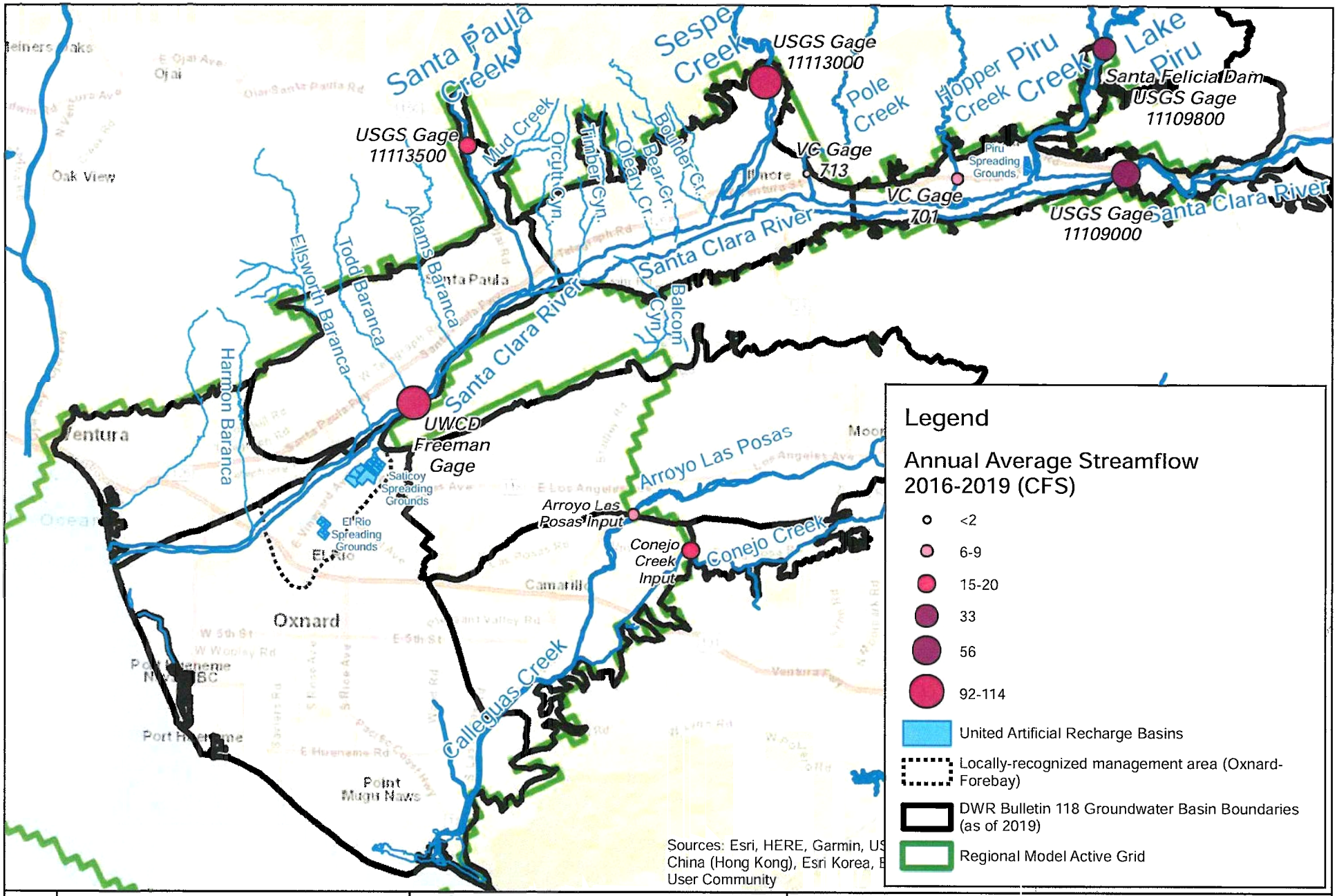

Figure 2-3.
Surface Water Features -- Streamflow

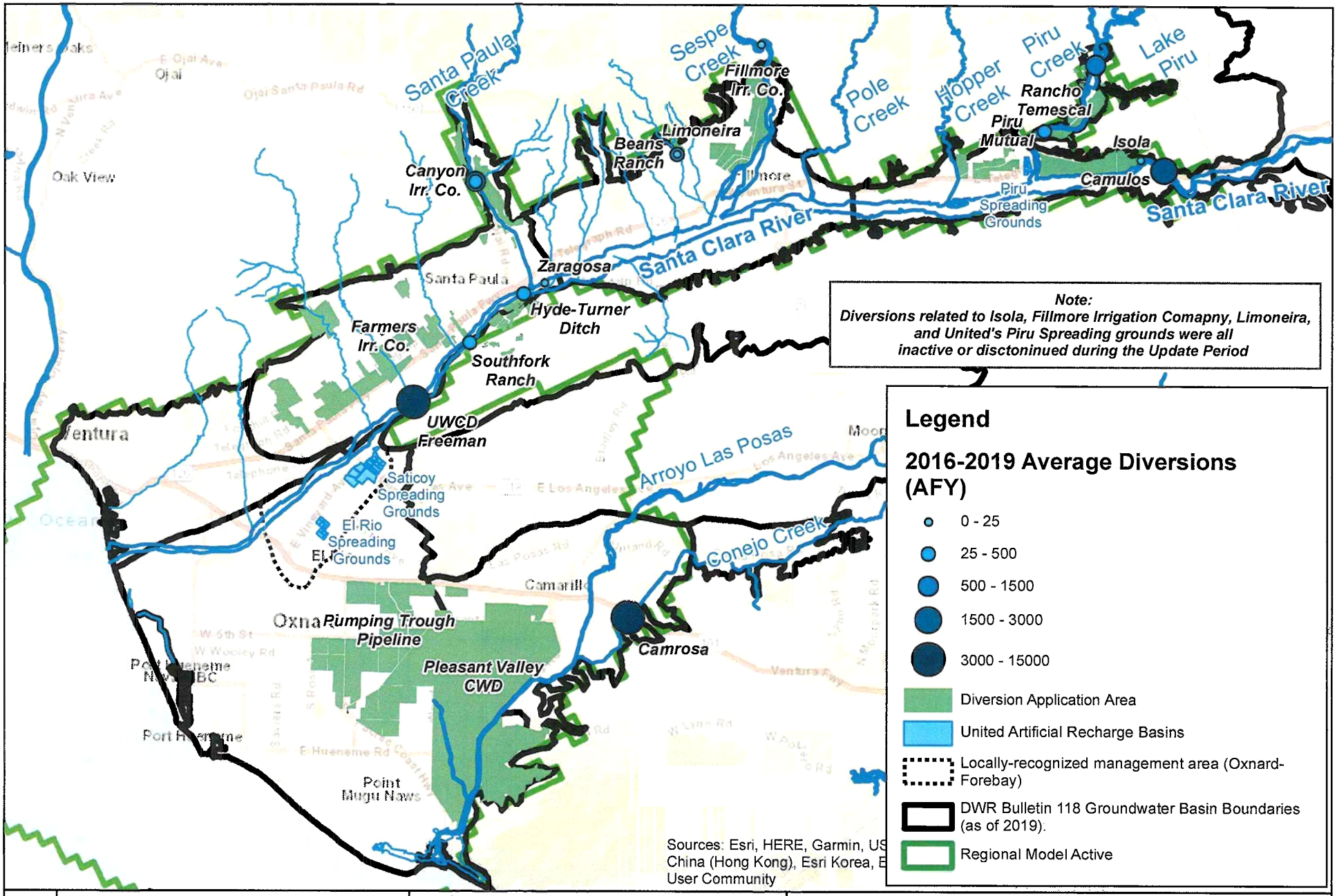

Figure 2-4.
Surface Water Features -- Diversions

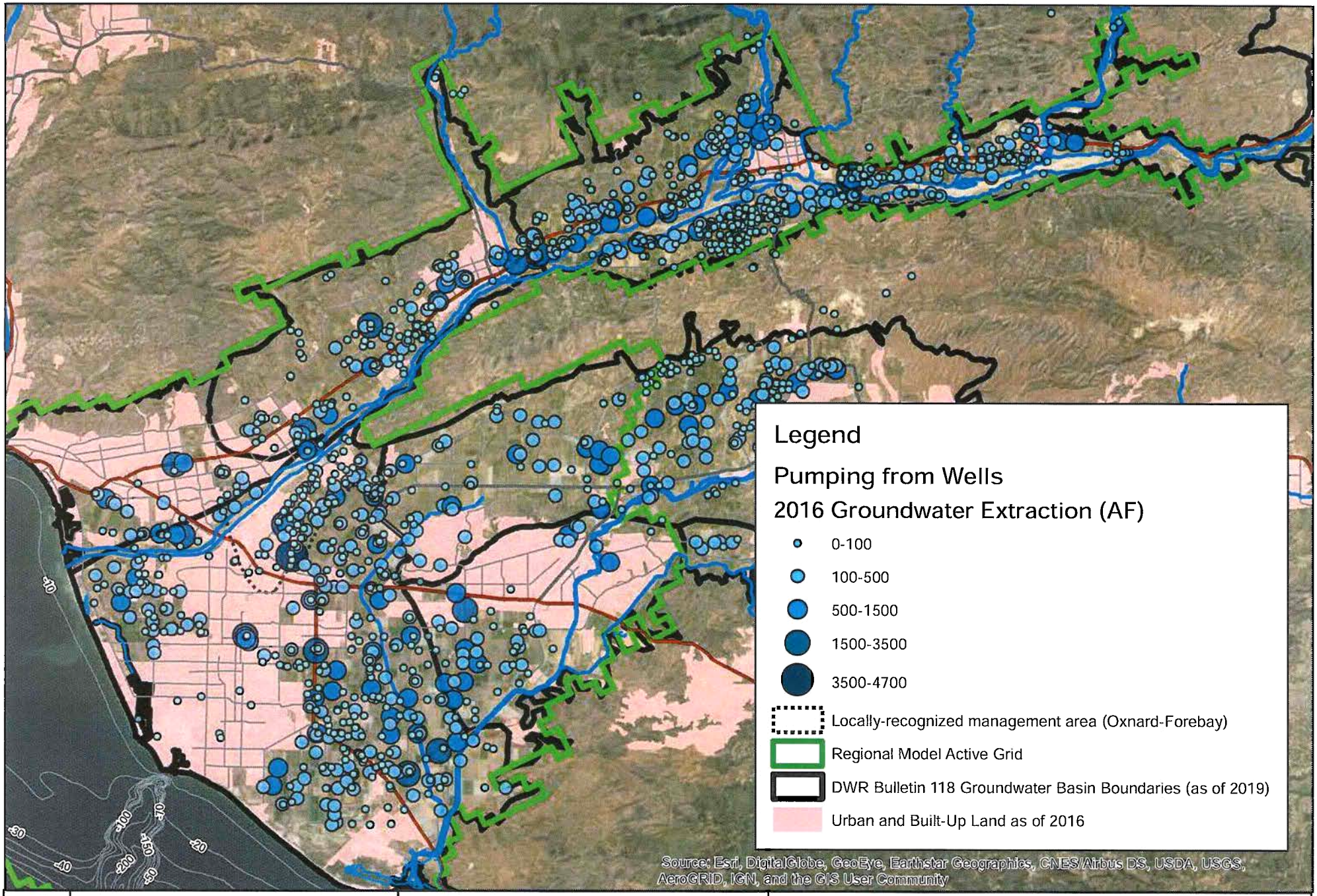

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Figure 2-5.
Locations of Groundwater Extractions
Calendar Year 2016

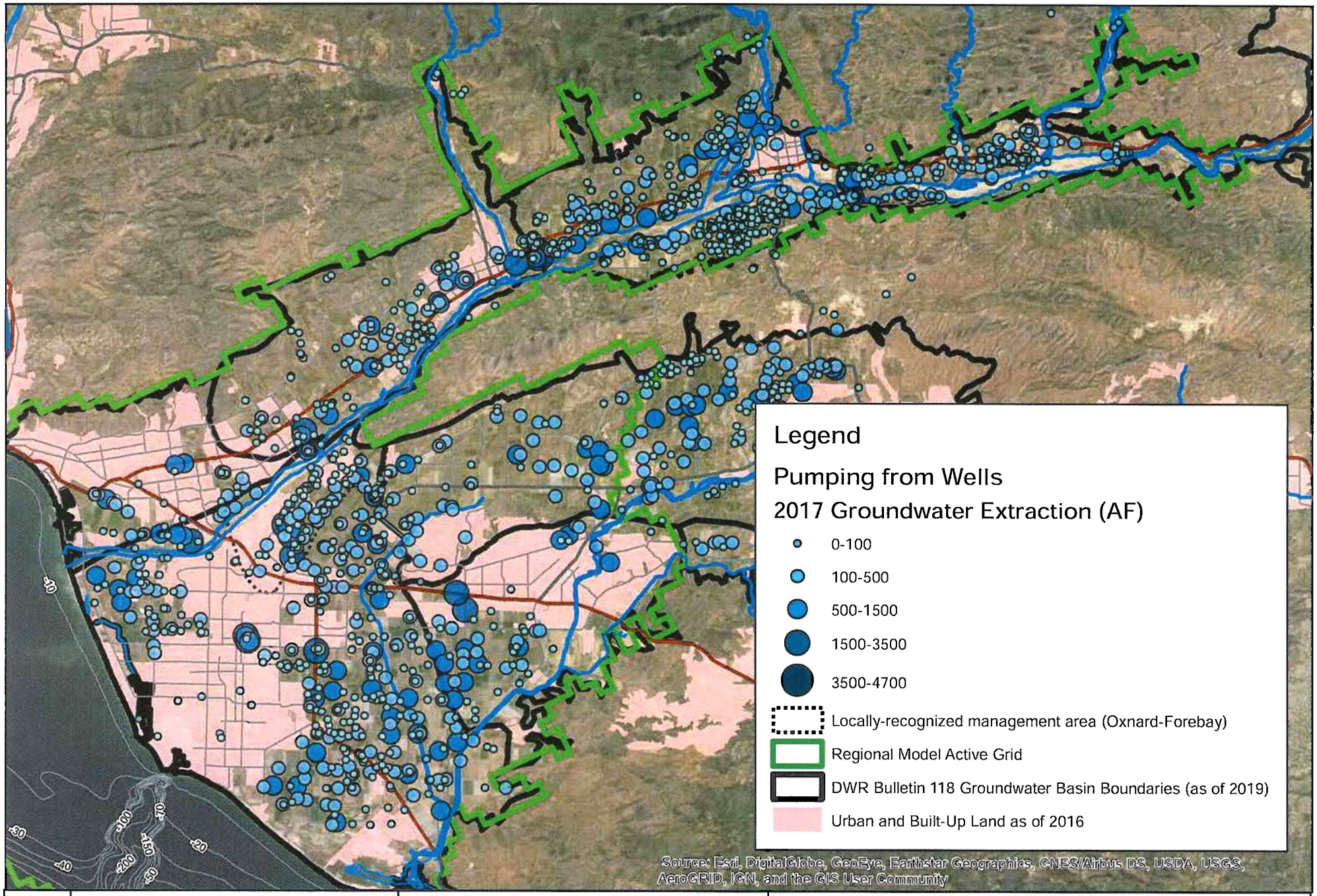

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Figure 2-6.
Locations of Groundwater Extractions
Calendar Year 2017

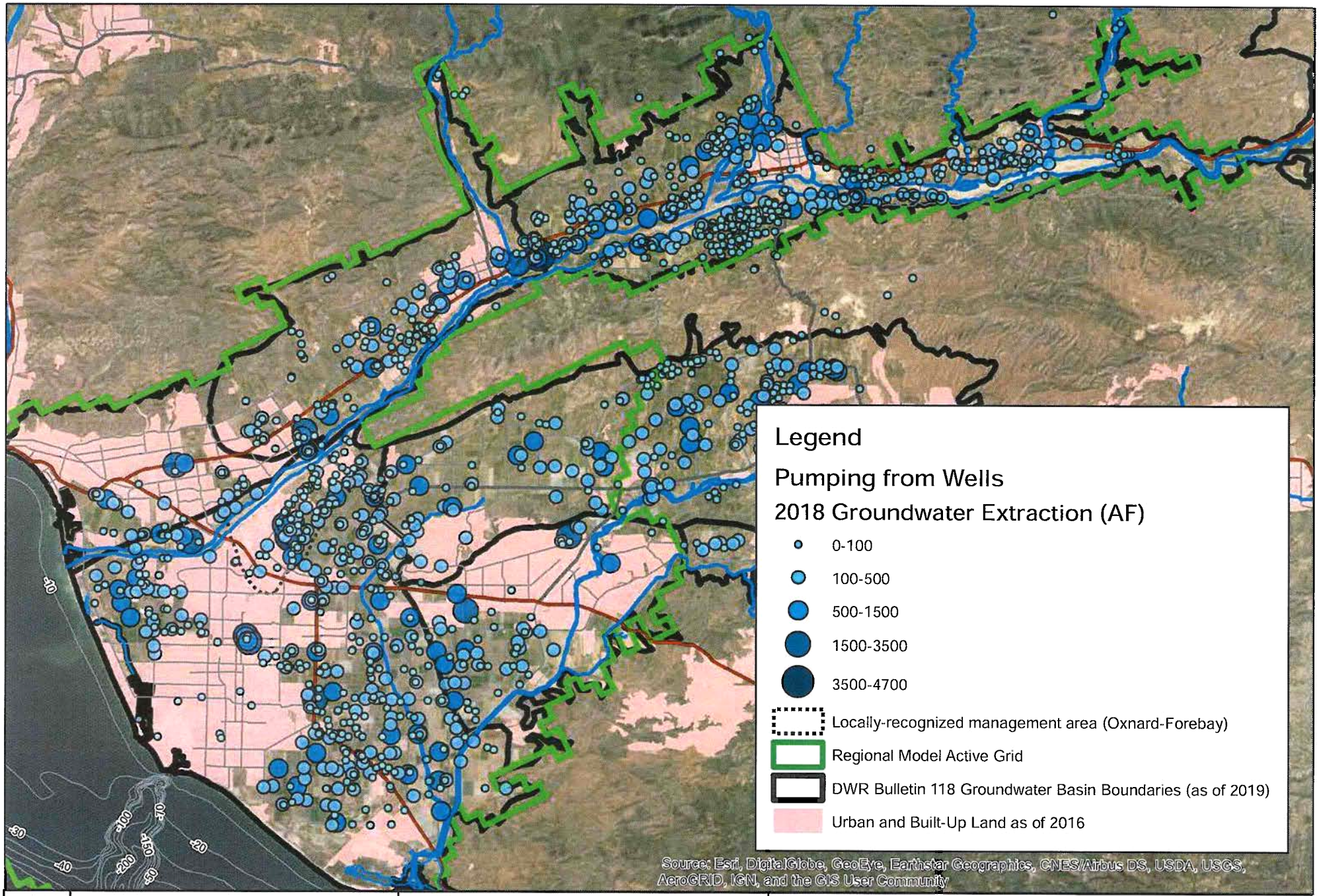

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Figure 2-7.
Locations of Groundwater Extractions
Calendar Year 2018

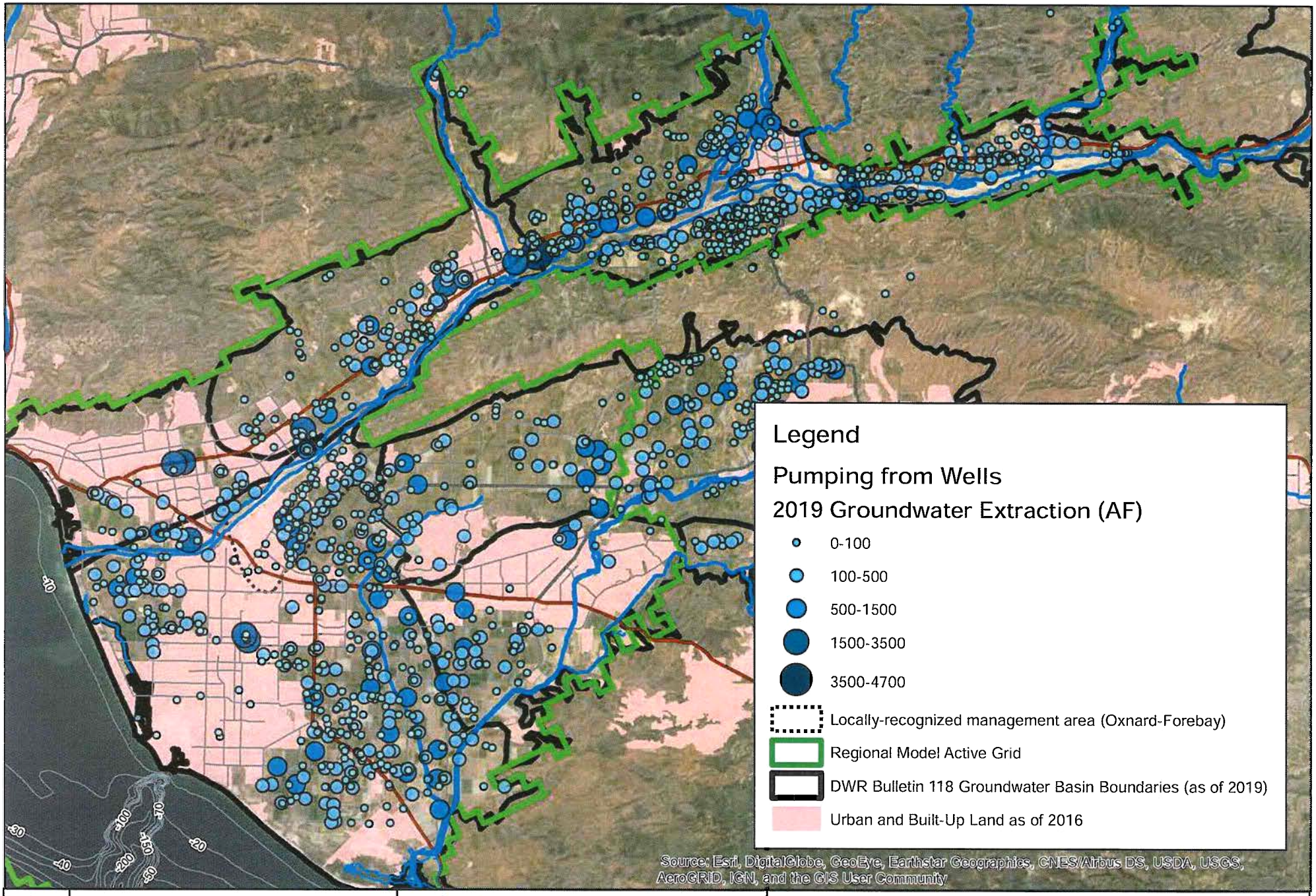

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Figure 2-8.
Locations of Groundwater Extractions
Calendar Year 2019

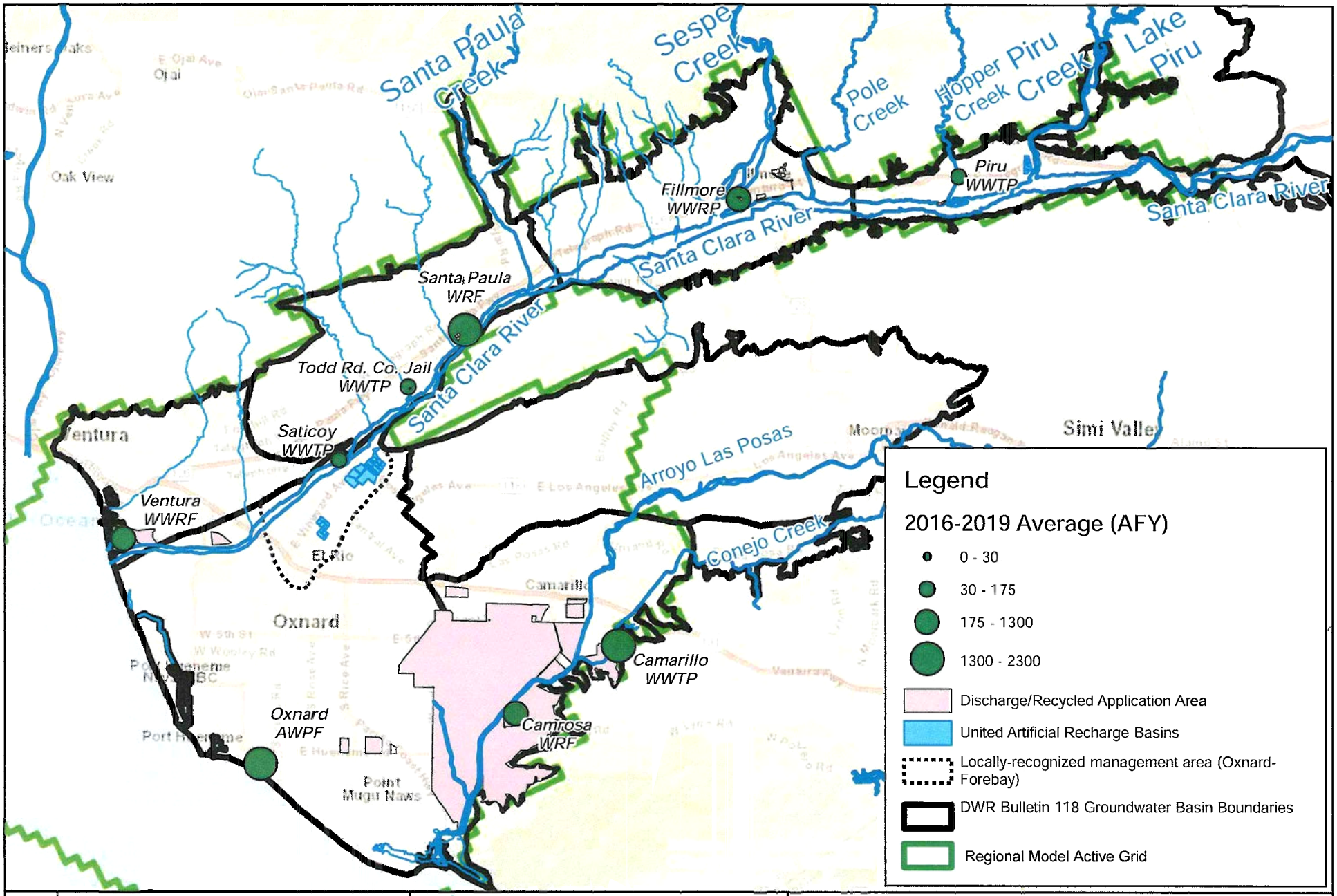

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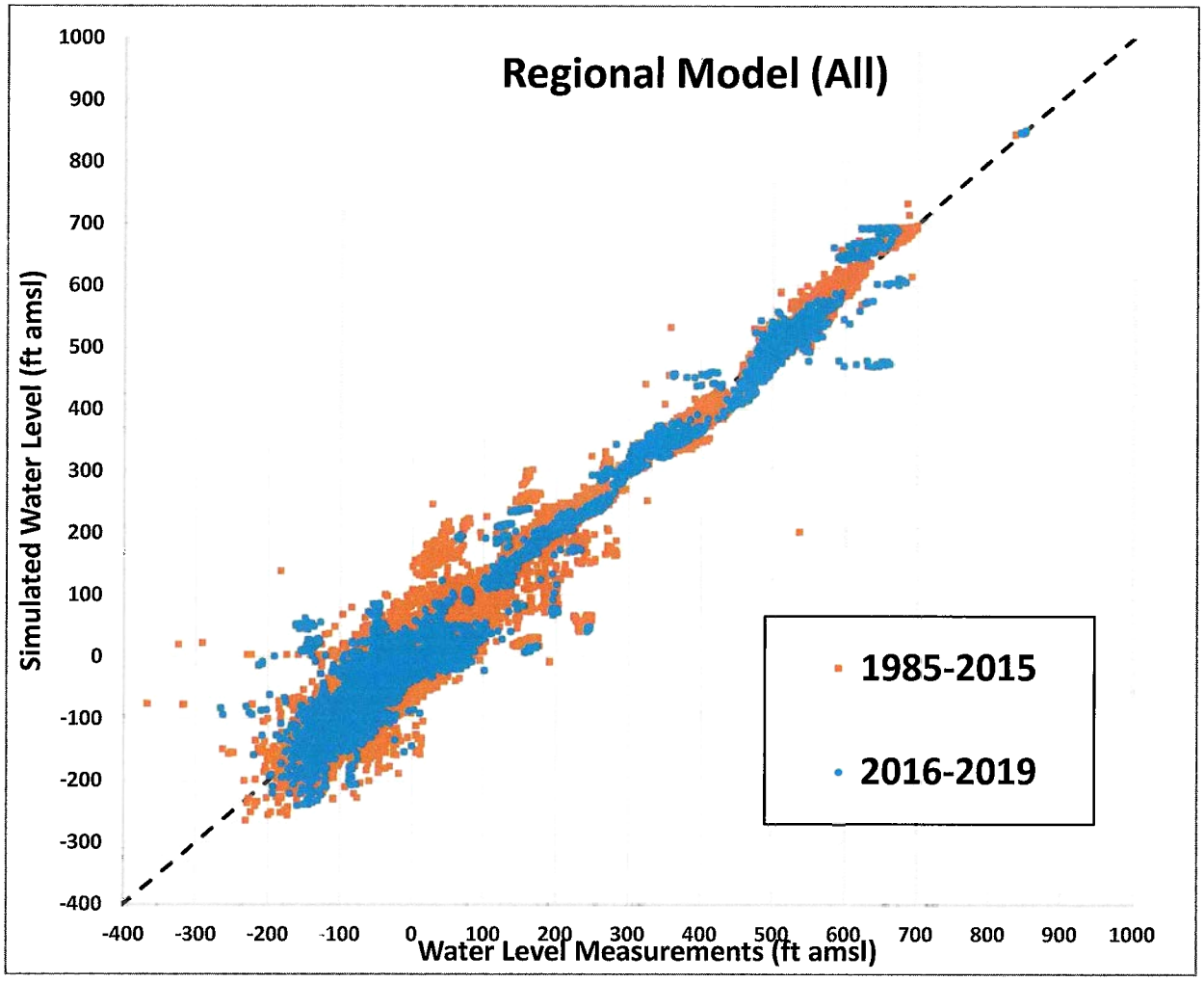
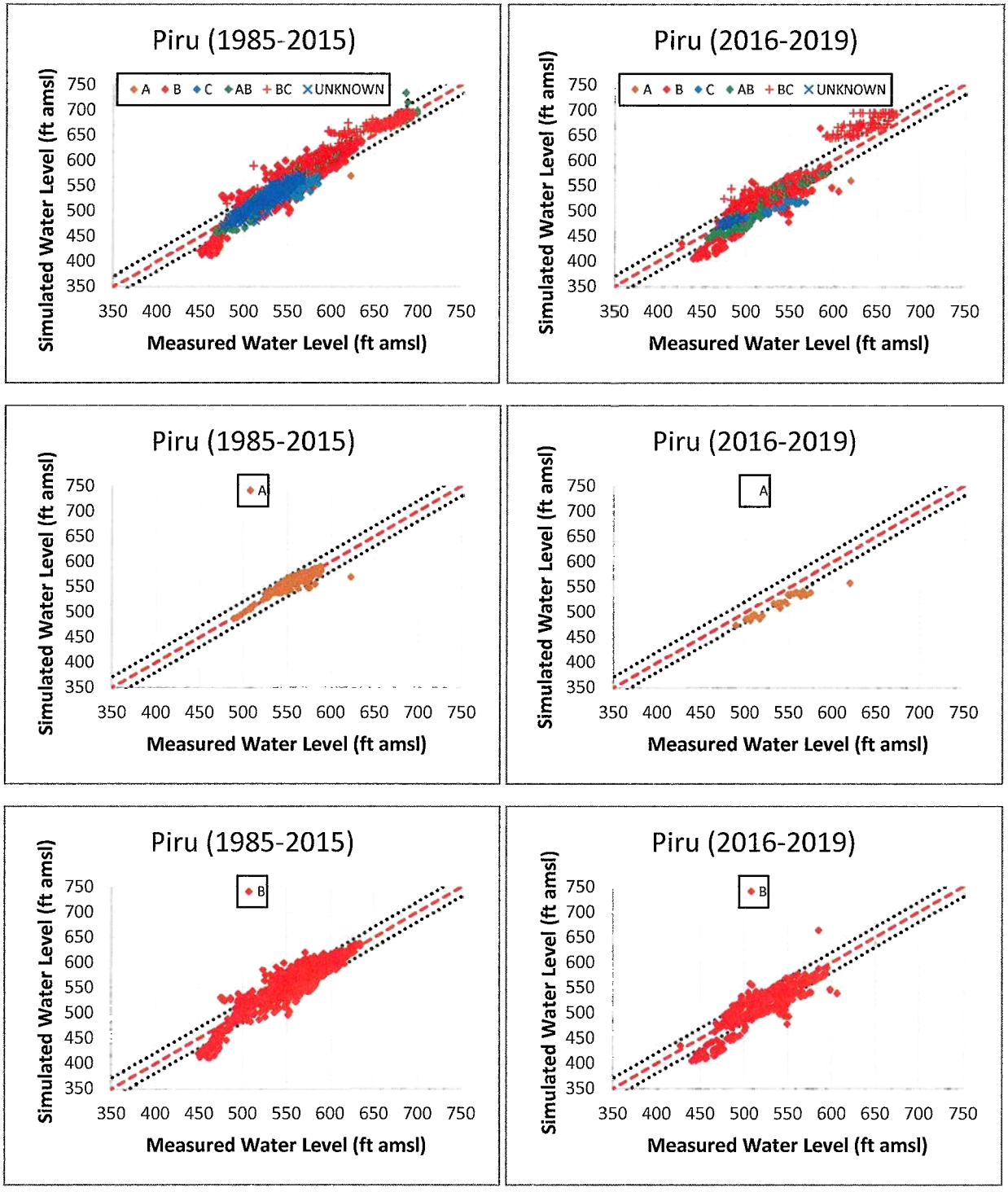
Figure 2-9.
Surface Water Features -- Wastewater/Recycled Application



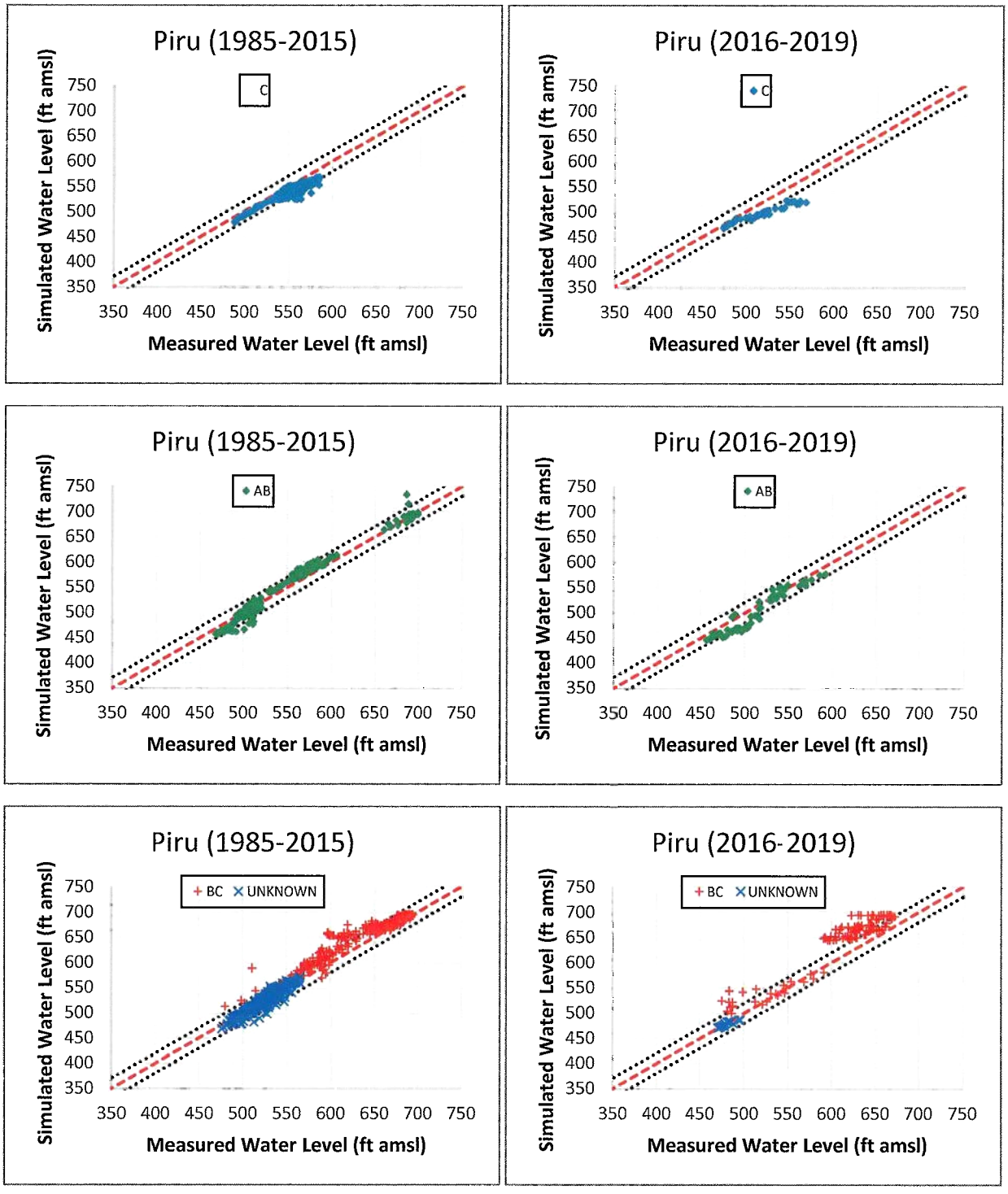
Note: Dashed black line represents a 1 1 relationship between measured and simulated groundwater elevations. Orange dots represent 1985-2015 Calibration Period. Blue dots represent 2016-2019 Update Period

Figure 3-1: Scatterplots of Simulated versus Measured Groundwater Elevations in the Regional Model Domain in both the 1985-2015 Calibration Period and the 2016-2019 Update Period.



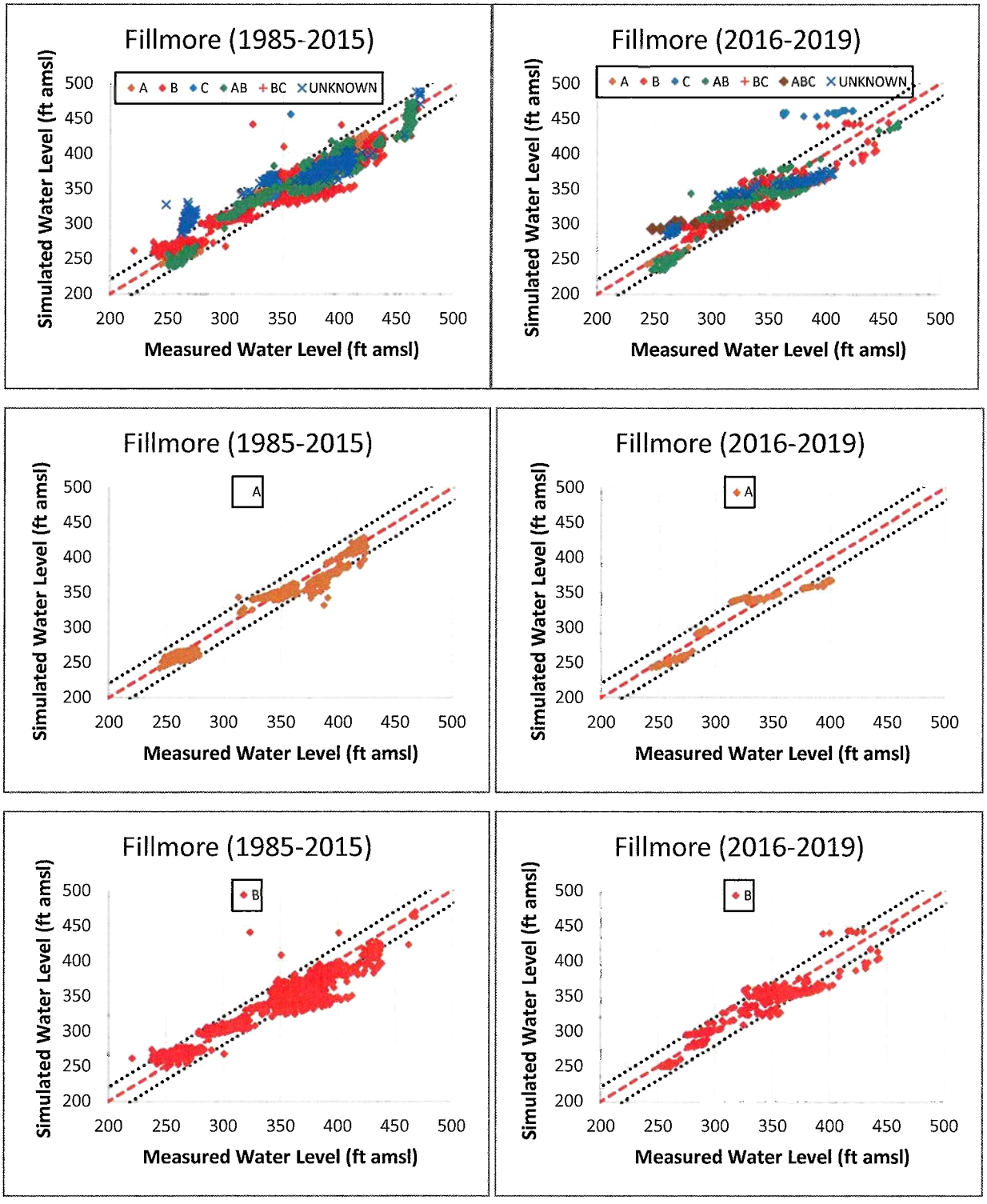
Note: Dashed red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dotted black lines are offset 20 feet above and below the 1 1 (dashed red) line.

Figure 3-2a-: Scatterplots of Simulated versus Measured Groundwater Elevations in the Piru Basin



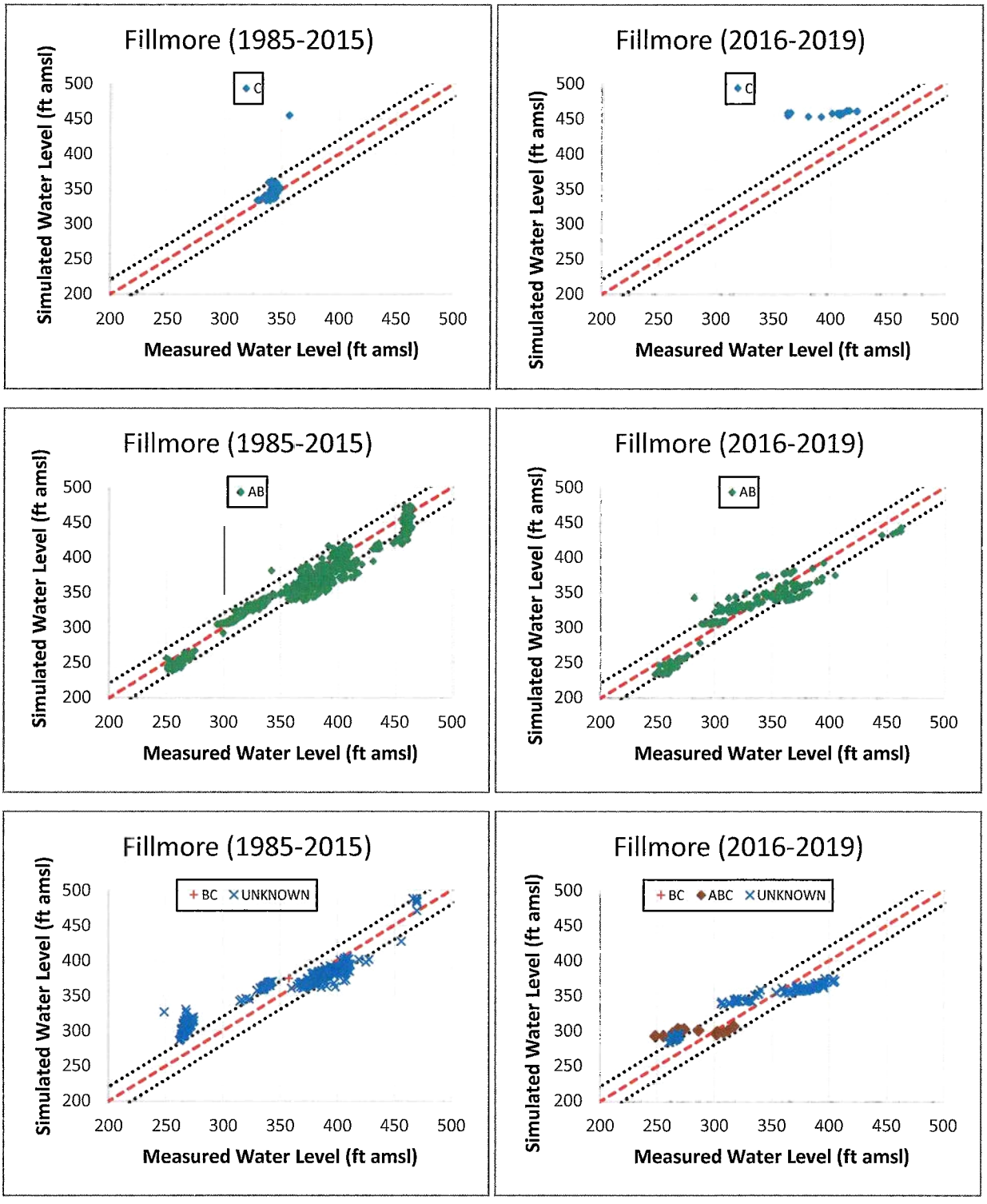
Note· Dashed red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dotted black lines are offset 20 feet above and below the 1 1 (dashed red) line

Figure 3-2b-: Scatterplots of Simulated versus Measured Groundwater Elevations in the Piru Basin



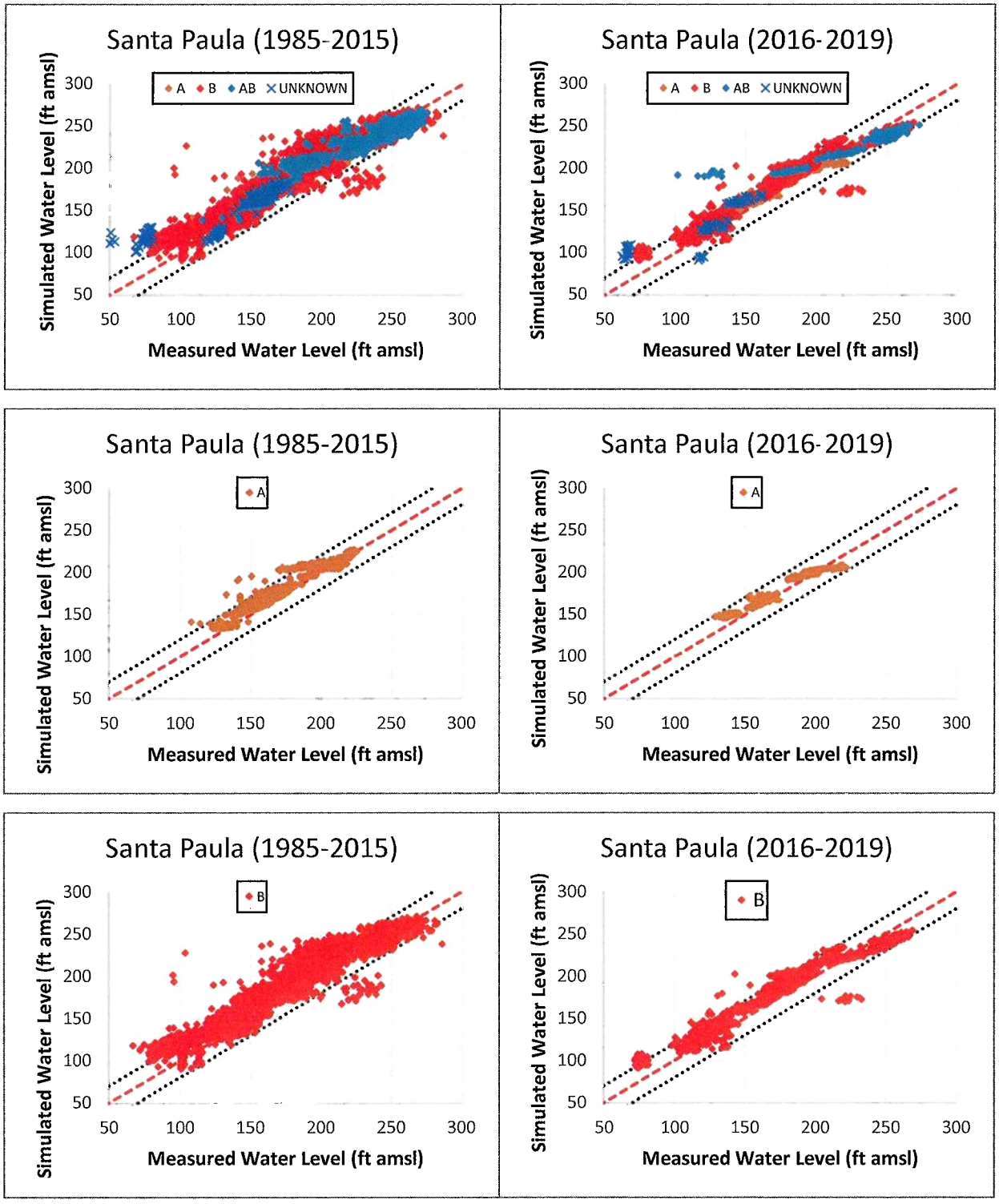
Note: Dashed red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dotted black lines are offset 20 feet above and below the 1 1 (dashed red) line.

Figure 3-3a: Scatterplots of Simulated versus Measured Groundwater Elevations in the Fillmore Basin



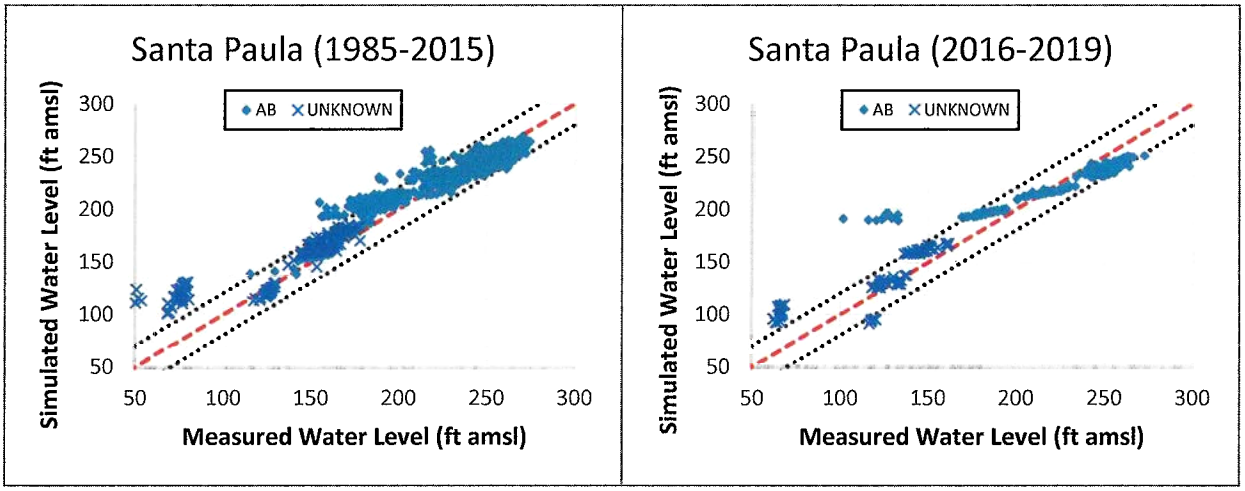
Note: Dashed red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dotted black lines are offset 20 feet above and below the 1 1 (dashed red) line.

Figure 3-3b: Scatterplots of Simulated versus Measured Groundwater Elevations in the Fillmore Basin



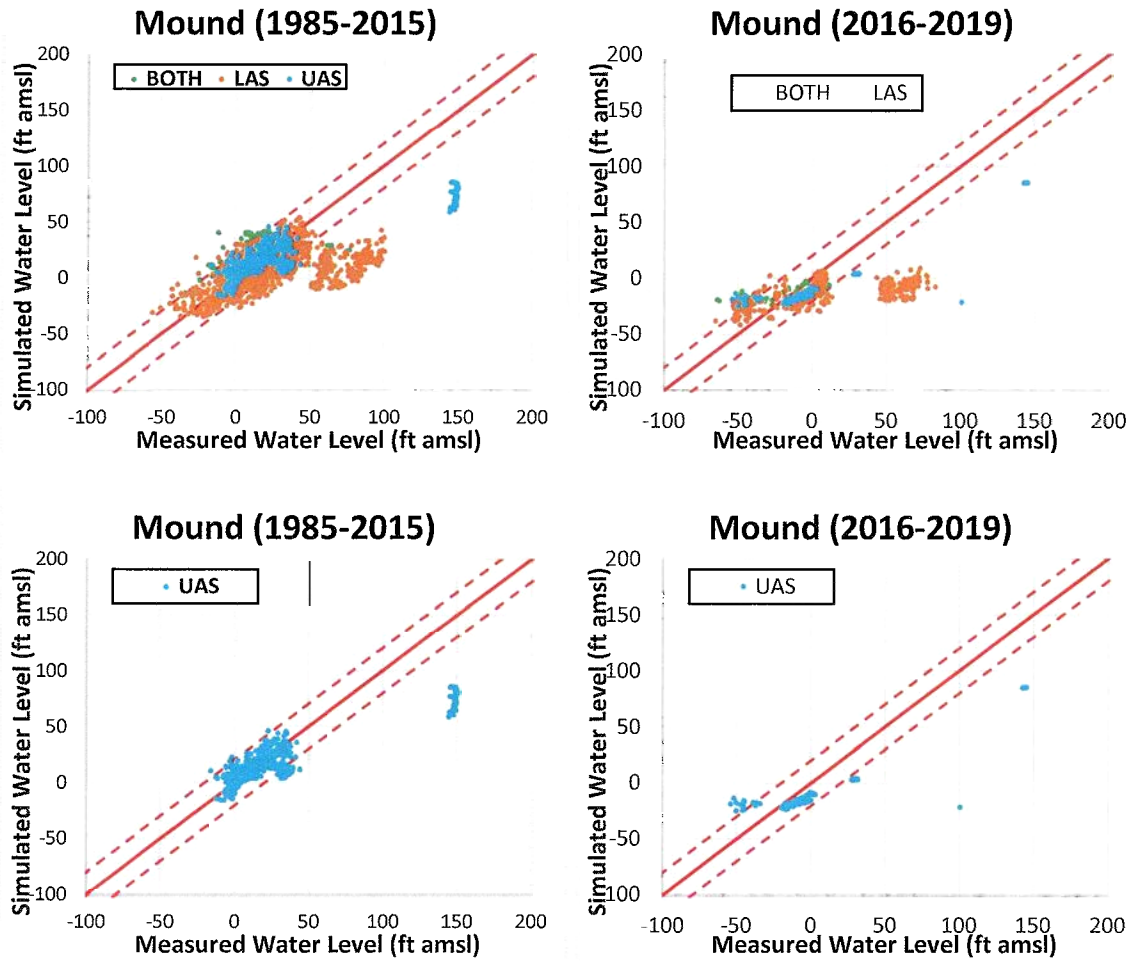
Note: Dashed red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dotted black lines are offset 20 feet above and below the 1 1 (dashed red) line.

Figure 3-4a: Scatterplots of Simulated versus Measured Groundwater Elevations in the Santa Paula Basin



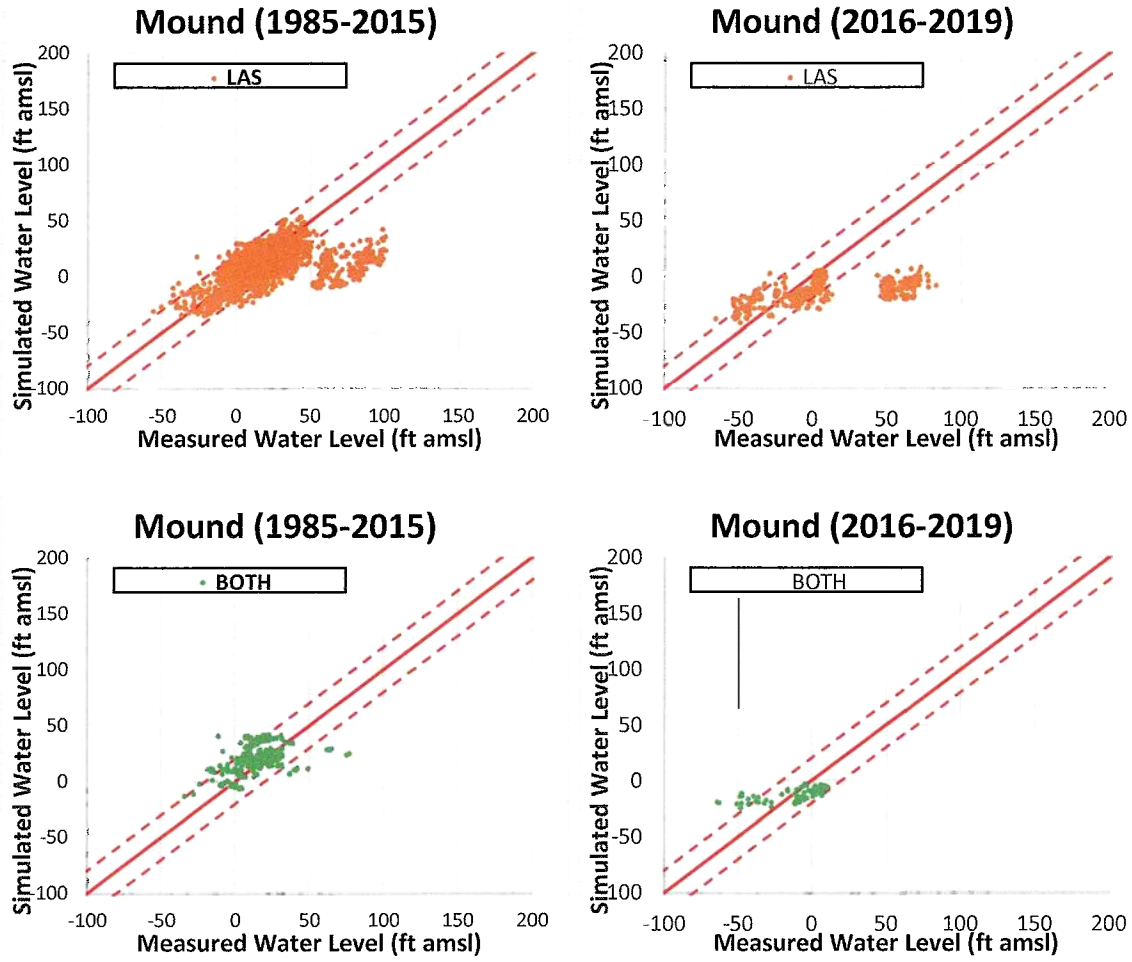
Note: Dashed red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dotted black lines are offset 20 feet above and below the 1 1 (dashed red) line.

Figure 3-4b: Scatterplots of Simulated versus Measured Groundwater Elevations in the Santa Paula Basin



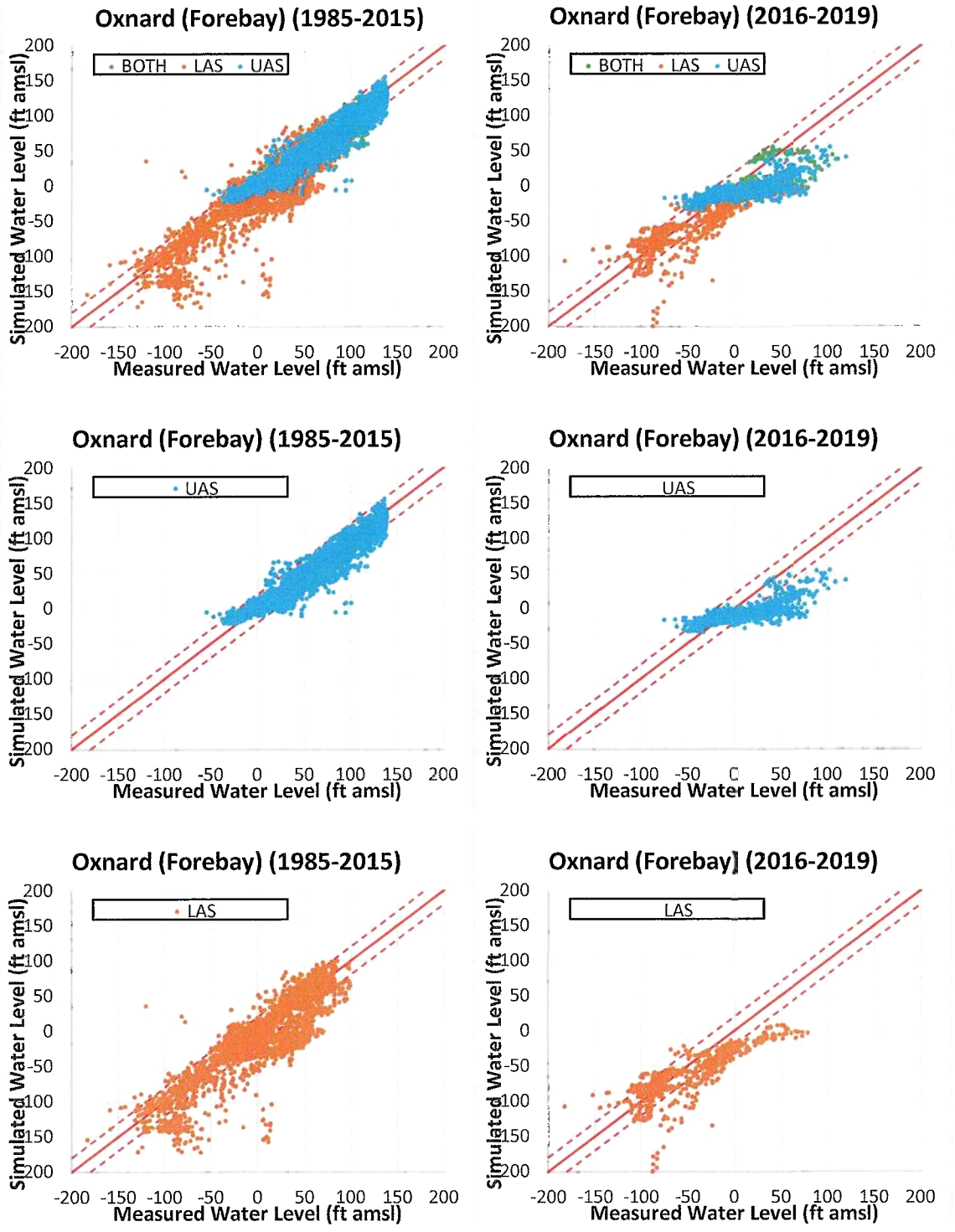
Note. Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 1 (solid) line.

Figure 3-5a: Scatterplots of Simulated versus Measured Groundwater Elevations in the Mound Basin



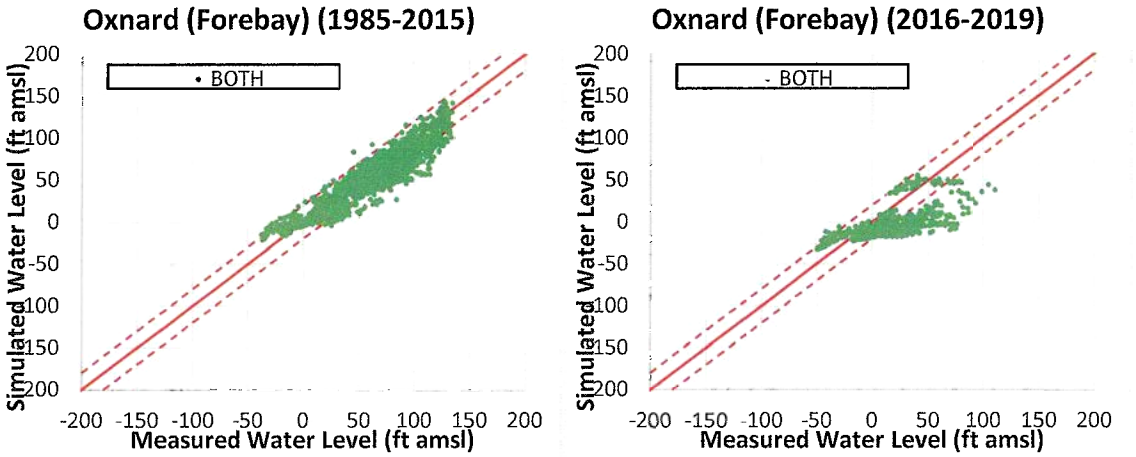
Note: Solid red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 1 (solid) line.

Figure 3-5b: Scatterplots of Simulated versus Measured Groundwater Elevations in the Mound Basin



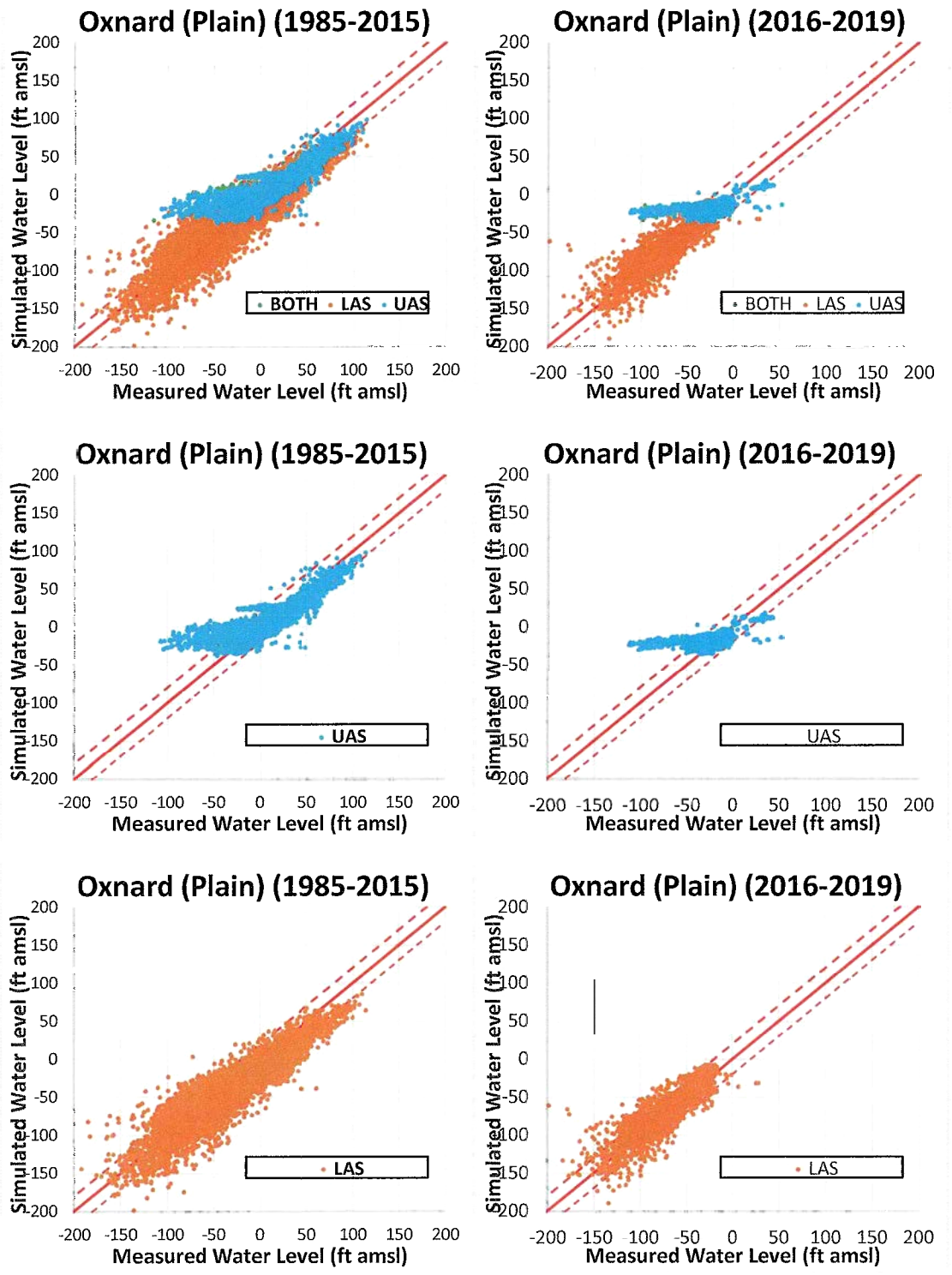
Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 1 (solid) line

Figure 3-6a: Scatterplots of Simulated versus Measured Groundwater Elevations in the Oxnard (Forebay) Basin



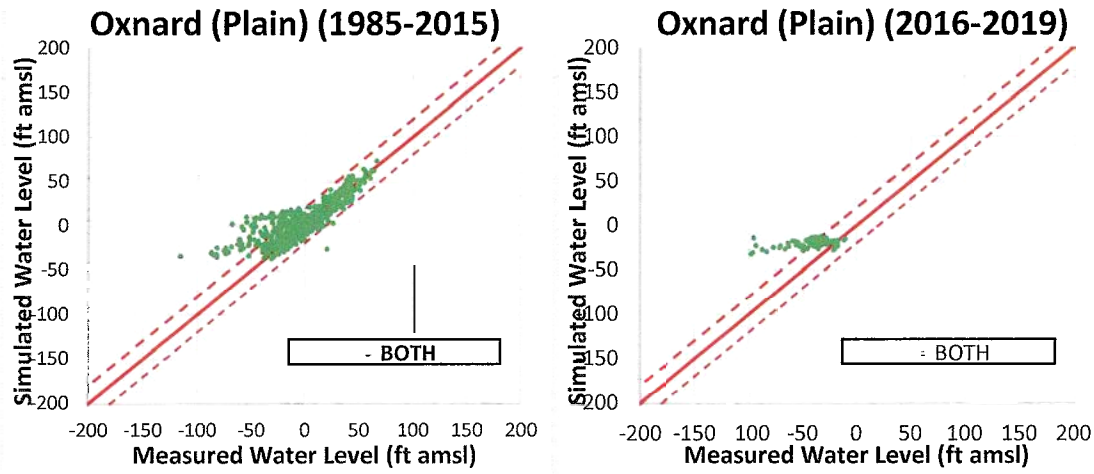
Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 1 (solid) line.

Figure 3-6b: Scatterplots of Simulated versus Measured Groundwater Elevations in the Oxnard (Forebay) Basin



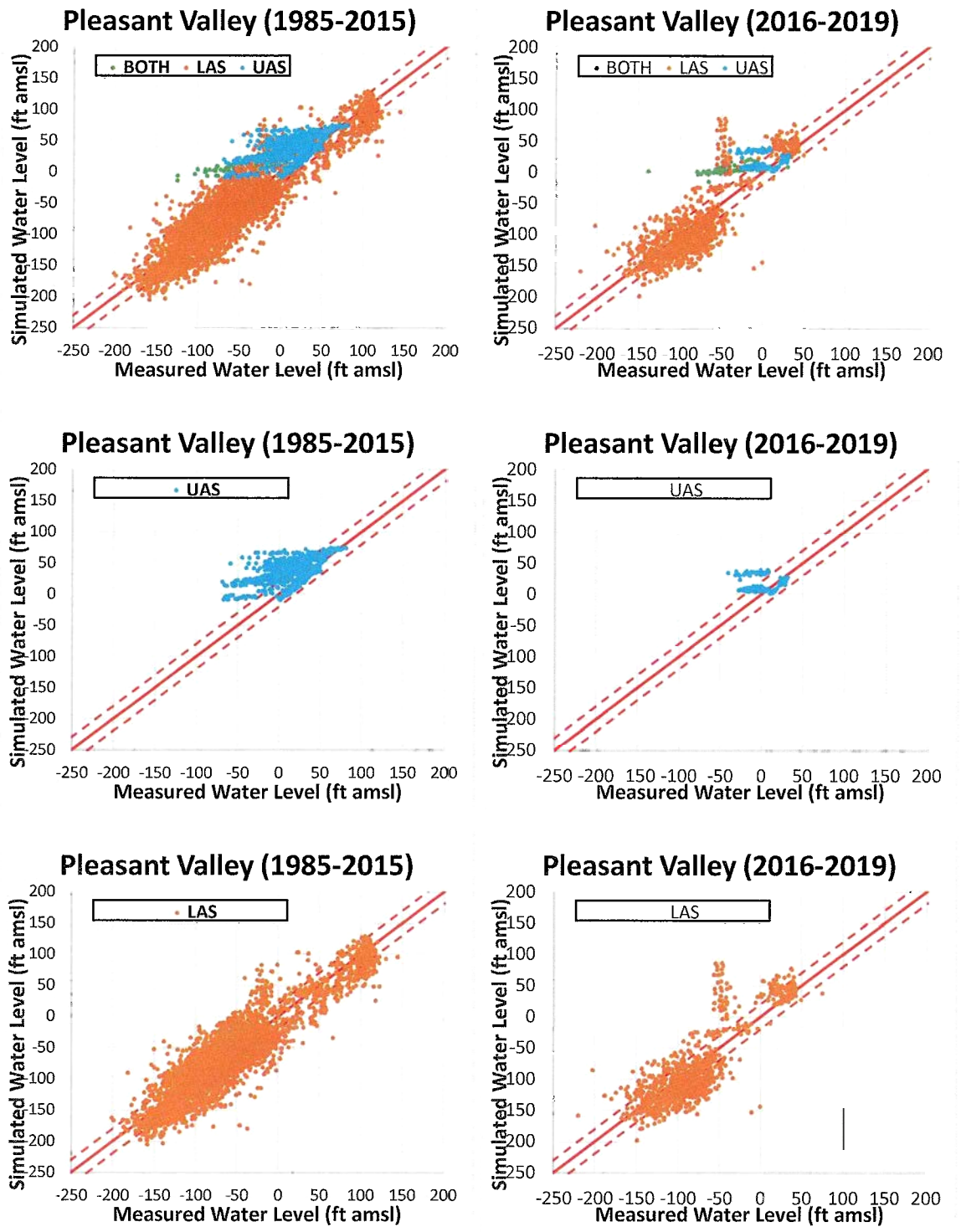
Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 1 (solid) line

Figure 3-7a: Scatterplots of Simulated versus Measured Groundwater Elevations in the Oxnard Basin (area not including Forebay)



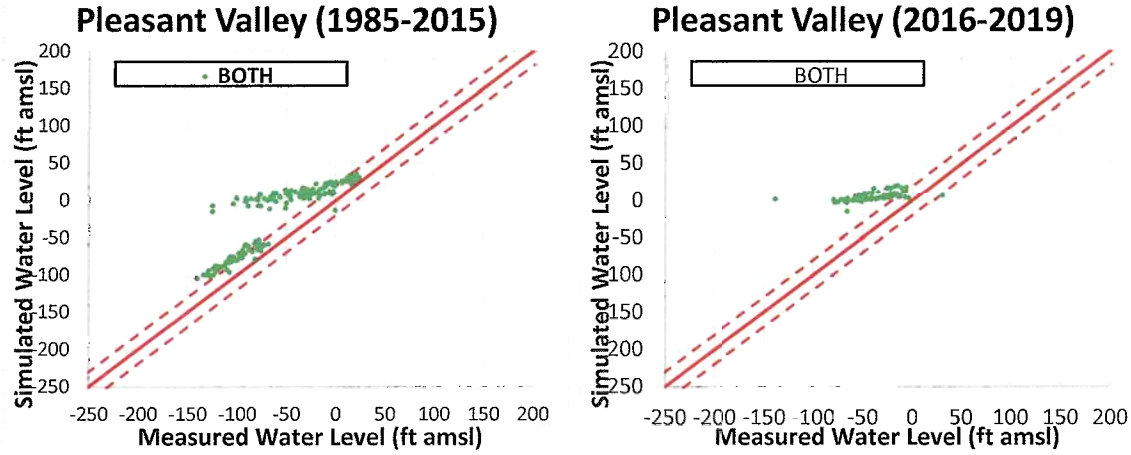
Note: Solid red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 . 1 (solid) line.

Figure 3-7b: Scatterplots of Simulated versus Measured Groundwater Elevations in the Oxnard Basin (area not including Forebay)



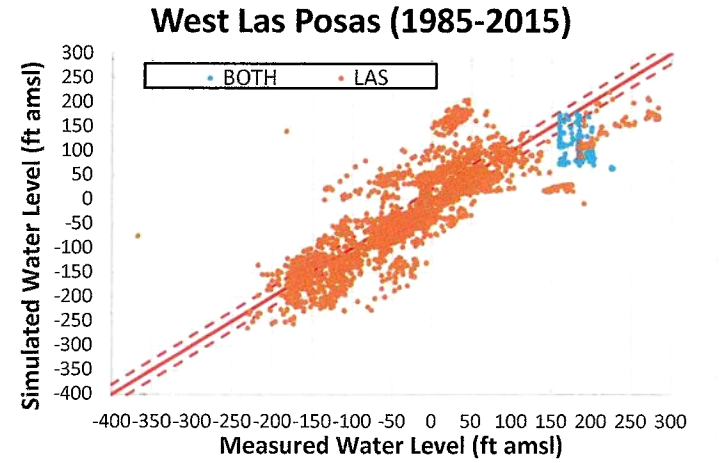
Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 : 1 (solid) line.

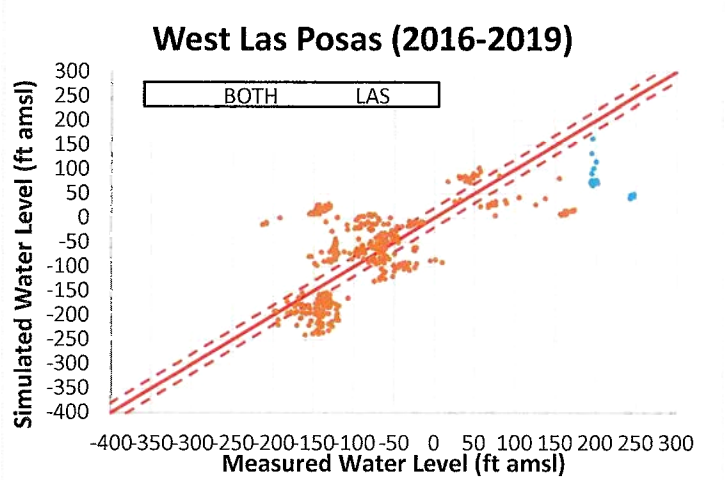
Figure 3-8a: Scatterplots of Simulated versus Measured Groundwater Elevations in the Pleasant Valley Basin



Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 · 1 (solid) line.

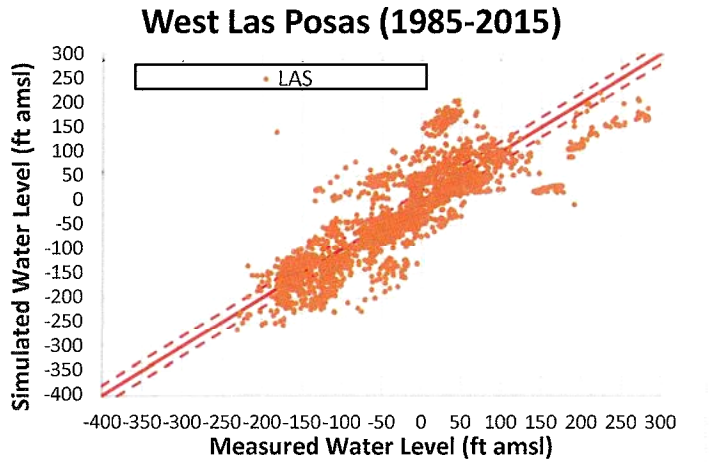
Figure 3-8b: Scatterplots of Simulated versus Measured Groundwater Elevations in the Pleasant Valley Basin

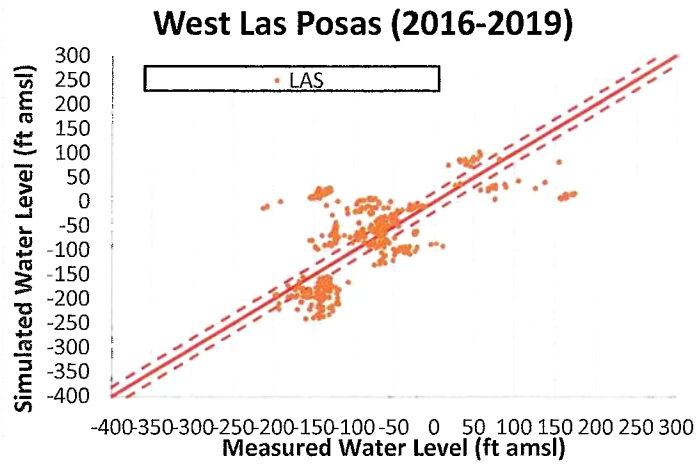




Note: Solid red line in each graph represents a 1 : 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 1 (solid) line.

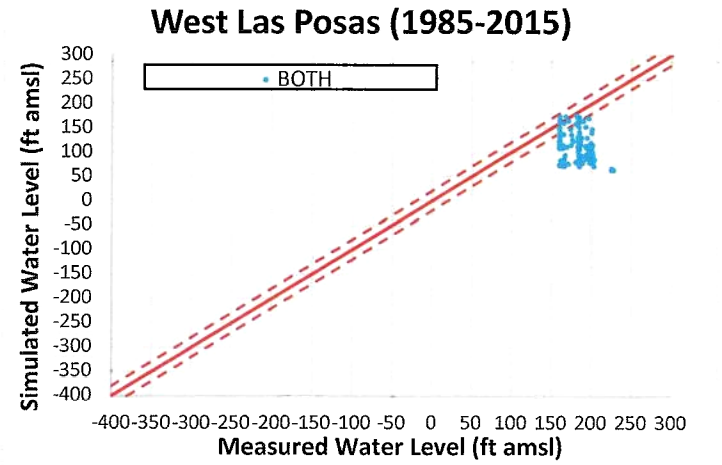
Figure 3-9a: Scatterplots of Simulated versus Measured Groundwater Elevations in the West Las Posas Valley Basin

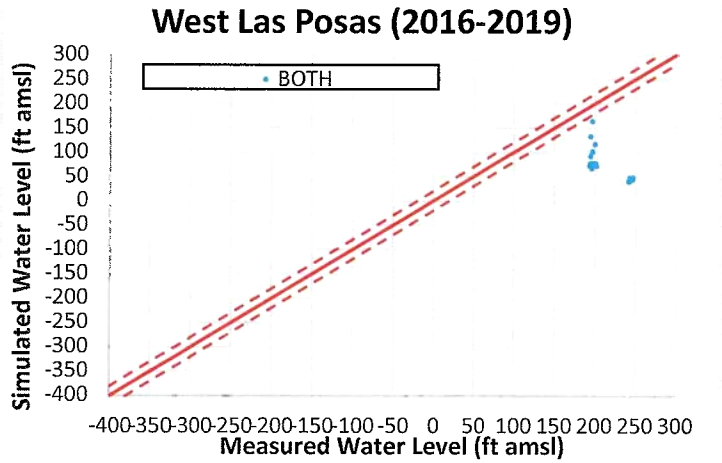




Note: Solid red line in each graph represents a 1 · 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 . 1 (solid) line

Figure 3-9b: Scatterplots of Simulated versus Measured Groundwater Elevations in the West Las Posas Valley Basin





Note: Solid red line in each graph represents a 1 1 relationship between measured and simulated groundwater elevations. Dashed red lines are offset 20 feet above and below the 1 1 (solid) line.

Figure 3-9c: Scatterplots of Simulated versus Measured Groundwater Elevations in the West Las Posas Valley Basin

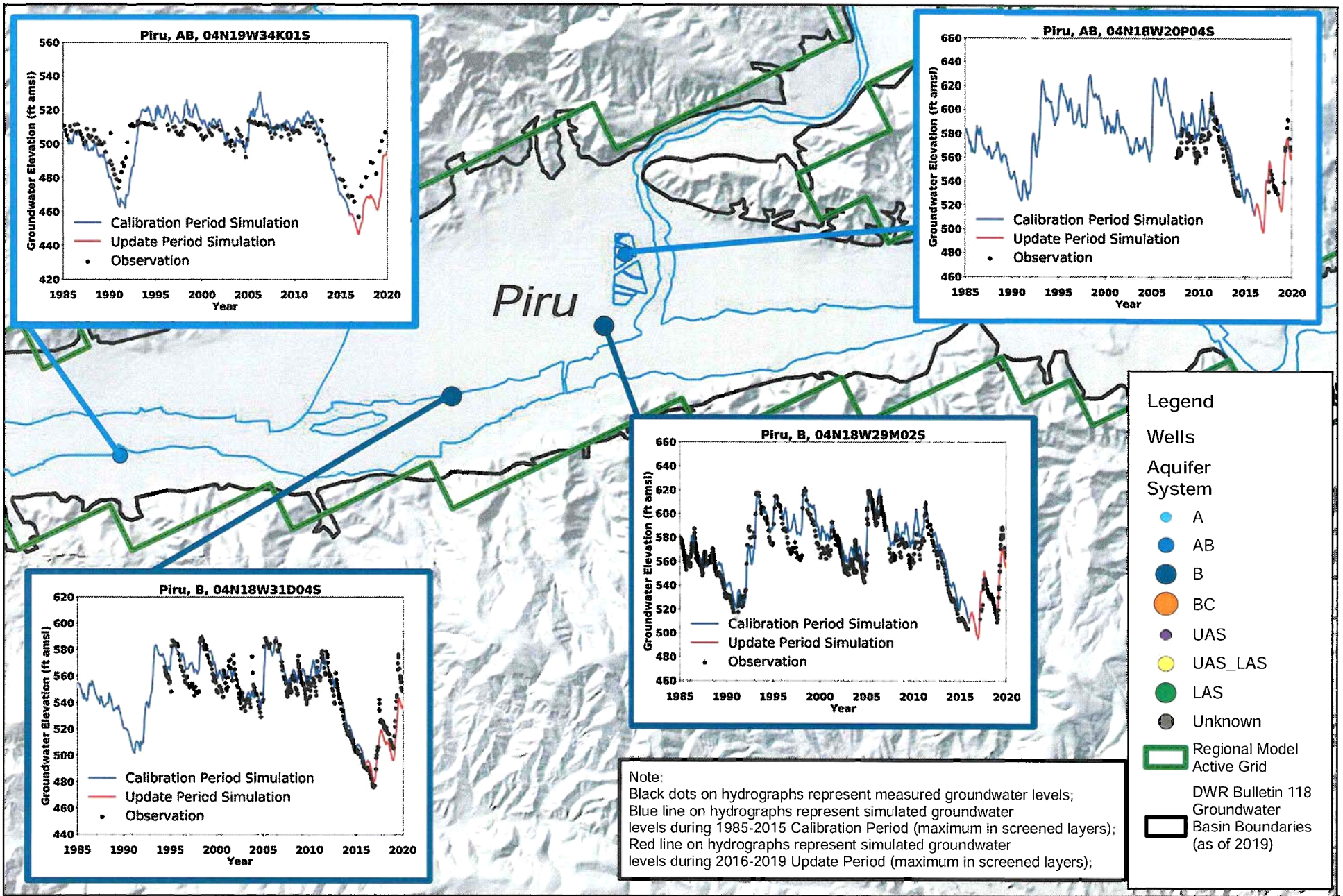


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Figure 3-10.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in Piru Basin

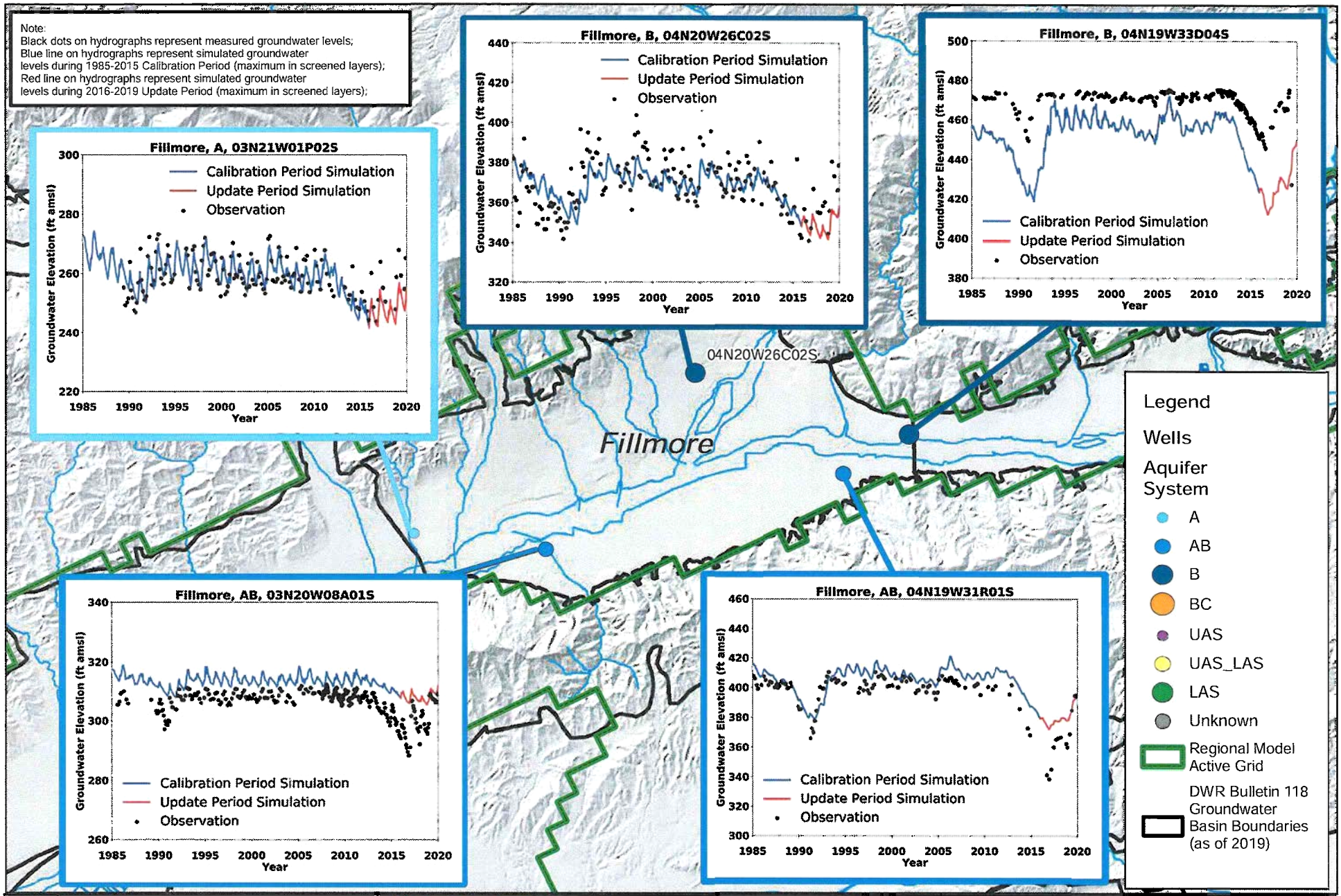

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Figure 3-11.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in Fillmore Basin

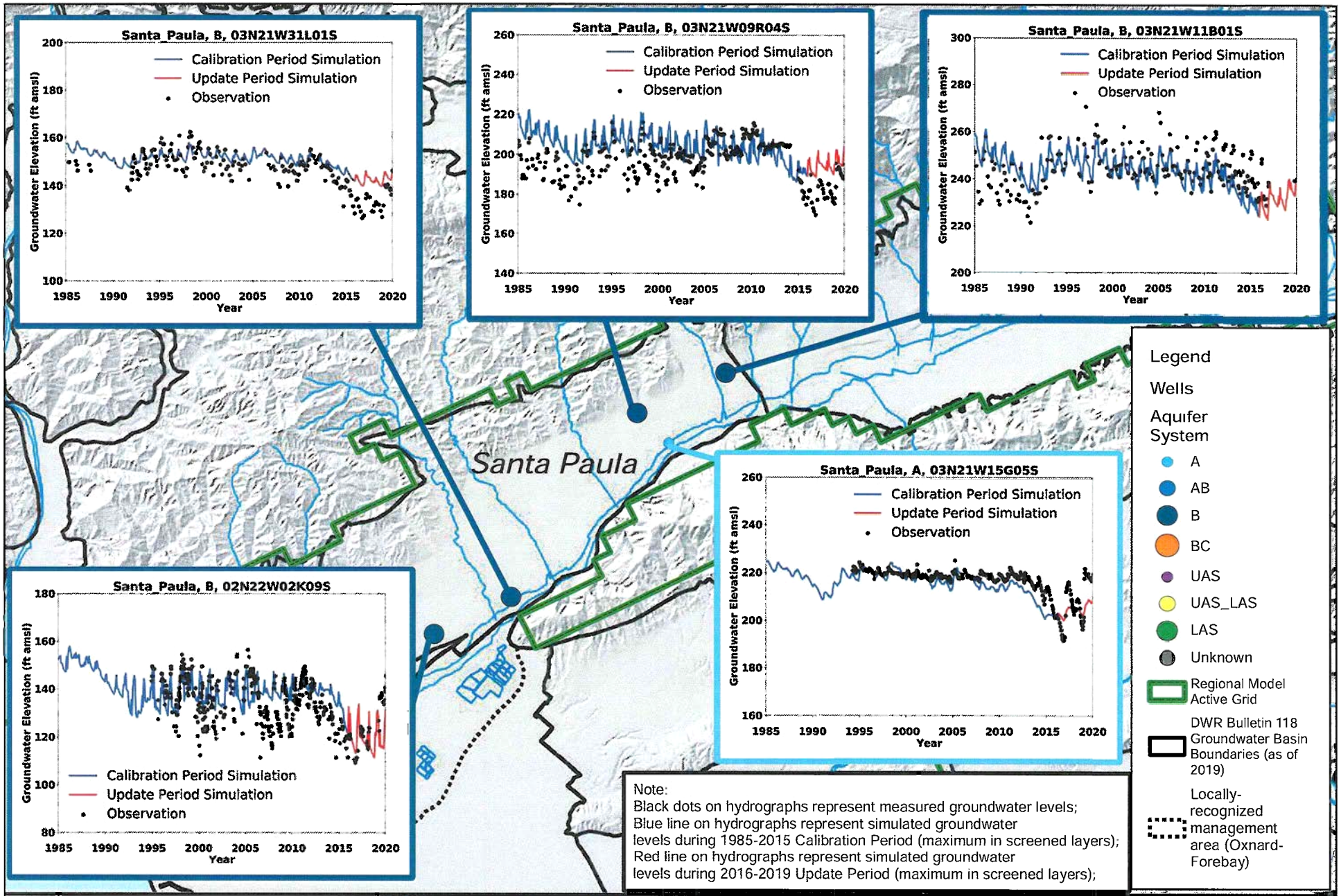

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Figure 3-12.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in Santa Paula Basin

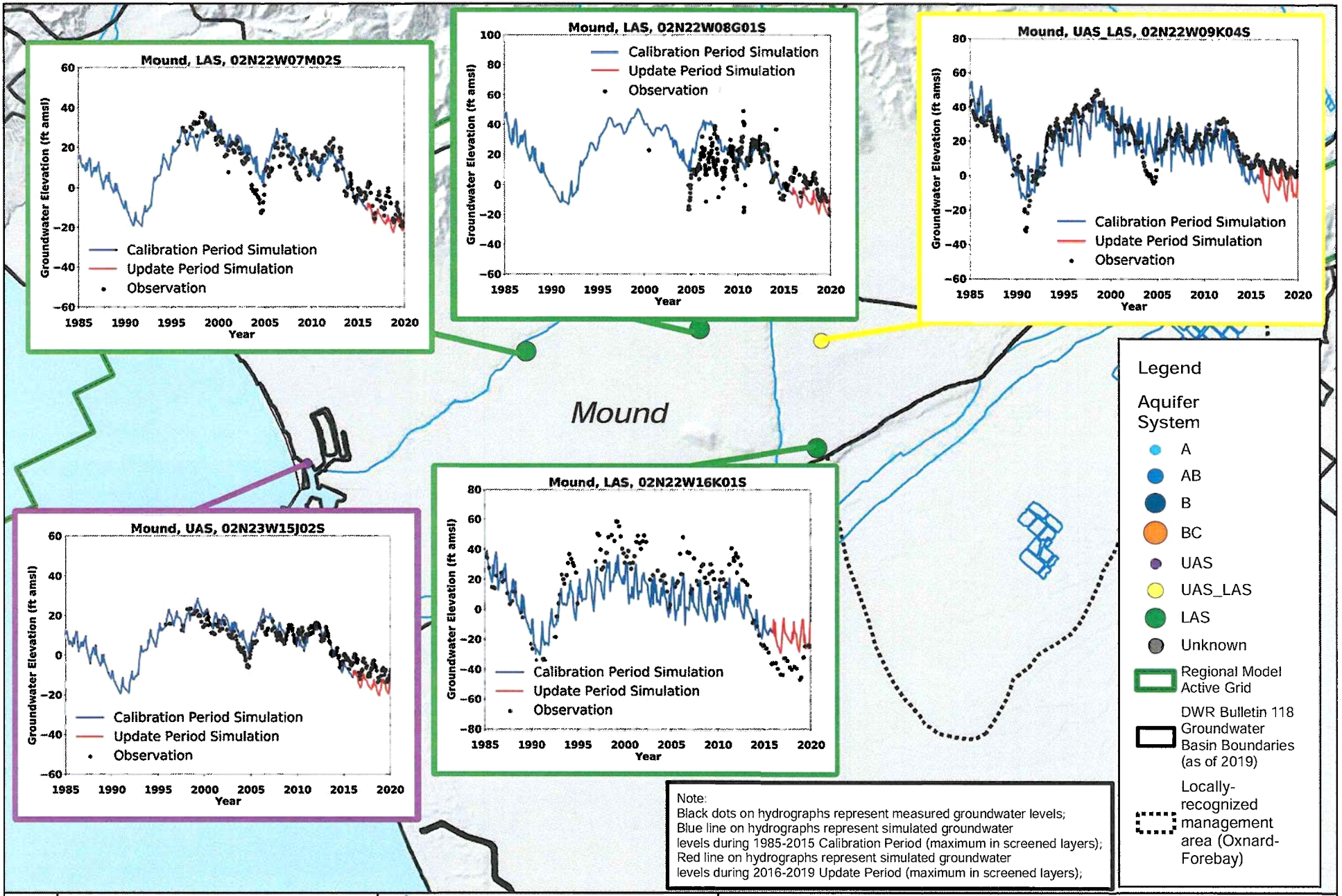

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Figure 3-13.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in Mound Basin

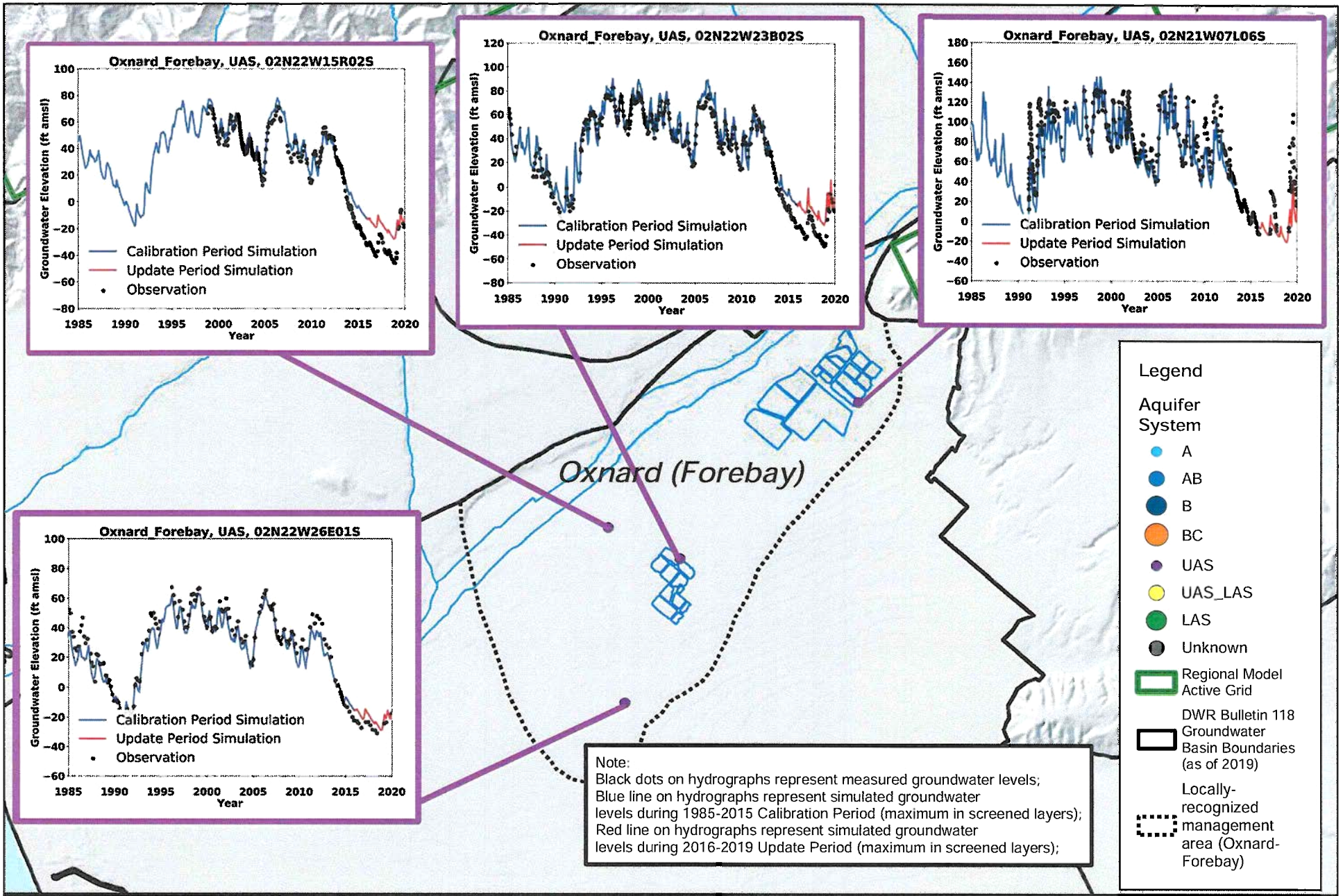

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Figure 3-14.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in Oxnard (Forebay) Basin Upper Aquifer System

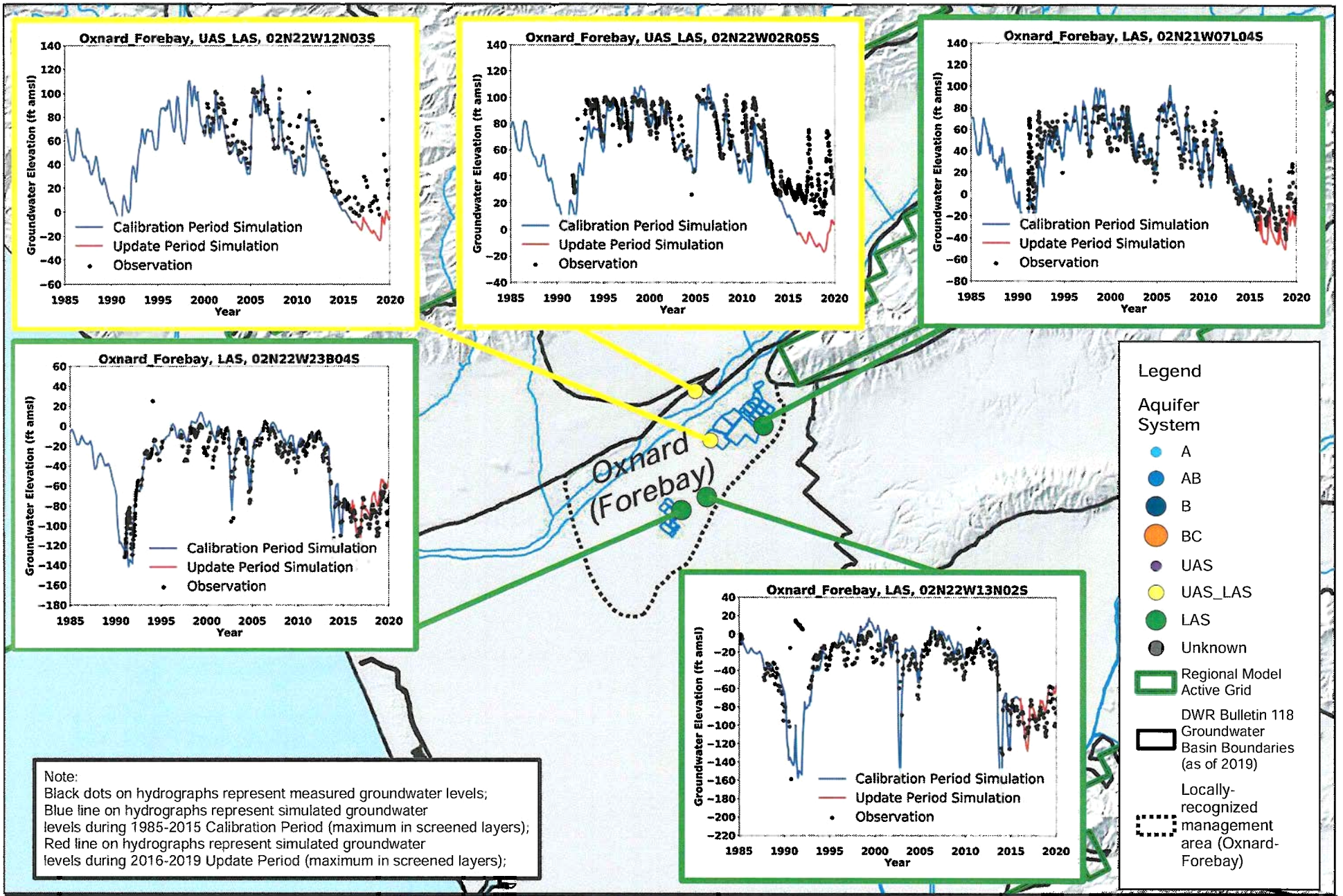

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Figure 3-15.
Selected Hydrographs of Simulated Groundwater Elevations in Oxnard (Forebay) Basin Upper and Lower Aquifer Systems

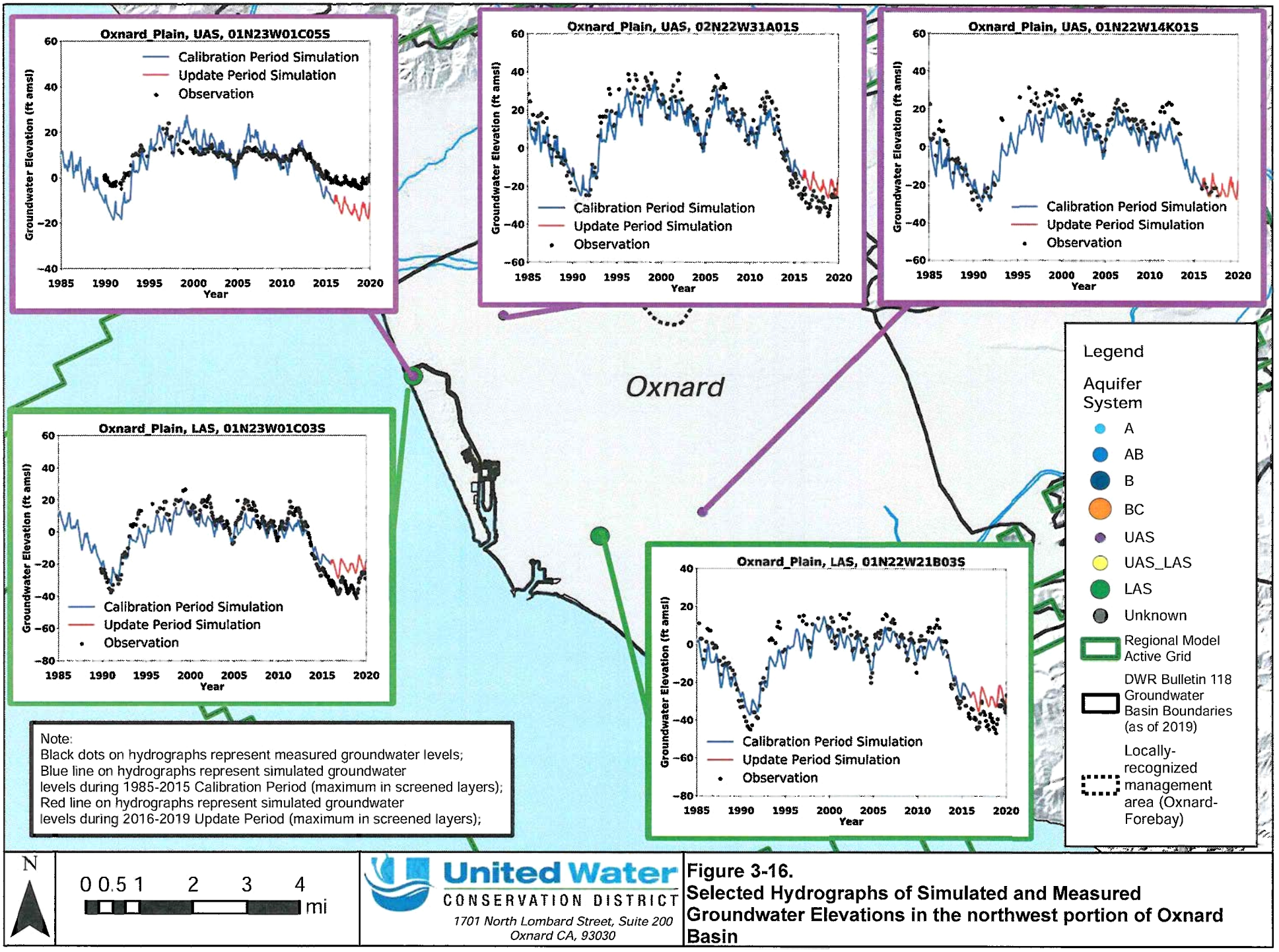

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Figure 3-16.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in the northwest portion of Oxnard Basin

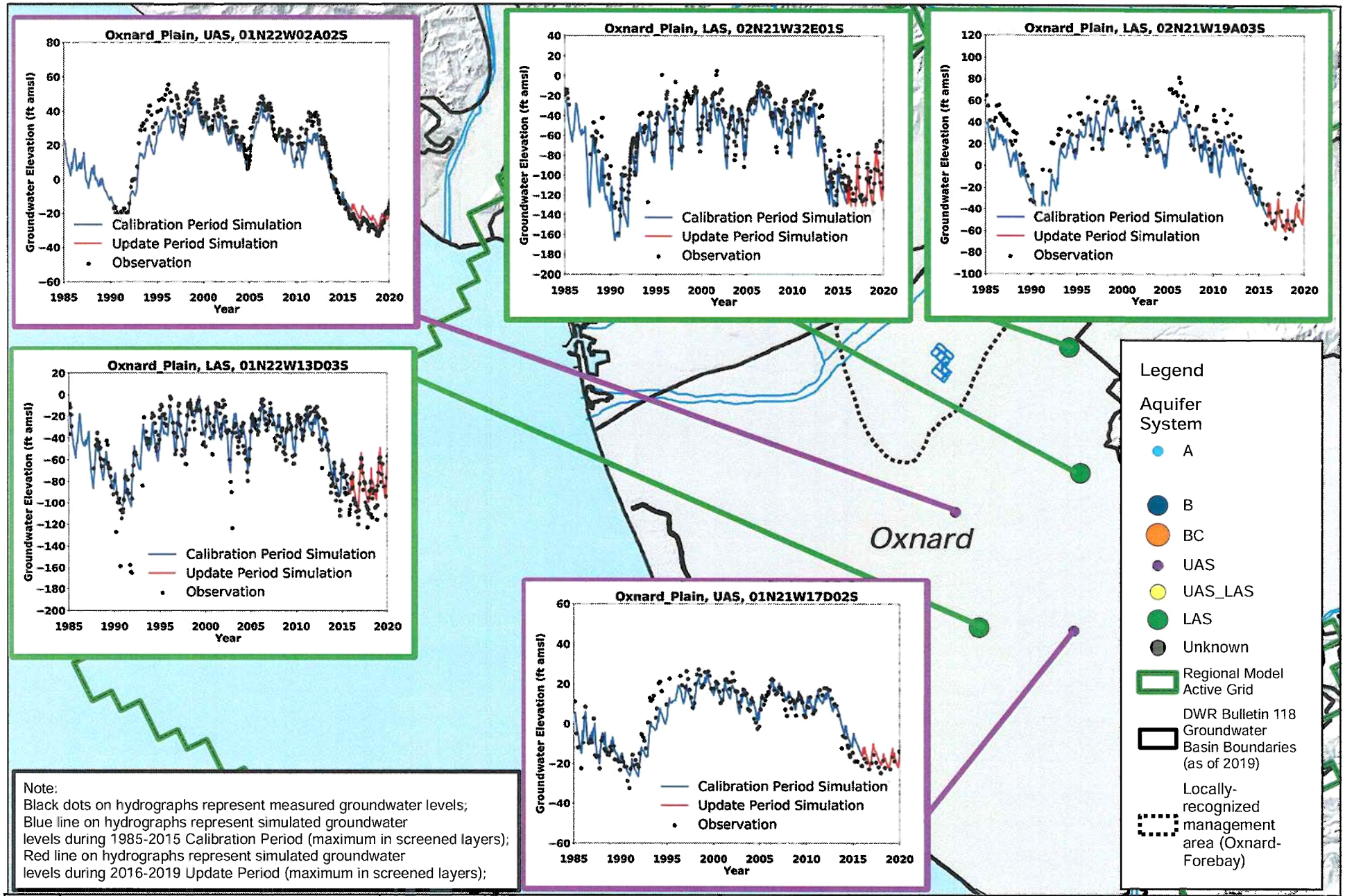

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Figure 3-17.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in the northeast portion of Oxnard Basin

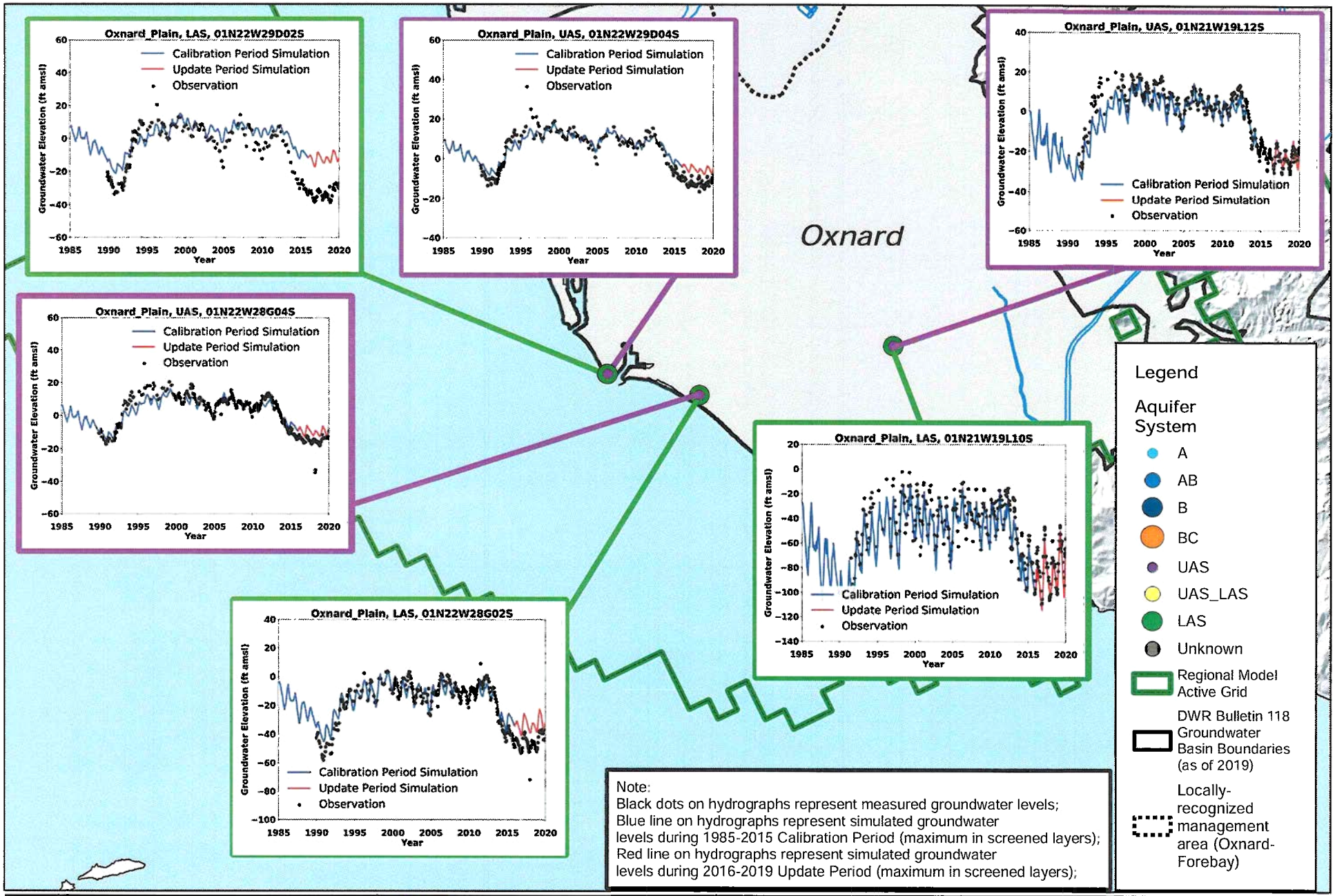

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Figure 3-18.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in the central portion of Oxnard Basin

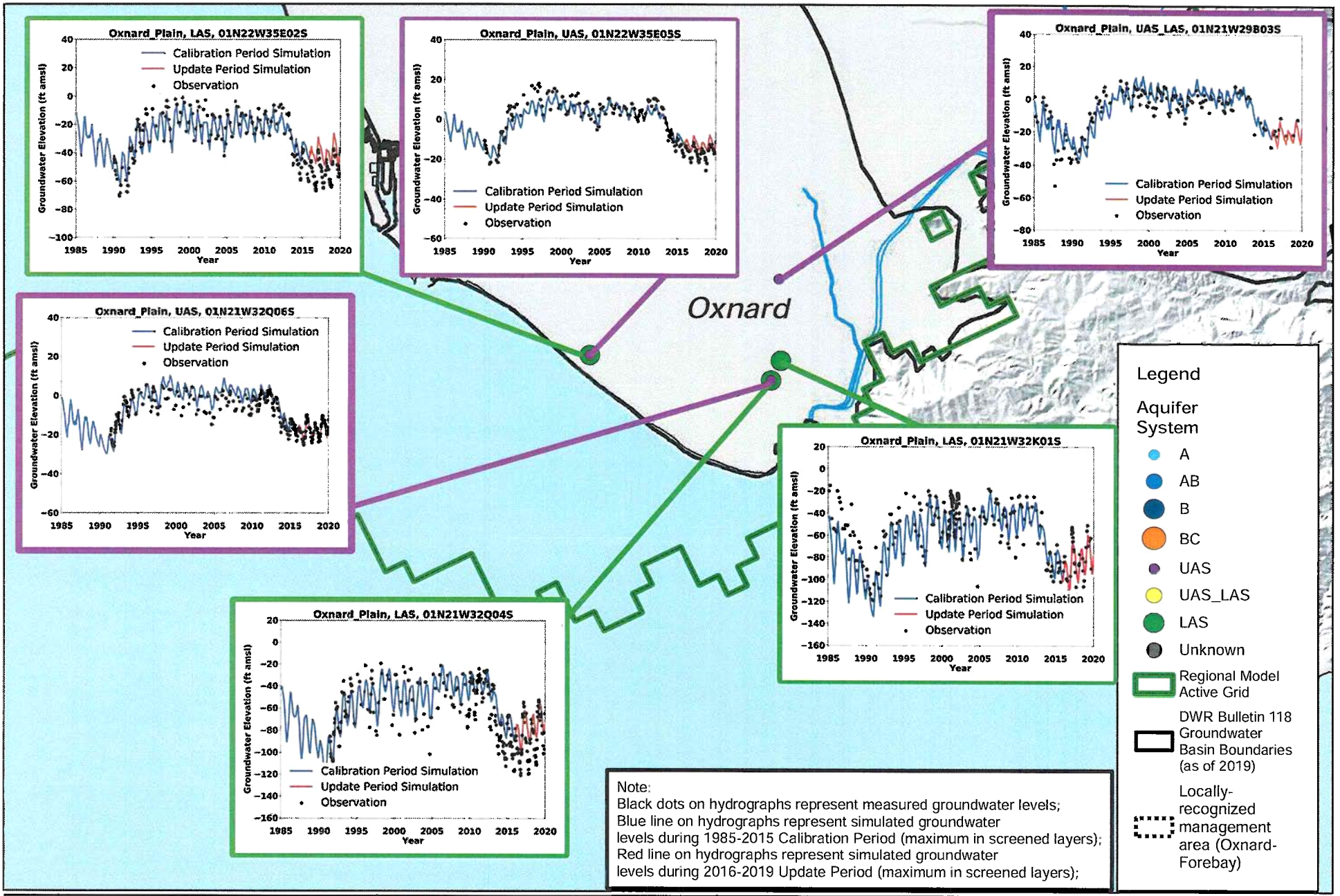

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Figure 3-19.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in the in the southern portion of Oxnard Basin

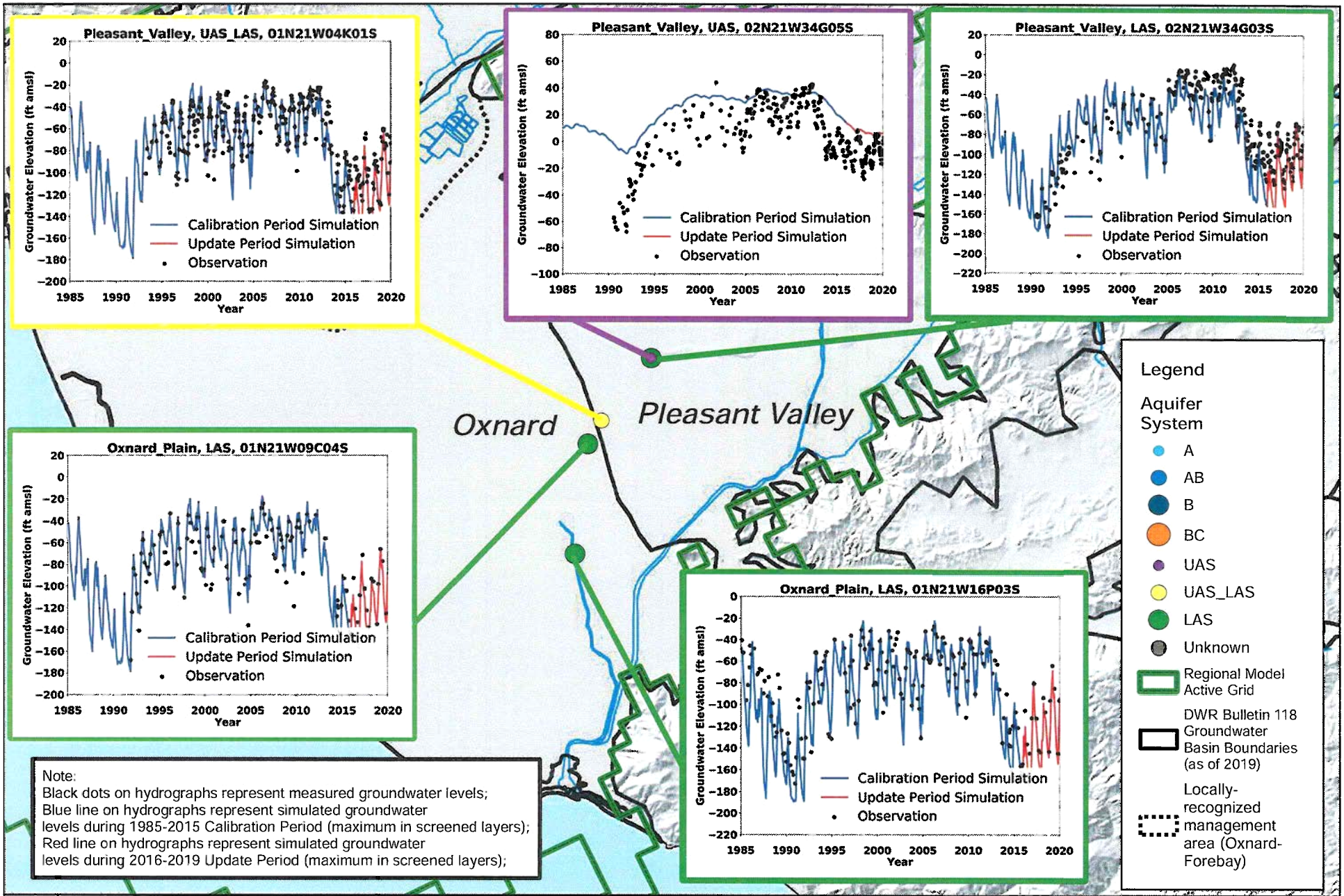

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Figure 3-20.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in the western portion of Pleasant Valley Basin and eastern portion of Oxnard Basin

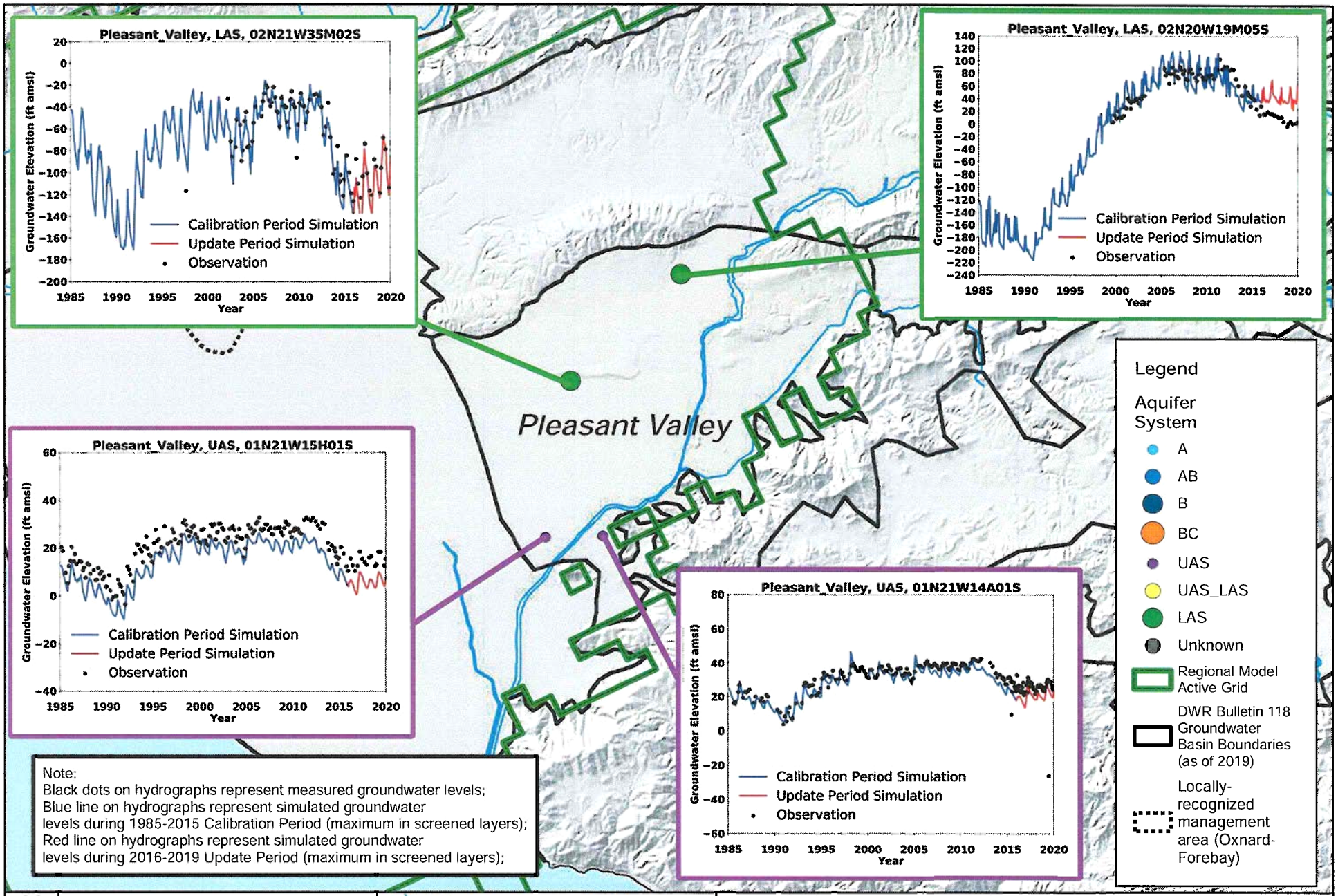

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Figure 3-21.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in Pleasant Valley Basin

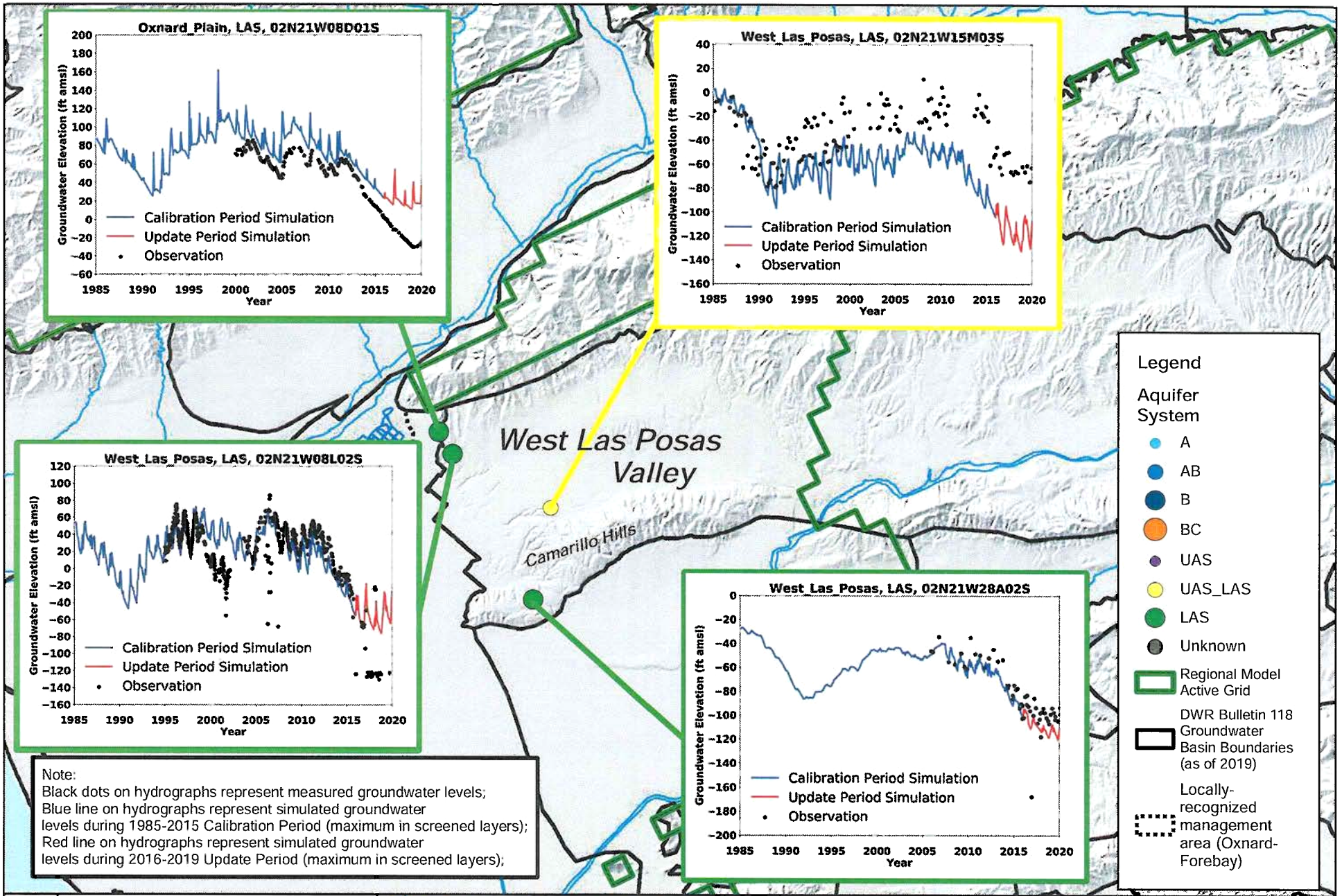

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Figure 3-22.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in the western portion of West Las Posas Valley Basin, Camarillo Hills, and northeast Oxnard Basin

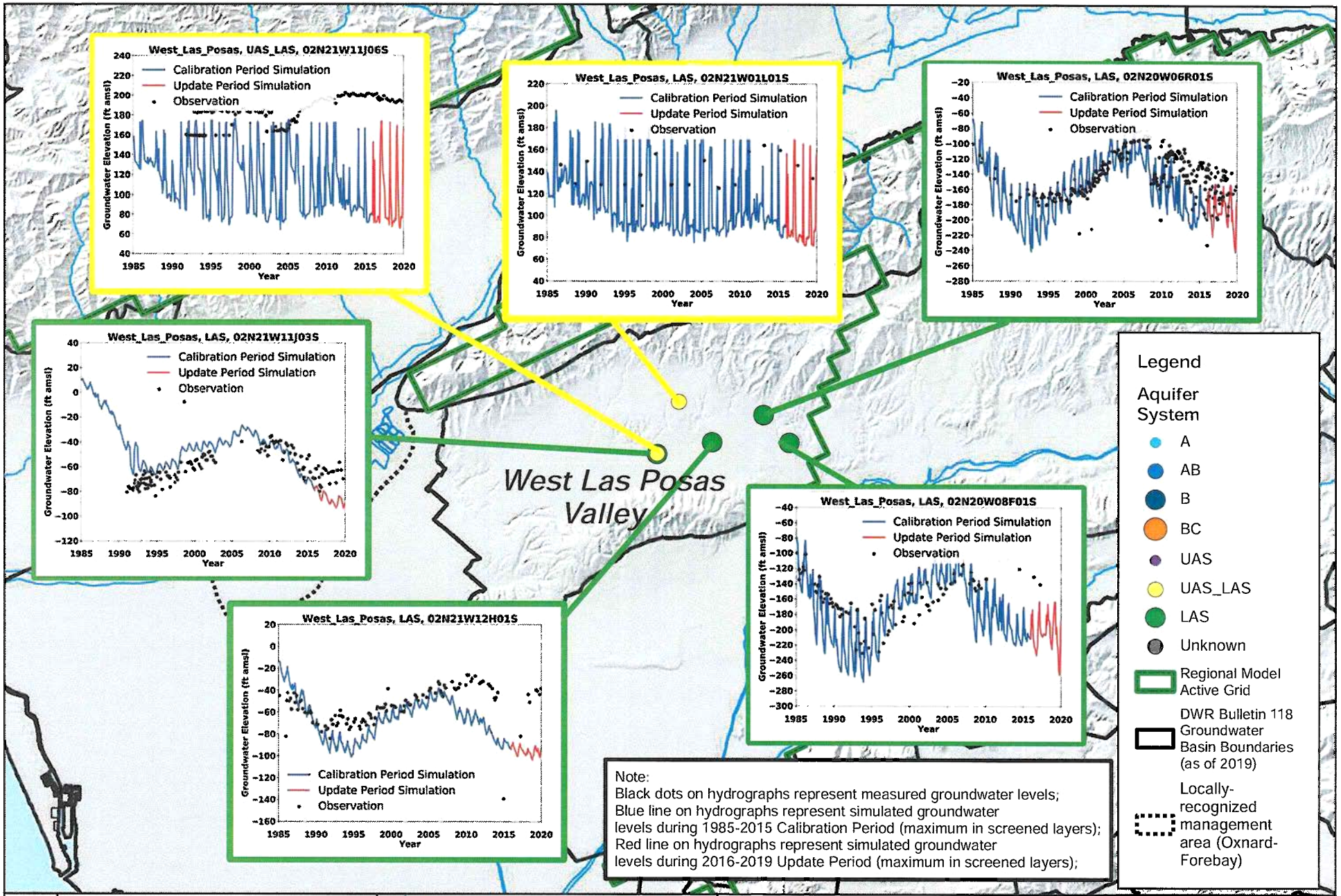

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Figure 3-23.
Selected Hydrographs of Simulated and Measured Groundwater Elevations in the eastern portion of West Las Posas Valley Basin

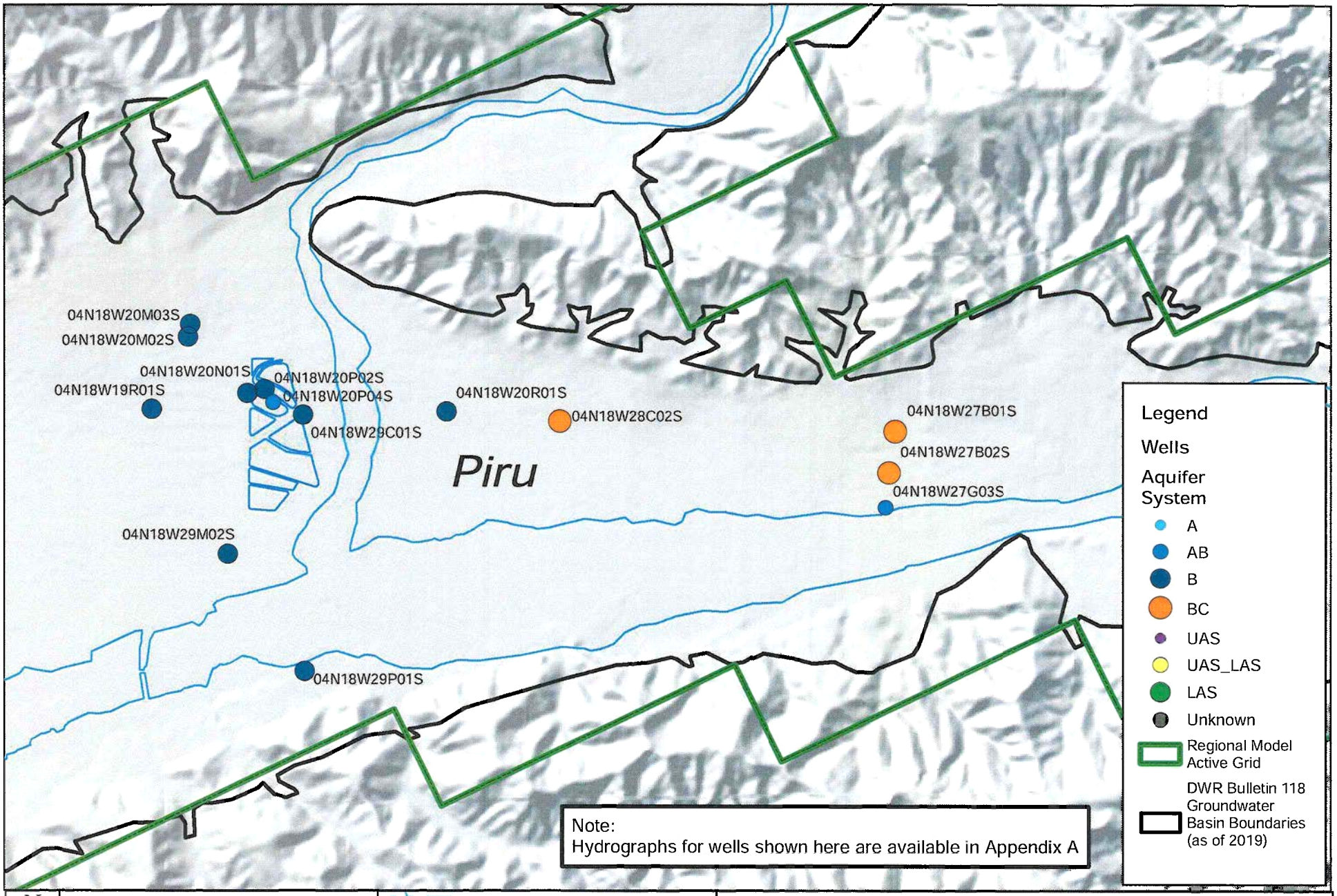

Figure 3-24.
Location of Wells with Hydrographs in Appendix A for eastern Piru Basin

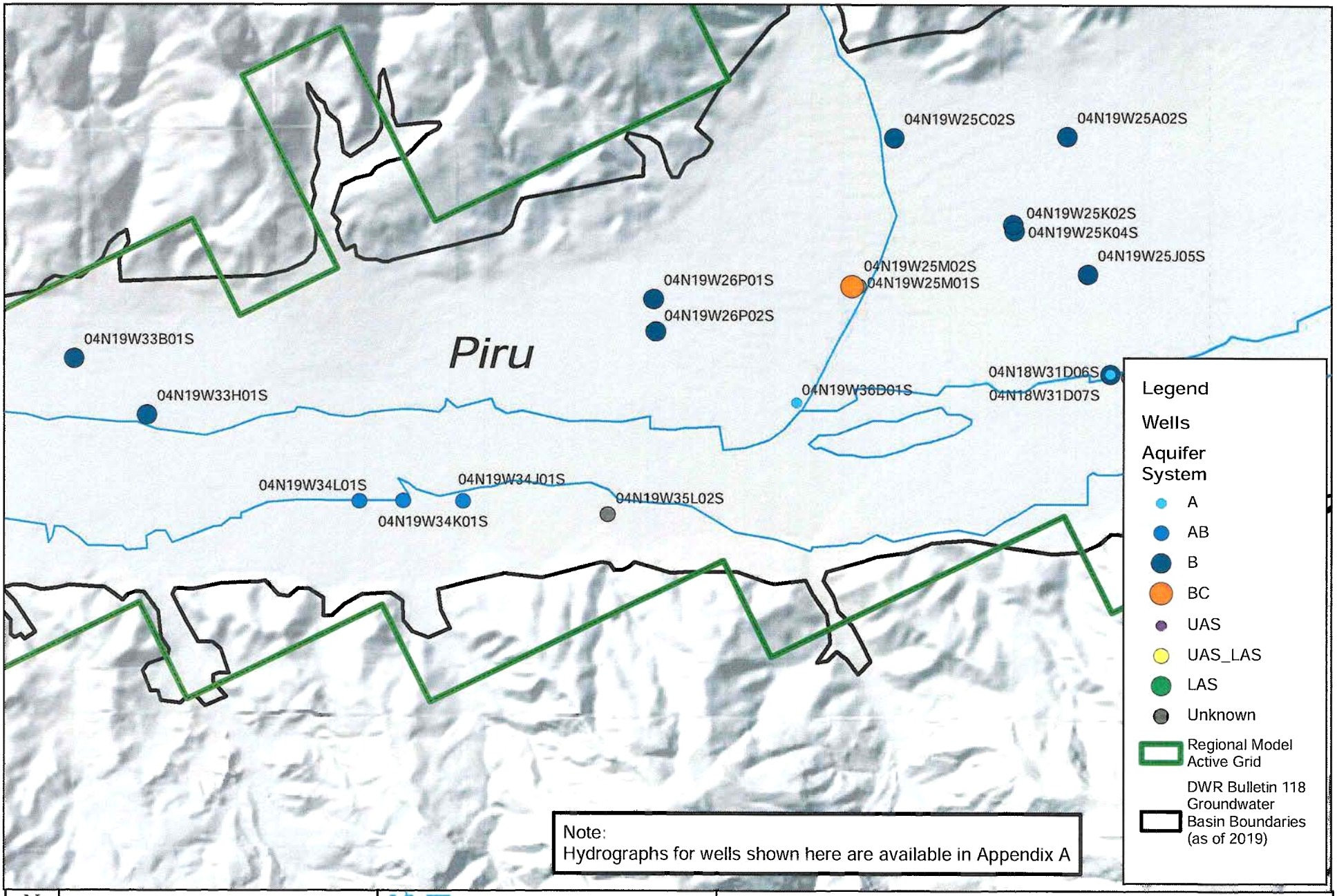

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Figure 3-25.
Location of Wells with Hydrographs in Appendix A for western Piru Basin

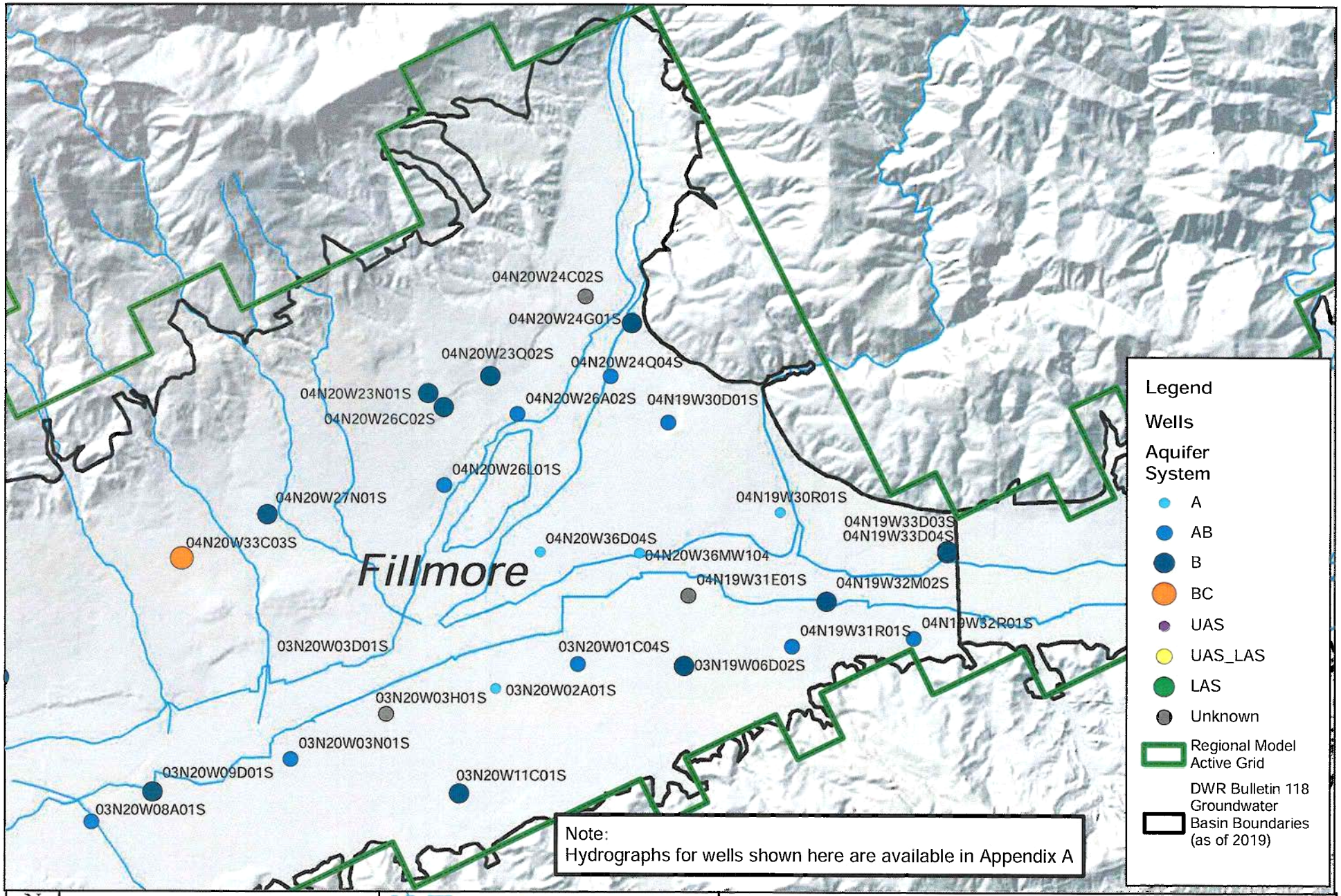

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Figure 3-26.
Location of Wells with Hydrographs in Appendix A for eastern Fillmore Basin

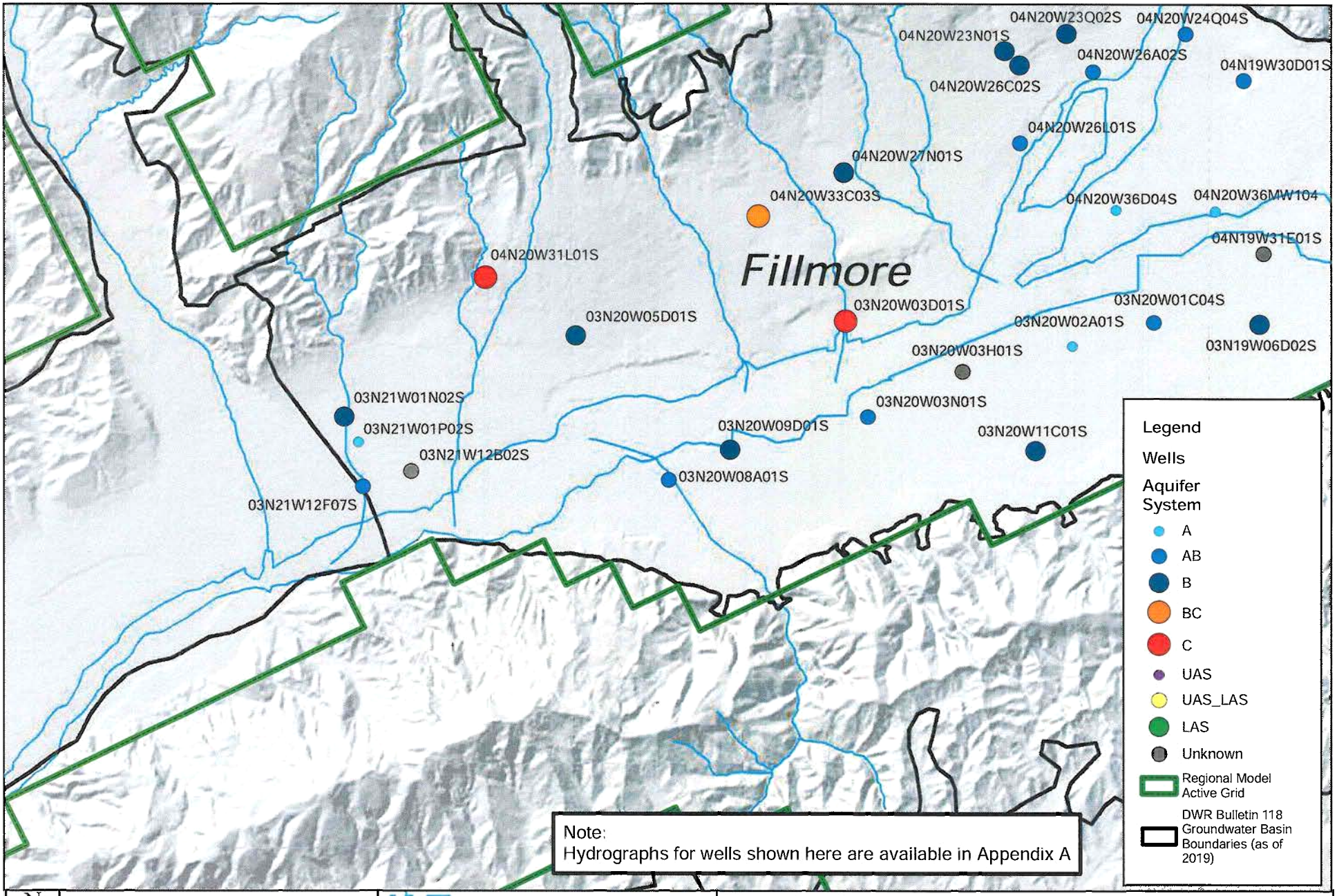

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Figure 3-27.
Location of Wells with Hydrographs in Appendix A for western Fillmore Basin

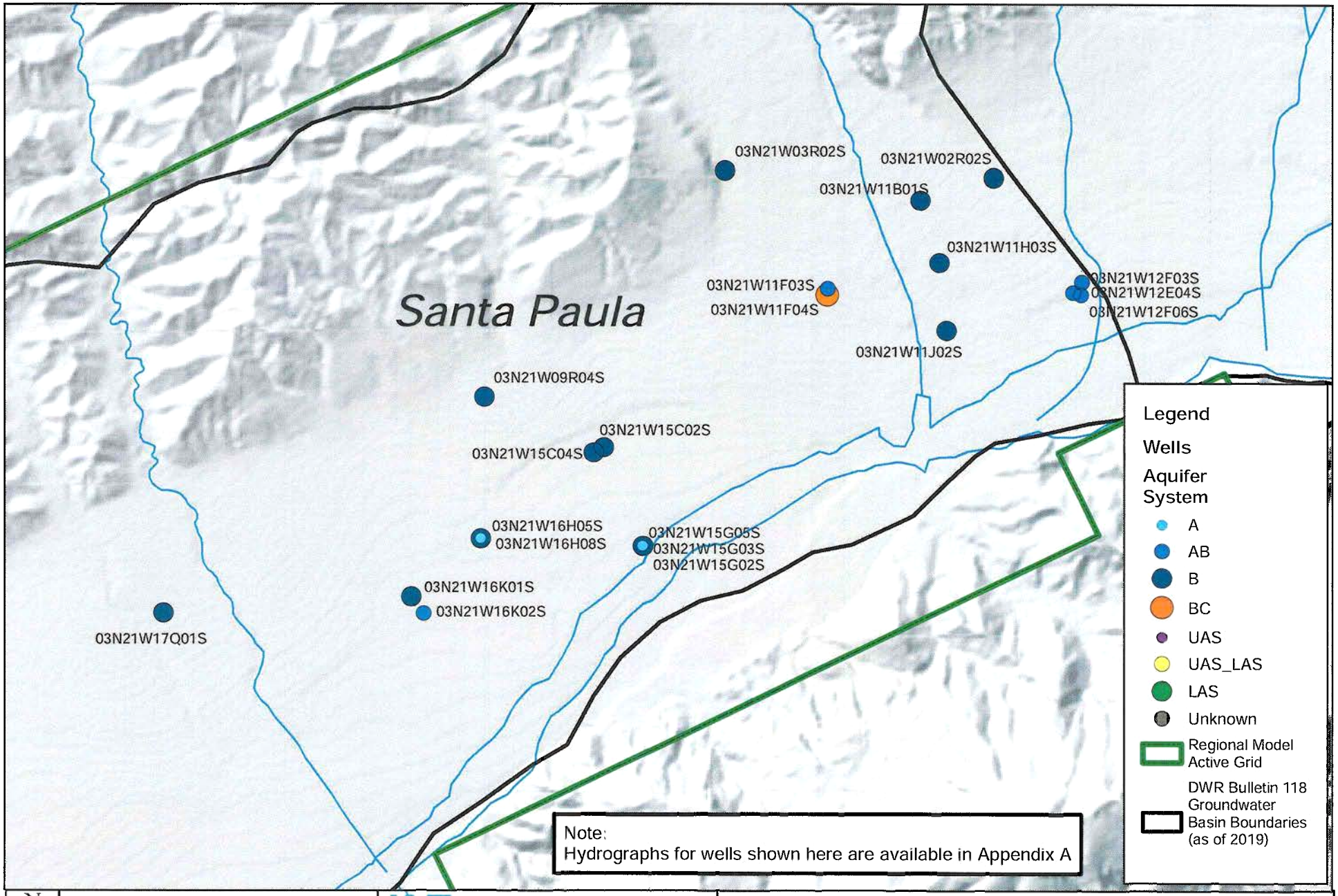

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Figure 3-28.
Location of Wells with Hydrographs in Appendix A for eastern Santa Paula Basin

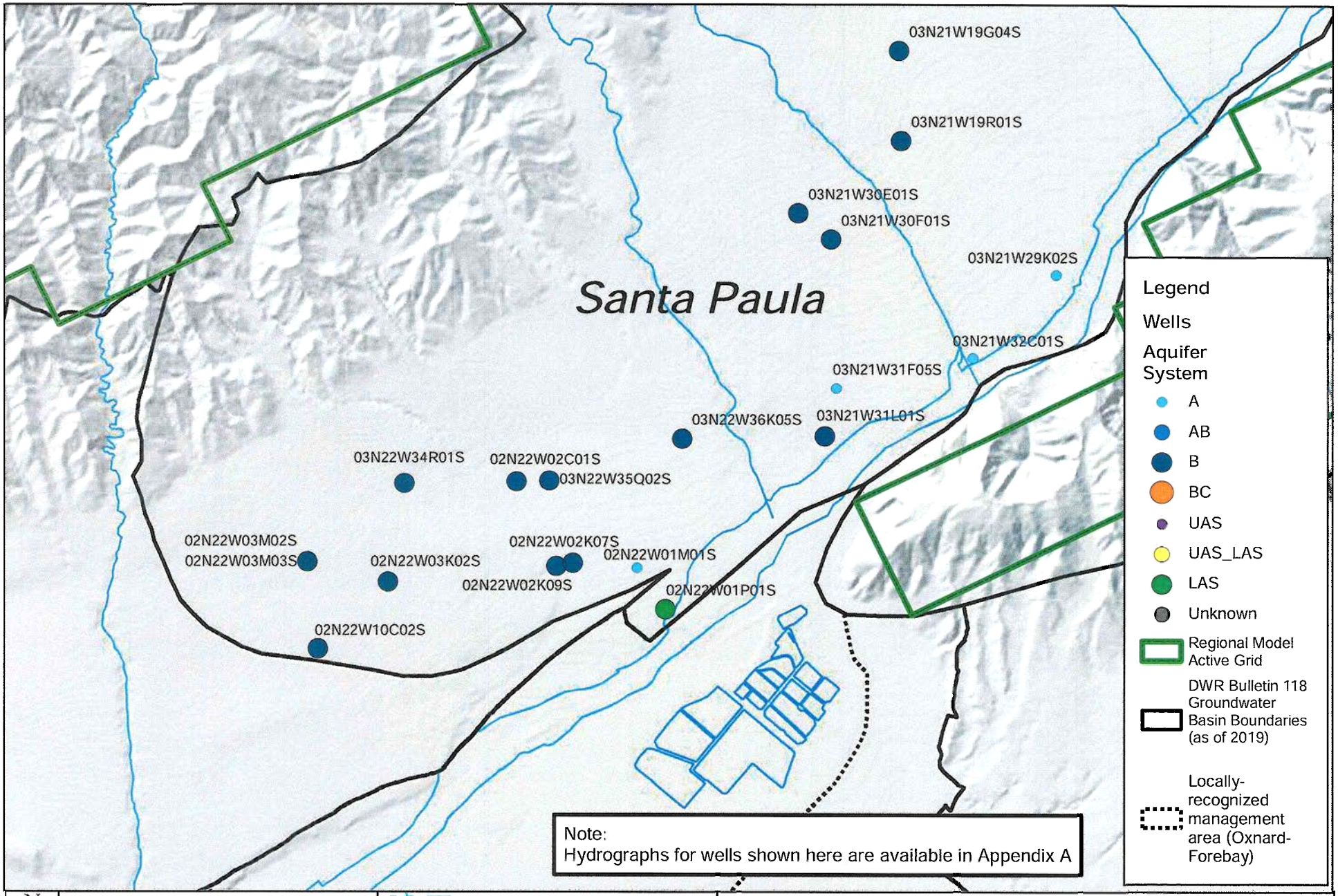

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Figure 3-29.
Location of Wells with Hydrographs in Appendix A for western Santa Paula Basin

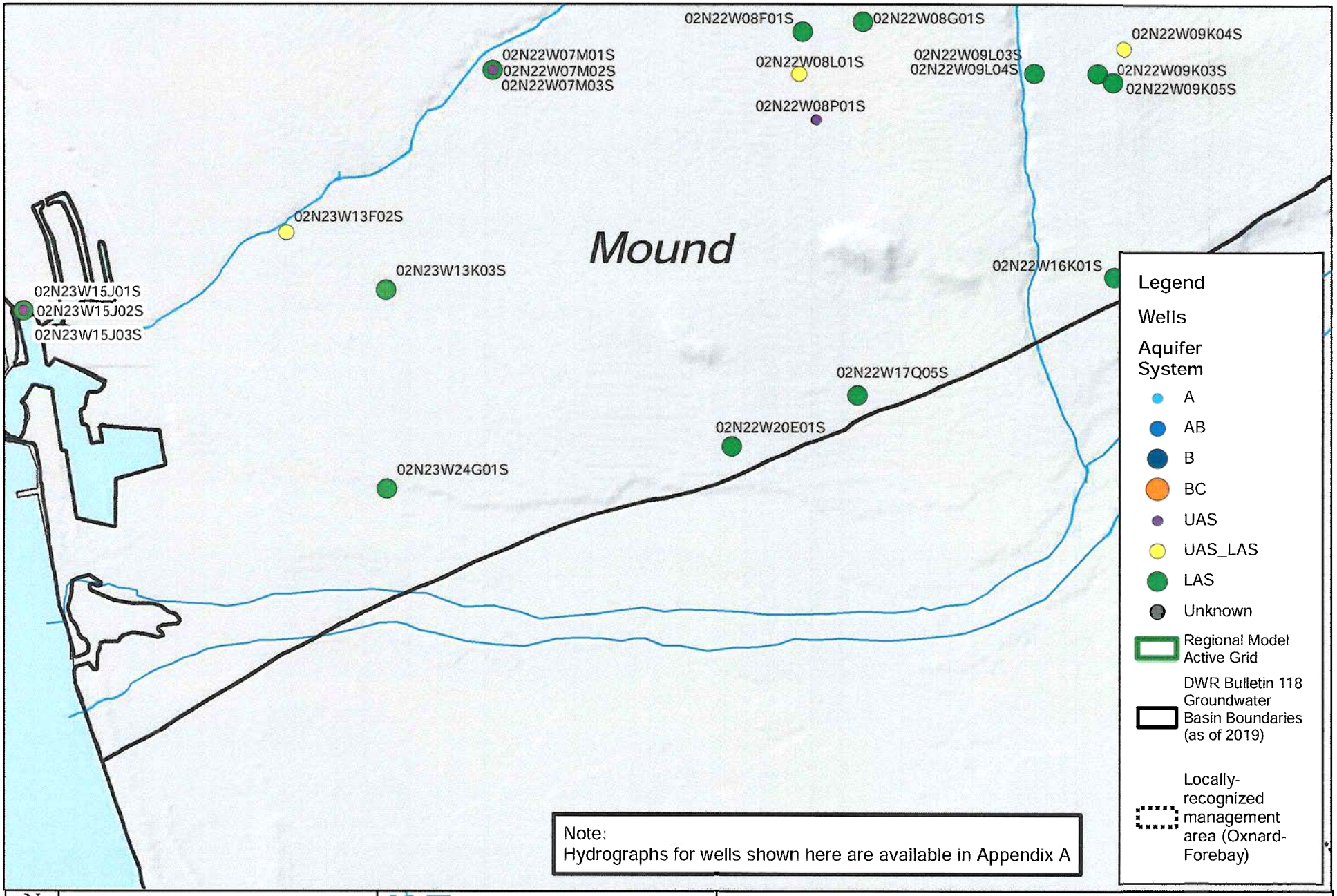

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Figure 3-30.
Location of Wells with Hydrographs in Appendix A for Mound Basin

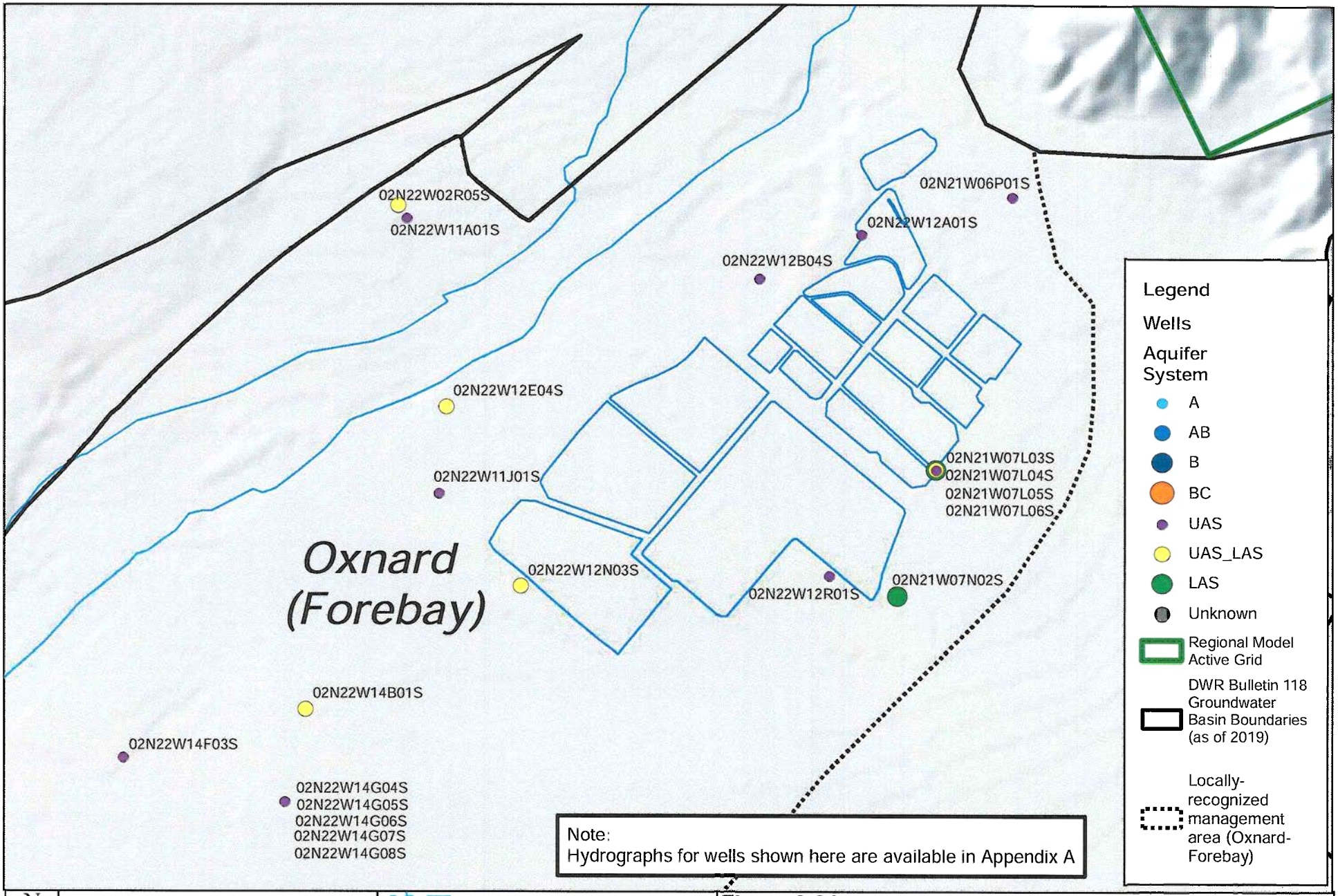

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Figure 3-31.
Location of Wells with Hydrographs in Appendix A for eastern Oxnard (Forebay) Basin

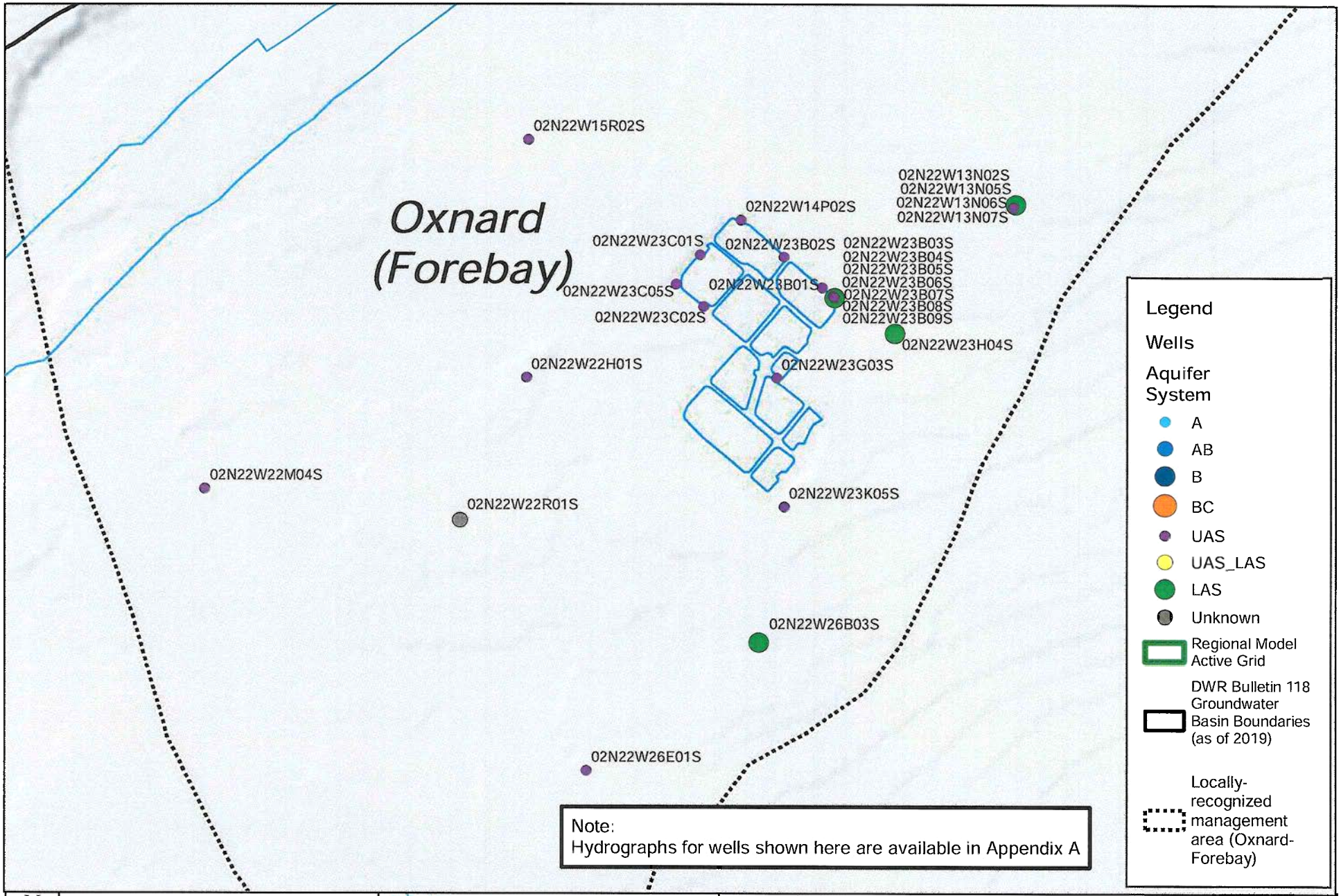

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Figure 3-32.
Location of Wells with Hydrographs in Appendix A for western Oxnard (Forebay) Basin

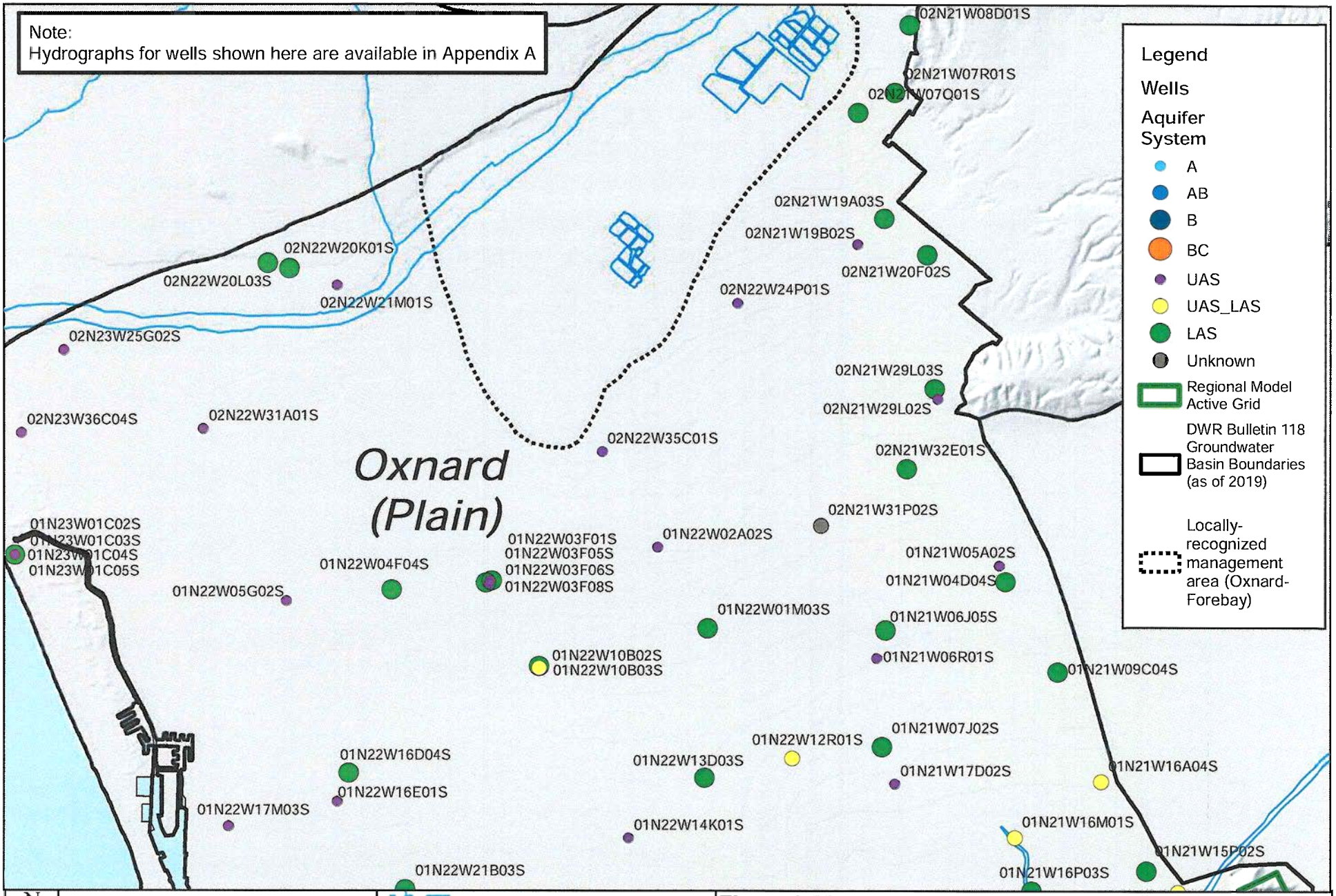

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Figure 3-33.
Location of Wells with Hydrographs in Appendix A for northern Oxnard (Plain) Basin

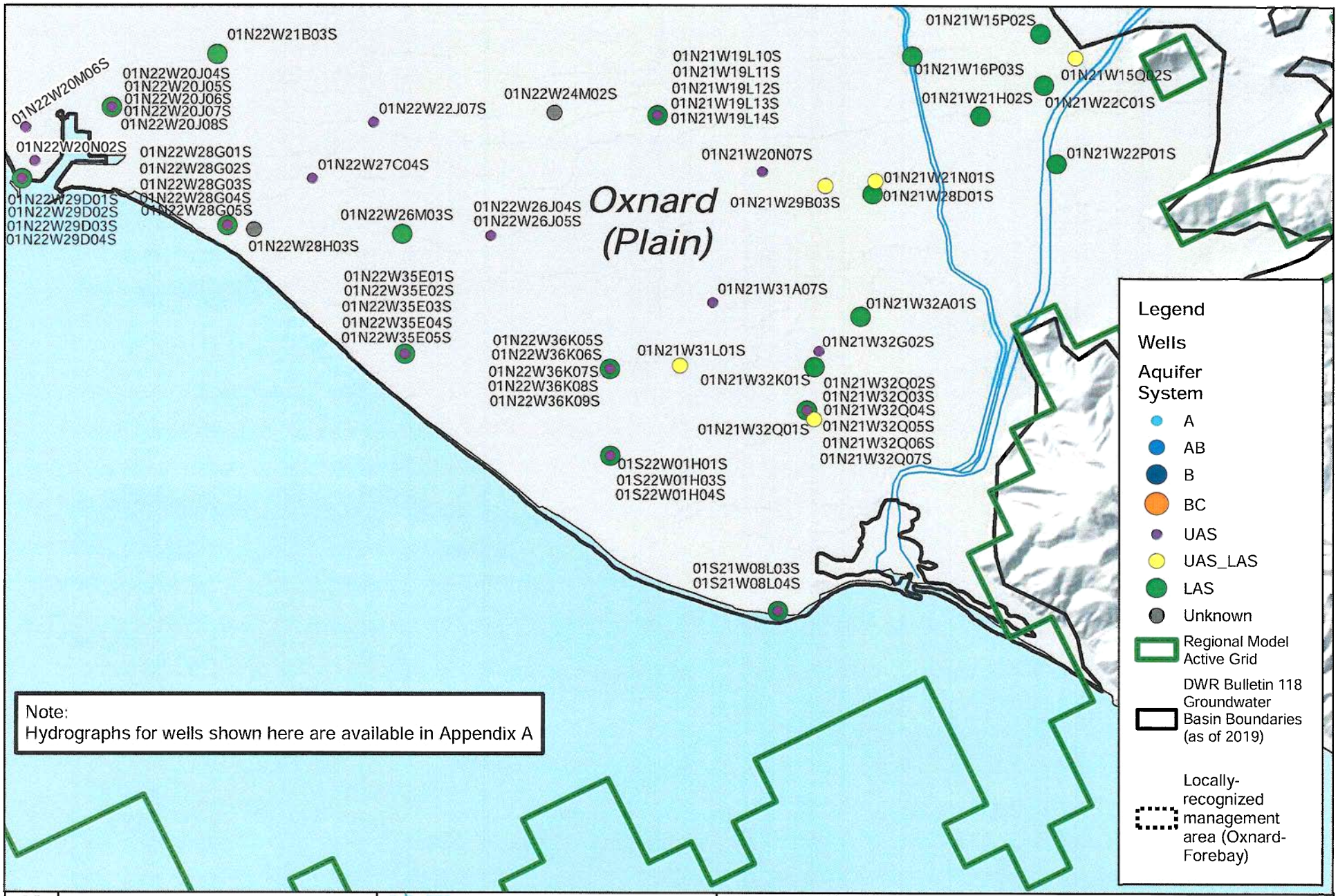

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Figure 3-34.
Location of Wells with Hydrographs in Appendix A for southern Oxnard (Plain) Basin

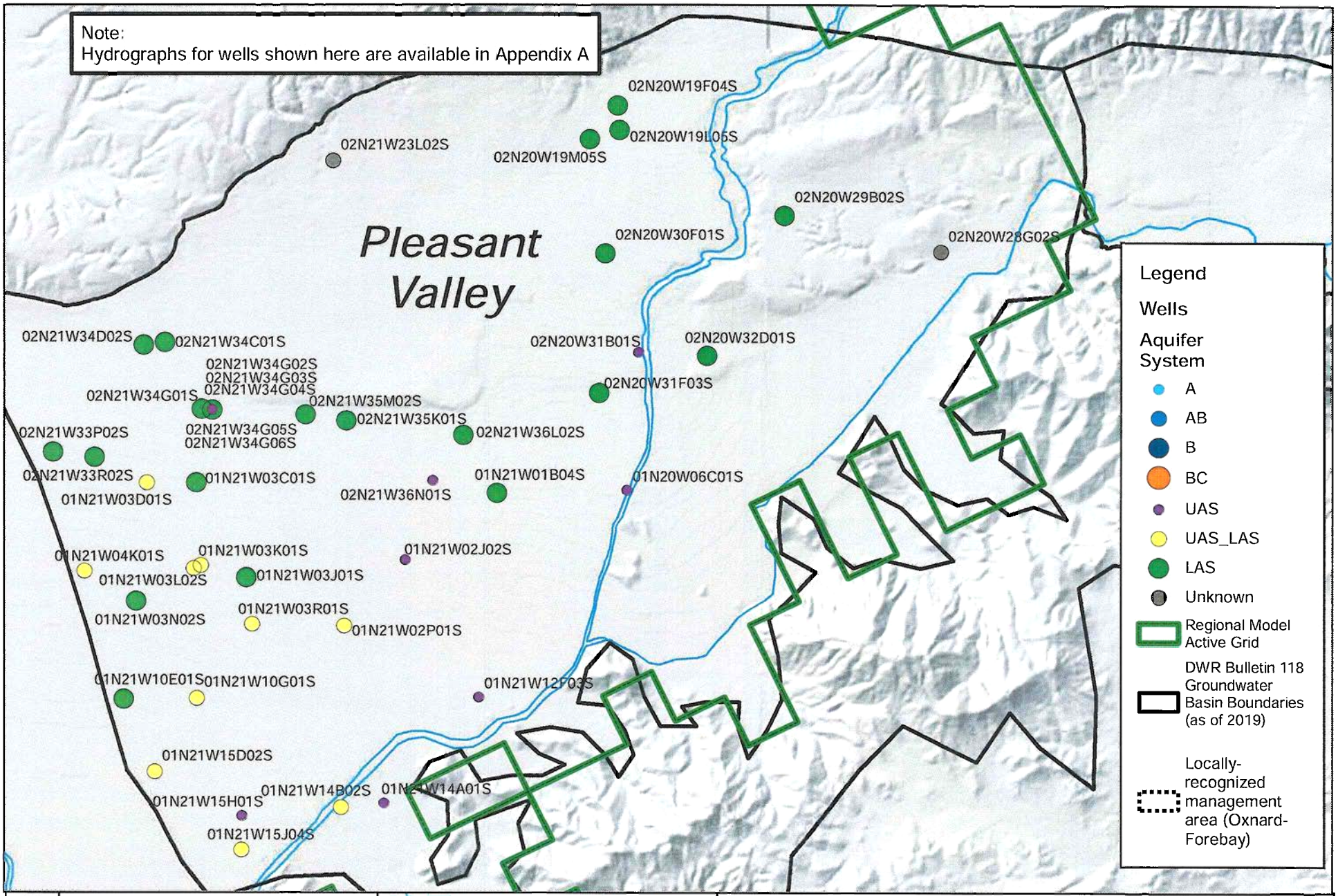

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Figure 3-35.
Location of Wells with Hydrographs in Appendix A for Pleasant Valley Basin

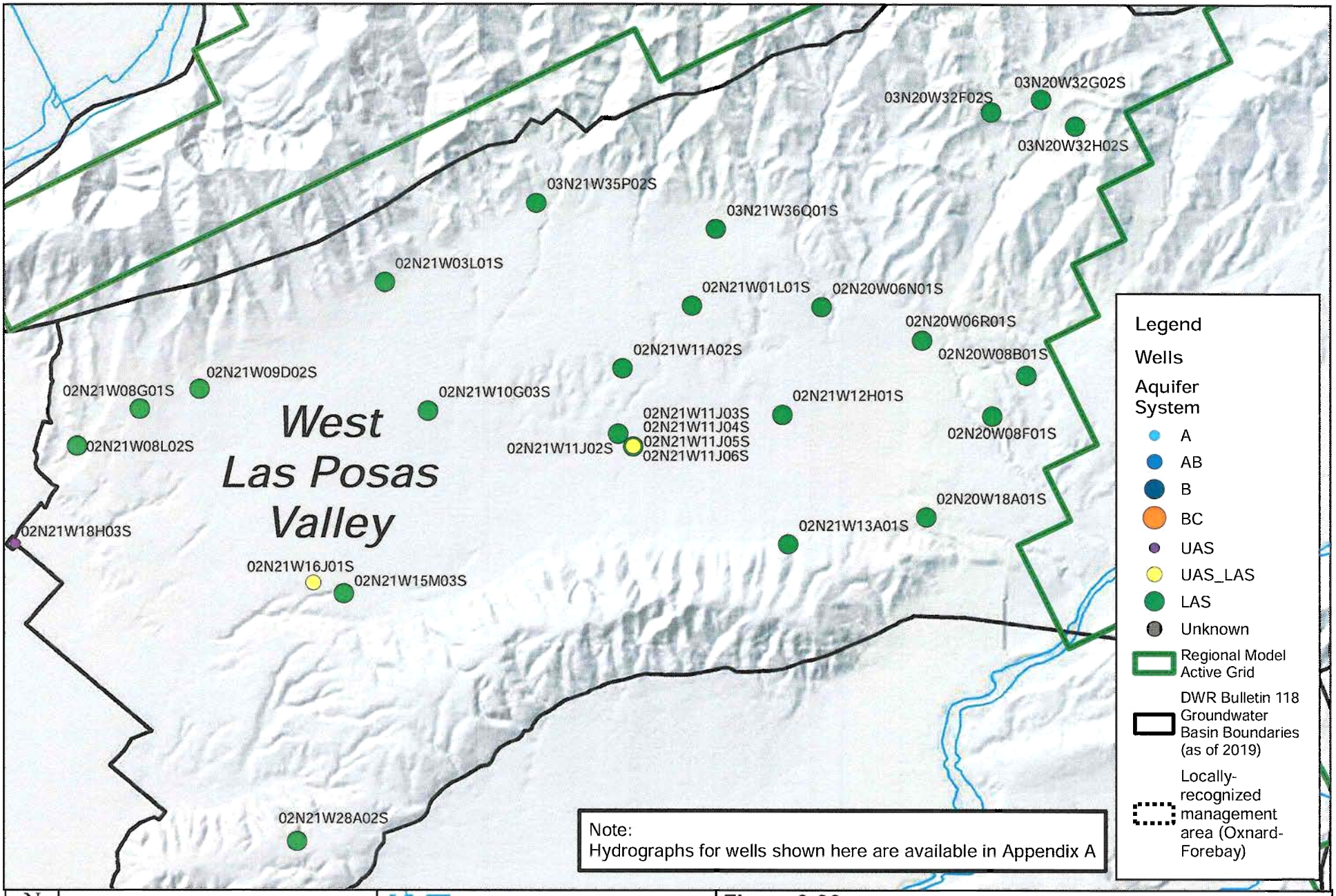

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Figure 3-36.
Location of Wells with Hydrographs in Appendix A for West Las Posas Valley Basin

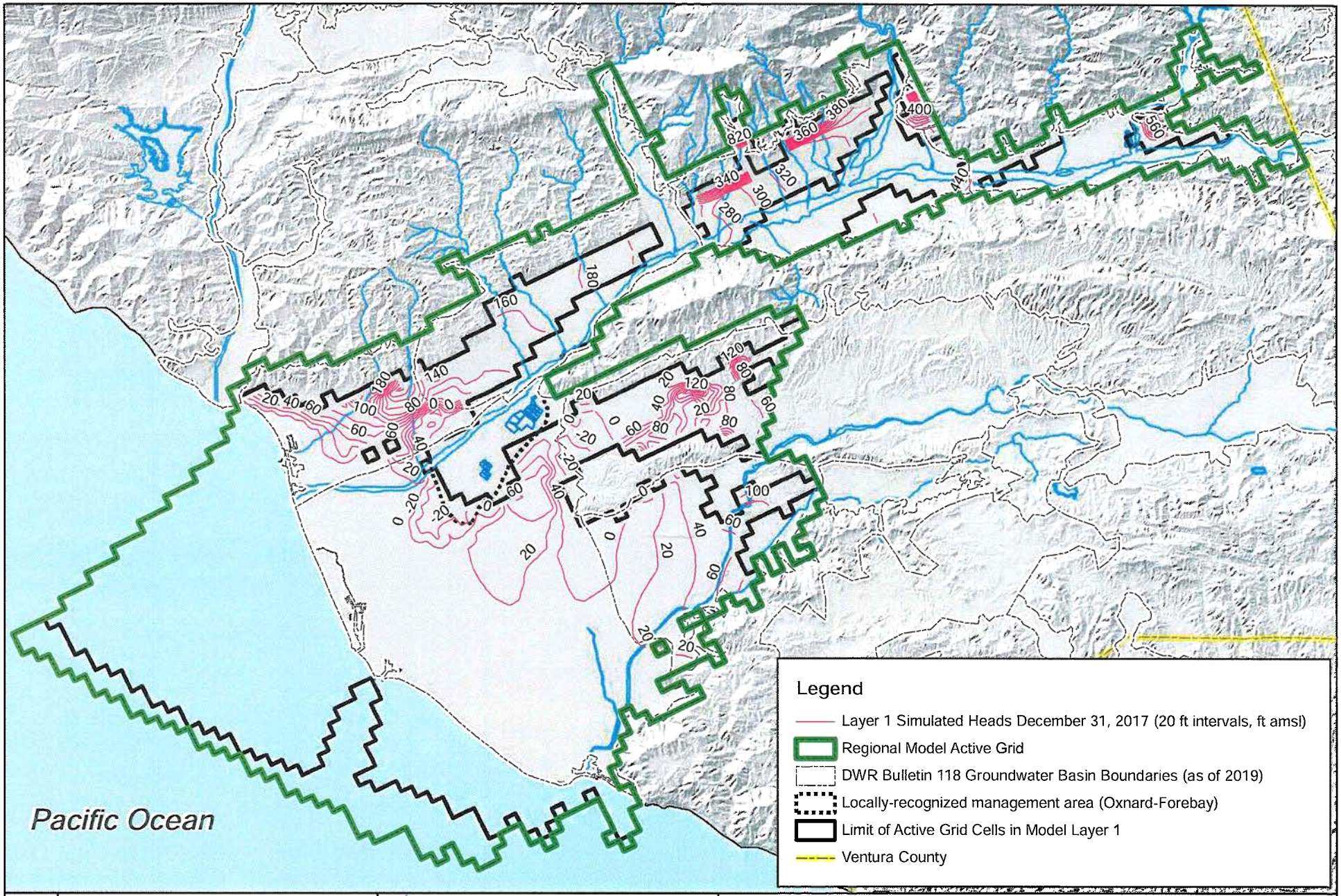


Figure 3-37.
December 2017 Simulated Head Contours of Model Layer 1

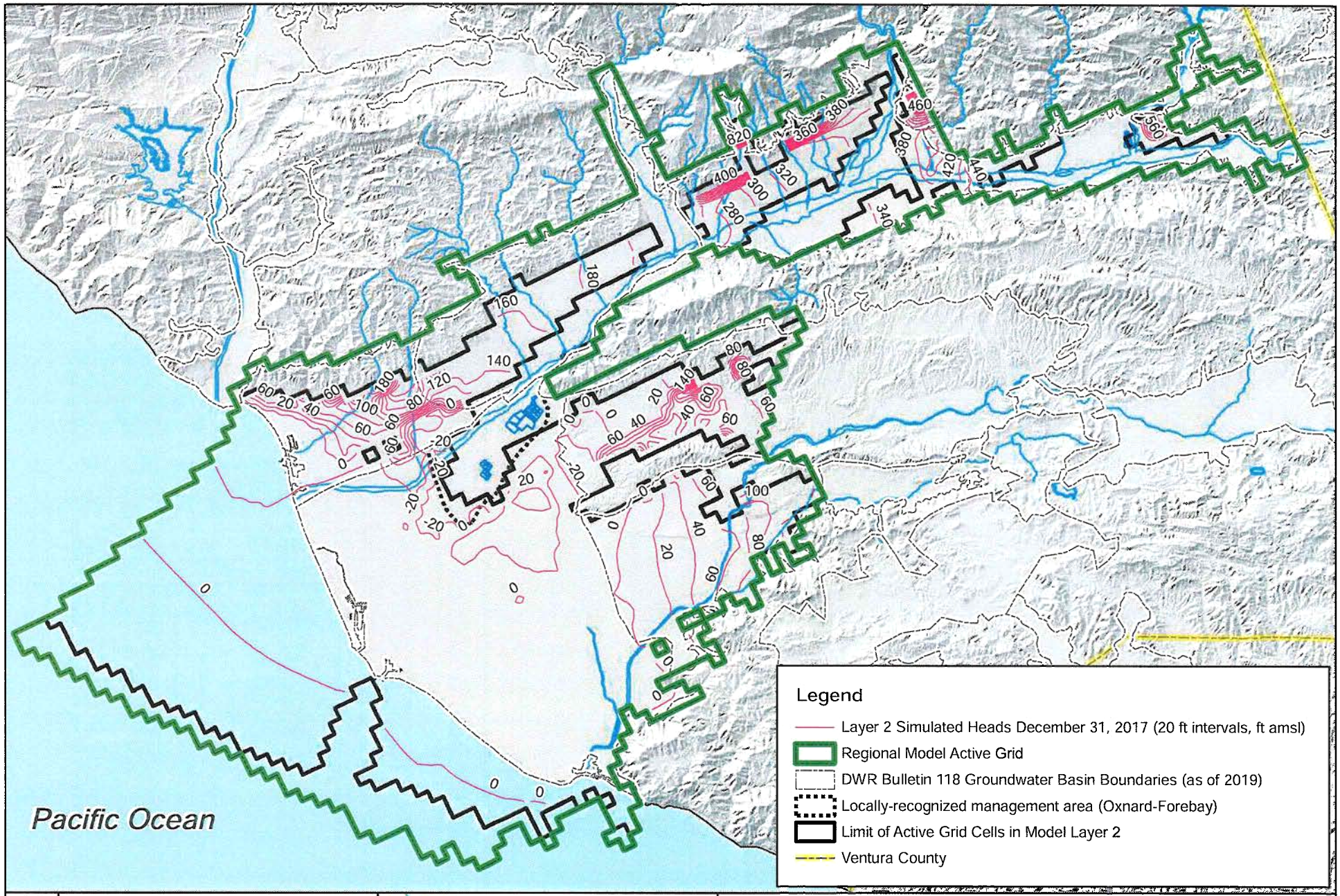


Figure 3-38.
December 2017 Simulated Head Contours of Model Layer 2

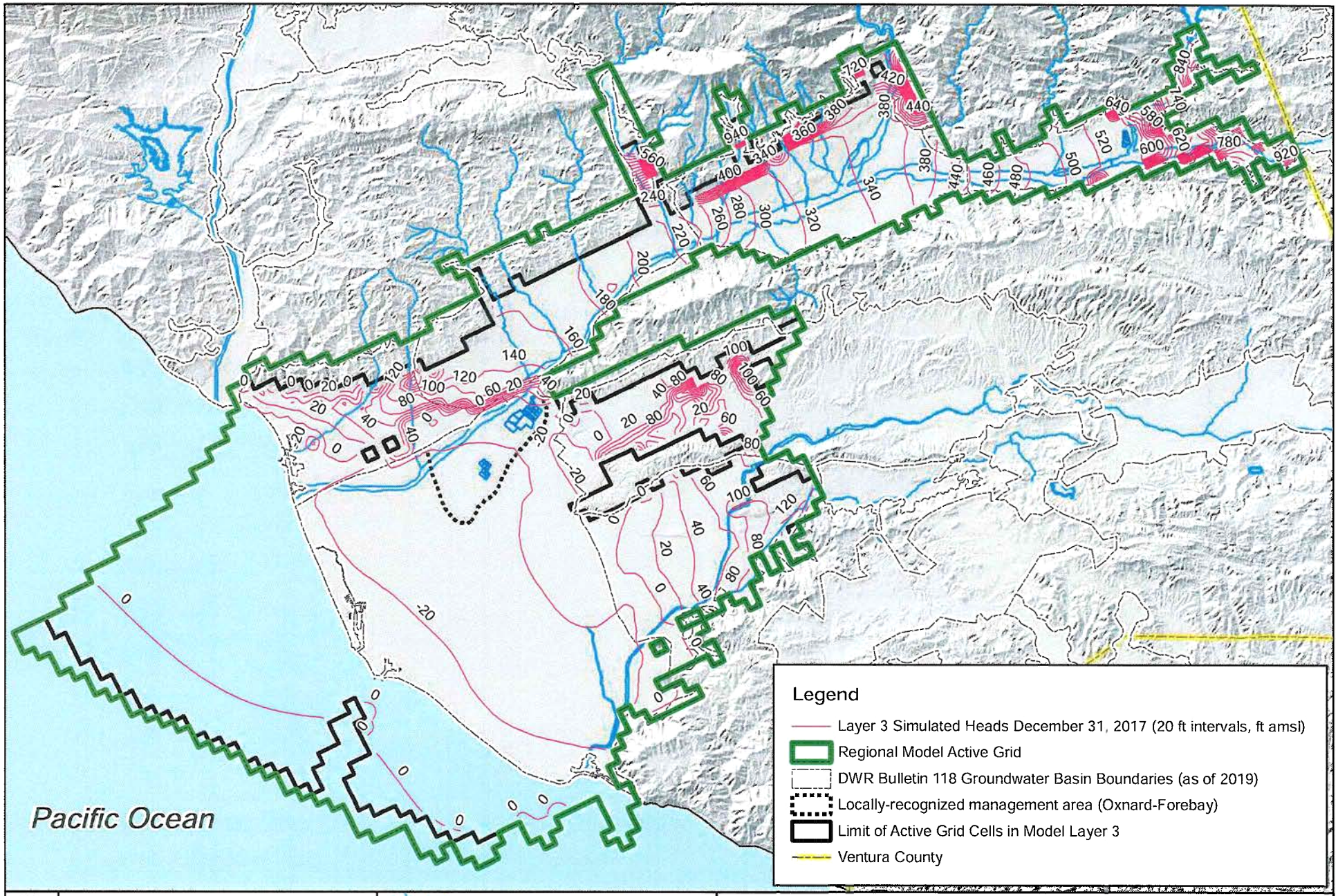


Figure 3-39.
December 2017 Simulated Head Contours of Model Layer 3

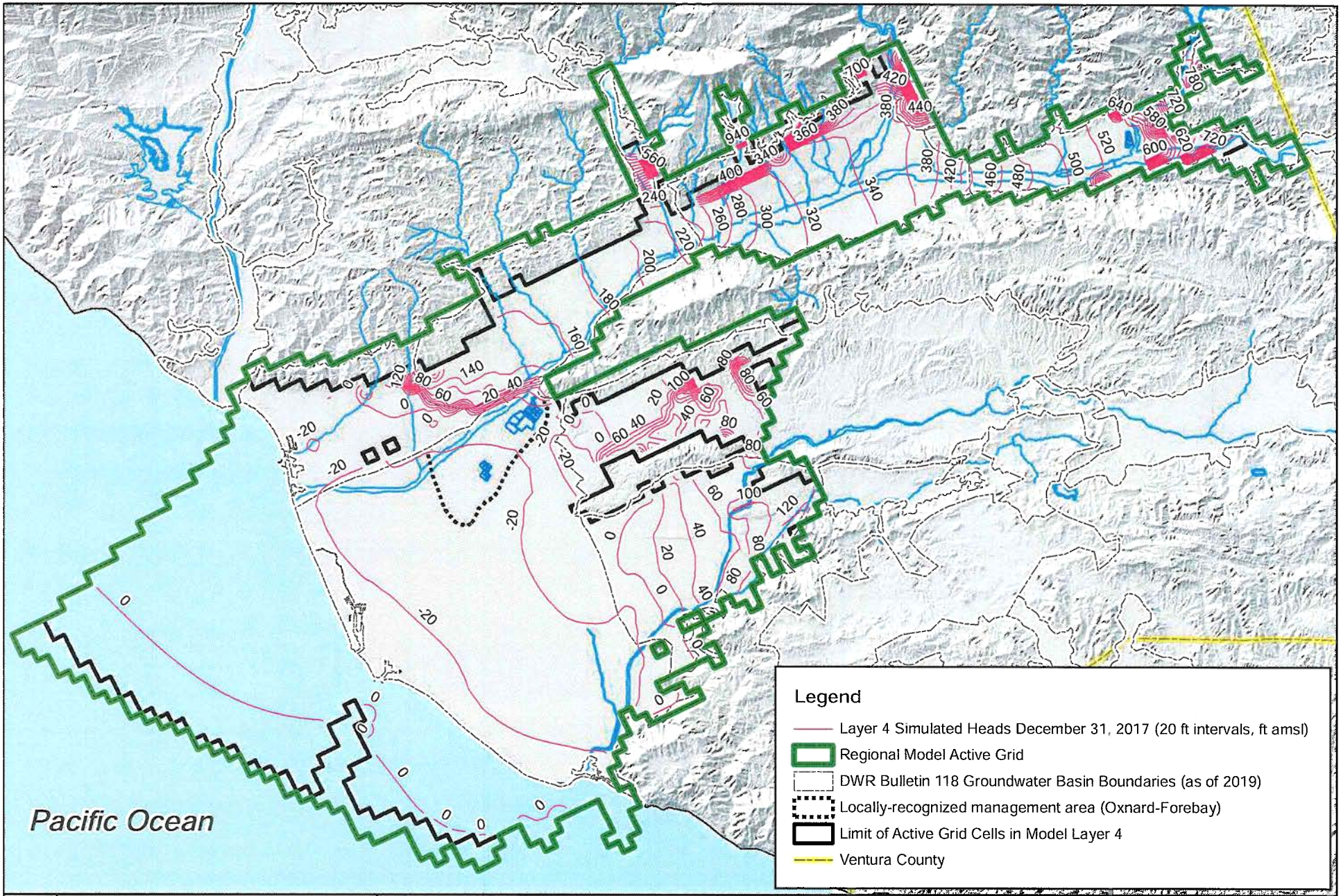


Figure 3-40.
December 2017 Simulated Head Contours of Model Layer 4

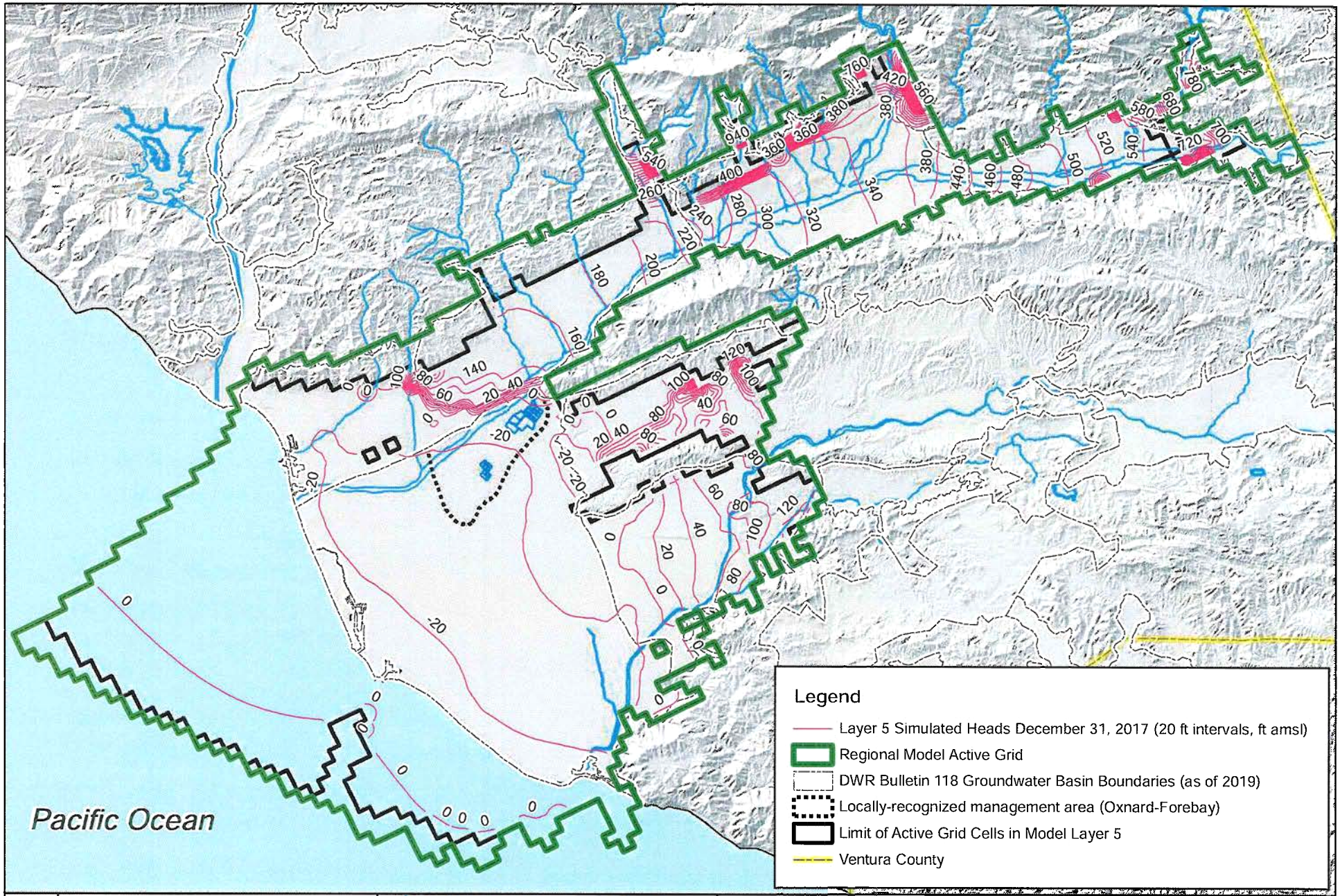


Figure 3-41.
December 2017 Simulated Head Contours of Model Layer 5

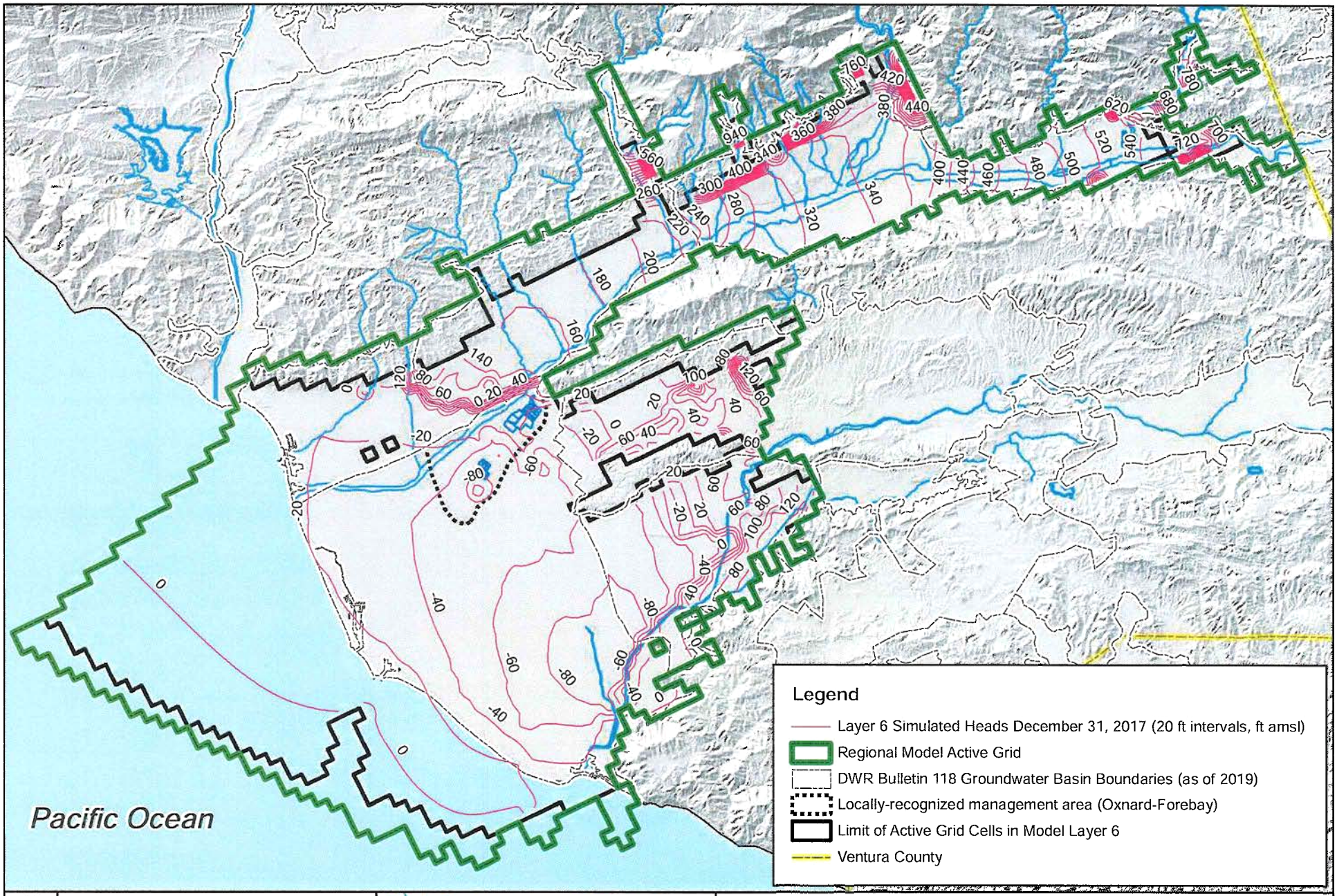


Figure 3-42.
December 2017 Simulated Head Contours of Model Layer 6

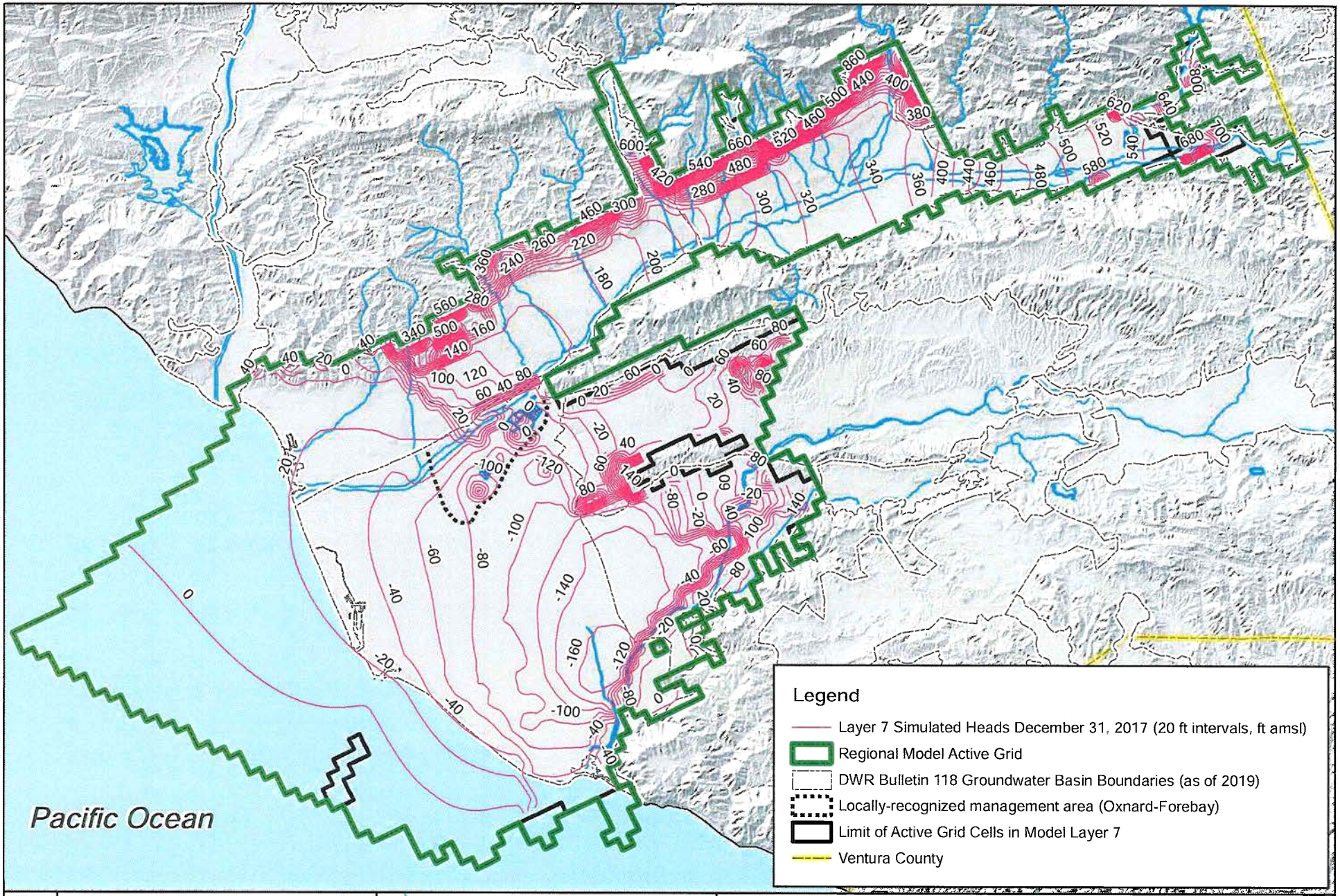


Figure 3-43.
December 2017 Simulated Head Contours of Model Layer 7

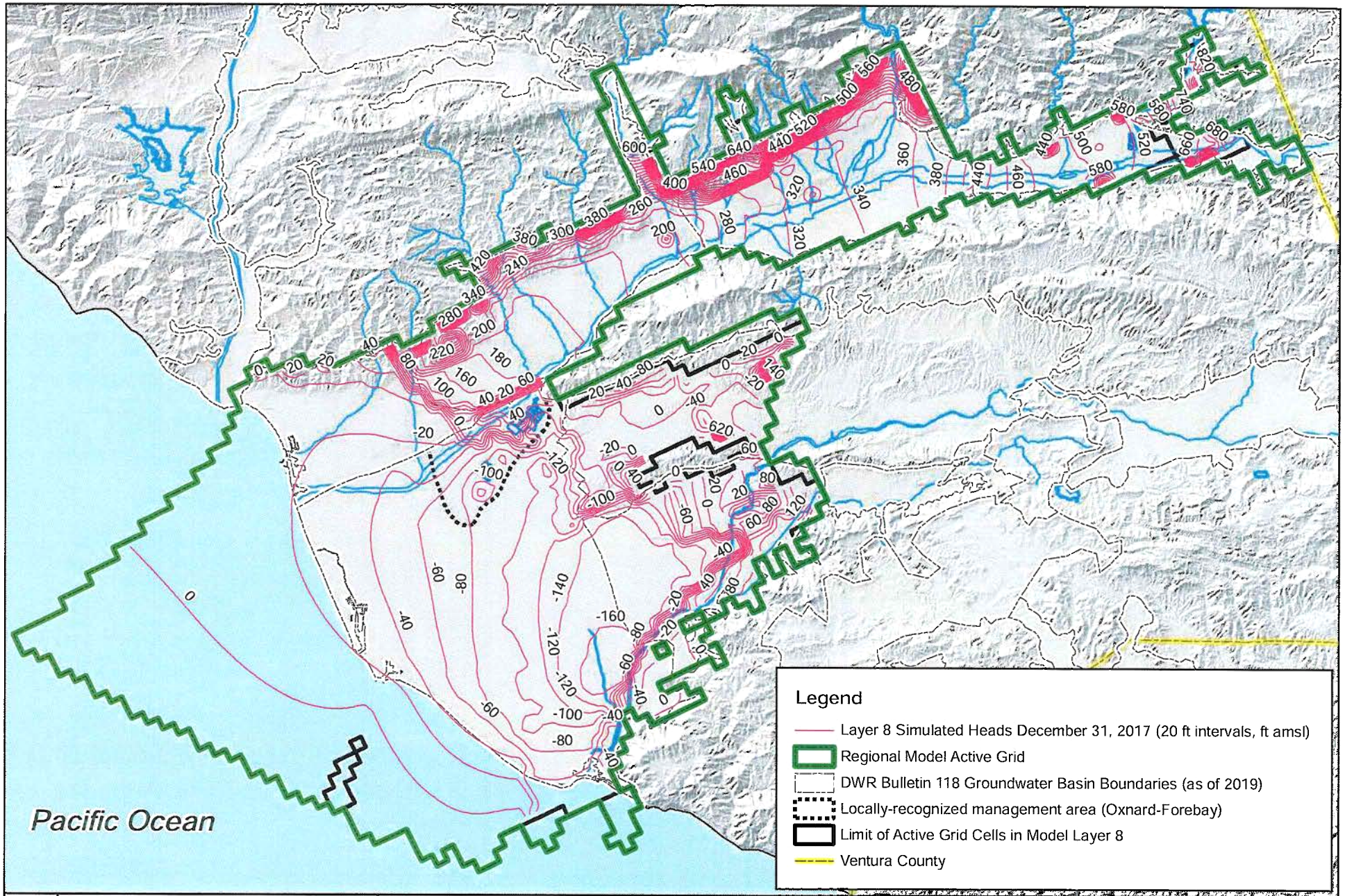


Figure 3-44.
December 2017 Simulated Head Contours of Model Layer 8

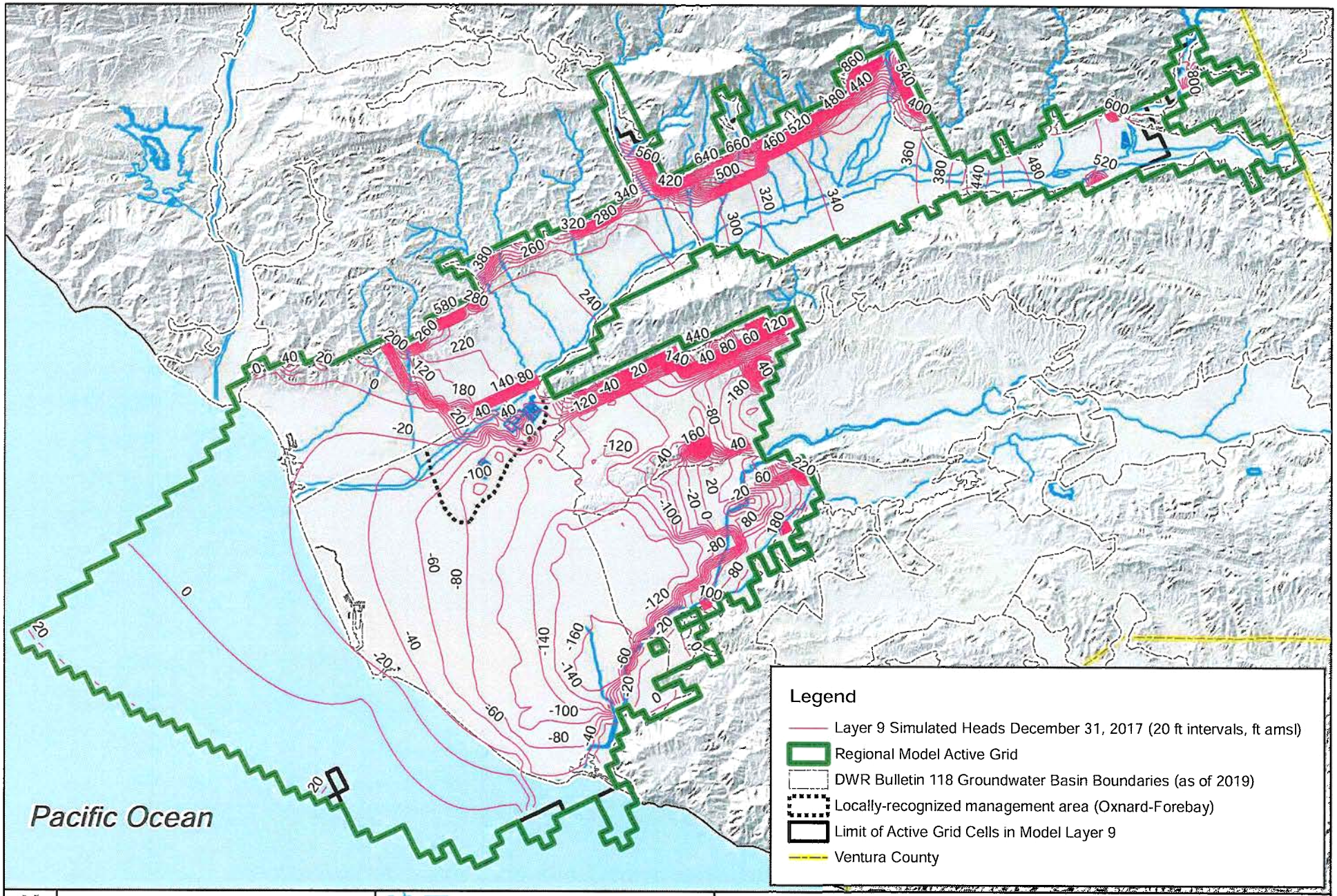


Figure 3-45.
December 2017 Simulated Head Contours of Model Layer 9

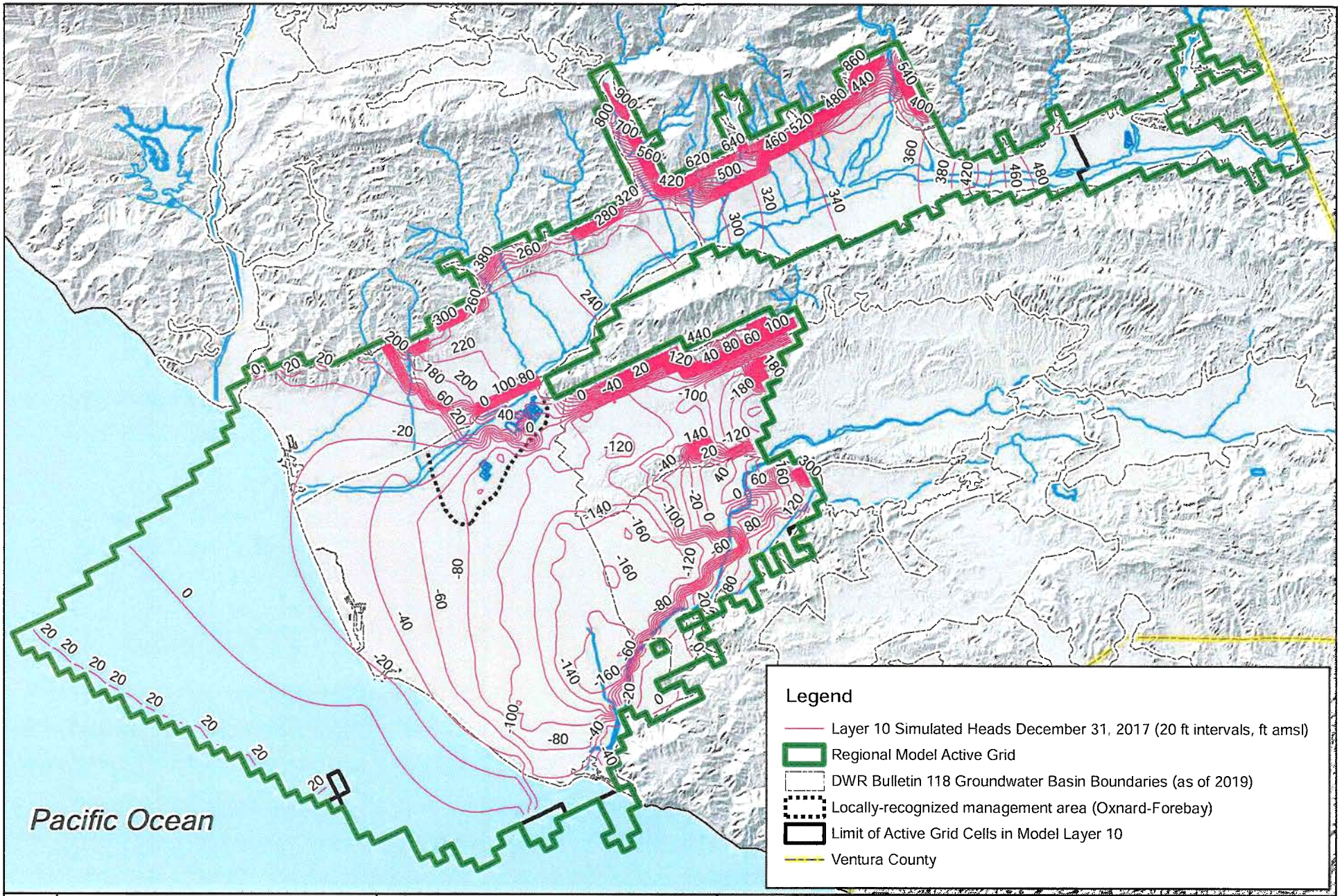


Figure 3-46.
December 2017 Simulated Head Contours of Model Layer 10

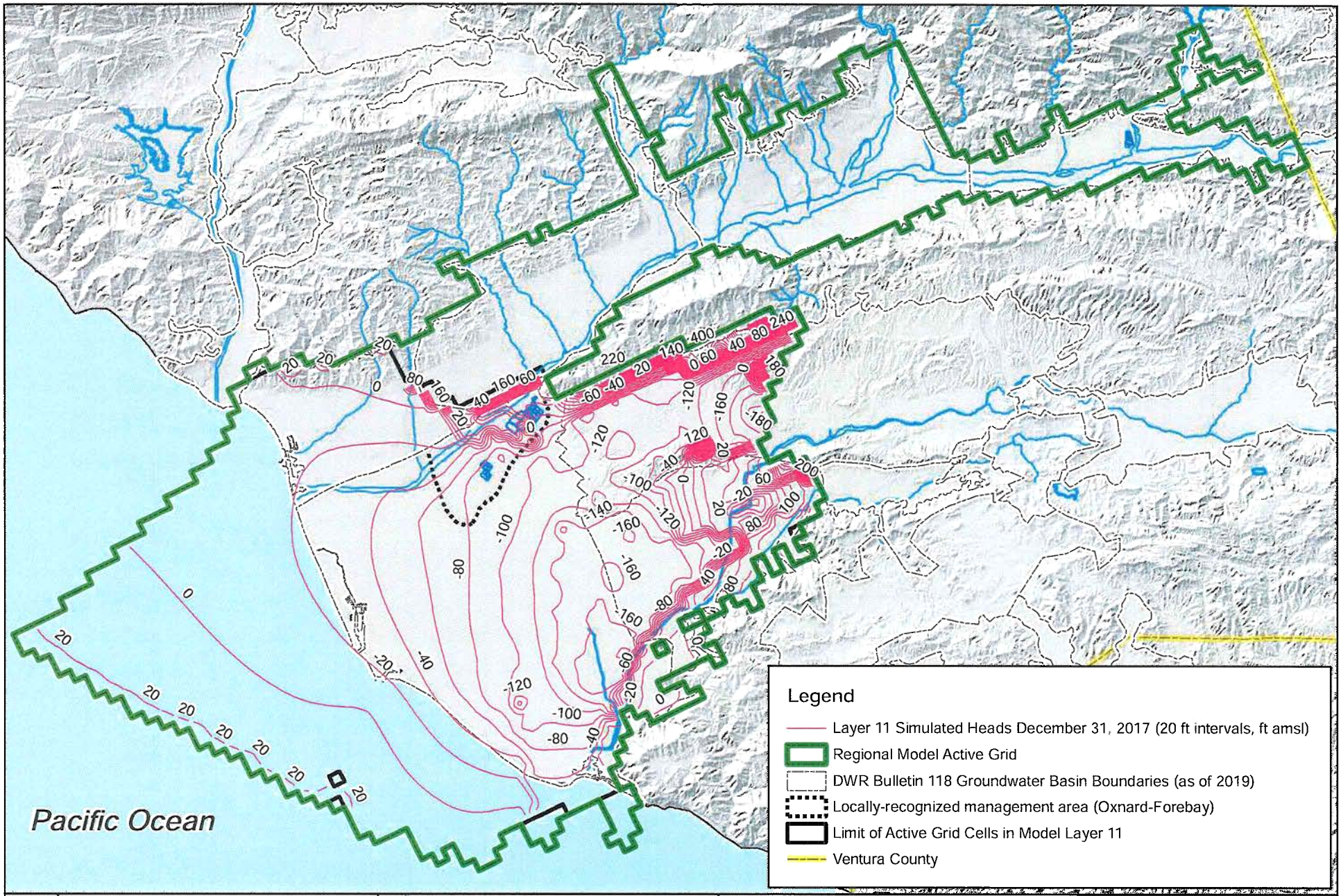


Figure 3-47.
December 2017 Simulated Head Contours of Model Layer 11

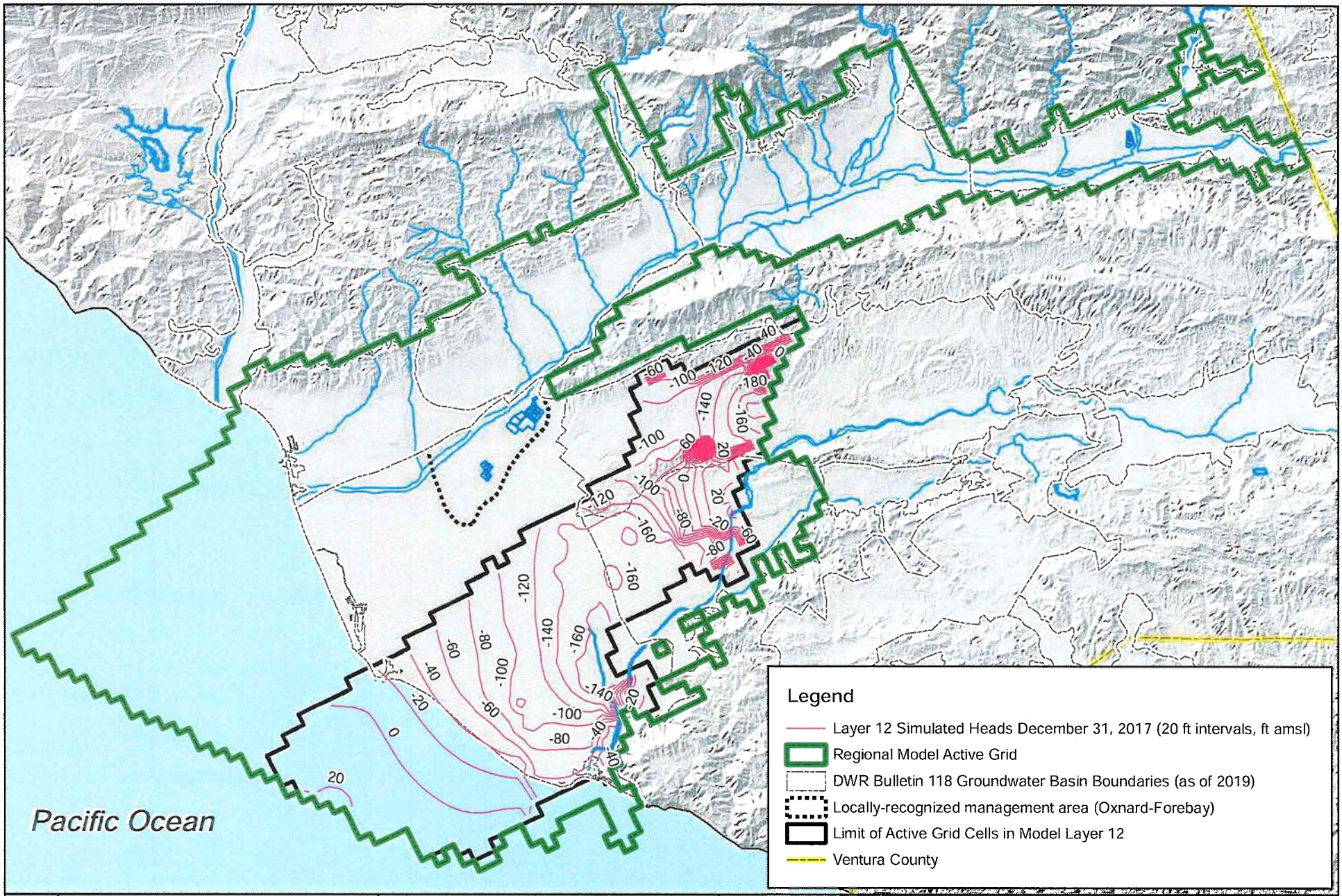


Figure 3-48.
December 2017 Simulated Head Contours of Model Layer 12

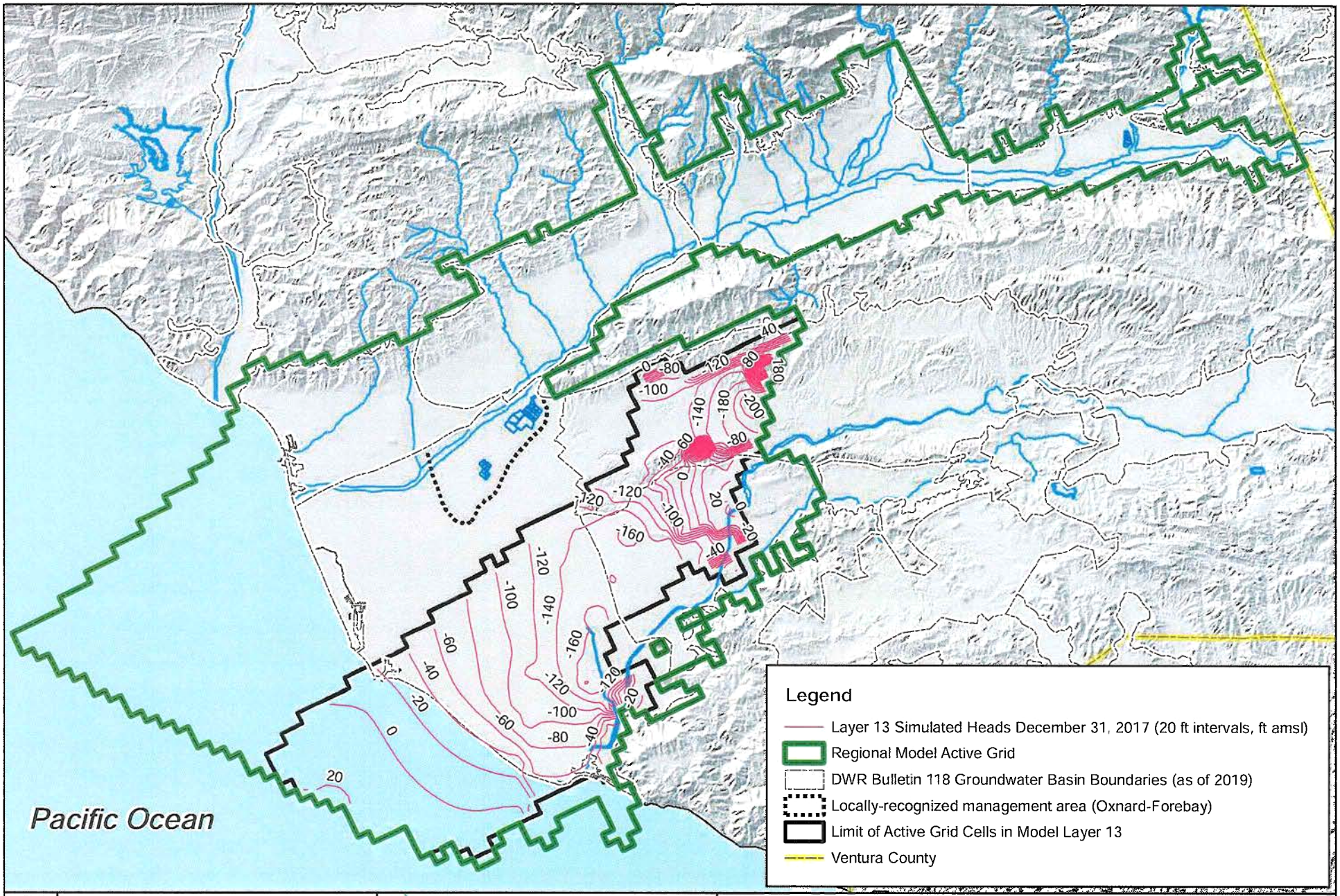


Figure 3-49.
December 2017 Simulated Head Contours of Model Layer 13

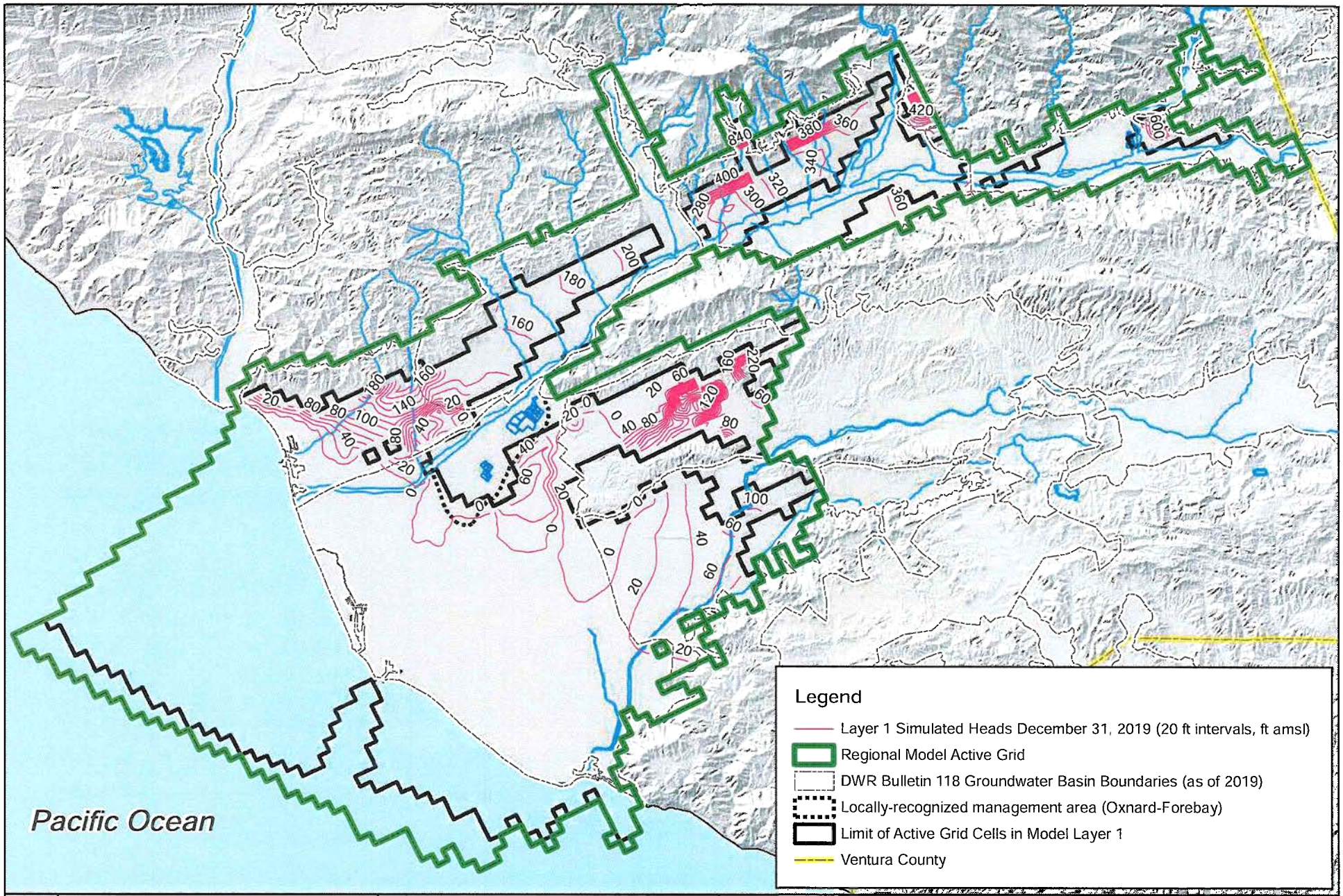


Figure 3-50.
December 2019 Simulated Head Contours of Model Layer 1

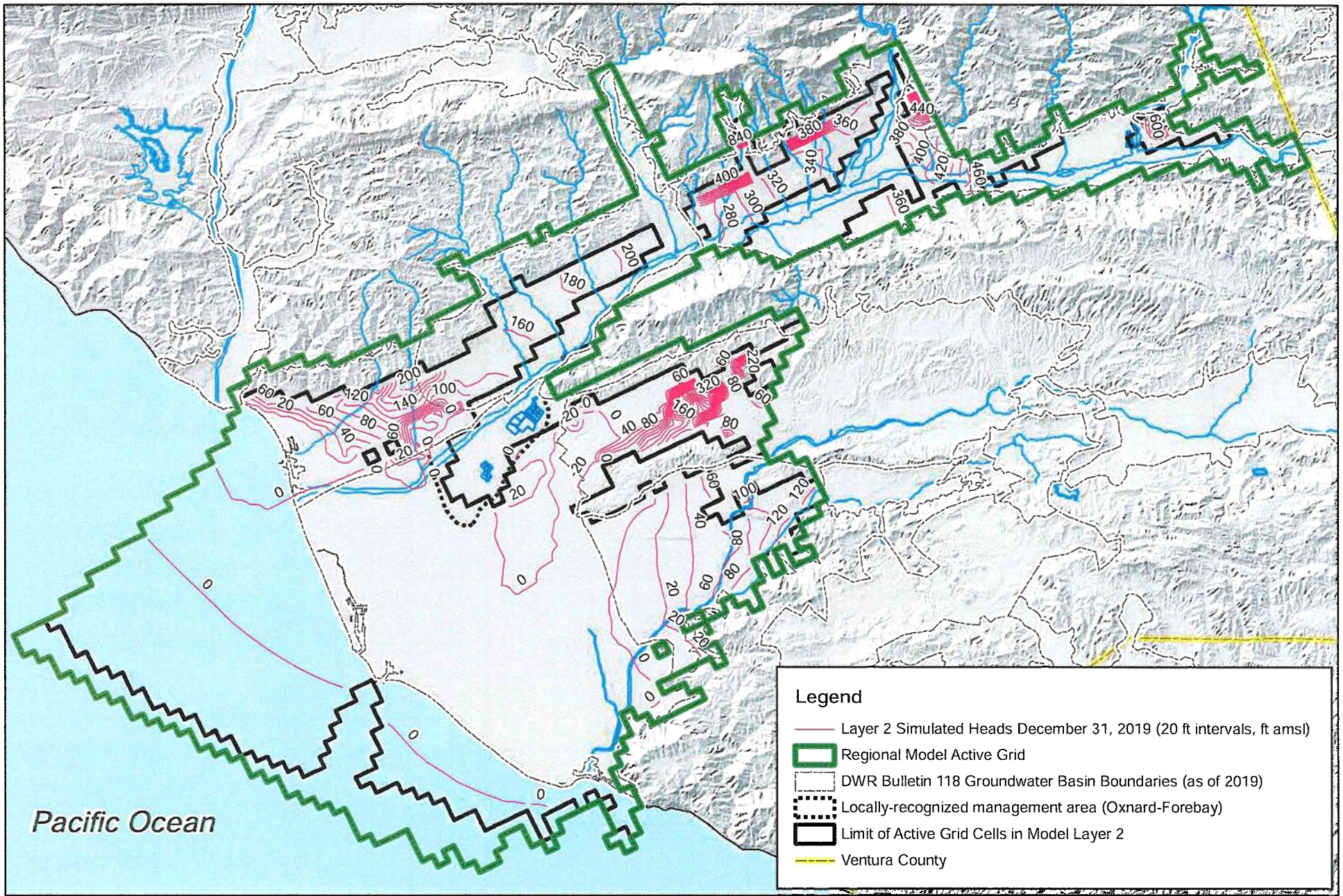


Figure 3-51.
December 2019 Simulated Head Contours of Model Layer 2

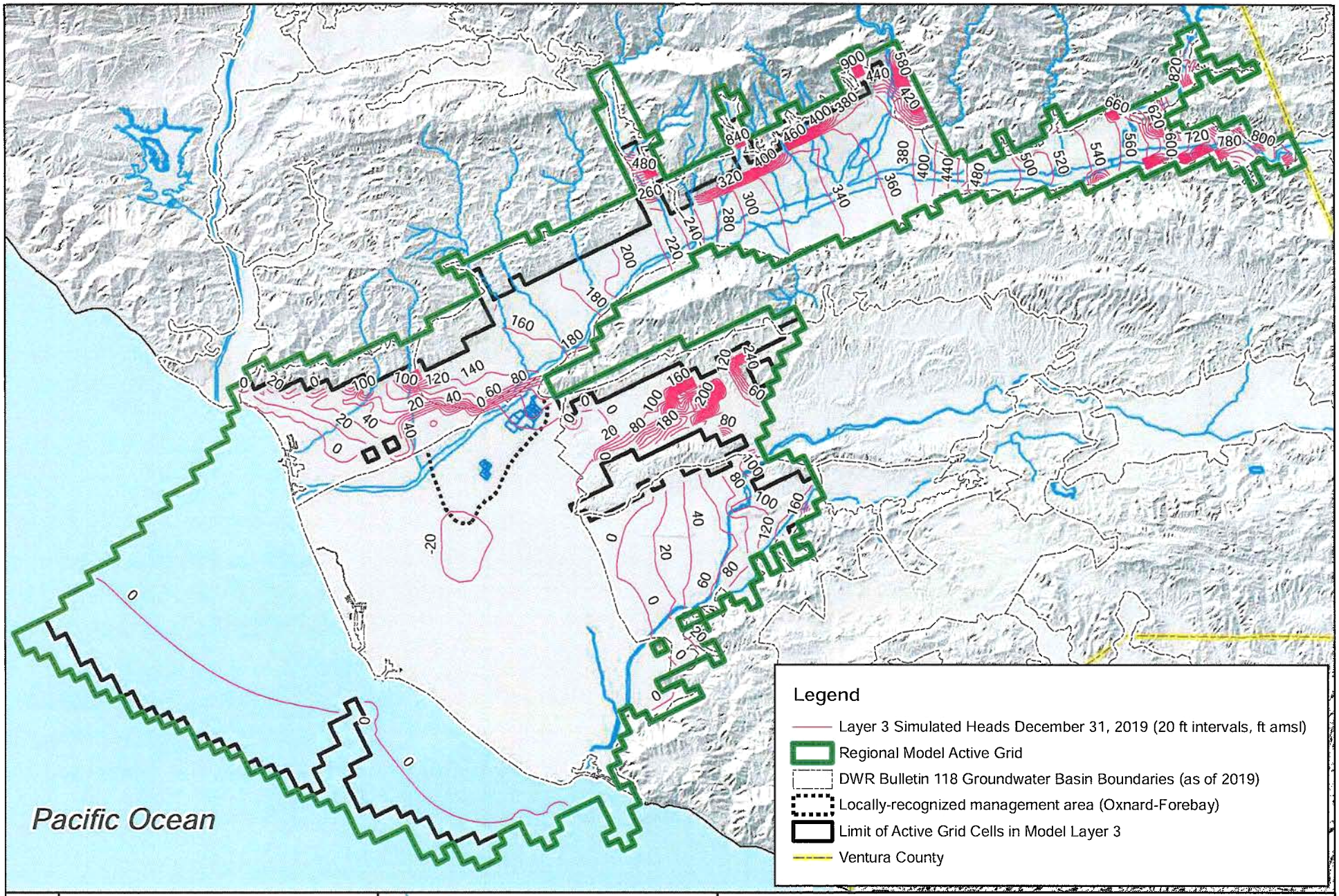


Figure 3-52.
December 2019 Simulated Head Contours of Model Layer 3

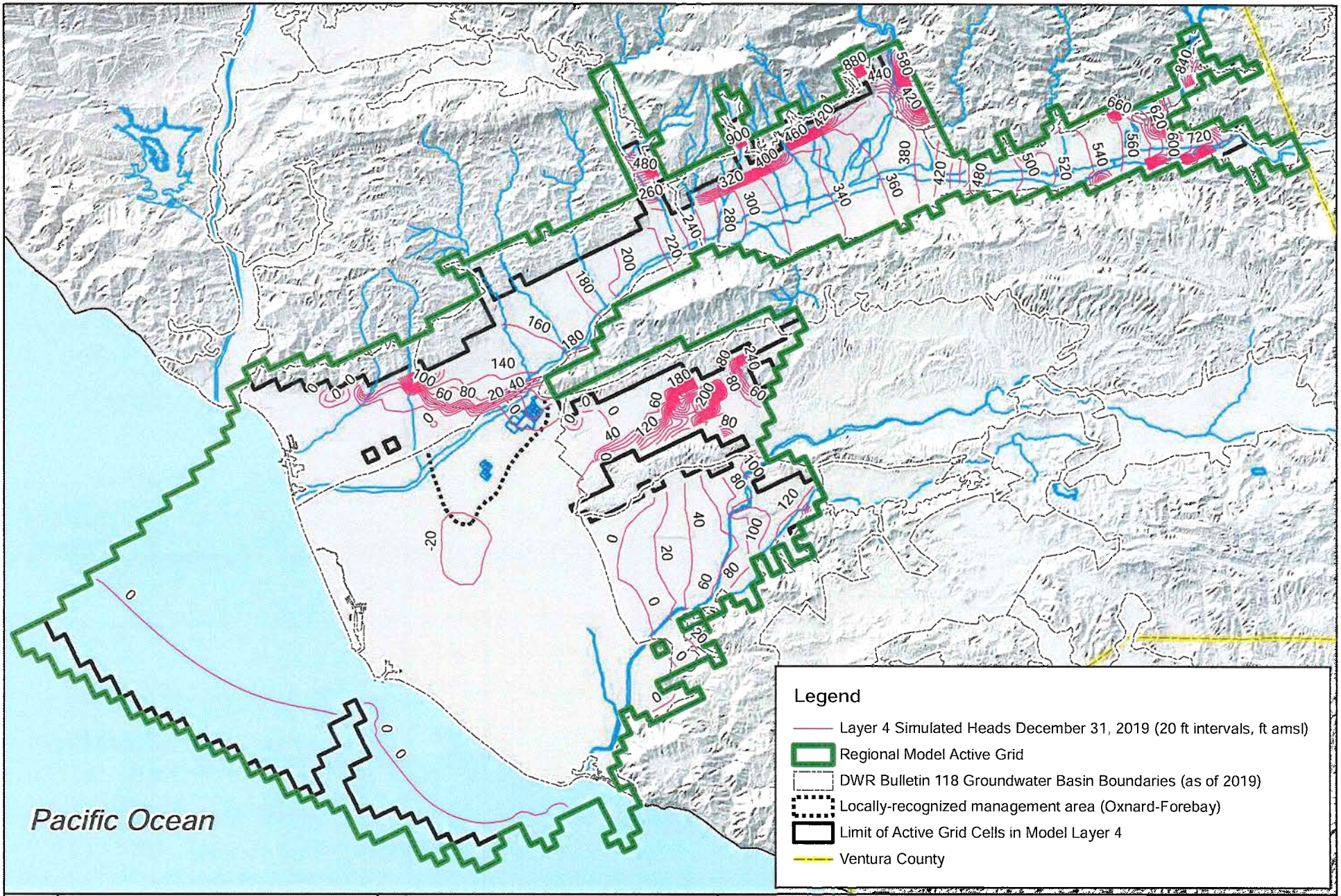


Figure 3-53.
December 2019 Simulated Head Contours of Model Layer 4

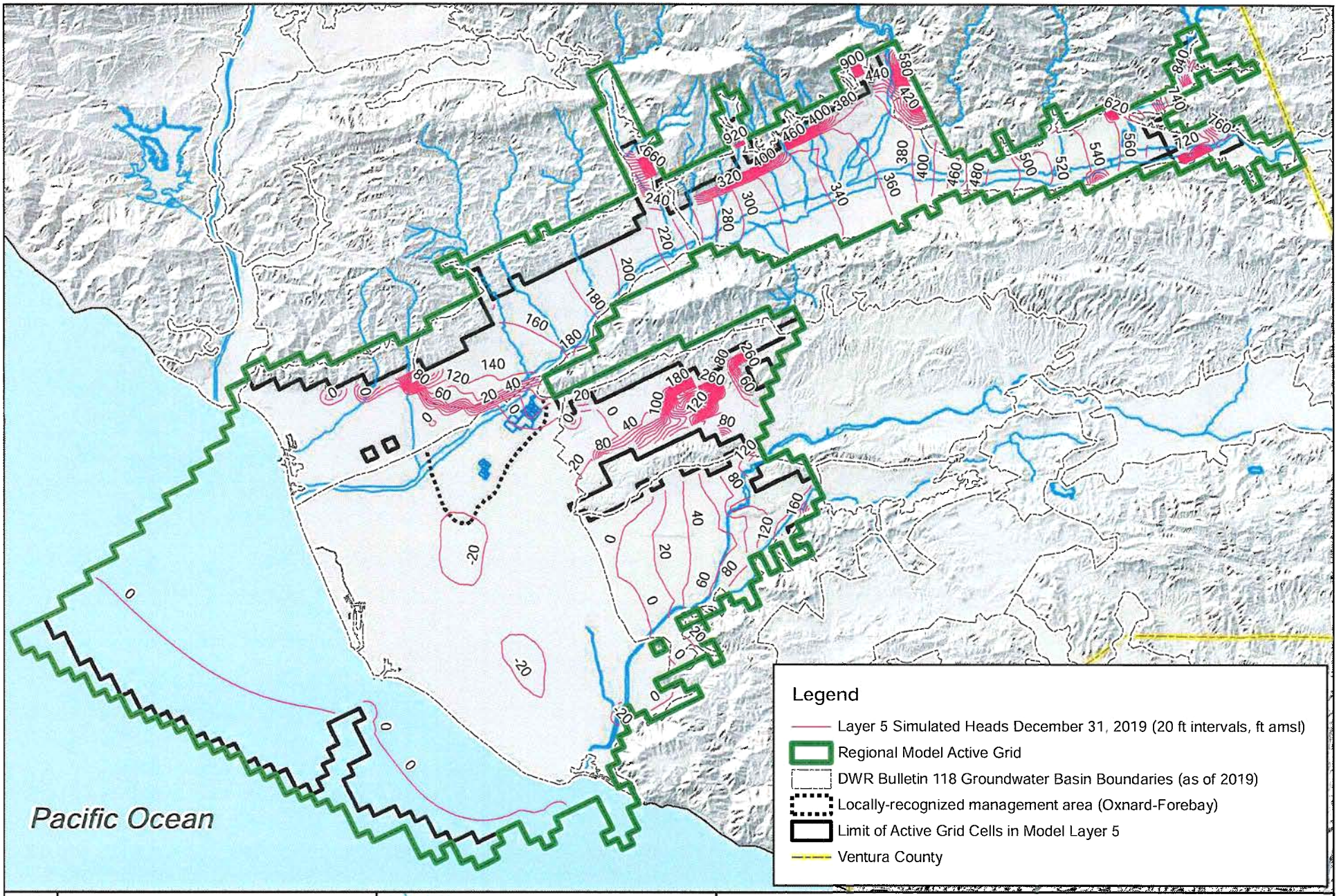


Figure 3-54.
December 2019 Simulated Head Contours of Model Layer 5

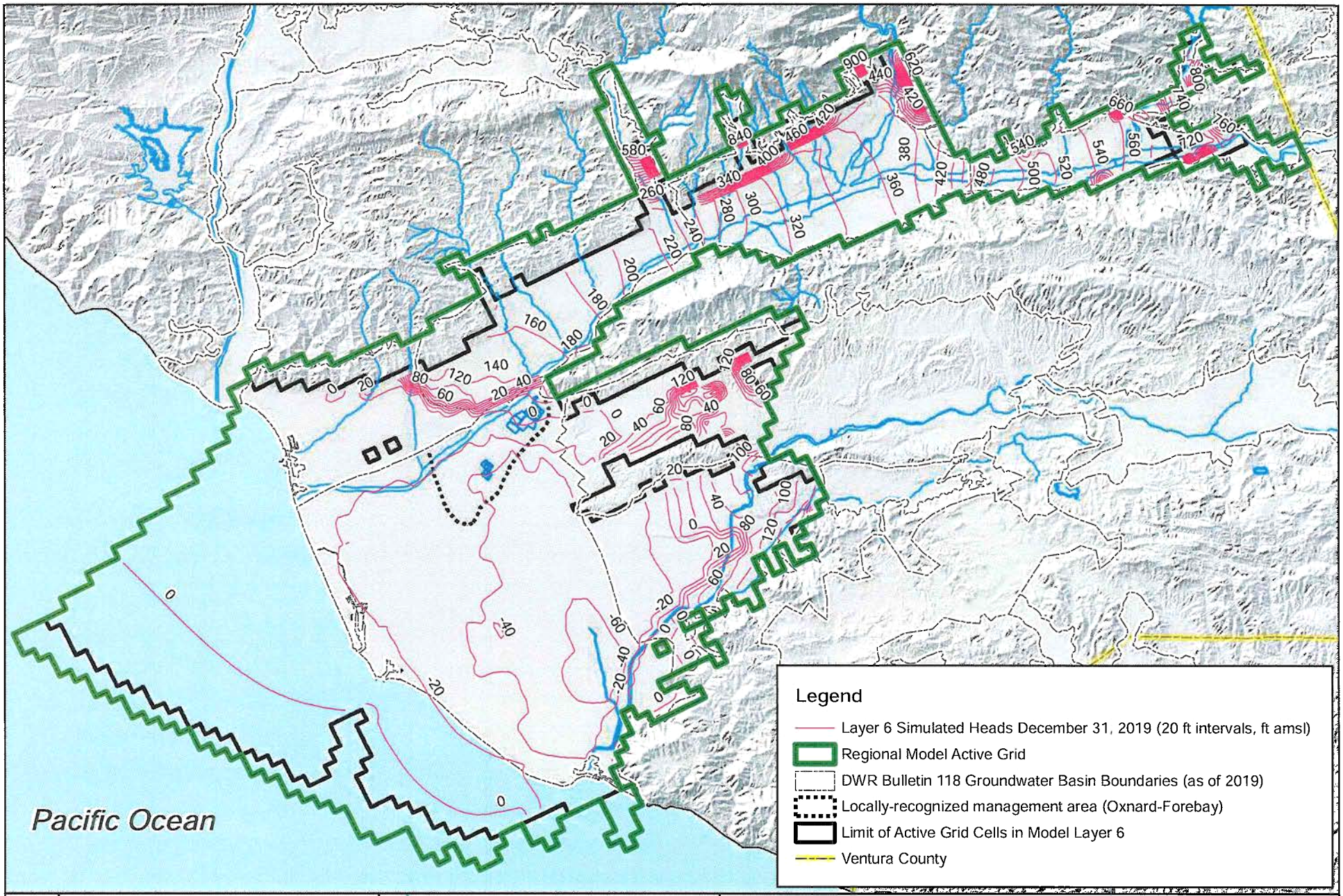


Figure 3-55.
December 2019 Simulated Head Contours of Model Layer 6

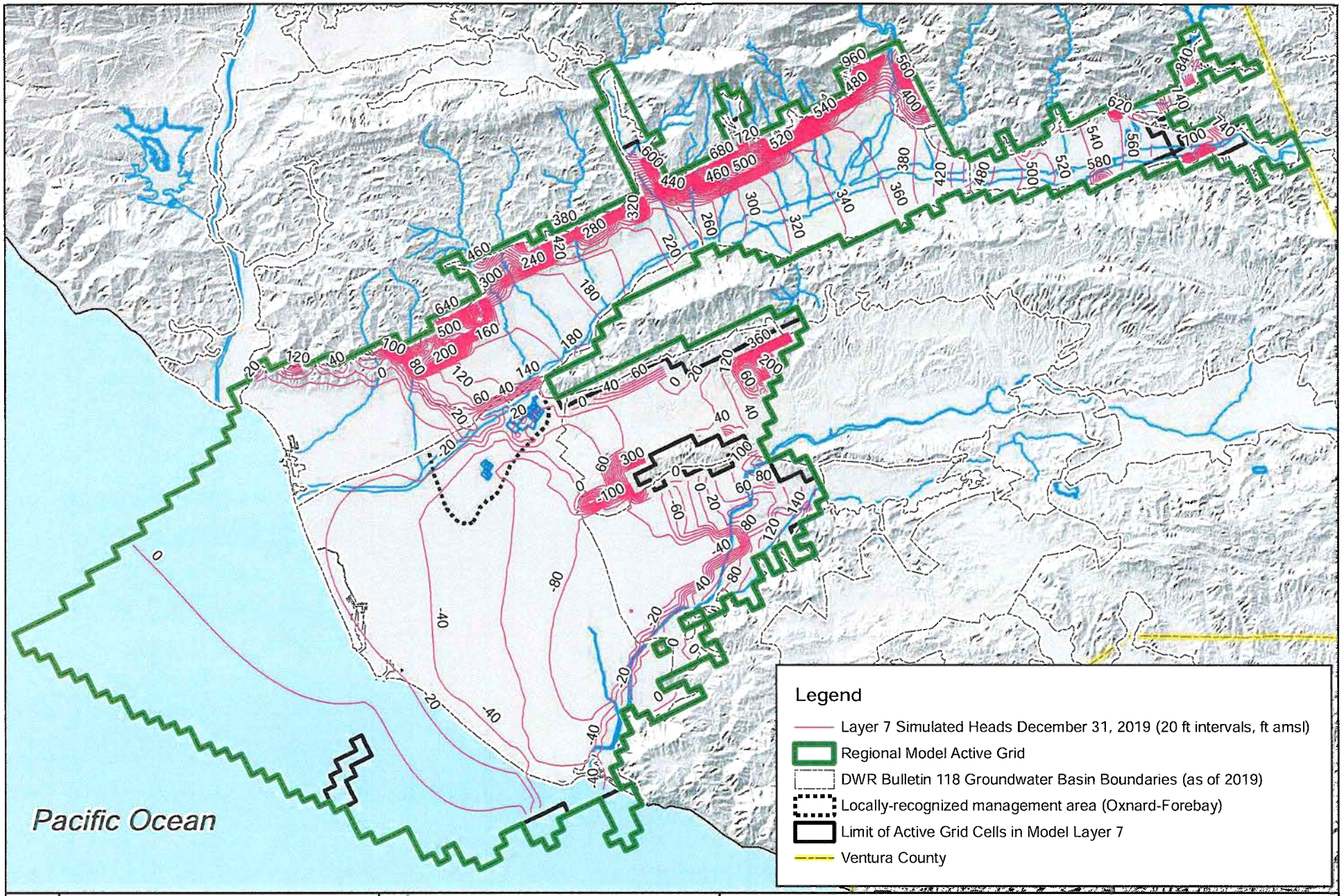


Figure 3-56.
December 2019 Simulated Head Contours of Model Layer 7

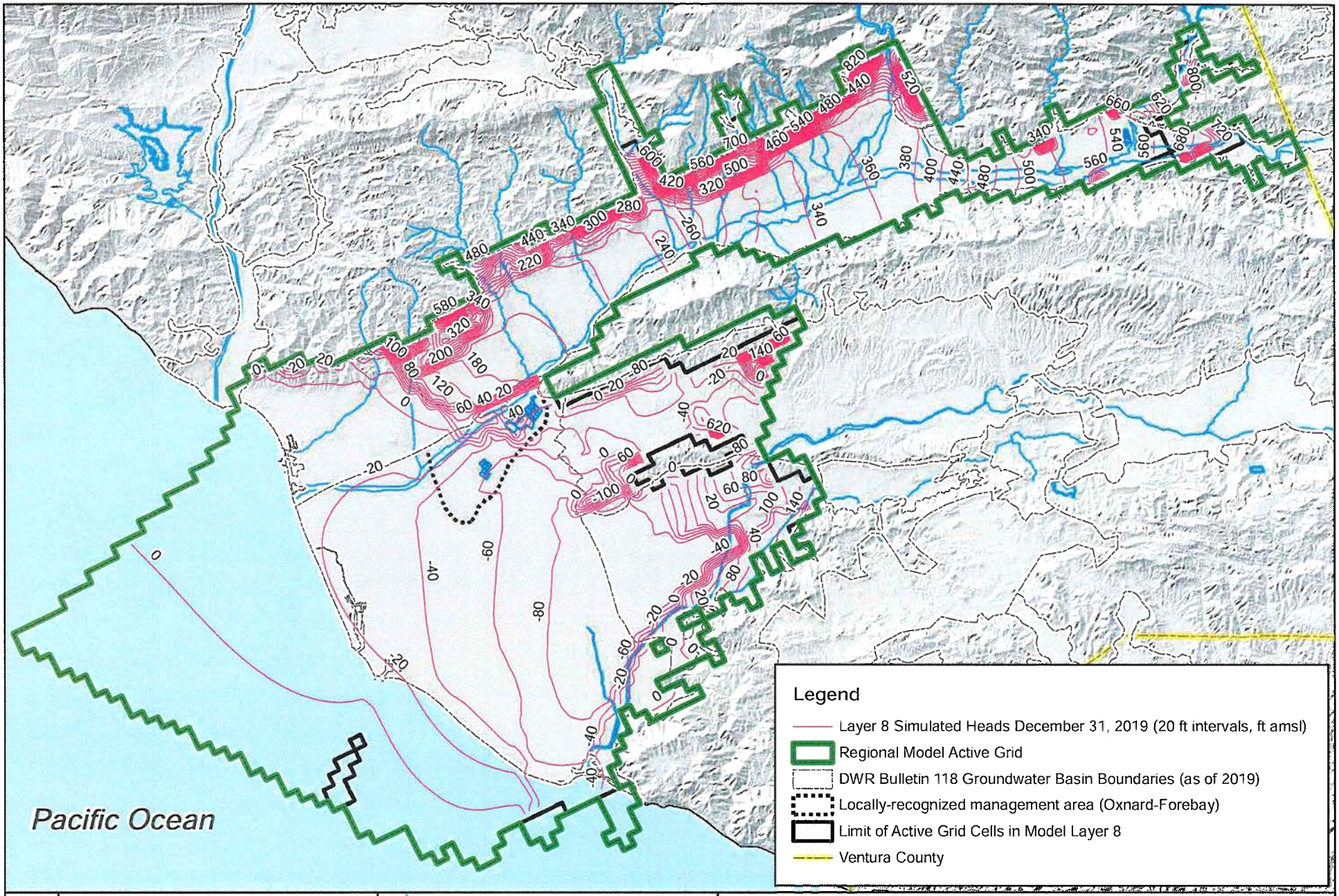


Figure 3-57.
December 2019 Simulated Head Contours of Model Layer 8

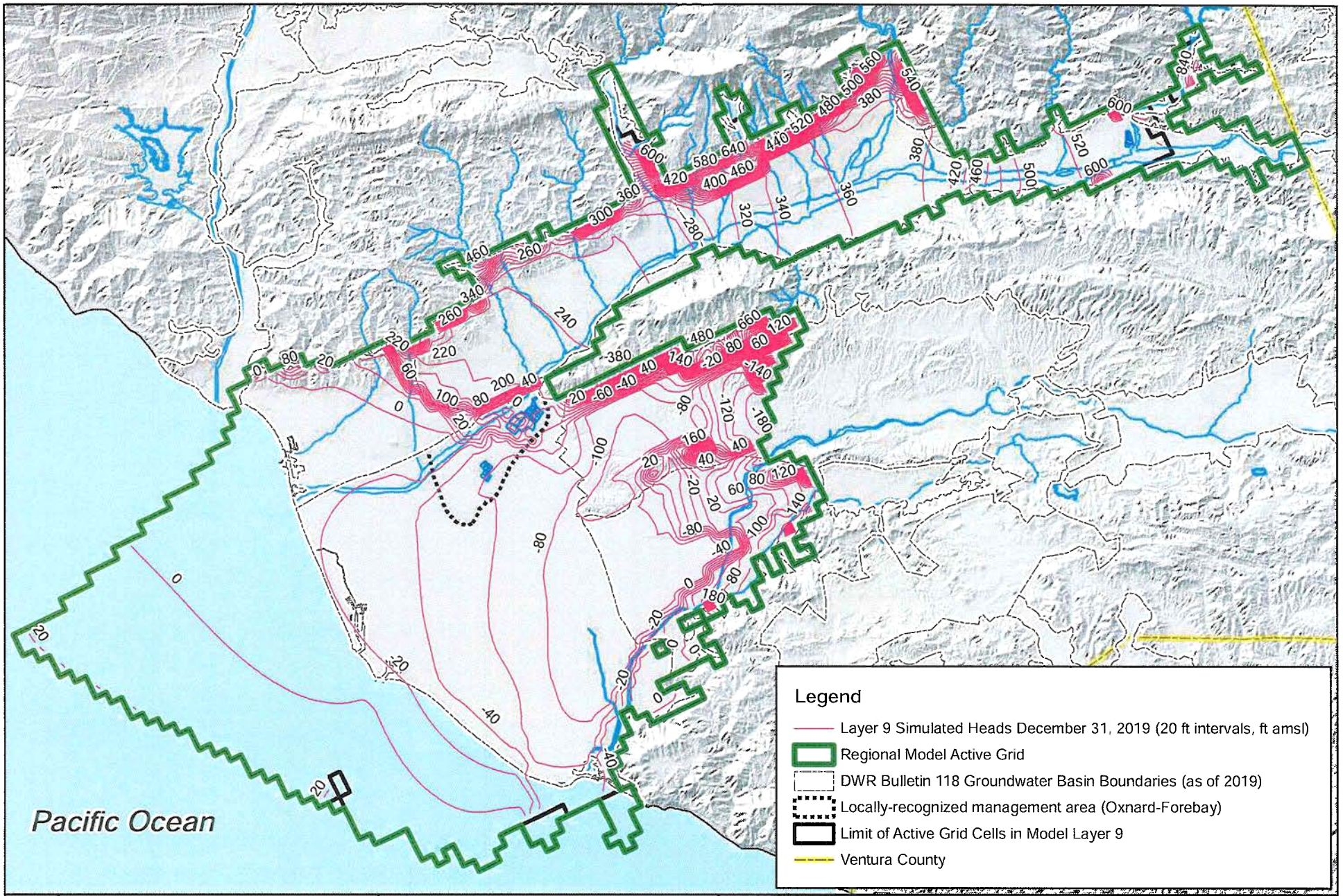


Figure 3-58.
December 2019 Simulated Head Contours of Model Layer 9

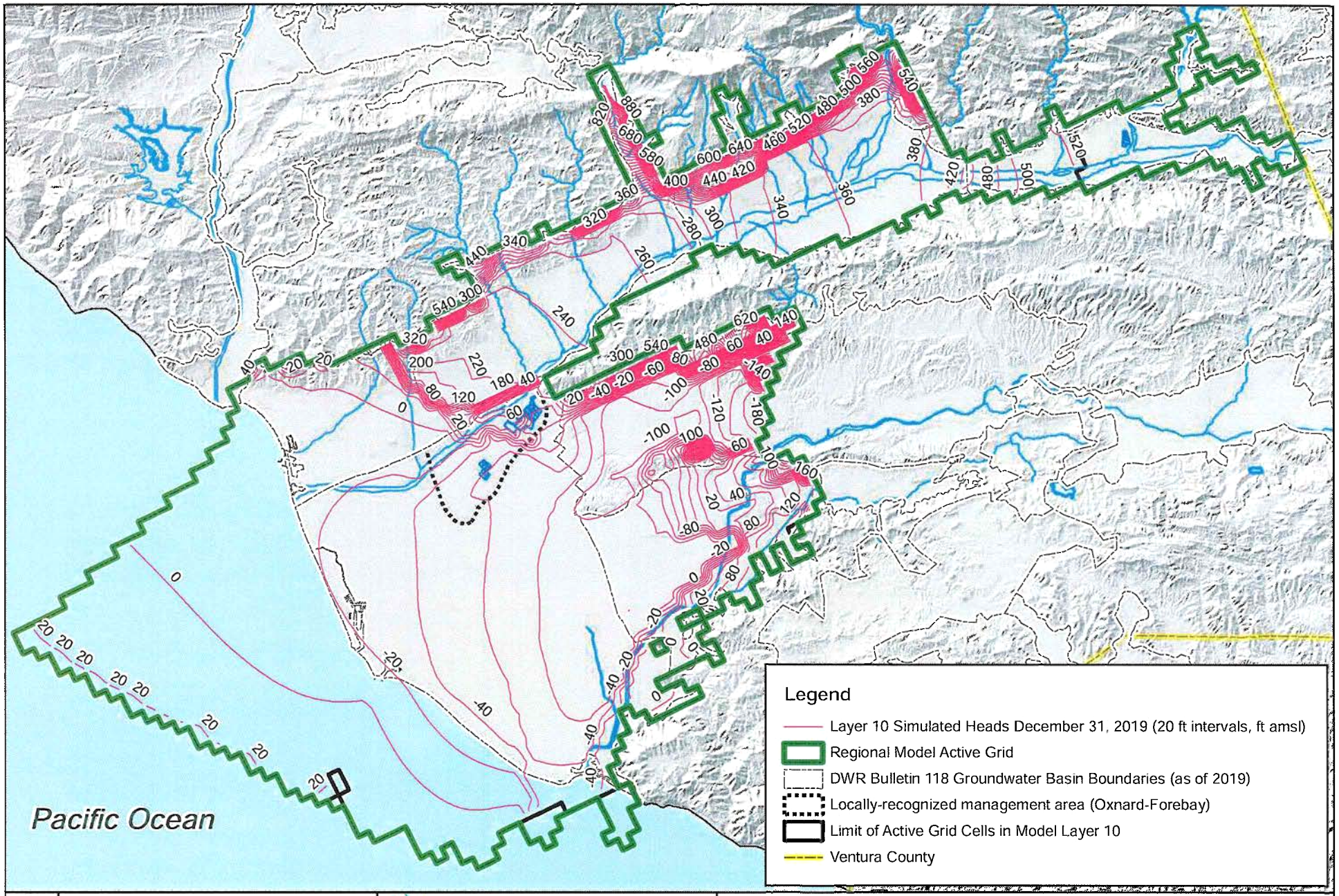


Figure 3-59.
December 2019 Simulated Head Contours of Model Layer 10

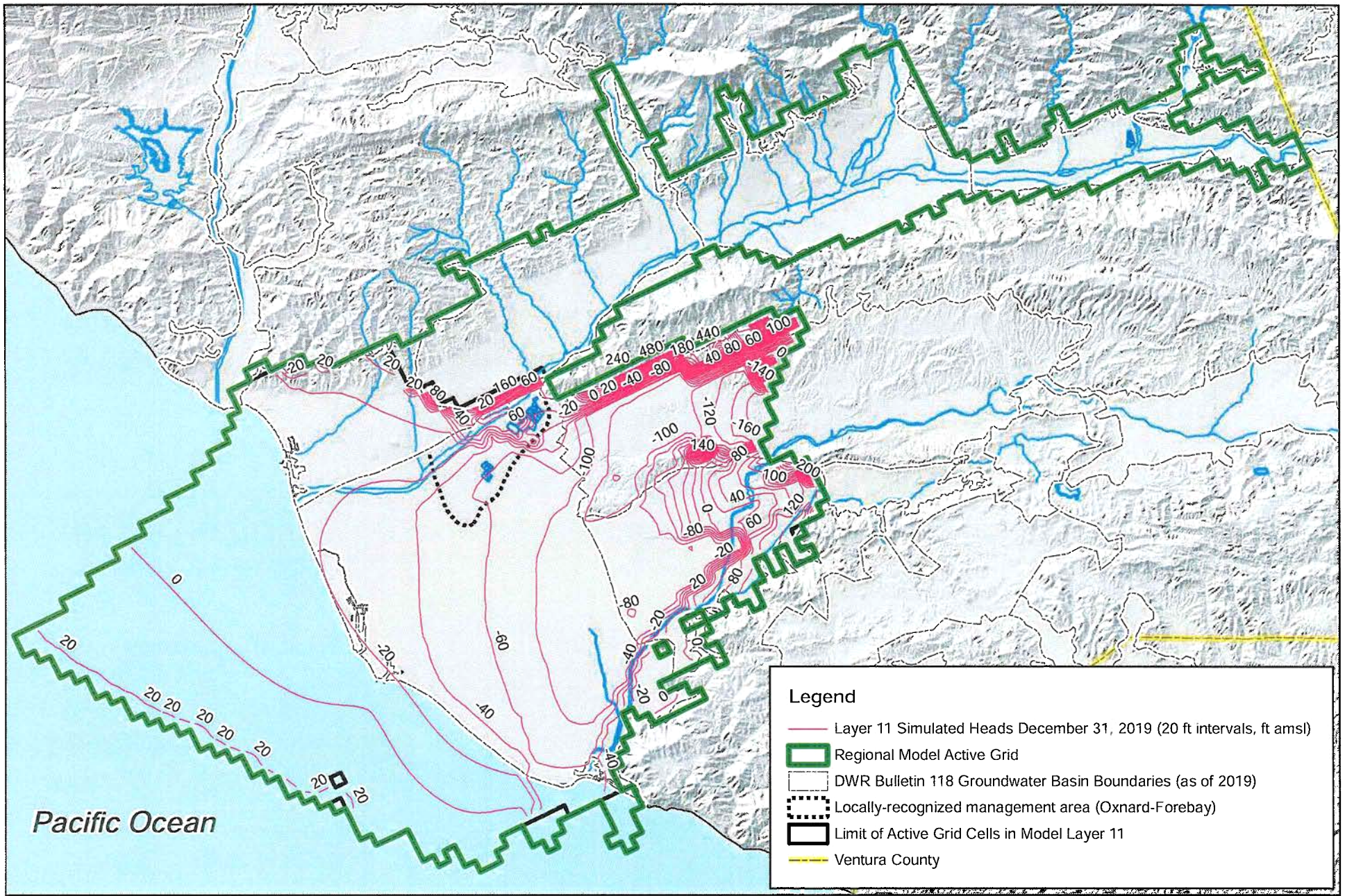


Figure 3-60.
December 2019 Simulated Head Contours of Model Layer 11

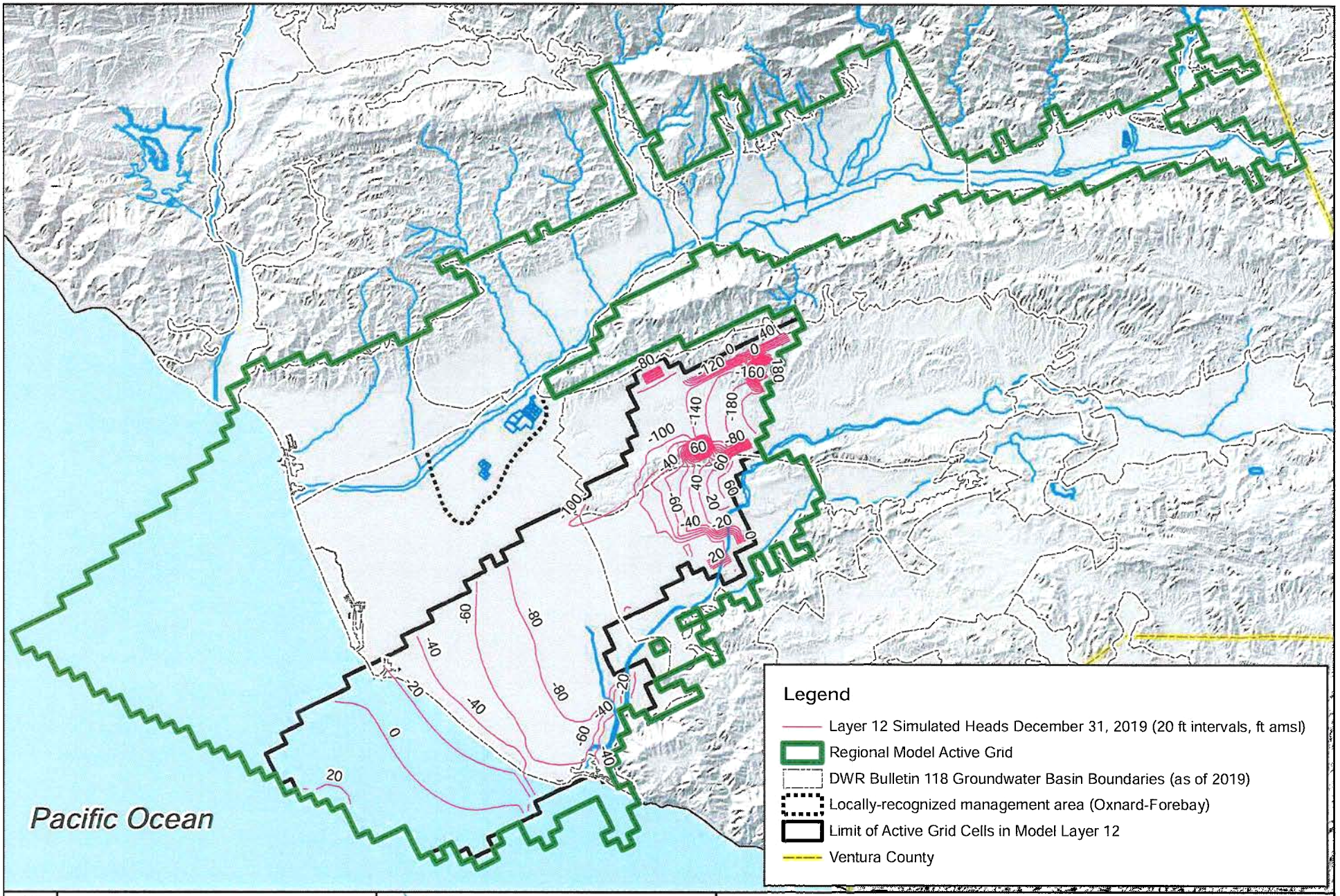


Figure 3-61.
December 2019 Simulated Head Contours of Model Layer 12

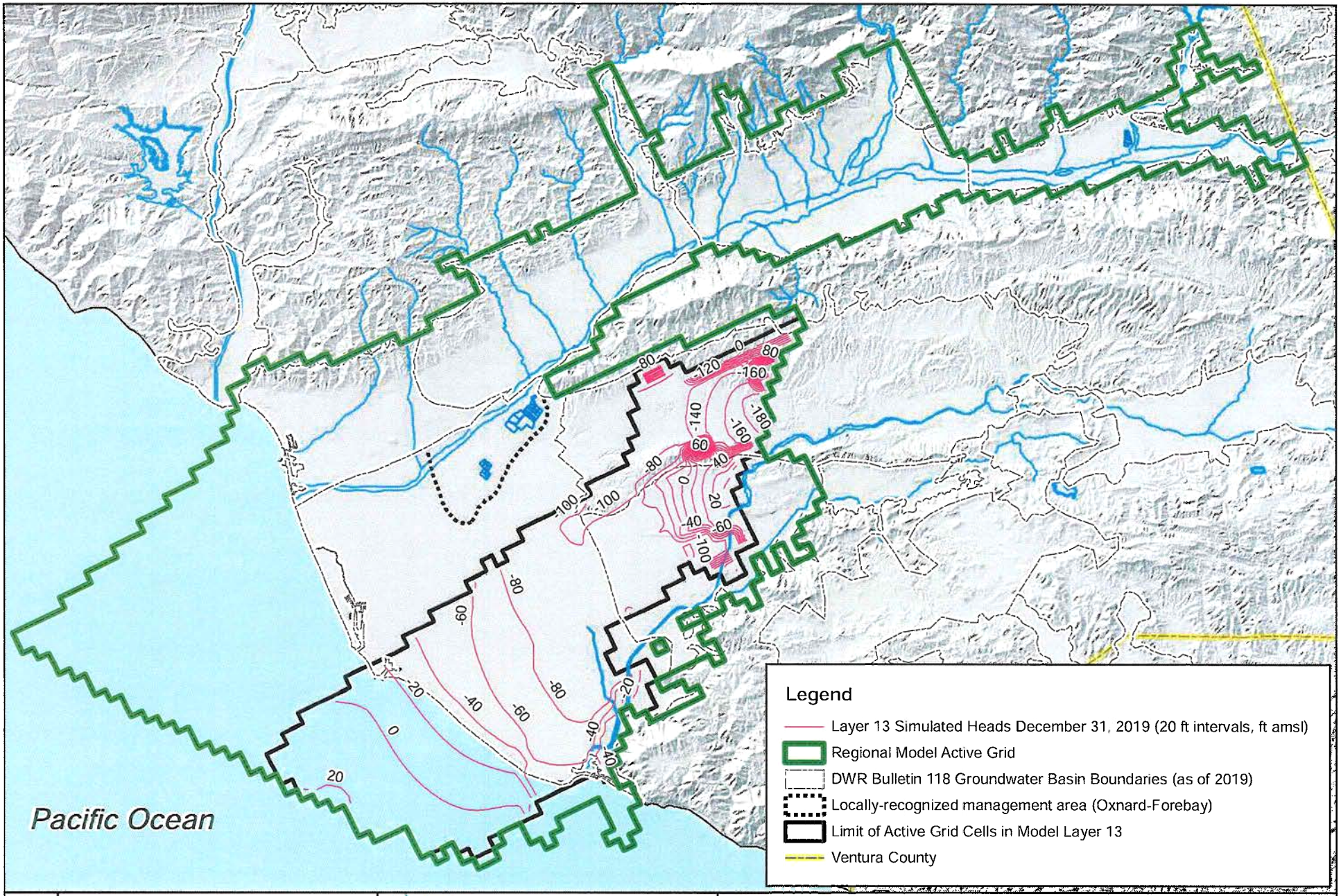


Figure 3-62.
December 2019 Simulated Head Contours of Model Layer 13

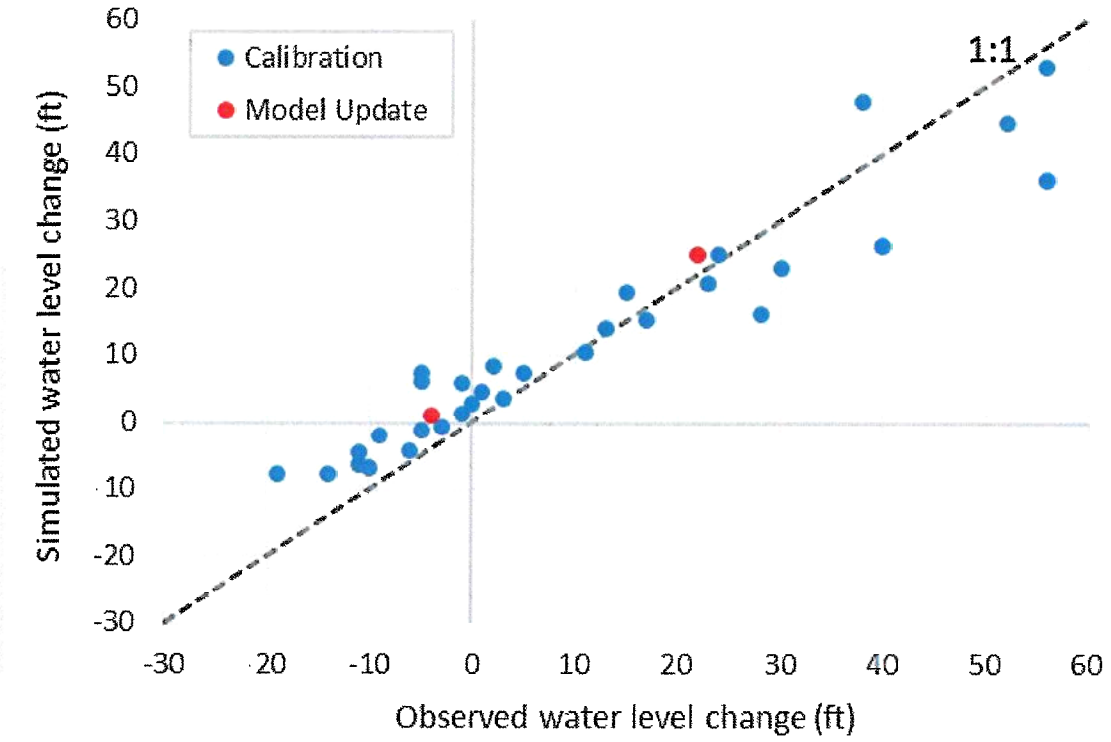


Figure 3-63. Simulated and Observed Change in Groundwater Elevation in Piru Basin (04N18W29M2) During the Wet Season (January 1 to May 1)). Groundwater elevation increases were calculated by subtracting January 1 elevations from May 1 elevations, resulting in one data point annually. Positive changes indicate an increase in groundwater elevation. Years 2016 and 2017 were not included because well 04N18W29M2 went dry.

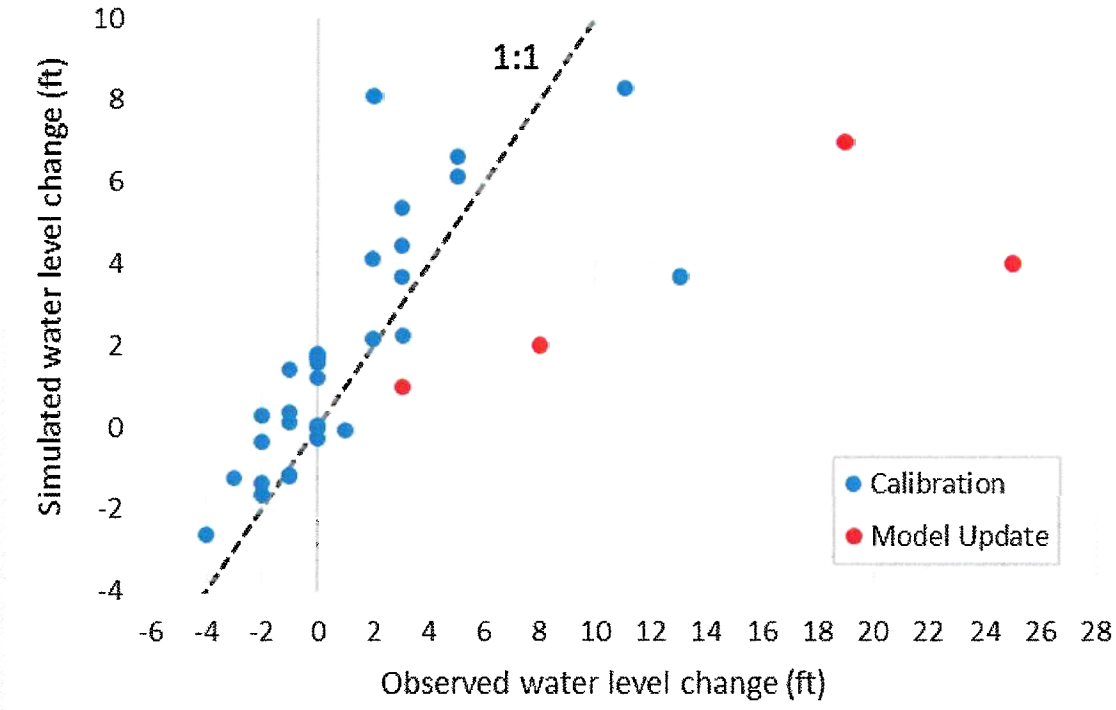


Figure 3-64. Simulated and Observed Change in Groundwater Elevation in Fillmore Basin (03N20W02A01) During the Wet Season (January 1 to May 1). Groundwater elevation increases were calculated by subtracting January 1 elevations from May 1 elevations, resulting in one data point annually. Positive changes indicate an increase in groundwater elevation.

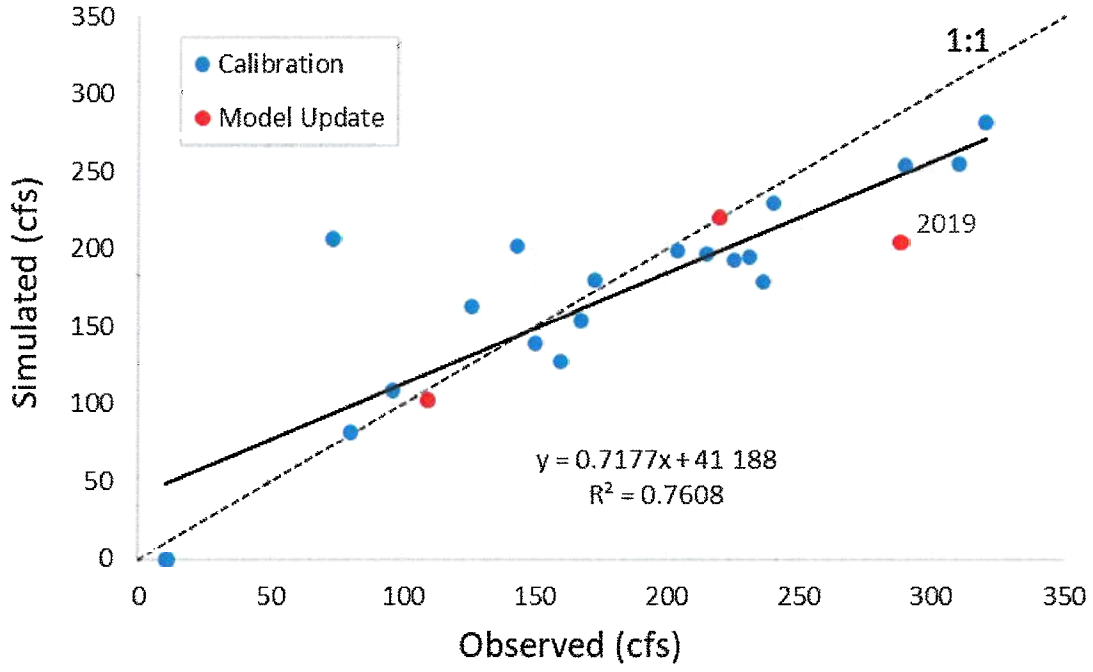


Figure 3-65. Simulated and Observed Monthly Average Streamflow Near the Downstream End of Piru Basin (Cavin Rd.) During Conservation Releases (2000-2019). Observed monthly average streamflows were calculated as the mean of observed flows when multiple flow measurements were performed during one month.

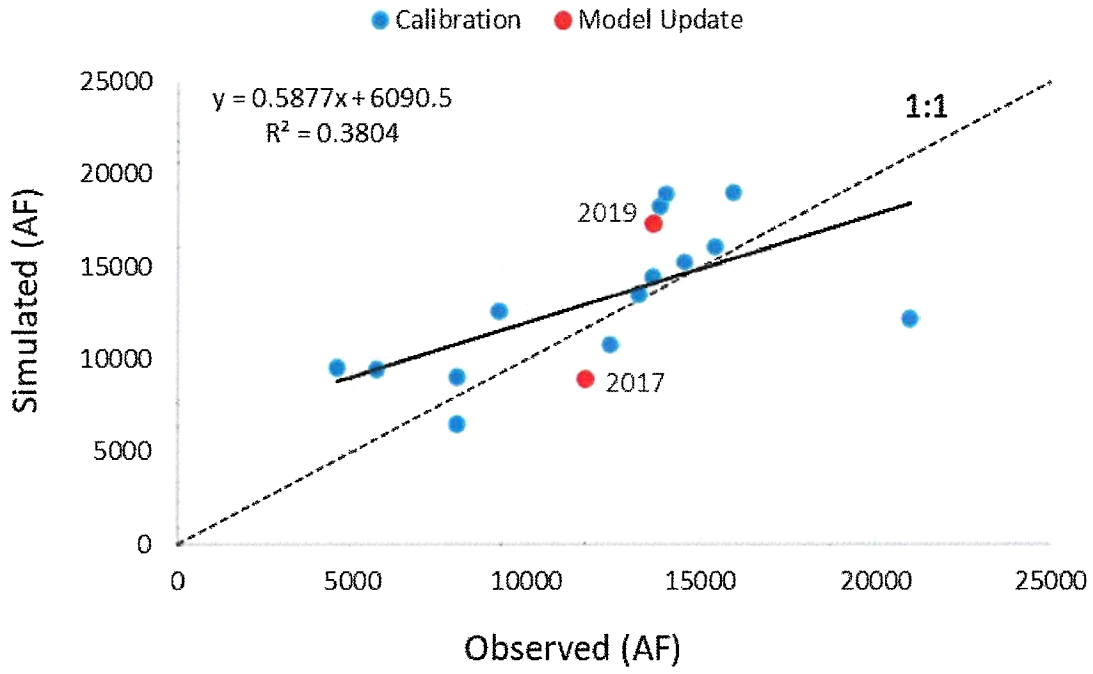


Figure 3-66. Simulated and Observed Total Percolation Volume to Piru Basin (acre-feet) During Conservation Releases (1999-2019).

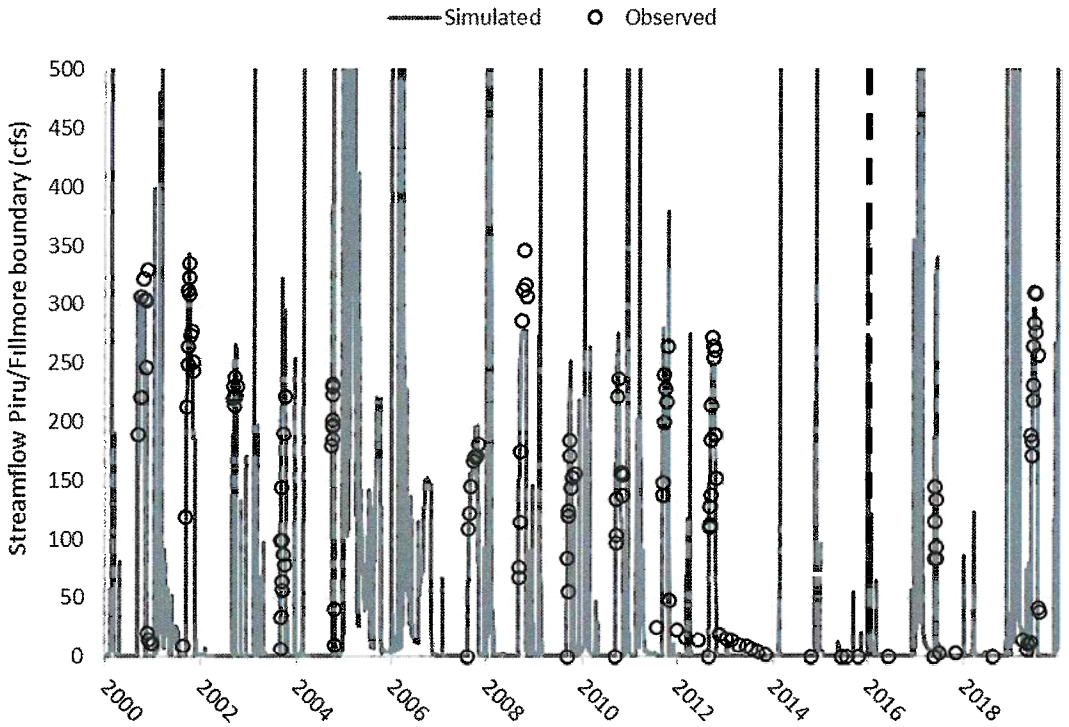
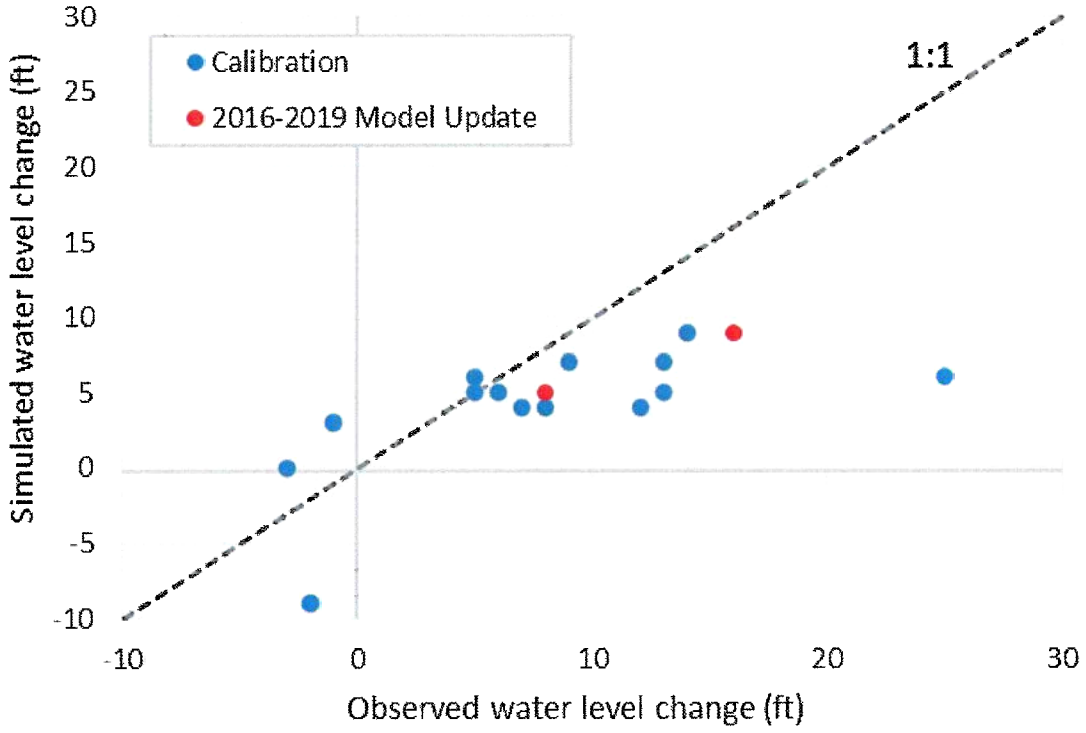


Figure 3-67. Simulated and Observed Streamflow Near the Downstream End of Piru Basin (Cavin Rd.). The hydrograph shows daily simulated streamflow, observations are discrete manual measurements (available for the period 2000-2019). The dashed black line marks the start of the Update Period.

(A)



(B)

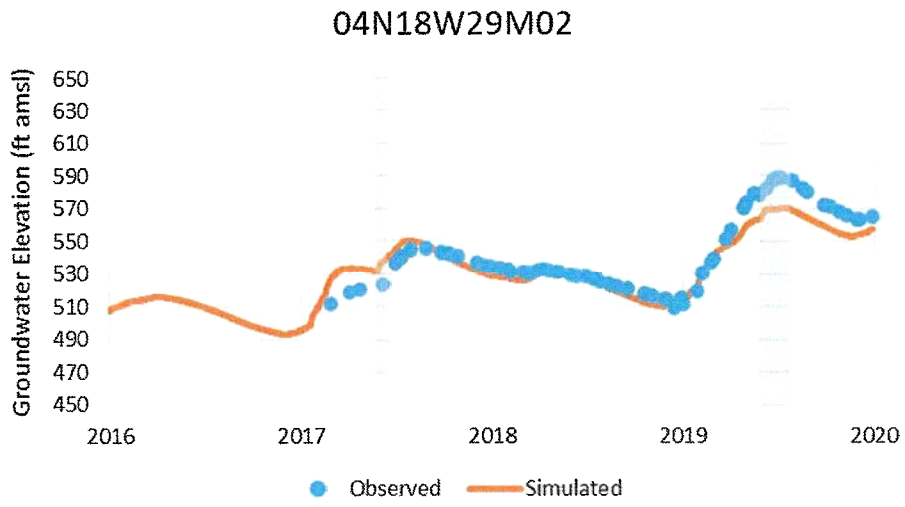


Figure 3-68. (A) Simulated and Observed Change in Groundwater Elevation in Piru Basin (well 04N18W29M2) Due to Conservation Releases. Changes in groundwater elevations were calculated as elevations just after minus elevations just before conservations releases. Positive changes indicate an increase in groundwater elevation following a release. (B) Simulated (orange line) and observed (blue dots) groundwater elevations in well 04N18W29M2. The shaded grey areas represent the periods when conservation releases were occurring.

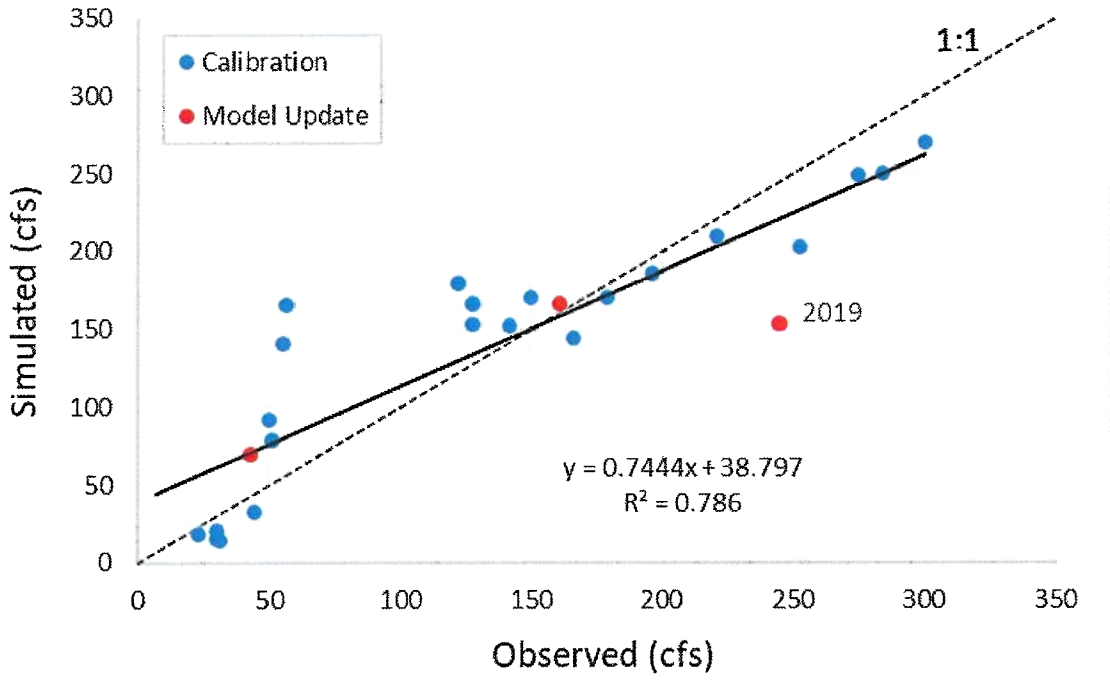


Figure 3-69. Simulated and Observed Monthly Average Streamflow Near the Downstream End of Fillmore Basin (Willard Rd.) During Conservation Releases (2000-2019). Observed monthly average streamflows were calculated as the mean of observed flows when multiple flow measurements were performed during one month.

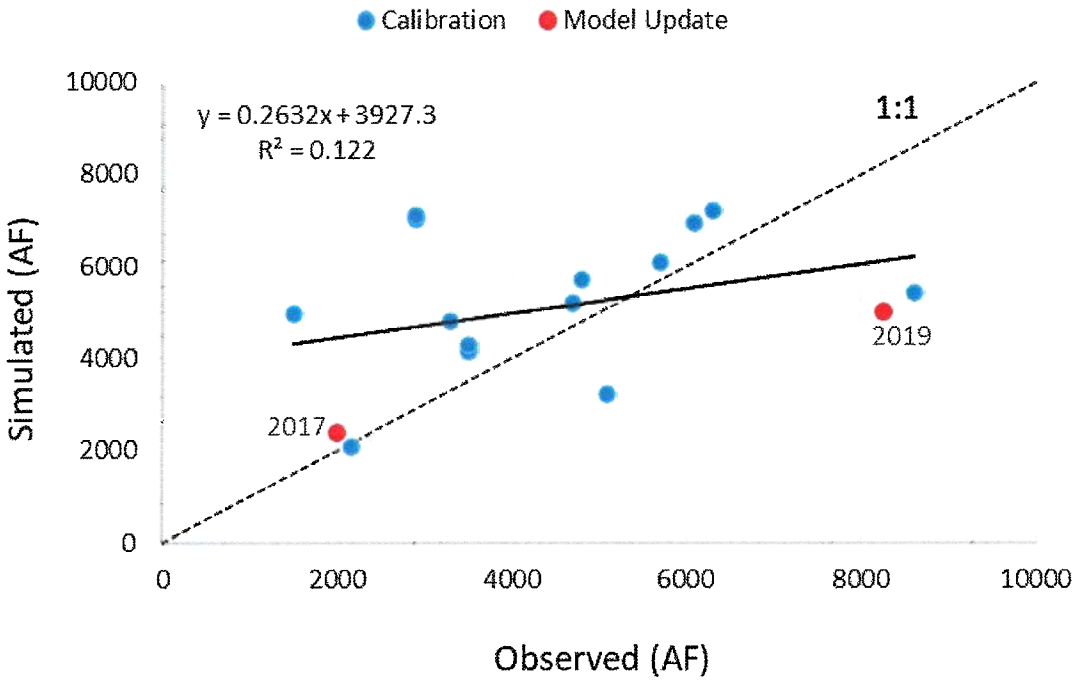


Figure 3-70. Simulated and Observed Total Percolation Volume in Fillmore Basin (acre-feet) During Conservation Releases (1999-2019).

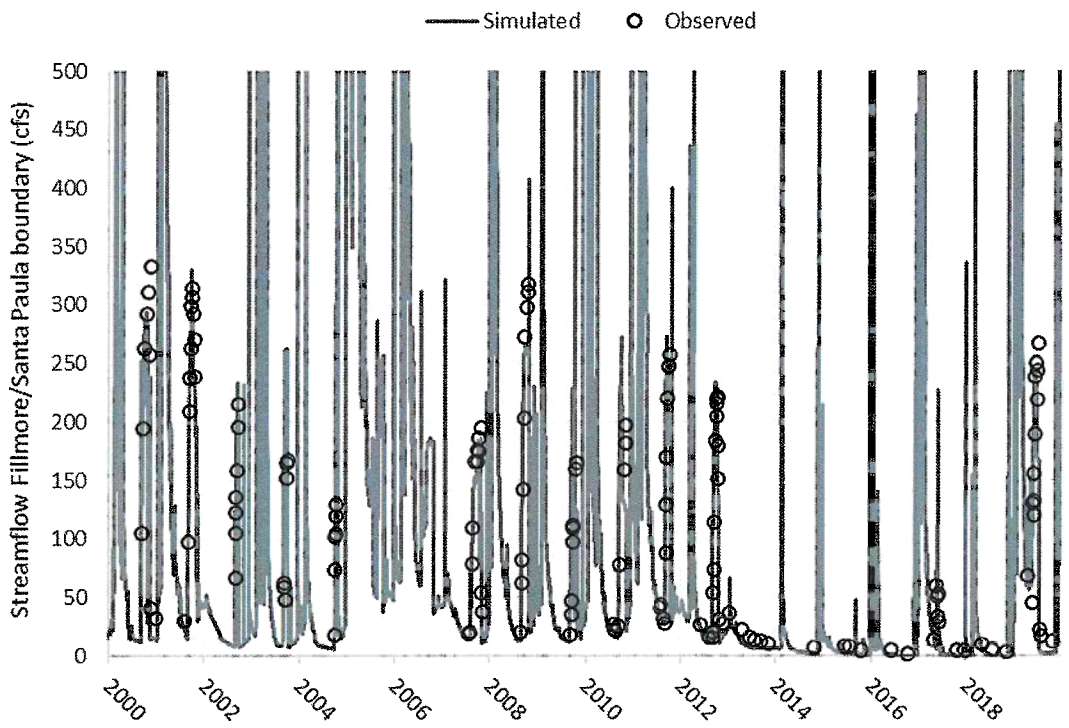
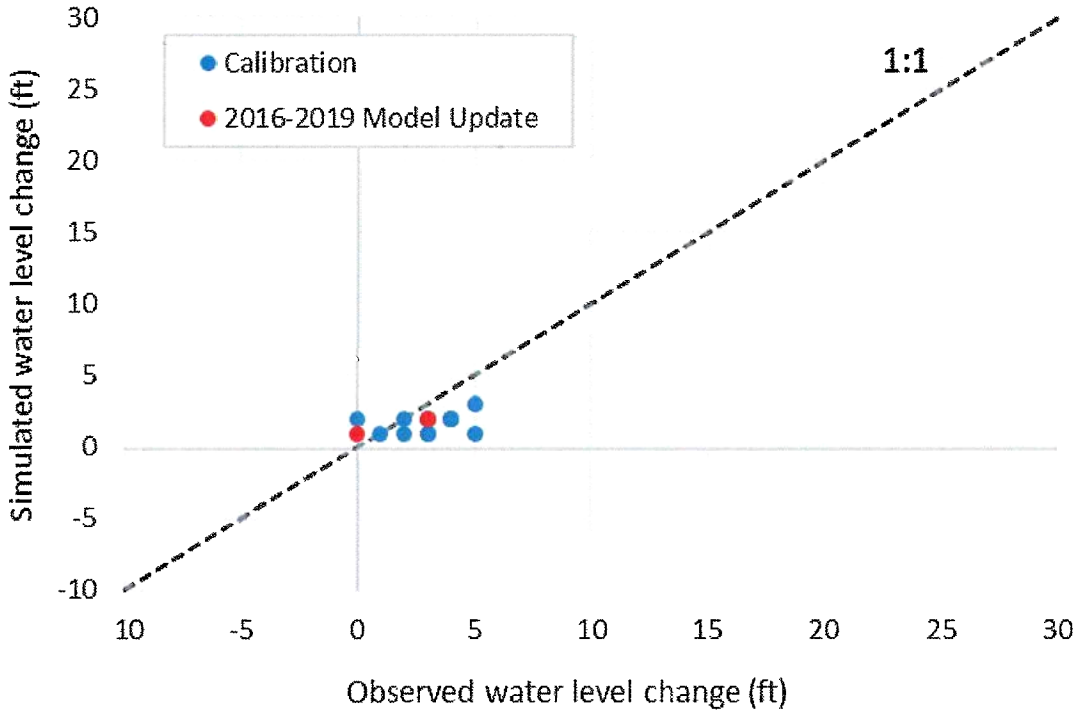


Figure 3-71. Simulated and Observed Streamflow Near the Downstream End of Fillmore Basin (Willard). The hydrograph shows daily simulated streamflow, observations are discrete manual measurements (available for the period 2000-2019). The dashed black line marks the start of the Update Period.

(A)



(B)

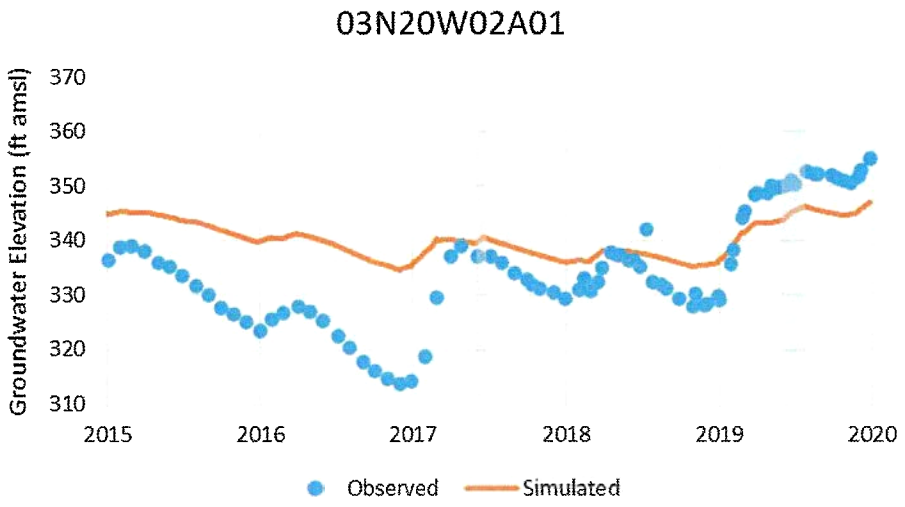


Figure 3-72. (A) Simulated and Observed Change in Groundwater Elevation in Fillmore Basin (03N20W02A01) Due to Conservation Releases. Changes in groundwater elevations were calculated as elevations just after minus elevations just before conservations releases. Positive changes indicate an increase in groundwater elevation. (B) Simulated (orange line) and observed (blue dots) groundwater elevations in well 03N20W02A01. The shaded grey areas represent the periods when conservation releases were occurring.

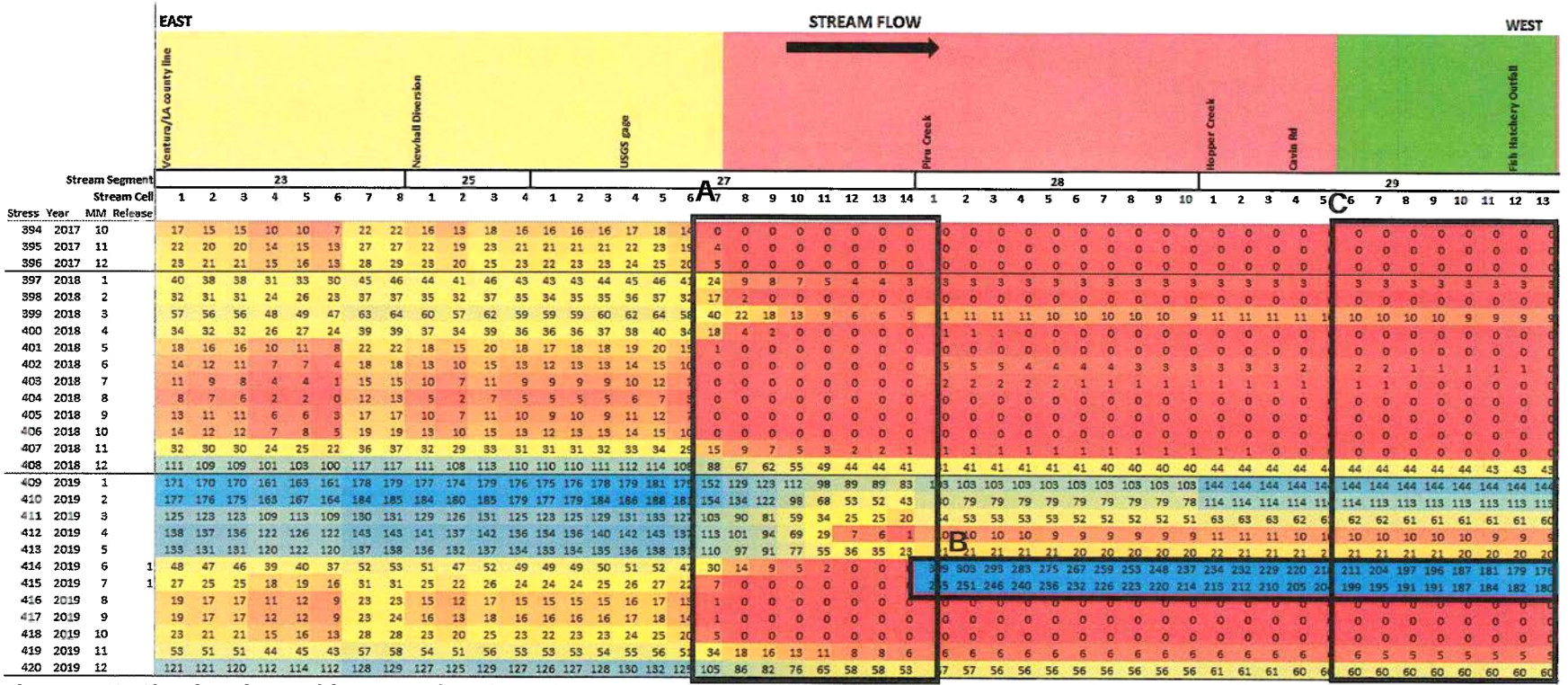


Figure 3-73. Simulated Monthly Streamflow in the Santa Clara River across Piru basin (UWCD groundwater model stream segments 23 –29). Monthly streamflow is derived from daily model outputs. Columns indicate one model cell, rows indicate months, flow direction is from left to right. Watershed features are indicated at the top for reference, including known losing (red), gaining (green), and stable (yellow) reaches. In the heatmap with monthly flows, flow magnitudes are colored from low (red) to high (blue). A. Upstream portion of dry gap in Piru basin, B. Stream channel percolation during the 2019 conservation release, C. Piru-Fillmore basin boundary area of rising groundwater.

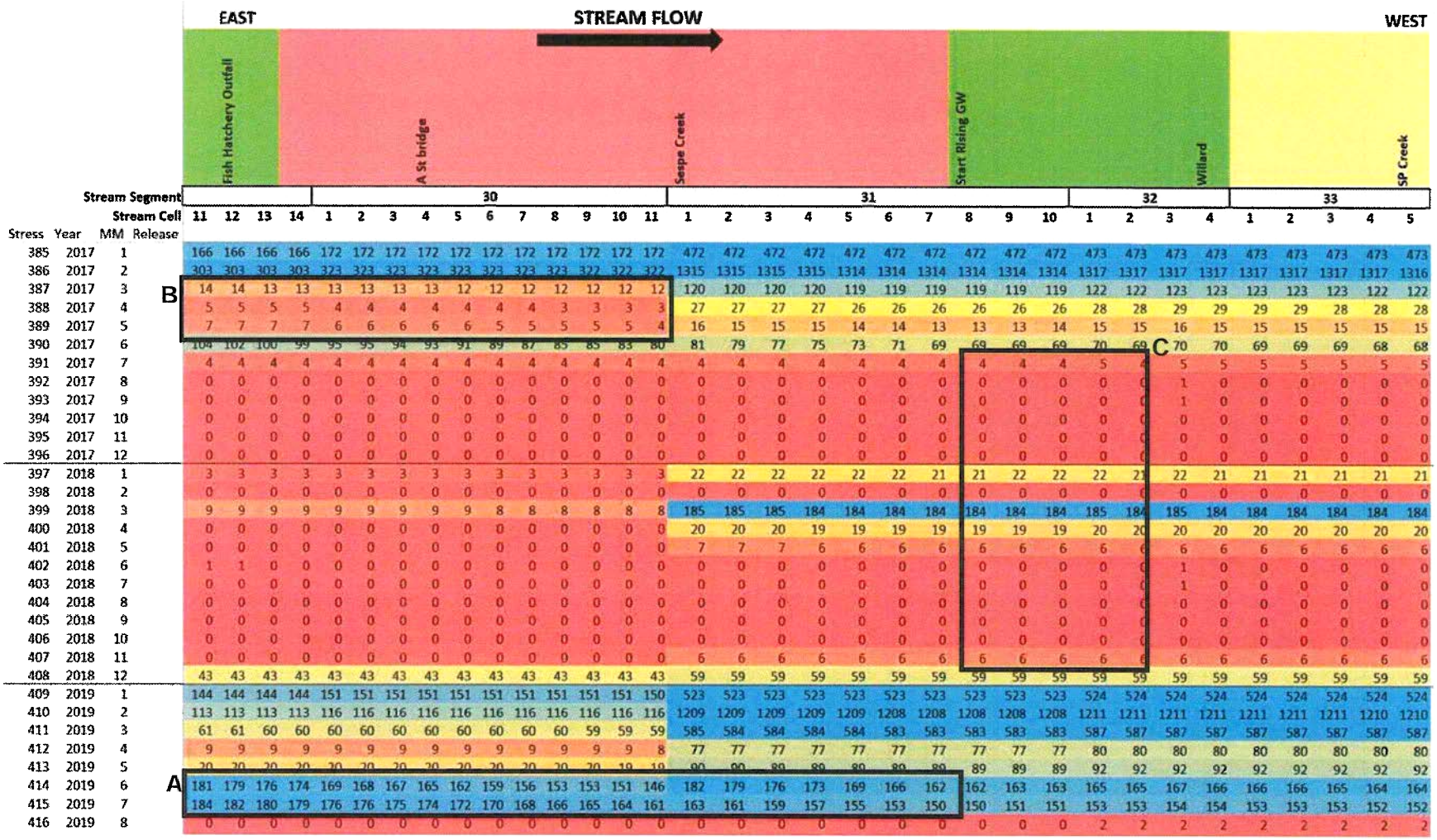
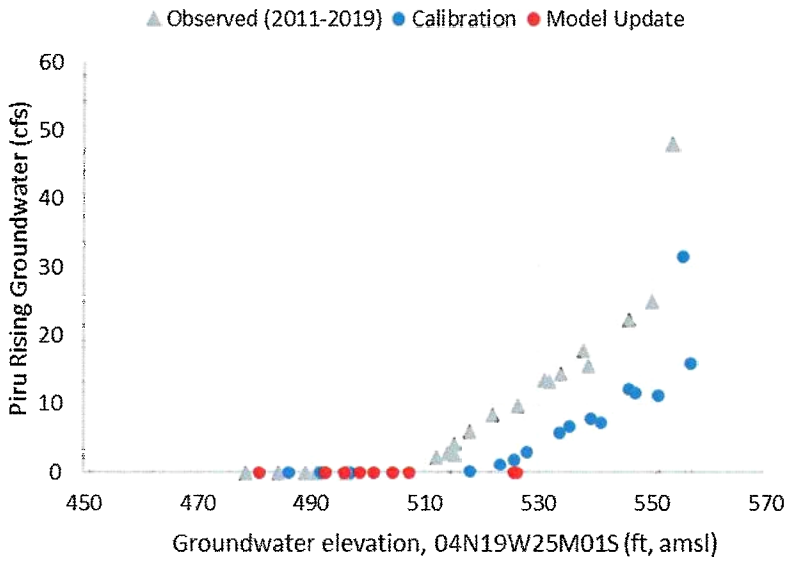


Figure 3-74. Simulated Monthly Streamflow in the Santa Clara River across Fillmore Basin (UWCD groundwater model stream segments 30 – 32). Monthly streamflow is derived from daily model outputs. Columns indicate one model cell, rows indicate months, flow direction is from left to right. Watershed features are indicated at the top for reference, including known losing (red), gaining (green), and stable (yellow) reaches. In the heatmap with monthly flows, flow magnitudes are colored from low (red) to high (blue). A. Stream channel percolation during conservation release, B. Stream channel percolation during dry winter period with low flows, C. Fillmore – Santa Paula basin boundary with rising groundwater.

(A)



(B)

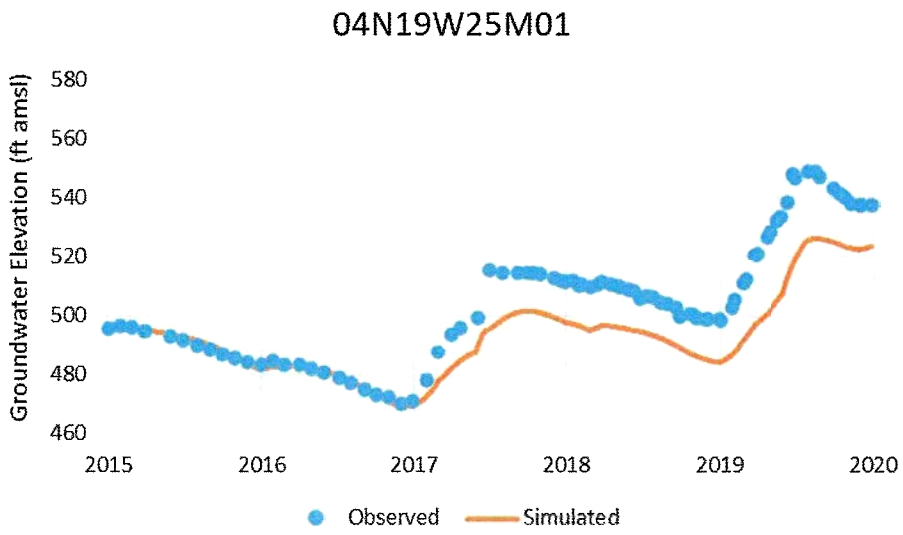
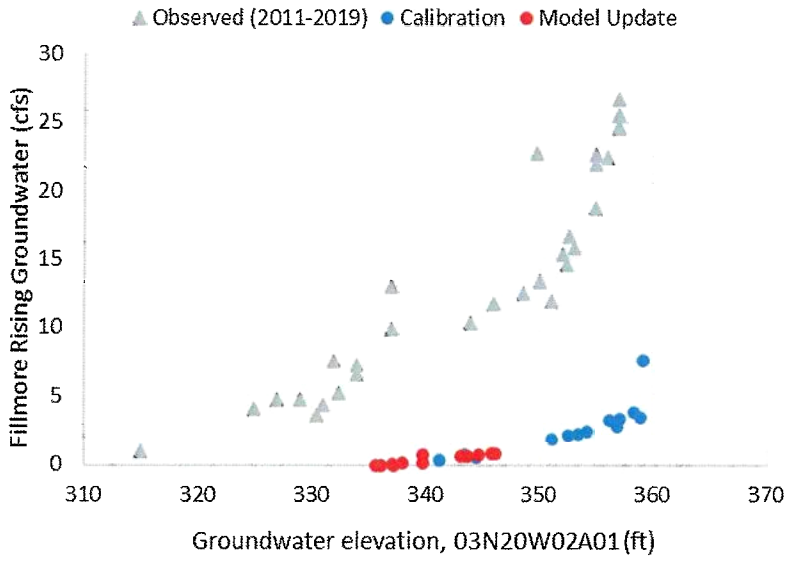


Figure 3-75. (A) Simulated and Observed Relationship Between Rising Groundwater at the Piru-Fillmore Basin Boundary and Groundwater Elevation in Piru Basin Well 04N19W25M01. (B) Simulated (orange line) and observed (blue dots) groundwater elevations in Piru basin well 04N19W25M01.

(A)



(B)

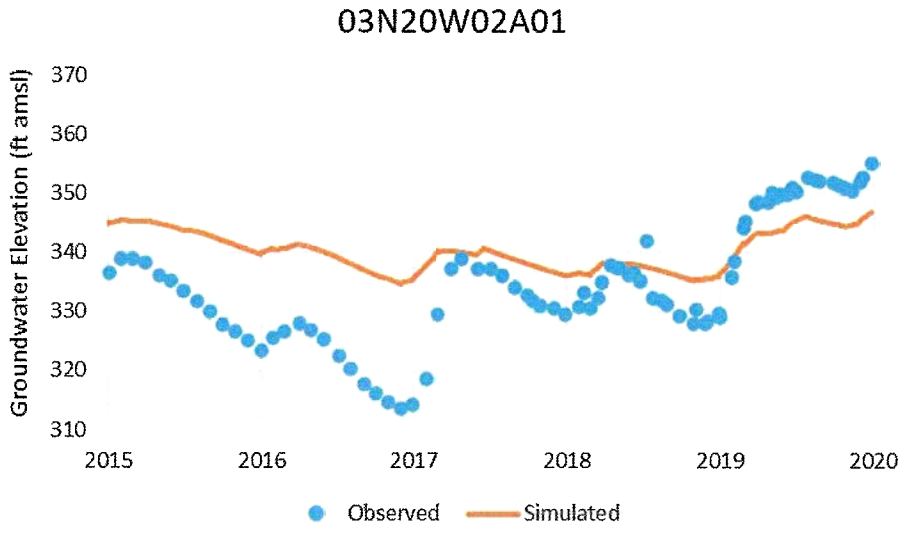


Figure 3-76. (A) Simulated and Observed Relationship Between Rising Groundwater at the Fillmore-Santa Paula Basin Boundary and Groundwater Elevation in Fillmore Basin Well 03N20W02A01. (B) Simulated (orange line) and observed (blue dots) groundwater elevations in Fillmore basin well 03N20W02A01.

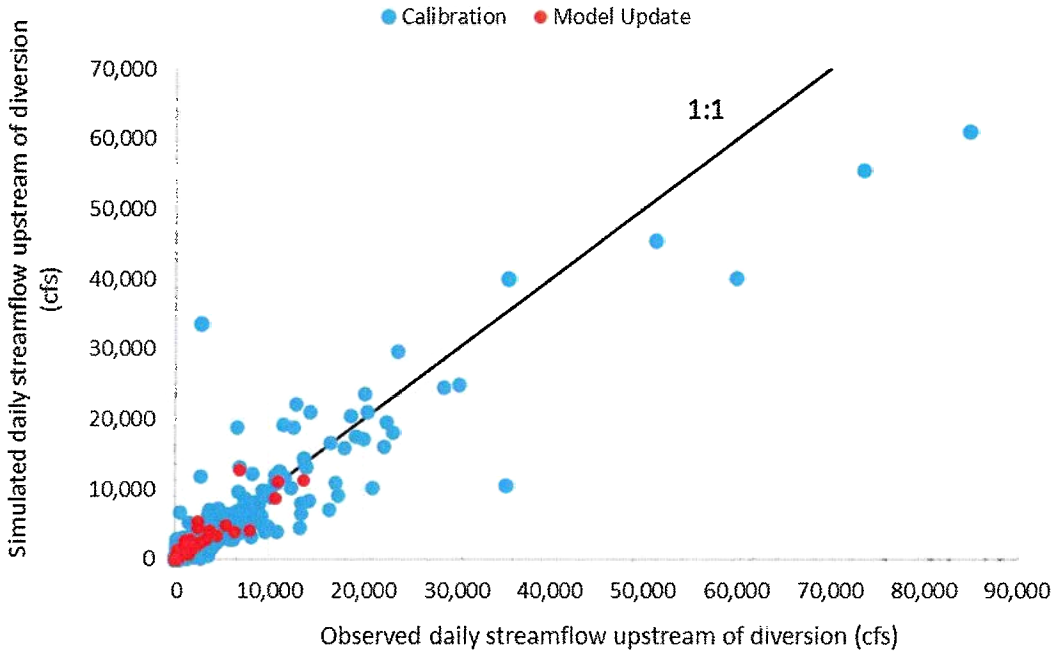


Figure 3-77. Simulated and Observed Daily Streamflow Upstream of the Freeman Diversion.

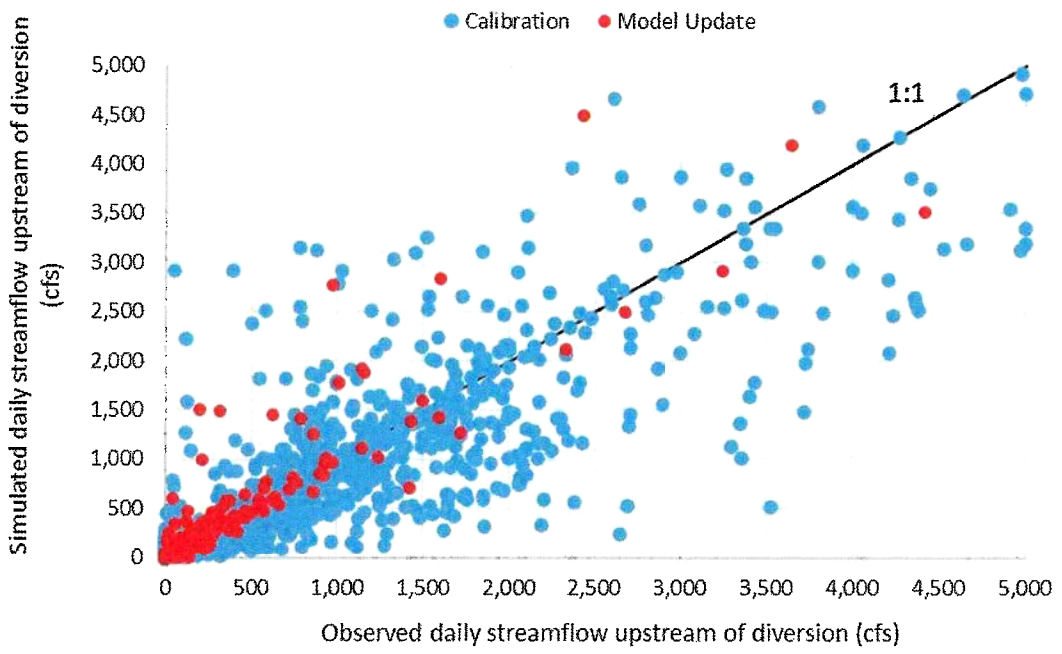


Figure 3-78. Simulated and Observed Daily Streamflow (Low Ranges) Upstream of the Freeman Diversion.

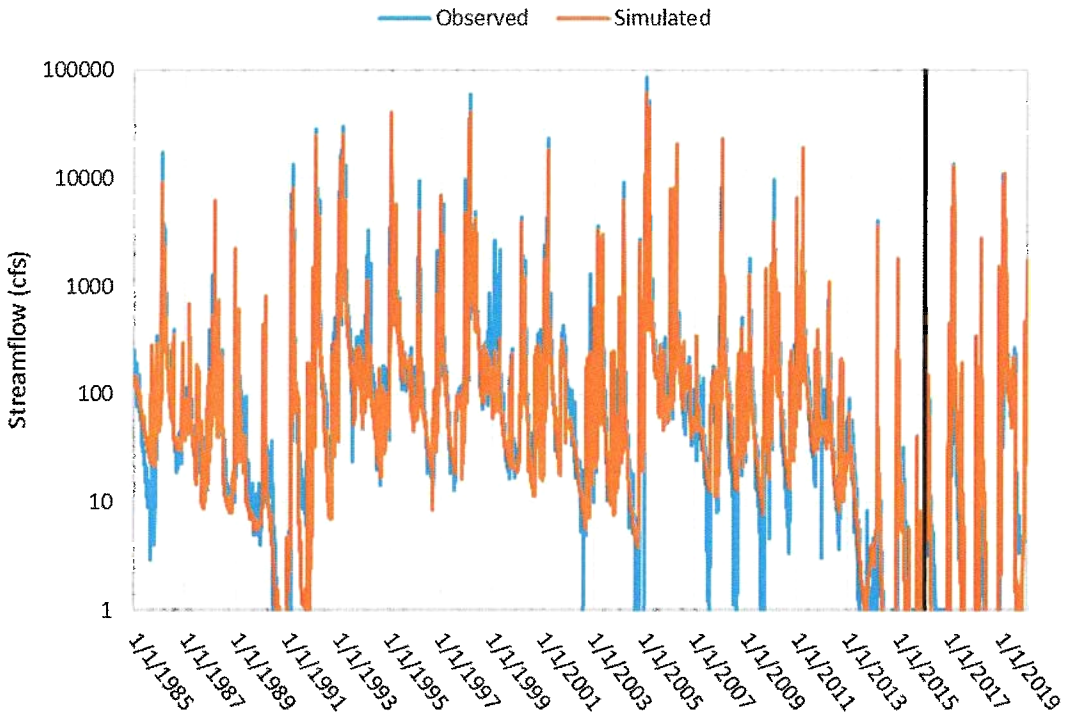


Figure 3-79. Observed and simulated daily streamflow in the SCR just upstream of the Freeman Diversion. The black vertical line indicates the start of the Update Period.

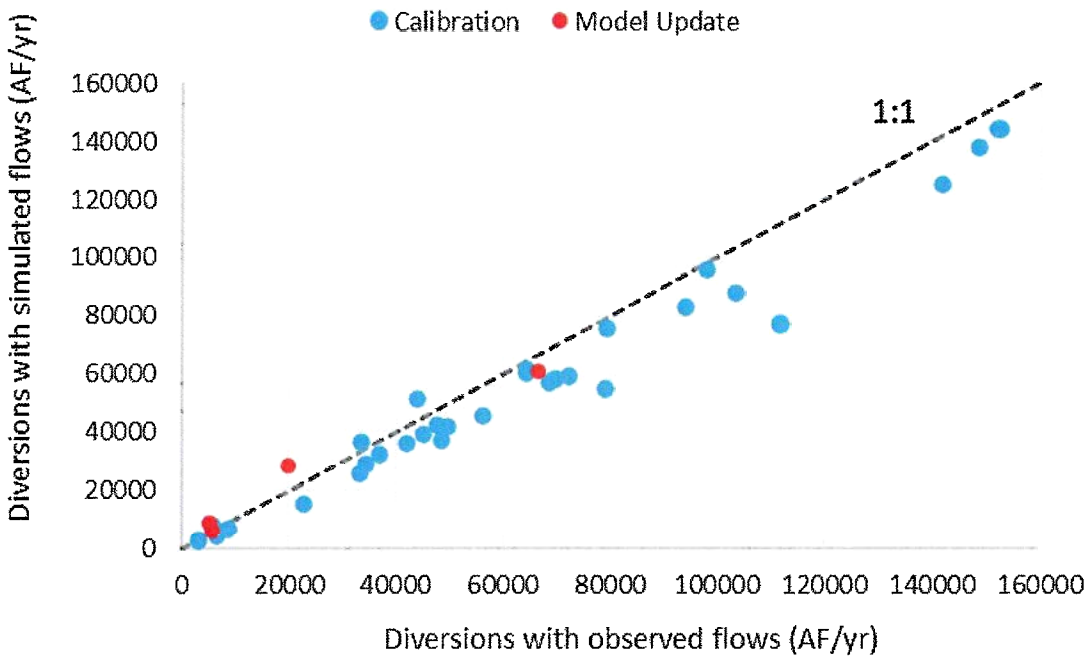


Figure 3-80. Correlation between simulated annual diversions based on observed streamflow and simulated annual diversions based on streamflow from Regional Model. Simulated annual diversions were calculated using the Hydrological Operations Simulation System (HOSS) model, assuming bypass flow operations proposed in United's Freeman Diversion Multiple Species Habitat Conservation Plan, without any infrastructure improvements. The grey line represents the 1:1 line.

Appendix A –Additional Hydrographs

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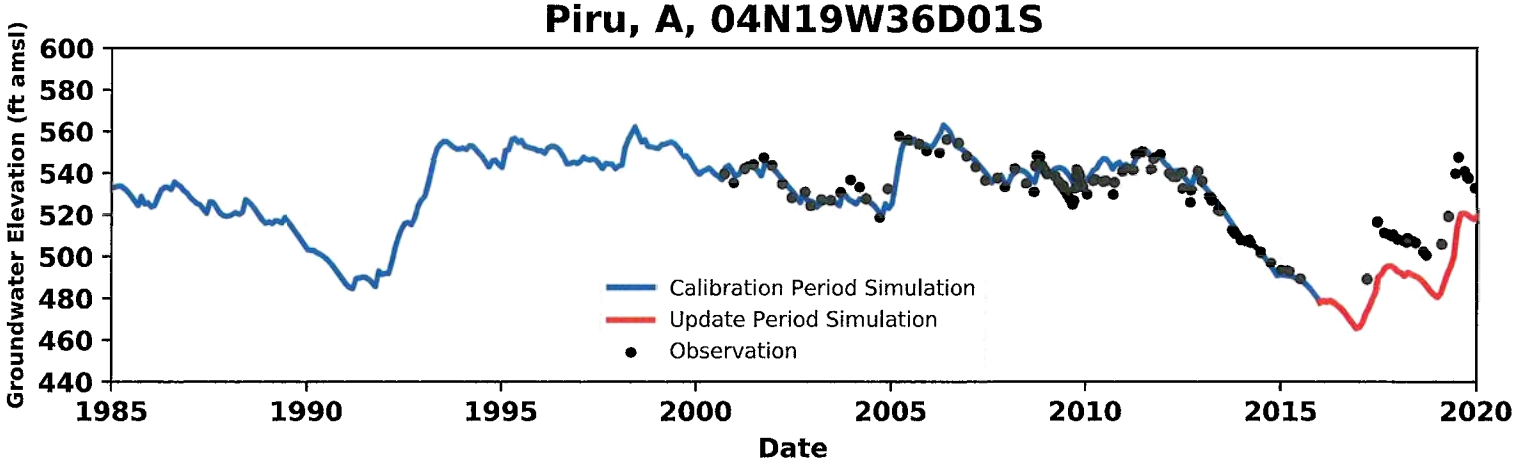
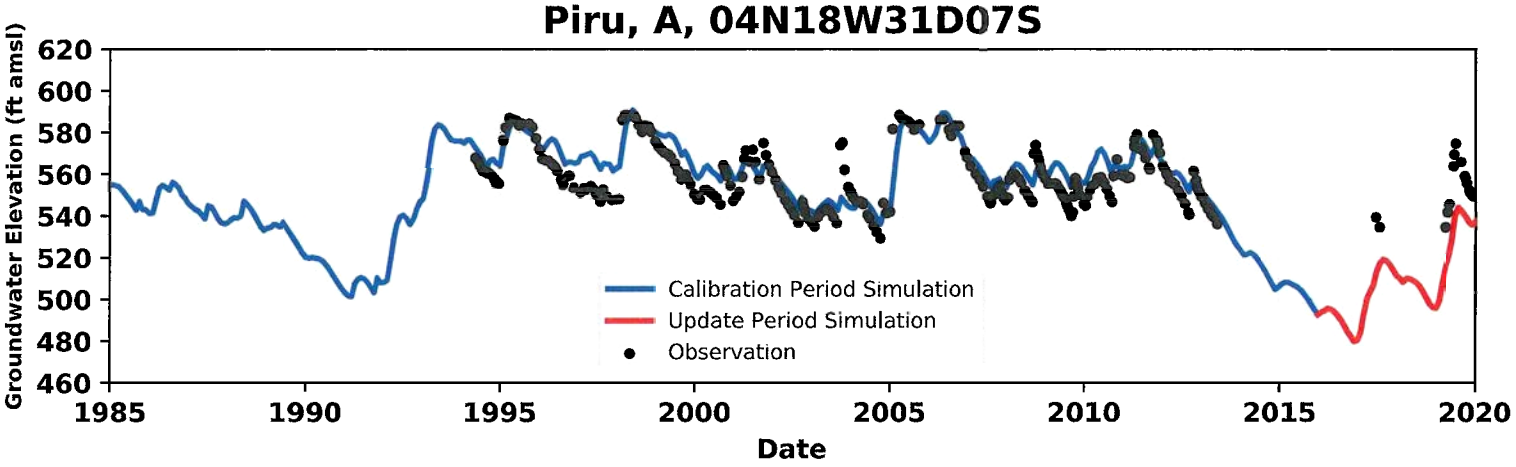
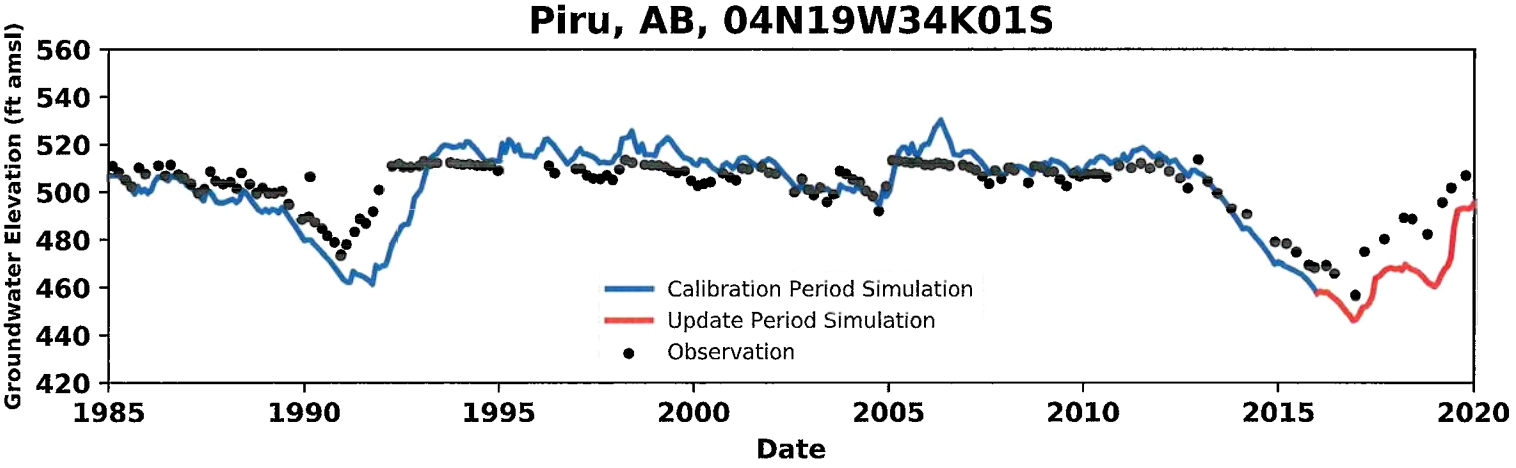
Piru, A, 04N19W36D01S



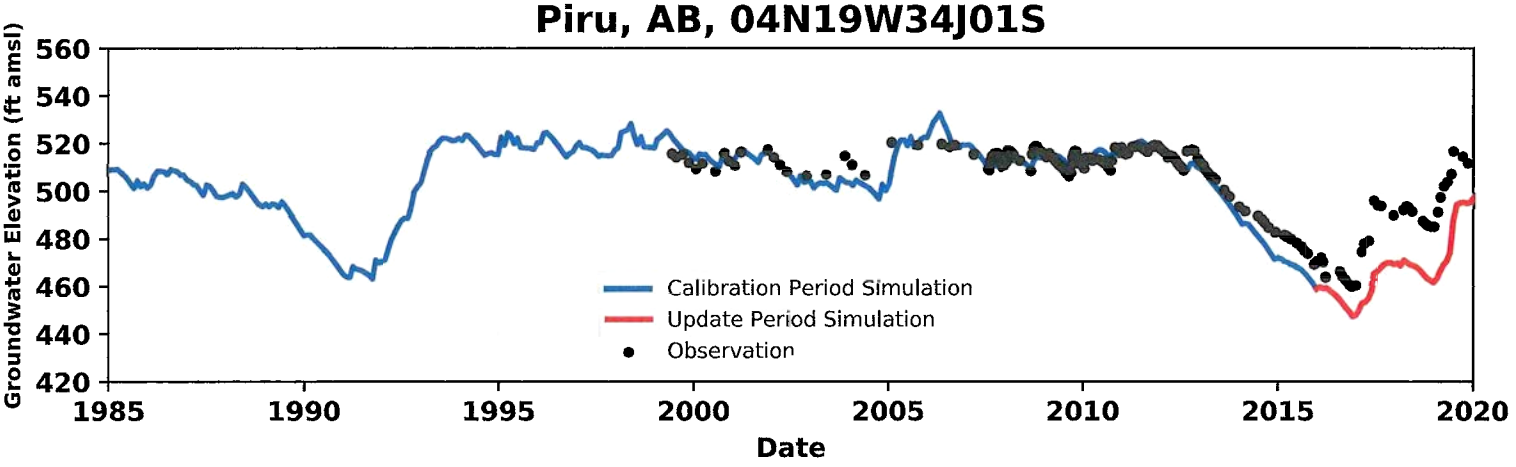
Piru, A, 04N18W31D07S

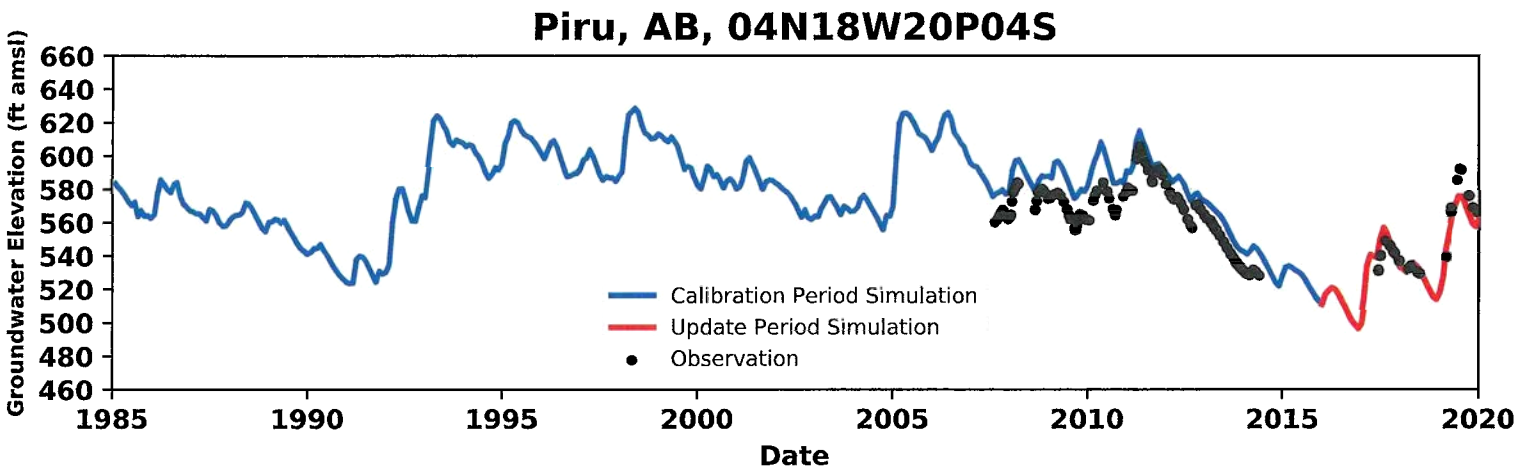


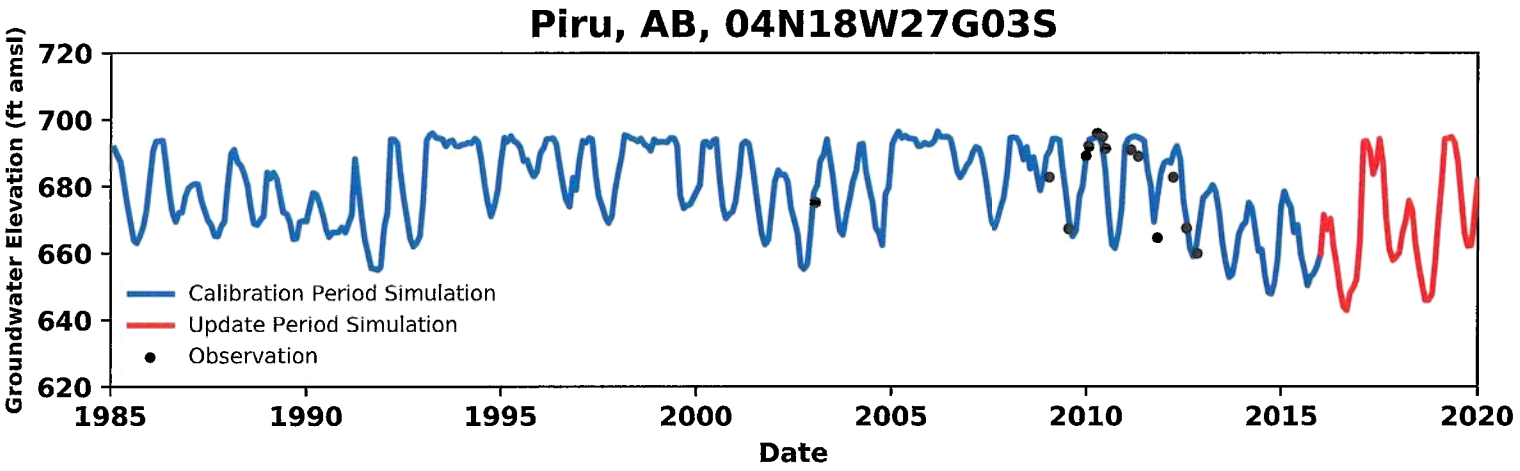
Piru, AB, 04N19W34K01S

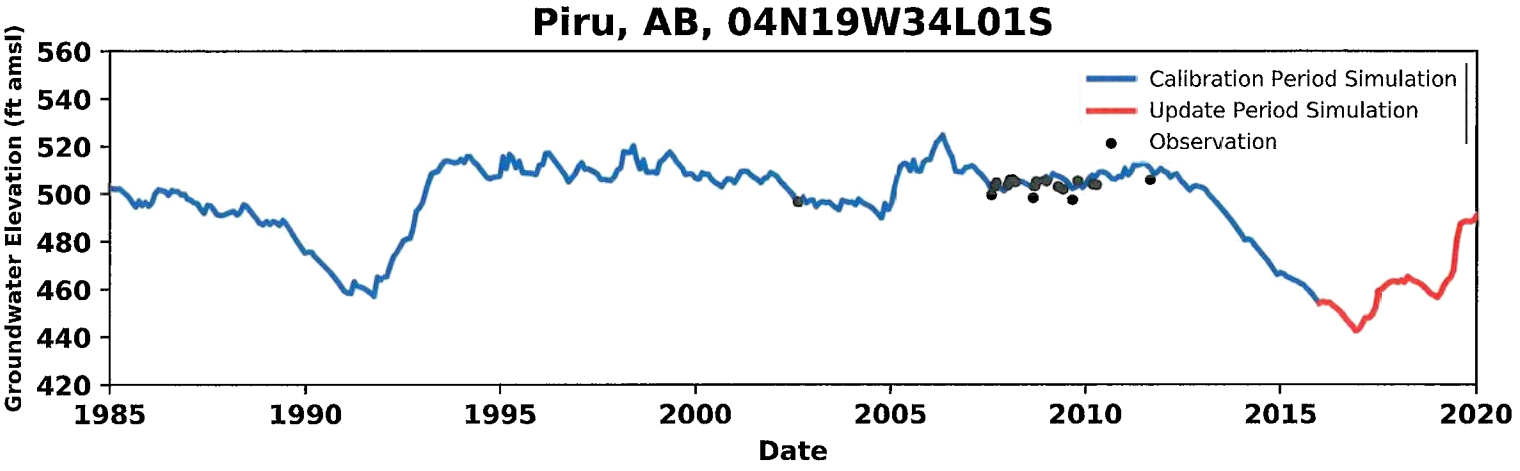


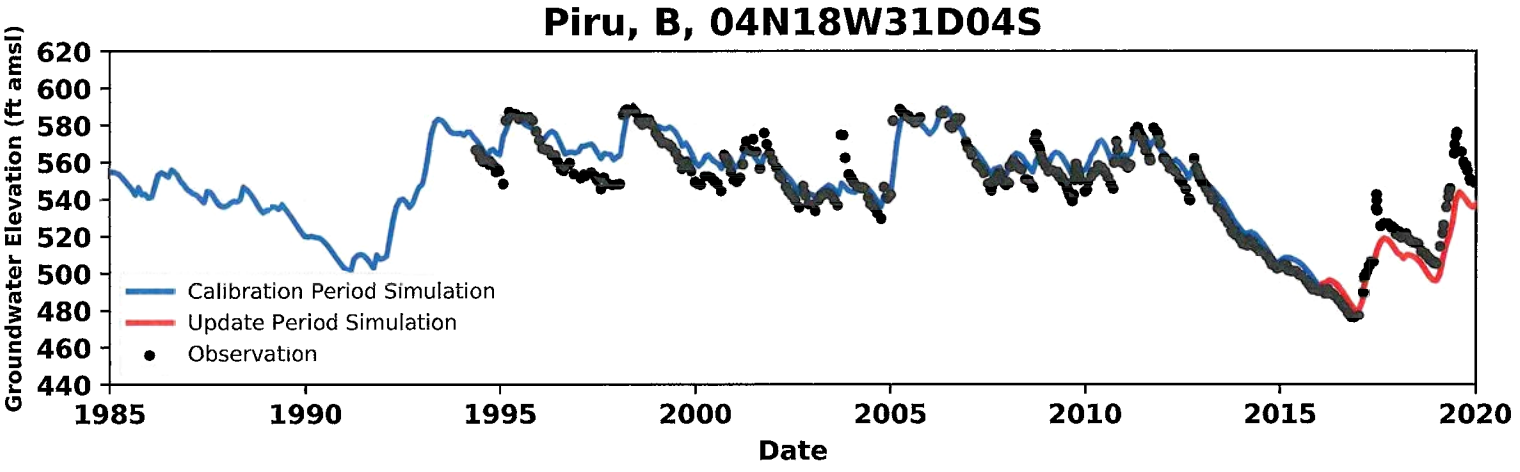
Piru, AB, 04N19W34J01S

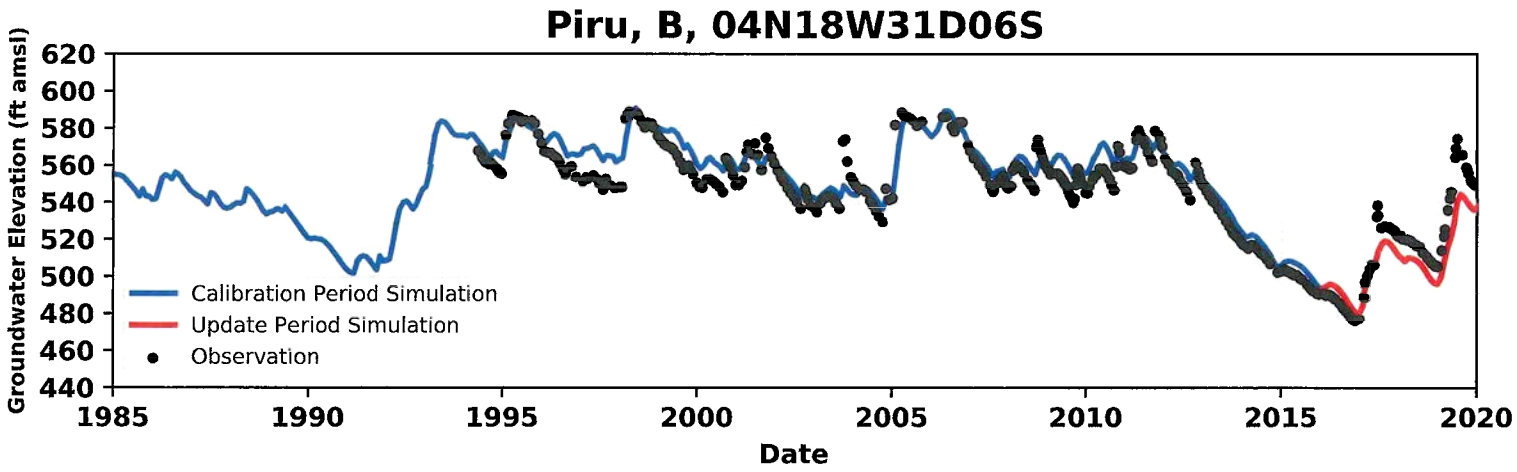


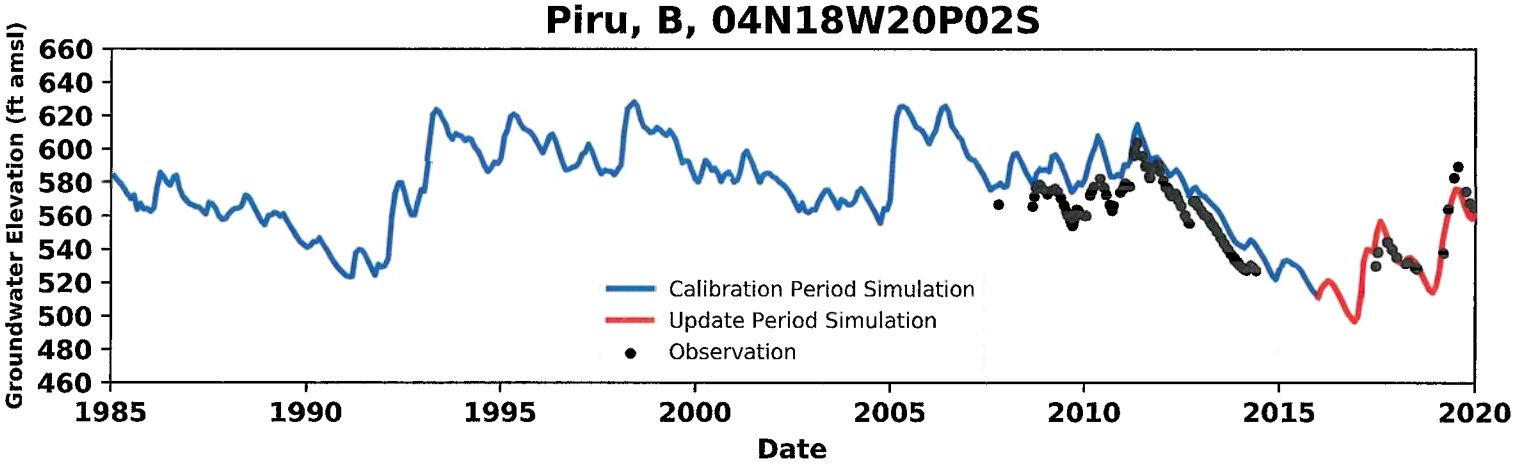

Piru, AB, 04N18W20P04S
Groundwater Elevation (ft amsl)
660
640
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

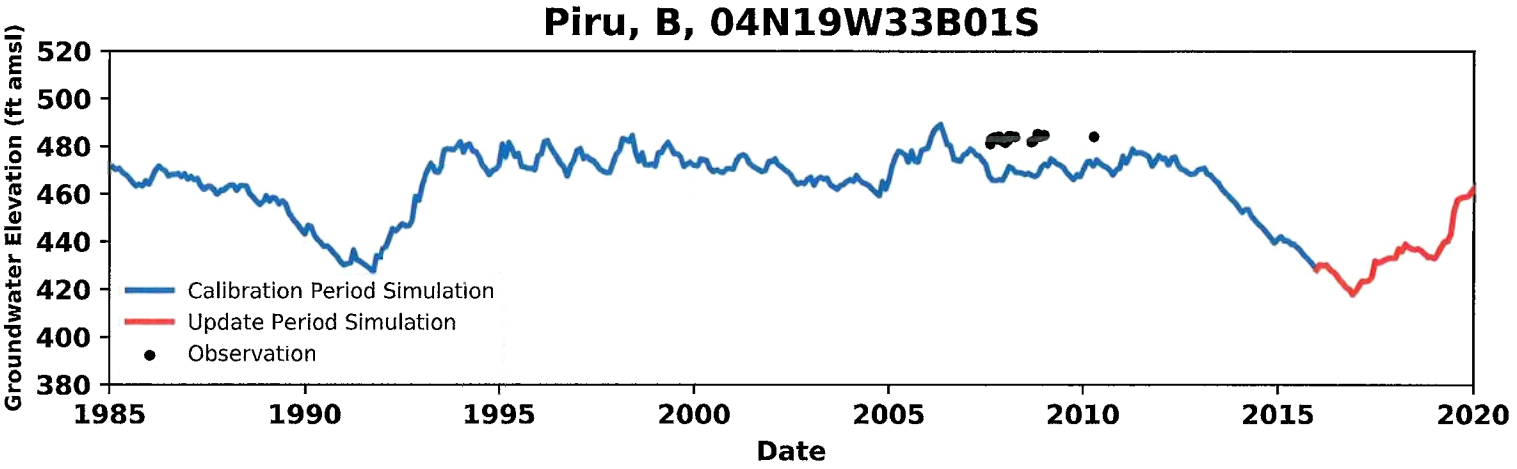

Piru, AB, 04N18W27G03S
Groundwater Elevation (ft amsl)
720
700
680
660
640
620
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

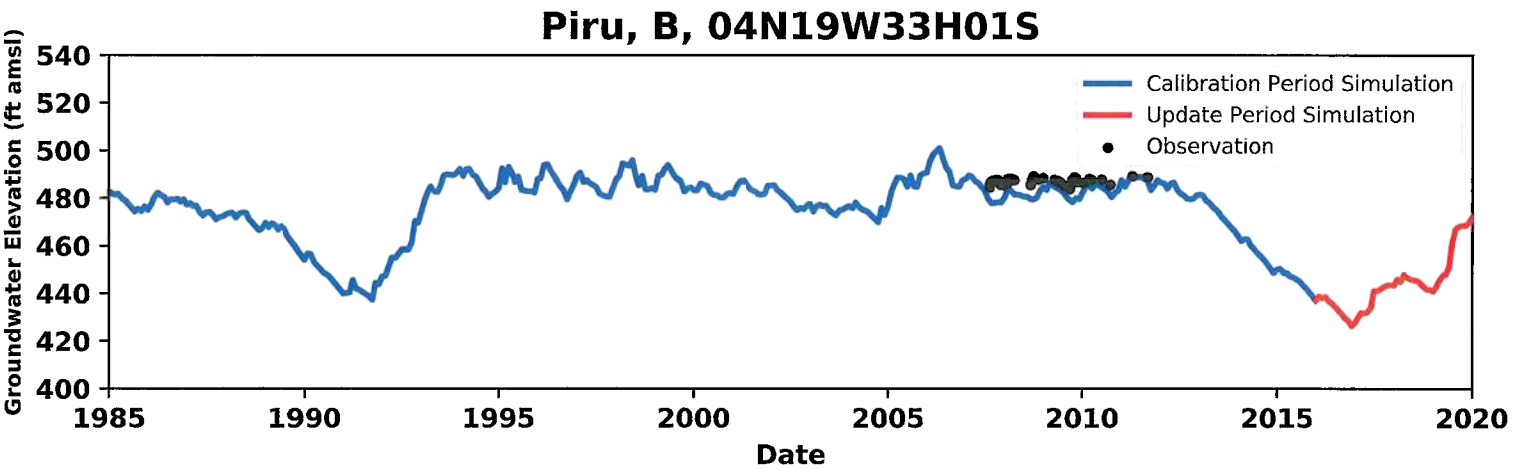

Piru, AB, 04N19W34L01S
Groundwater Elevation (ft amsl)
560
540
520
500
480
460
440
420
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Piru, B, 04N18W31D04S
Groundwater Elevation (ft amsl)
620
600
580
560
540
520
500
480
460
440
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

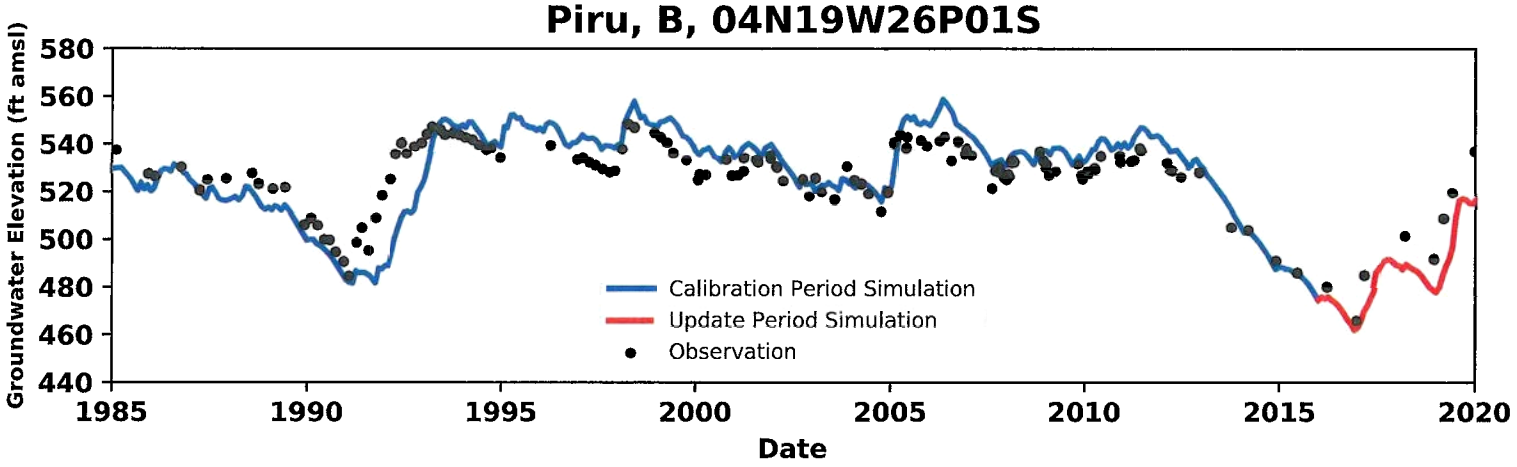

Piru, B, 04N18W31D06S
Groundwater Elevation (ft amsl)
620
600
580
560
540
520
500
480
460
440
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Piru, B, 04N18W20P02S
Groundwater Elevation (ft amsl)
660
640
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

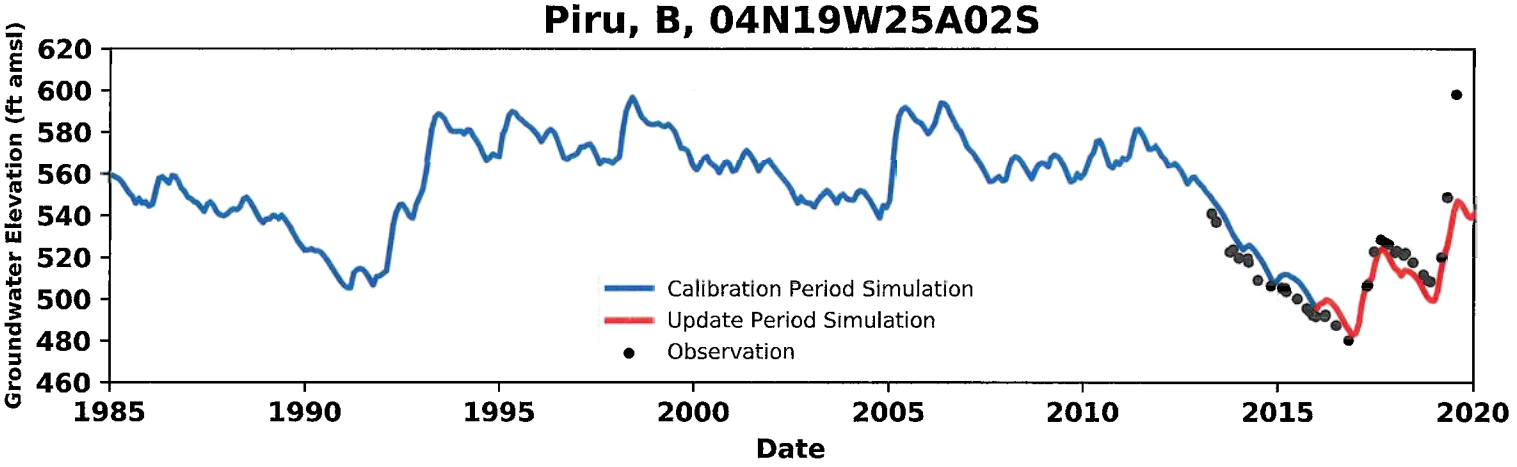

Piru, B, 04N19W33B01S
Groundwater Elevation (ft amsl)
520
500
480
460
440
420
400
380
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Piru, B, 04N19W33H01S
Groundwater Elevation (ft amsl)
540
520
500
480
460
440
420
400
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

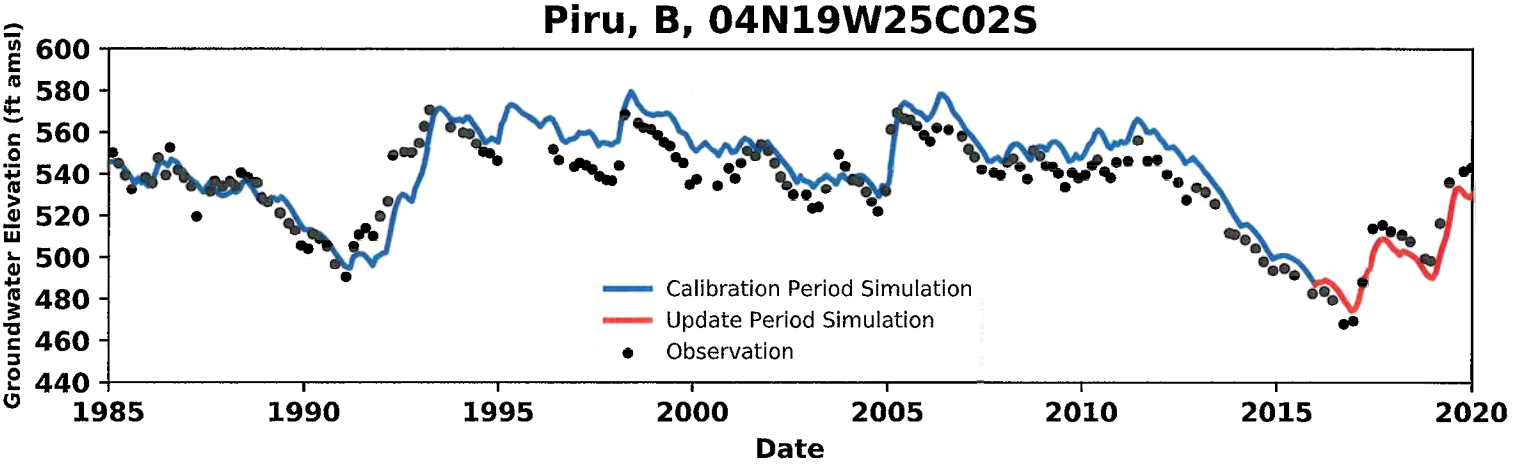
Piru, B, 04N19W26P01S



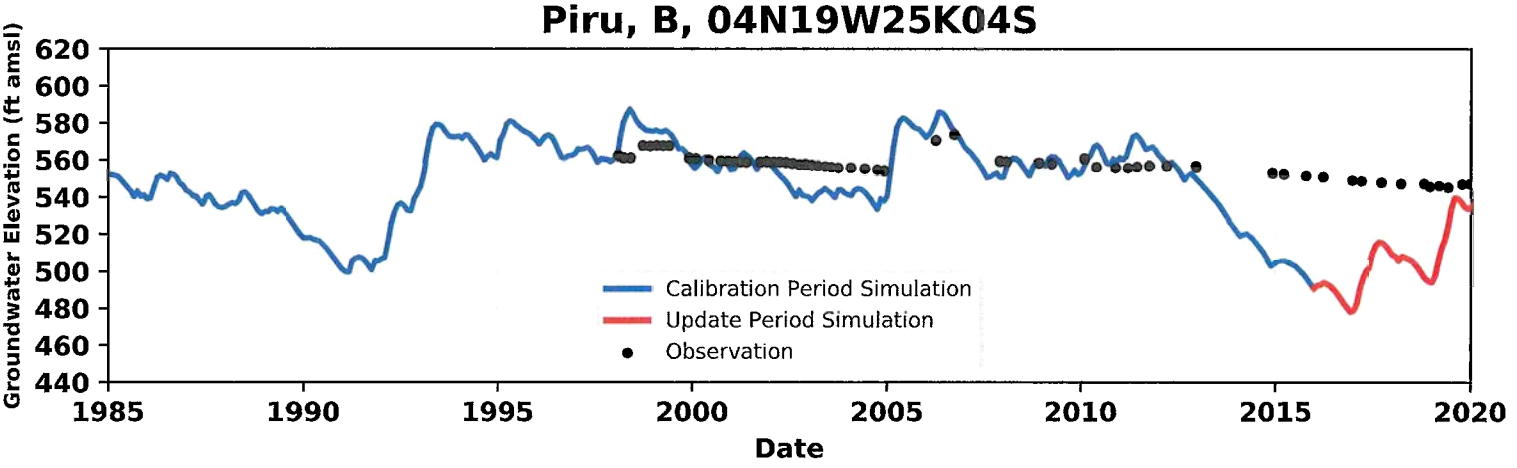
Piru, B, 04N19W25A02S

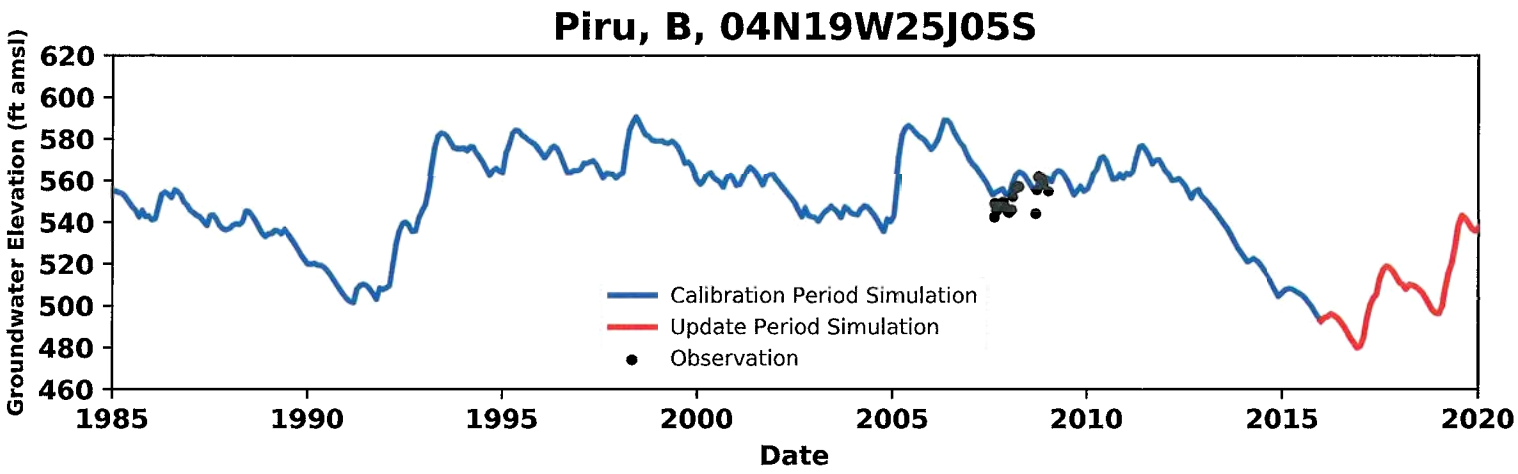


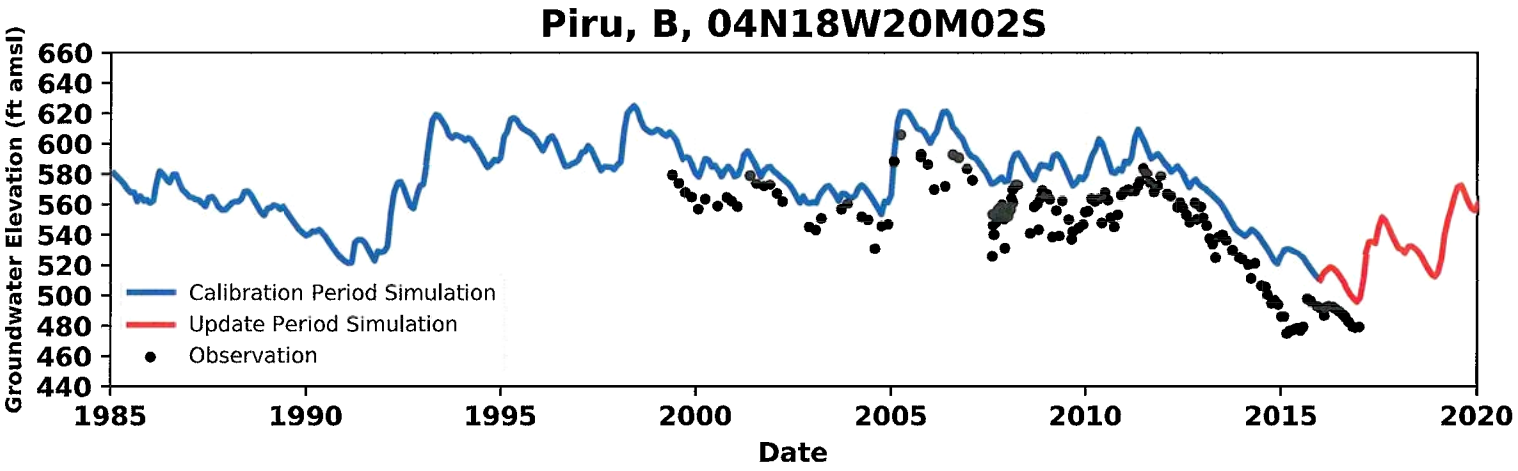
Piru, B, 04N19W25C02S

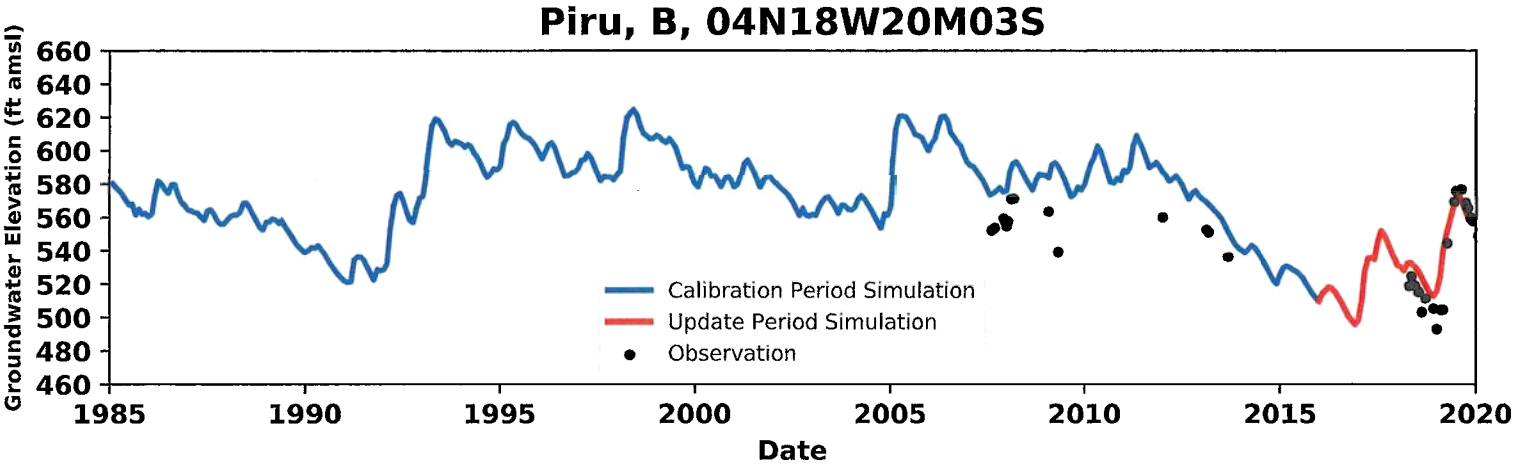


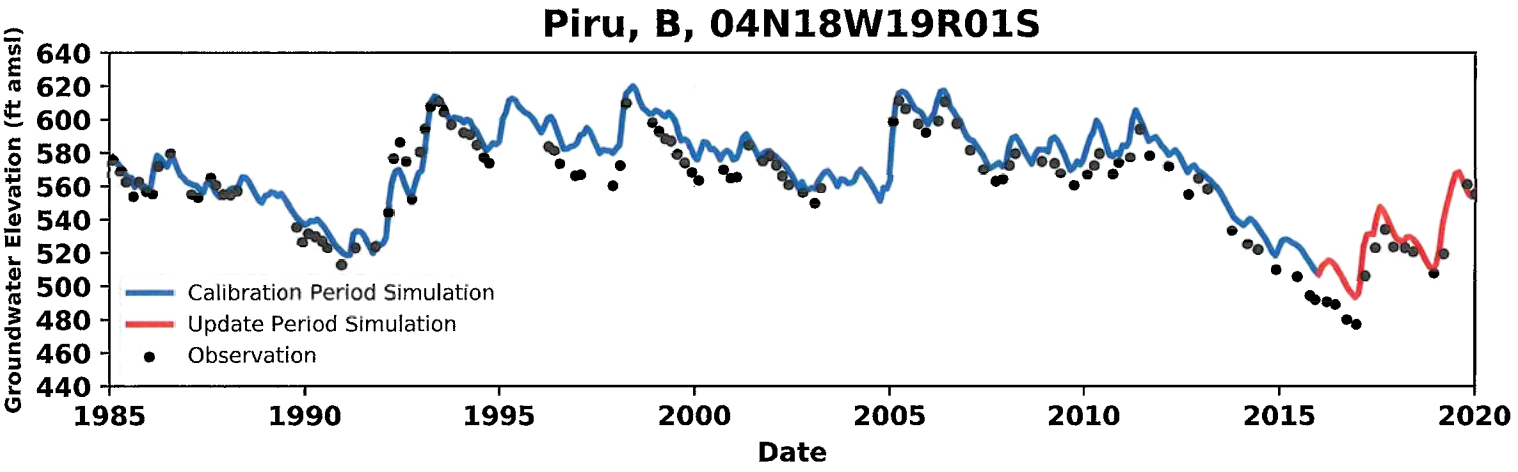
Piru, B, 04N19W25K04S

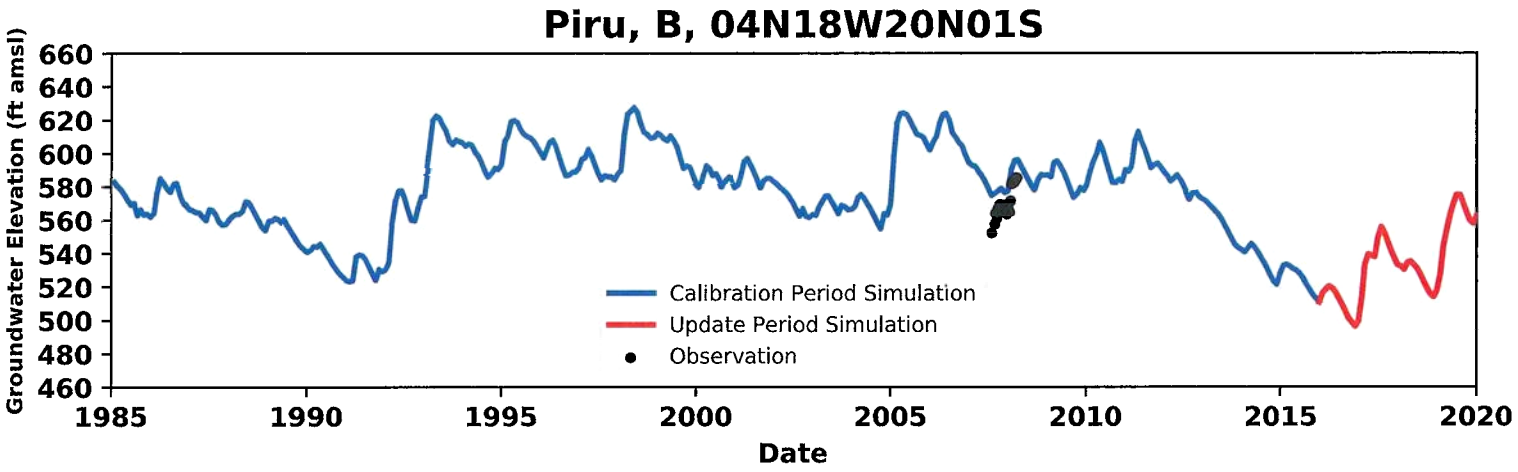


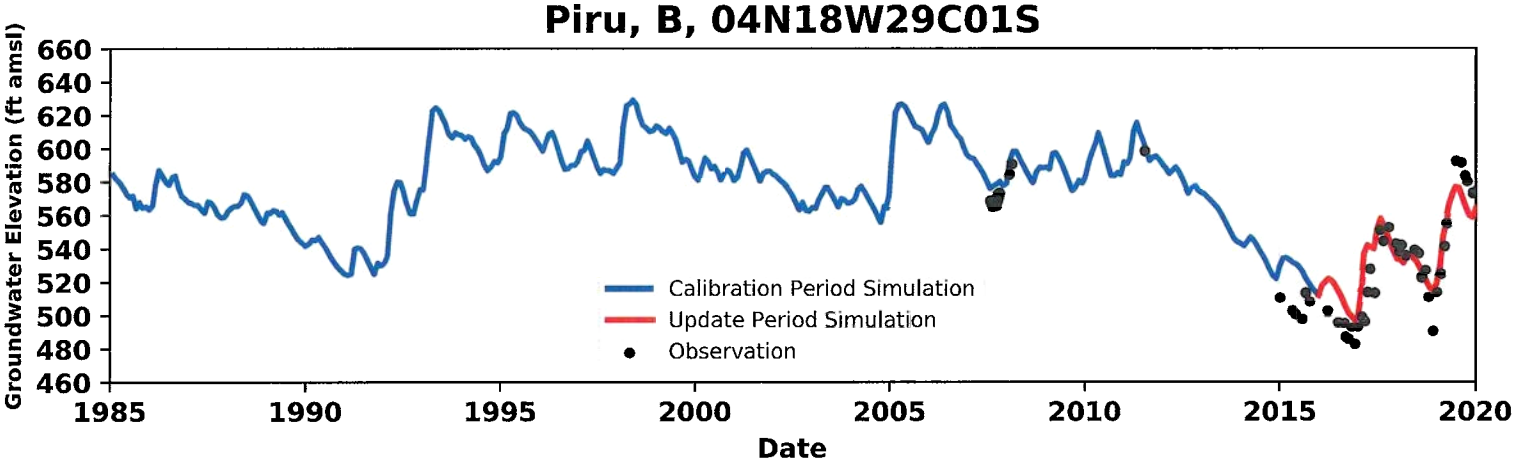

Piru, B, 04N19W25J05S
Groundwater Elevation (ft amsl)
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

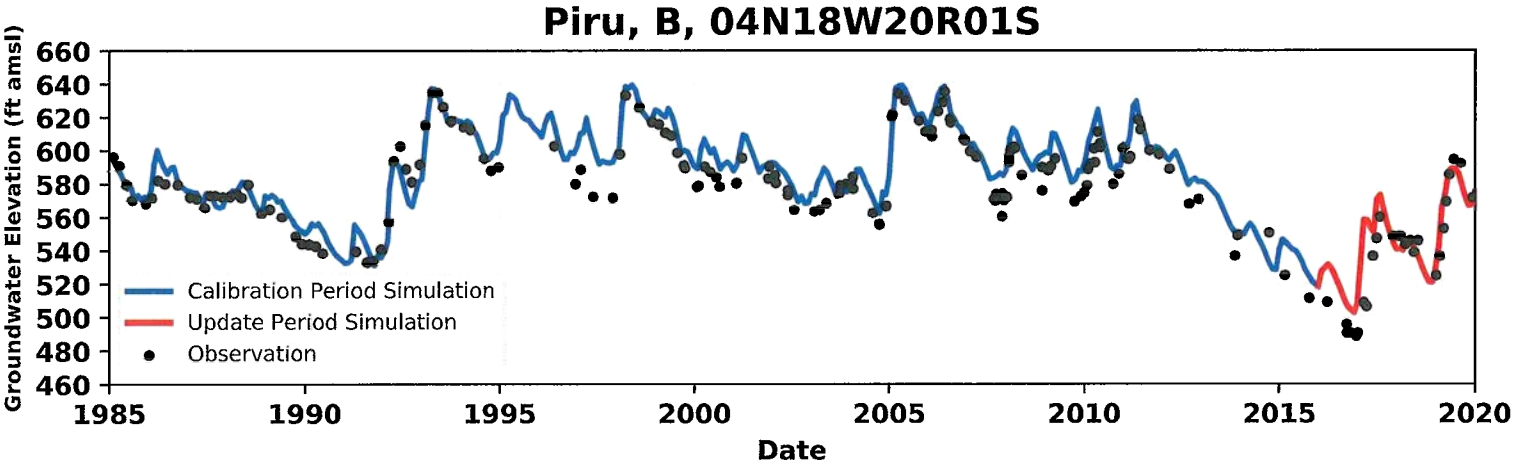

Piru, B, 04N18W20M02S
Groundwater Elevation (ft amsl)
660
640
620
600
580
560
540
520
500
480
460
440
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

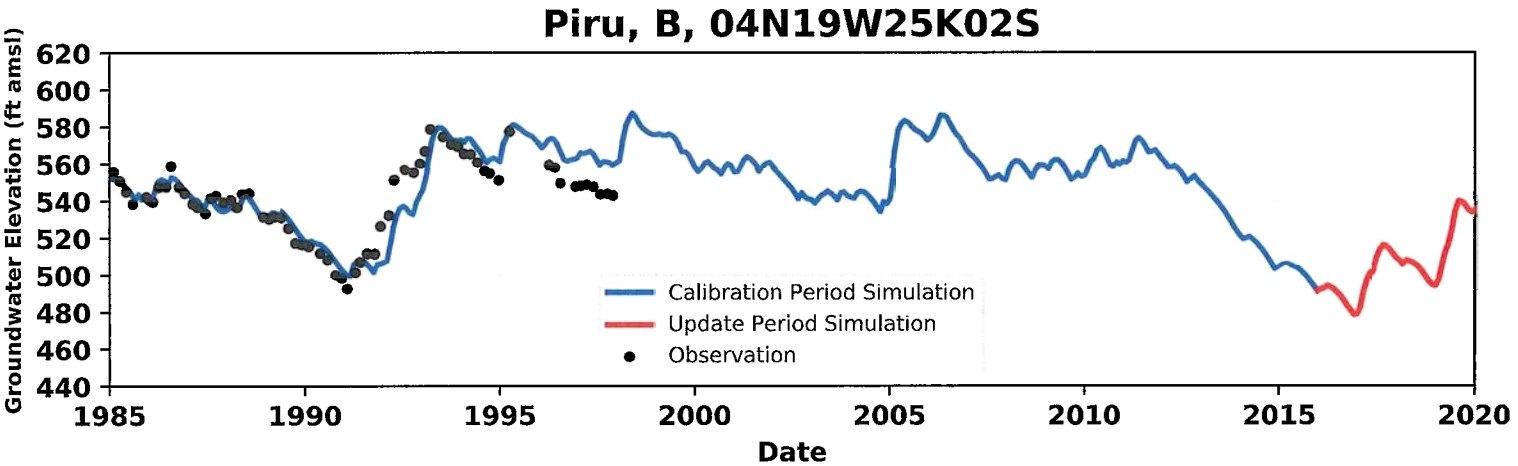

Piru, B, 04N18W20M03S
Groundwater Elevation (ft amsl)
660
640
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Piru, B, 04N18W19R01S
Groundwater Elevation (ft amsl)
640
620
600
580
560
540
520
500
480
460
440
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

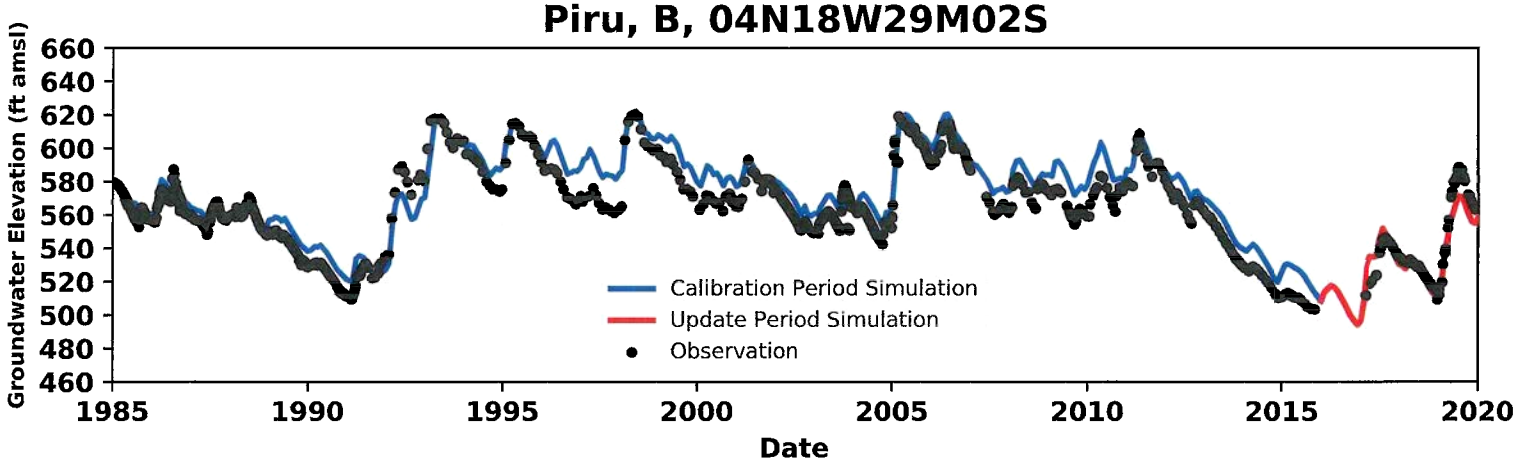

Piru, B, 04N18W20N01S
Groundwater Elevation (ft amsl)
660
640
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Piru, B, 04N18W29C01S
Groundwater Elevation (ft amsl)
660
640
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

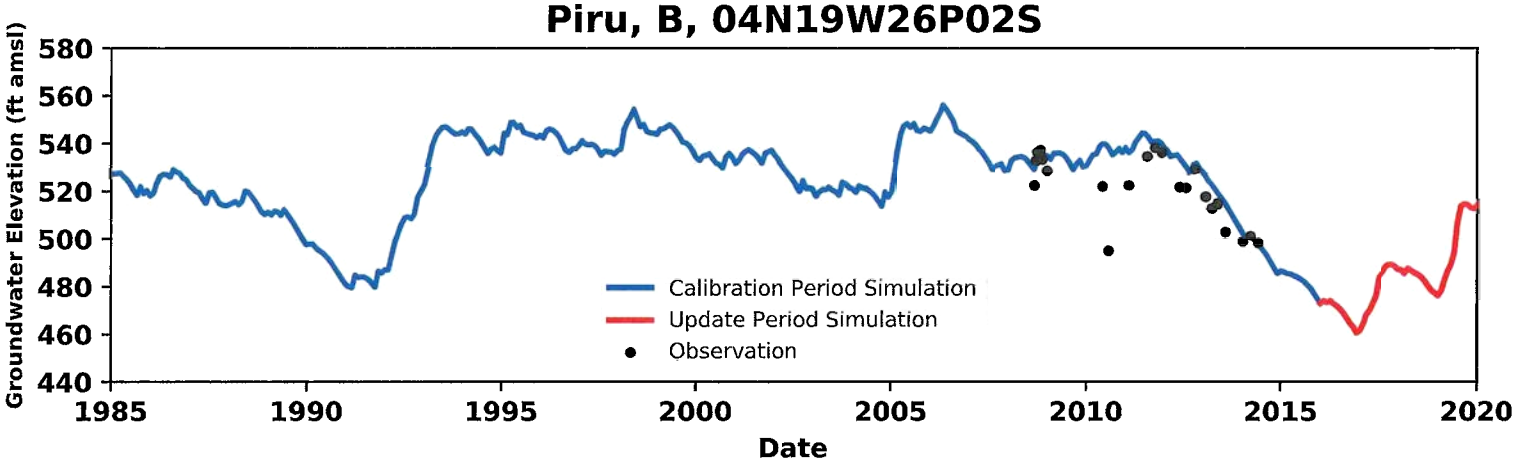

Piru, B, 04N18W20R01S
Groundwater Elevation (ft amsl)
660
640
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Piru, B, 04N19W25K02S
Groundwater Elevation (ft amsl)
620
600
580
560
540
520
500
480
460
440
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

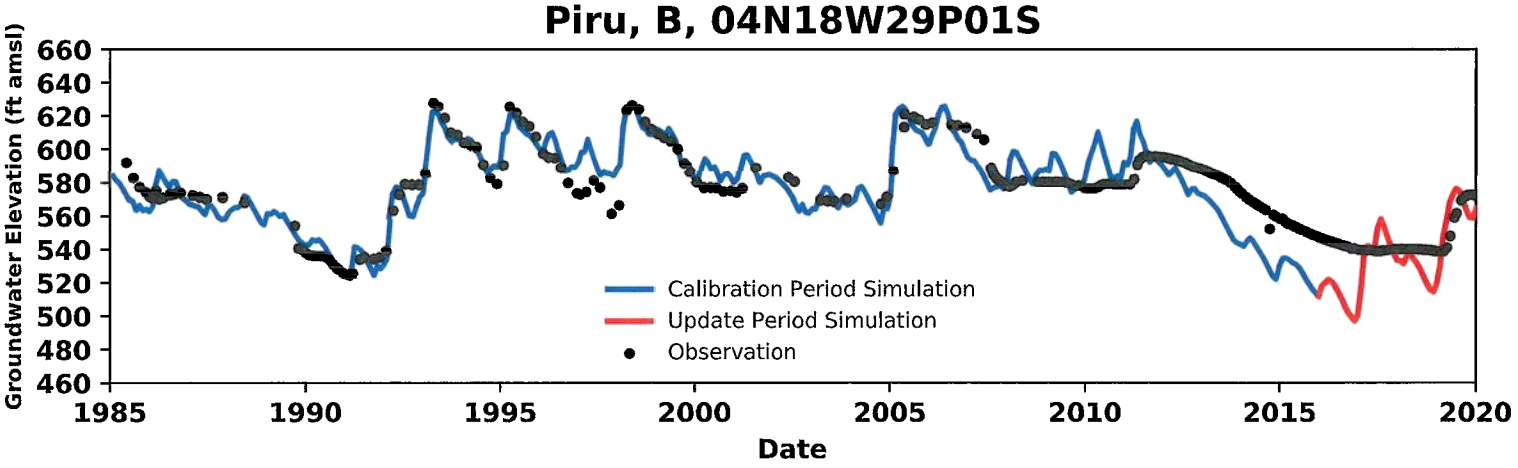
Piru, B, 04N18W29M02S



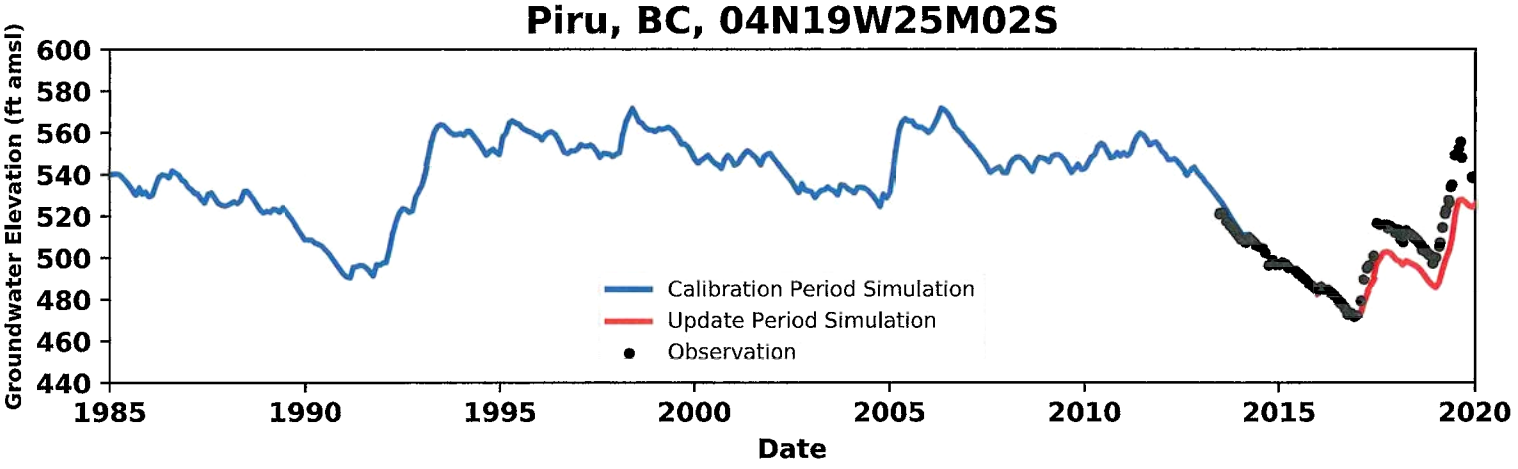
Piru, B, 04N19W26P02S

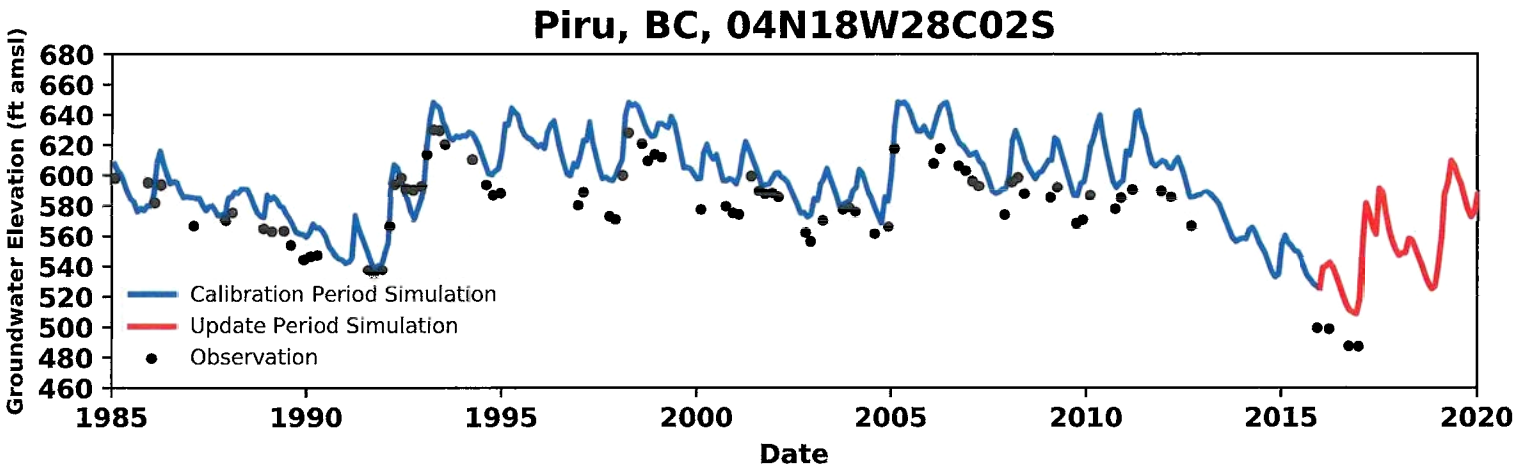


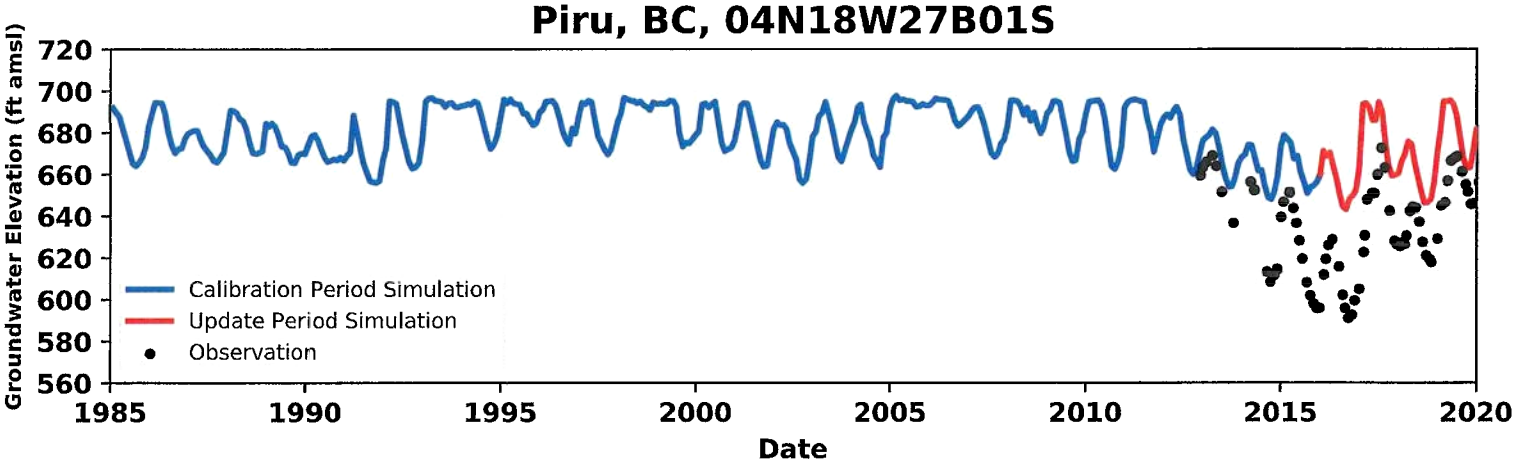
Piru, B, 04N18W29P01S

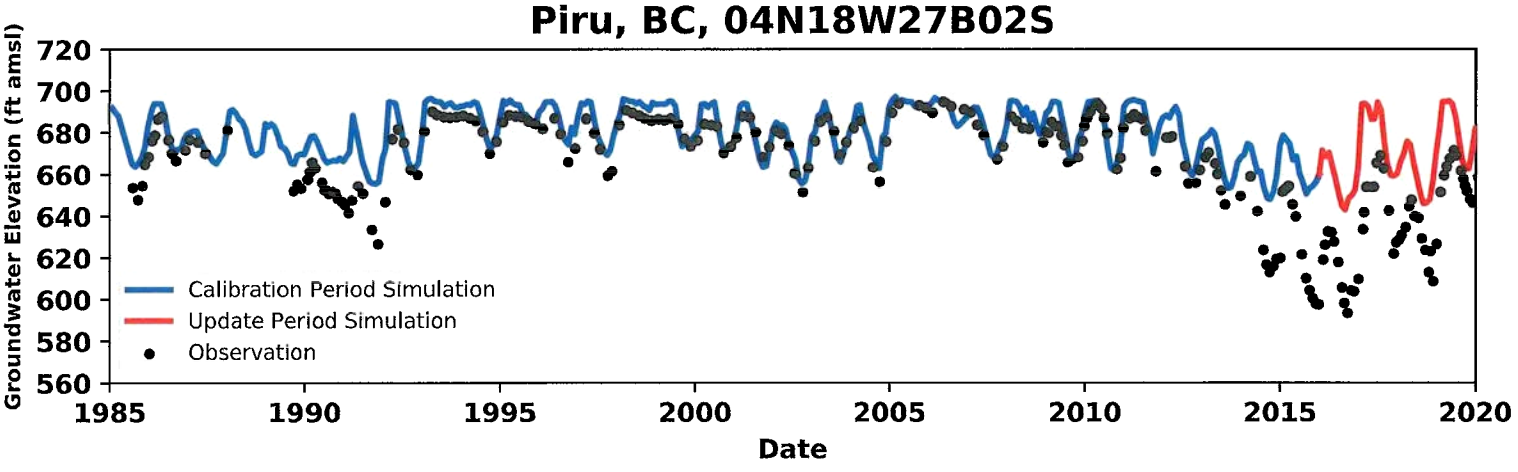


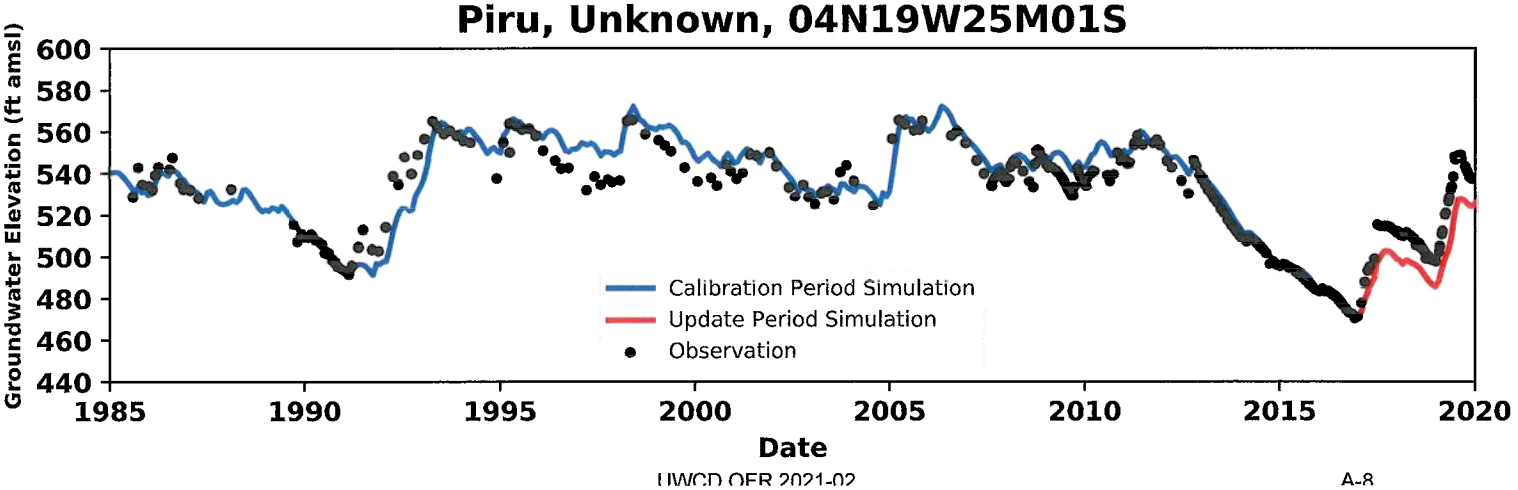
Piru, BC, 04N19W25M02S

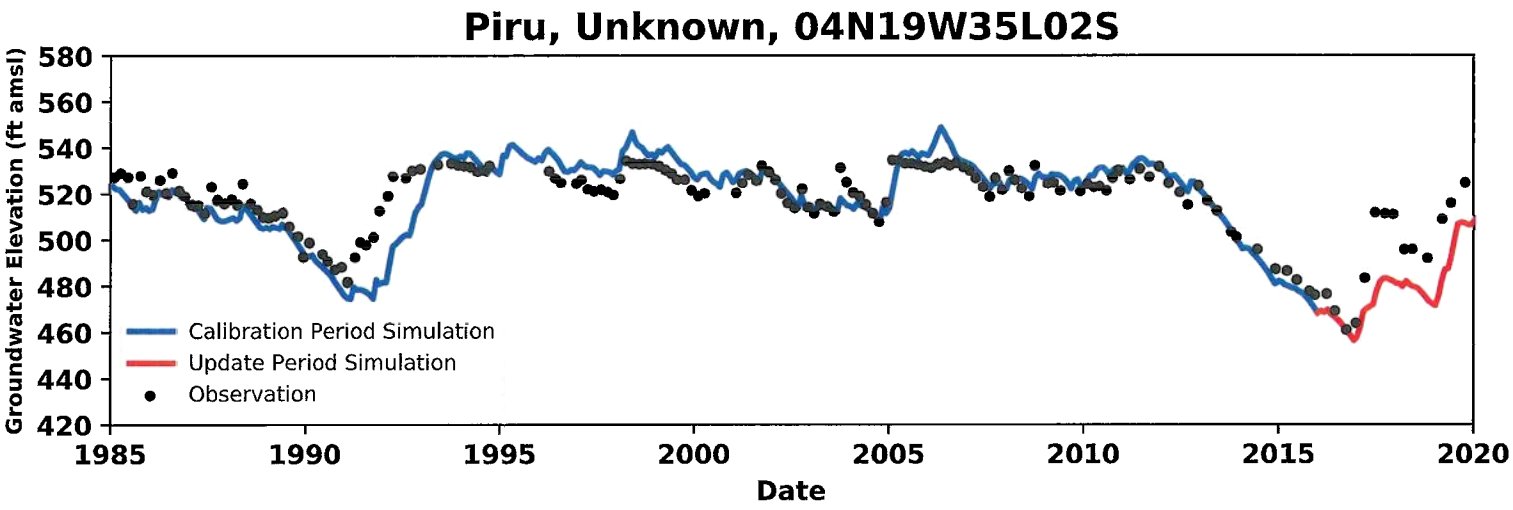


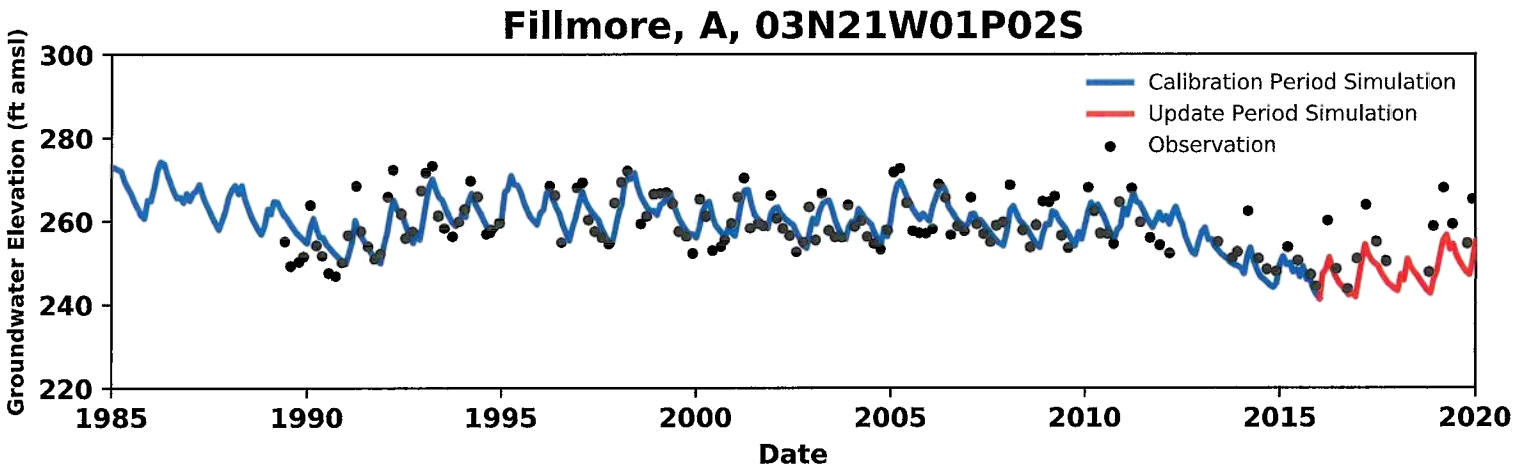

Piru, BC, 04N18W28C02S
Groundwater Elevation (ft amsl)
680
660
640
620
600
580
560
540
520
500
480
460
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

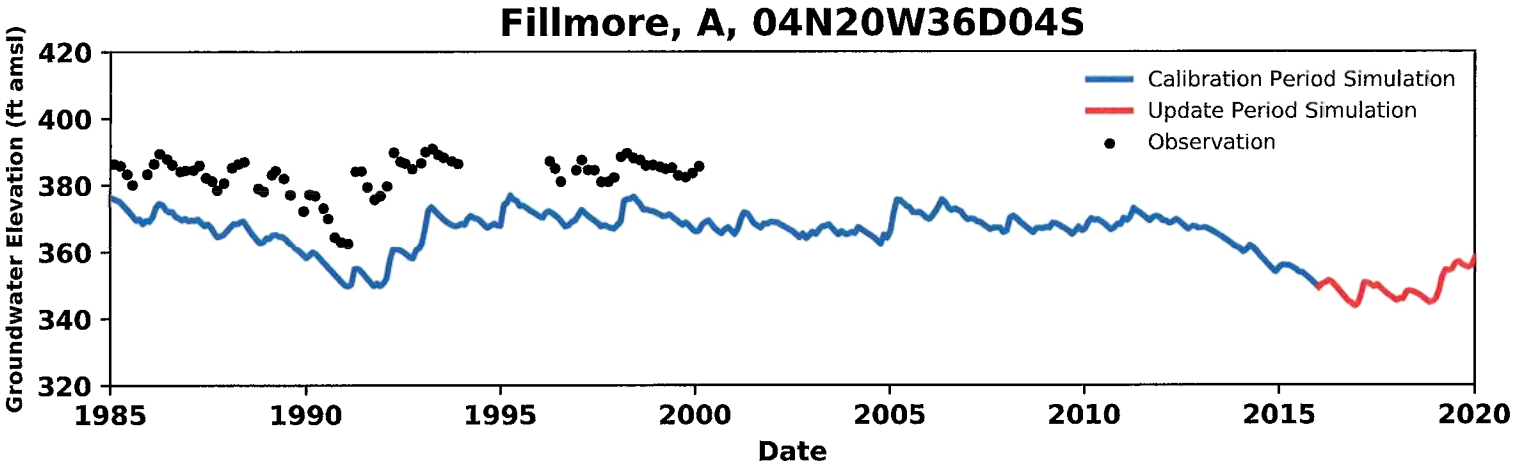

Piru, BC, 04N18W27B01S
Groundwater Elevation (ft amsl)
720
700
680
660
640
620
600
580
560
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

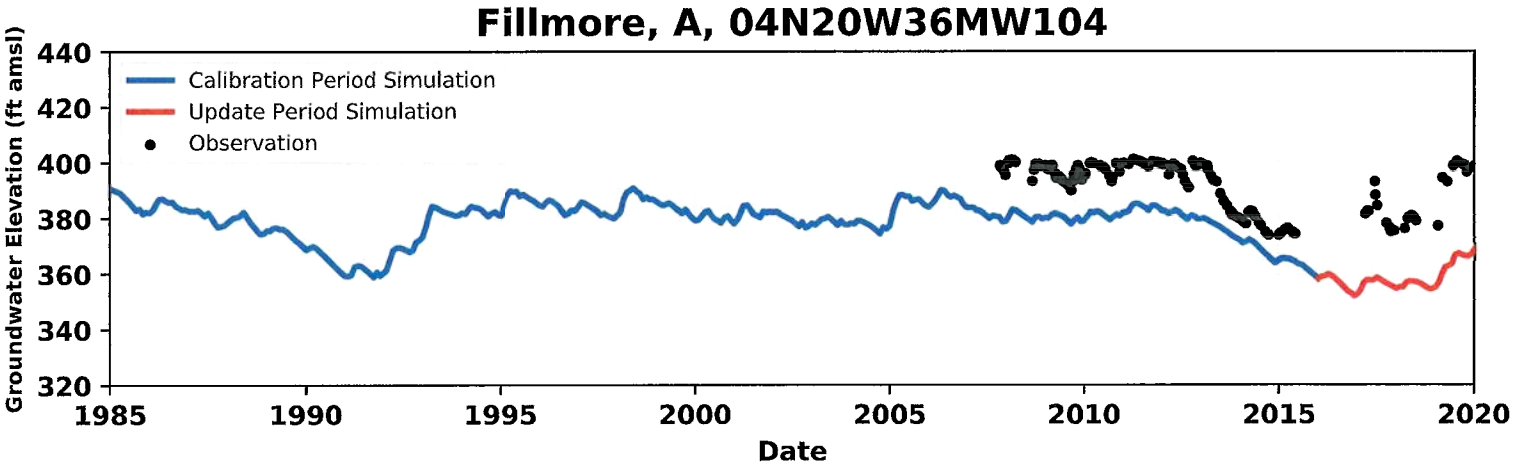

Piru, BC, 04N18W27B02S
Groundwater Elevation (ft amsl)
720
700
680
660
640
620
600
580
560
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

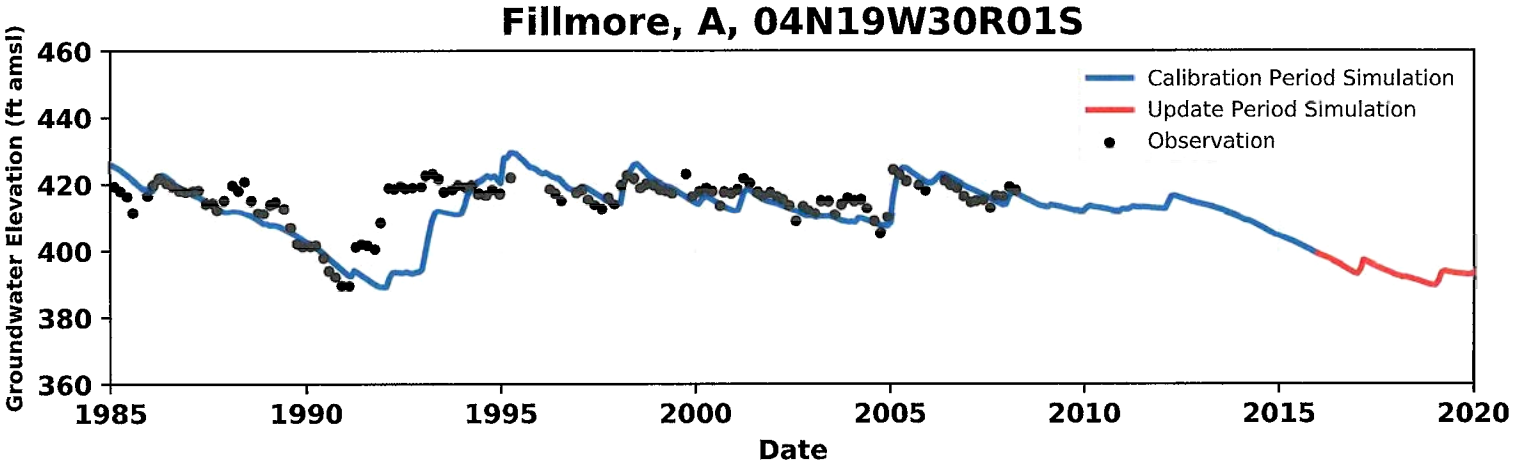

Piru, Unknown, 04N19W25M01S
Groundwater Elevation (ft amsl)
600
580
560
540
520
500
480
460
440
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

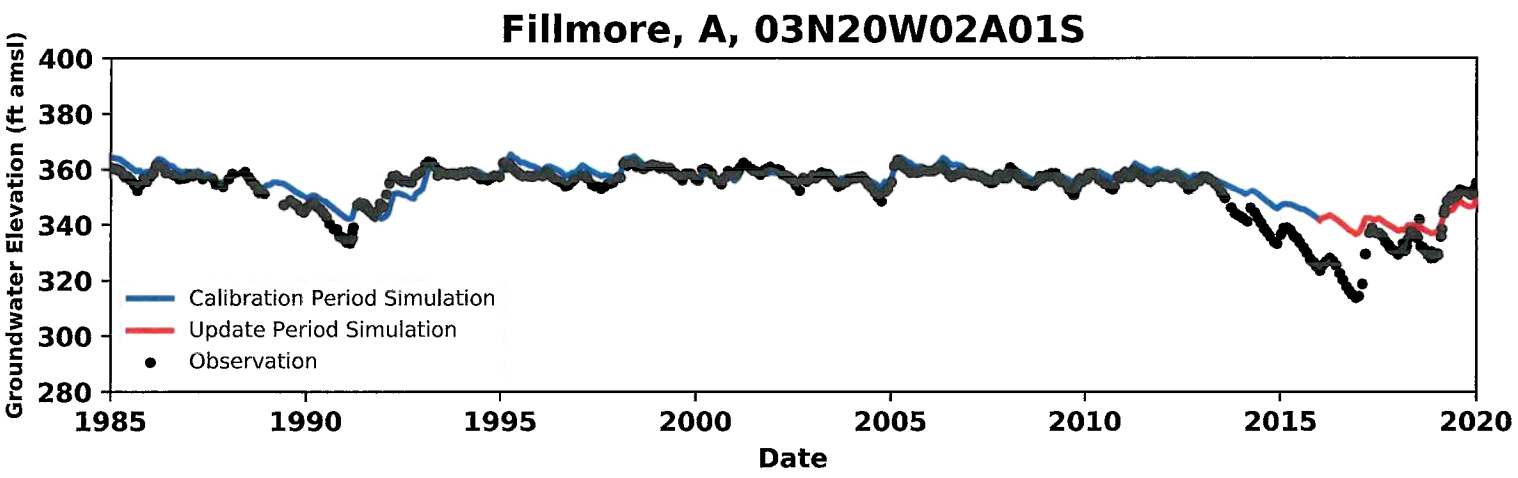

Piru, Unknown, 04N19W35L02S
Groundwater Elevation (ft amsl)
580
560
540
520
500
480
460
440
420
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

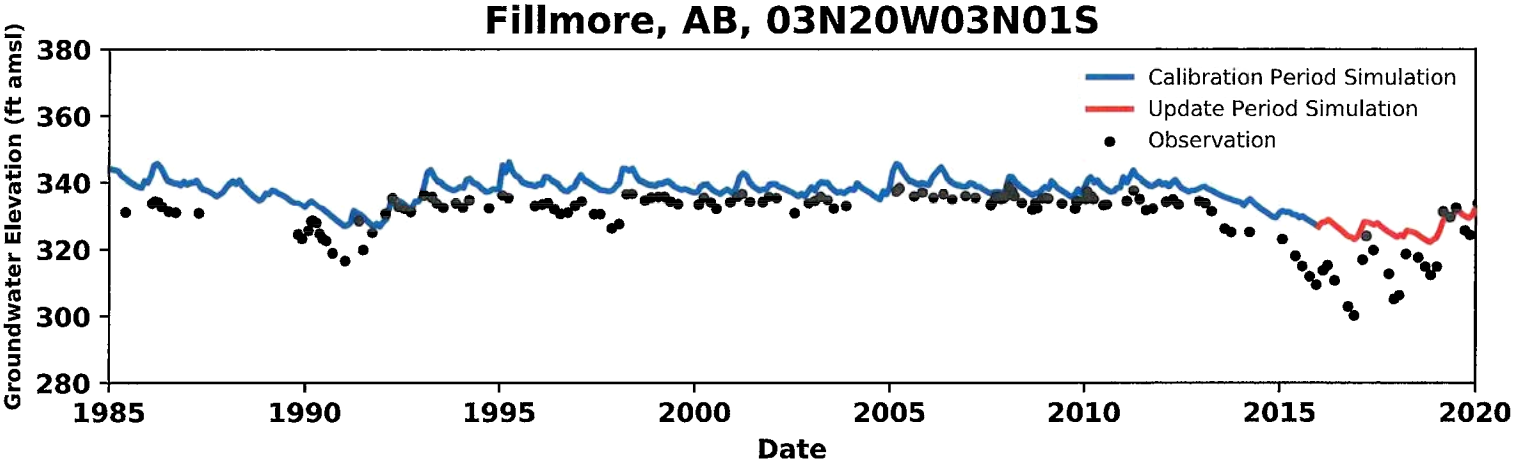

Fillmore, A, 03N21W01P02S
Groundwater Elevation (ft amsl)
300
280
260
240
220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

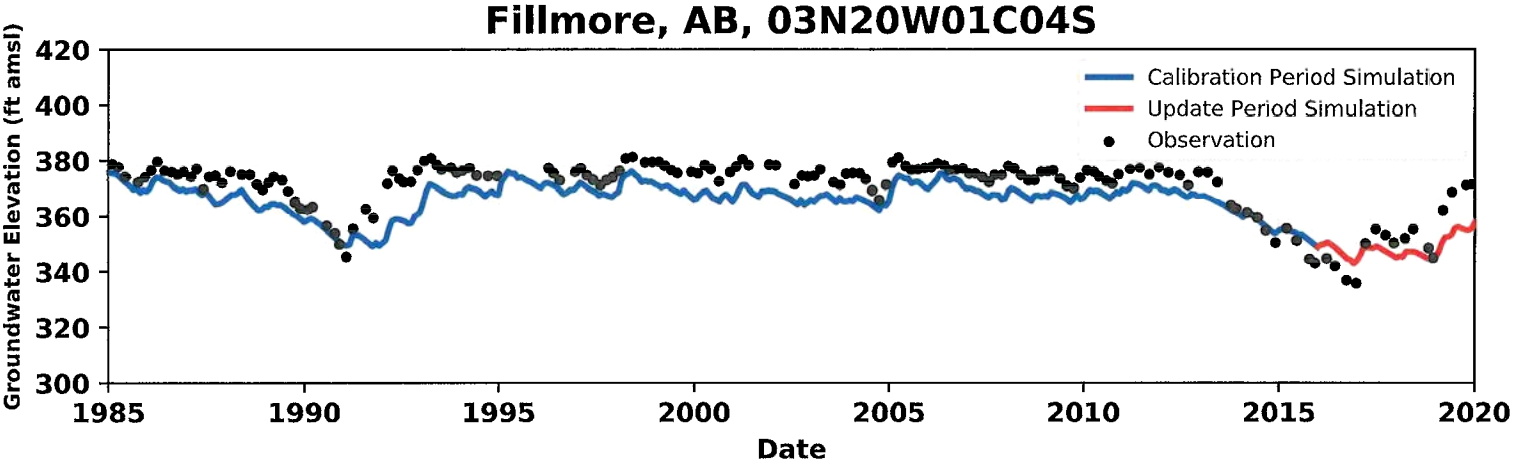

Fillmore, A, 04N20W36D04S
Groundwater Elevation (ft amsl)
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

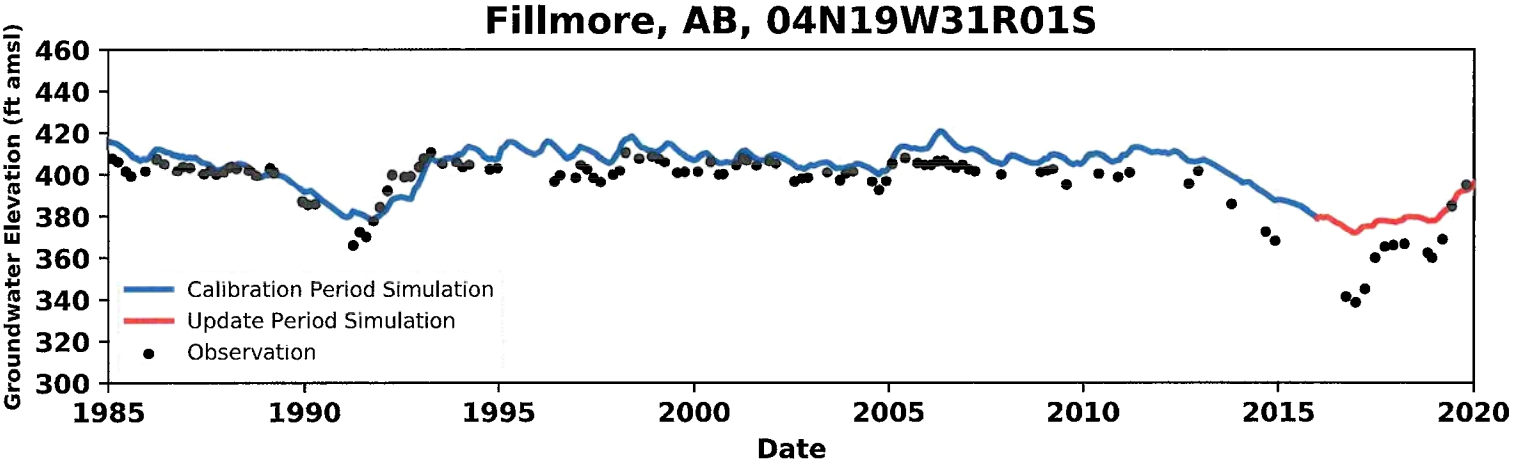

Fillmore, A, 04N20W36MW104
Groundwater Elevation (ft amsl)
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

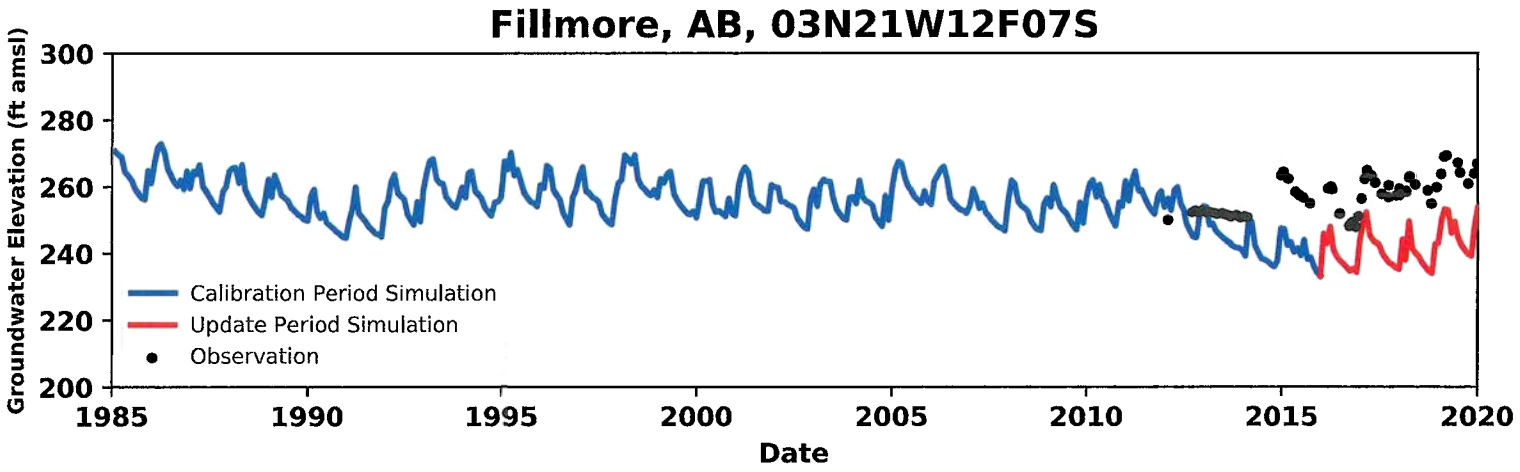

Fillmore, A, 04N19W30R01S
Groundwater Elevation (ft amsl)
460
440
420
400
380
360
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

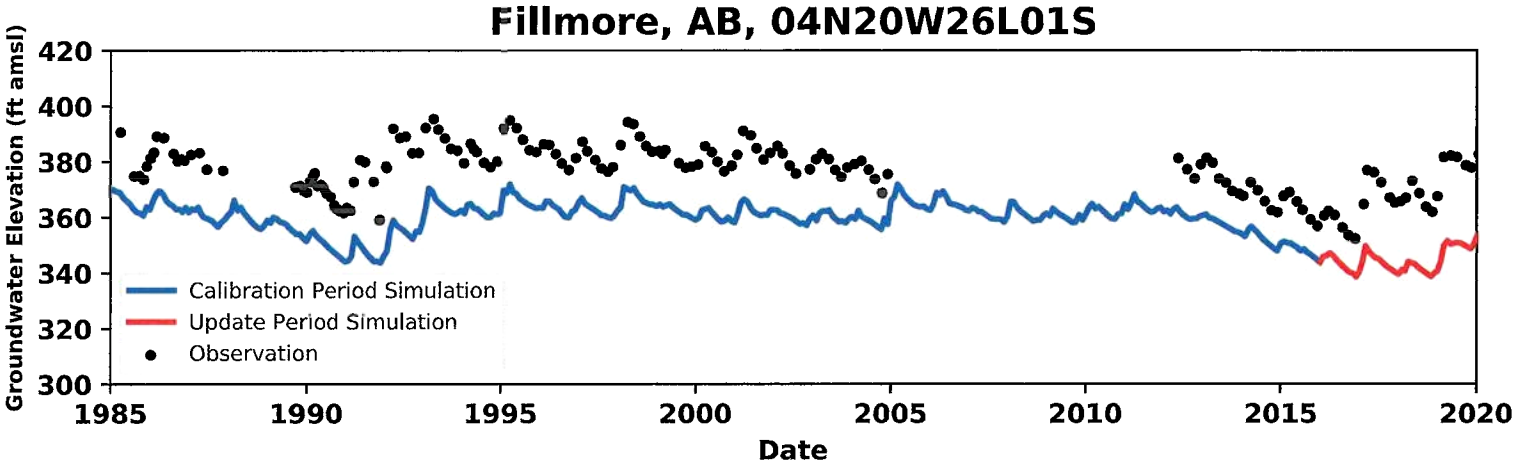

Fillmore, A, 03N20W02A01S
Groundwater Elevation (ft amsl)
400
380
360
340
320
300
280
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

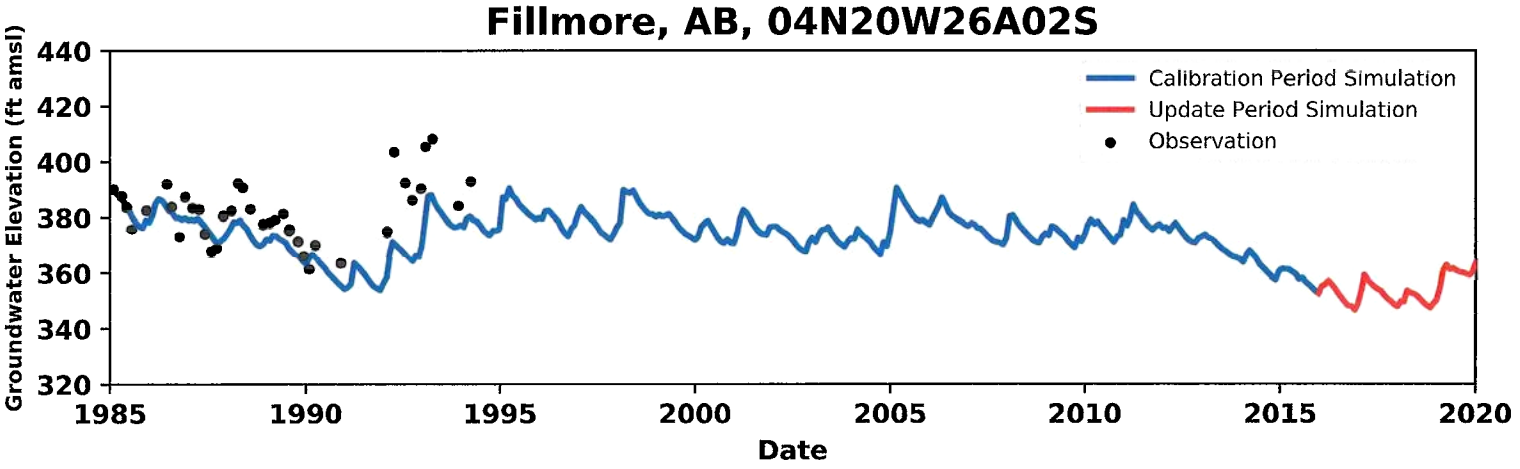

Fillmore, AB, 03N20W03N01S
Groundwater Elevation (ft amsl)
380
360
340
320
300
280
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

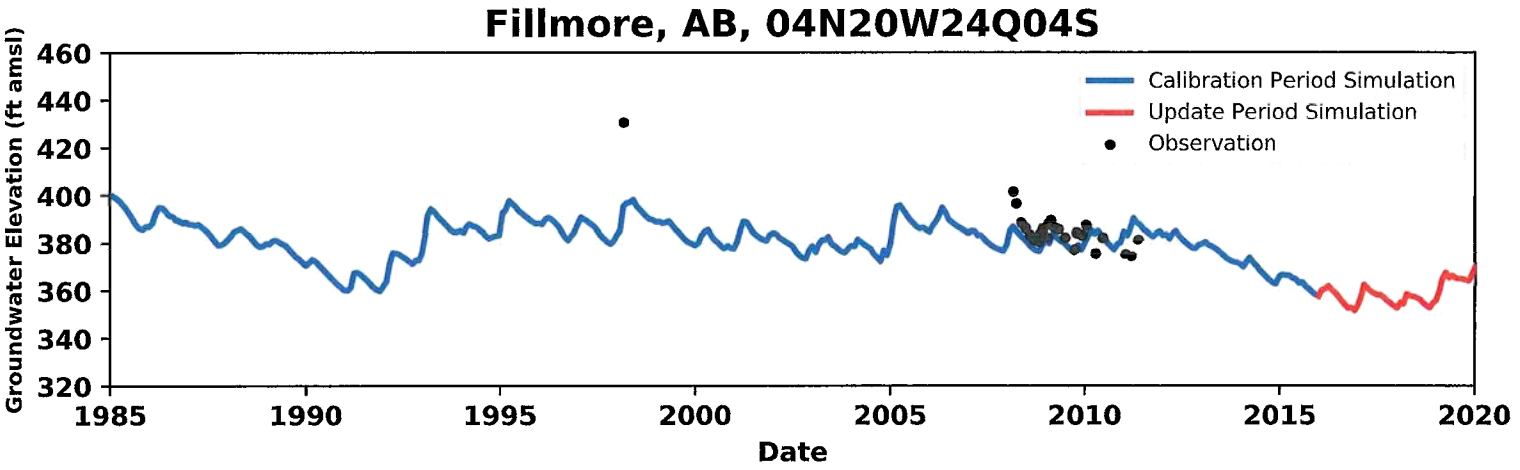

Fillmore, AB, 03N20W01C04S
Groundwater Elevation (ft amsl)
420
400
380
360
340
320
300
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

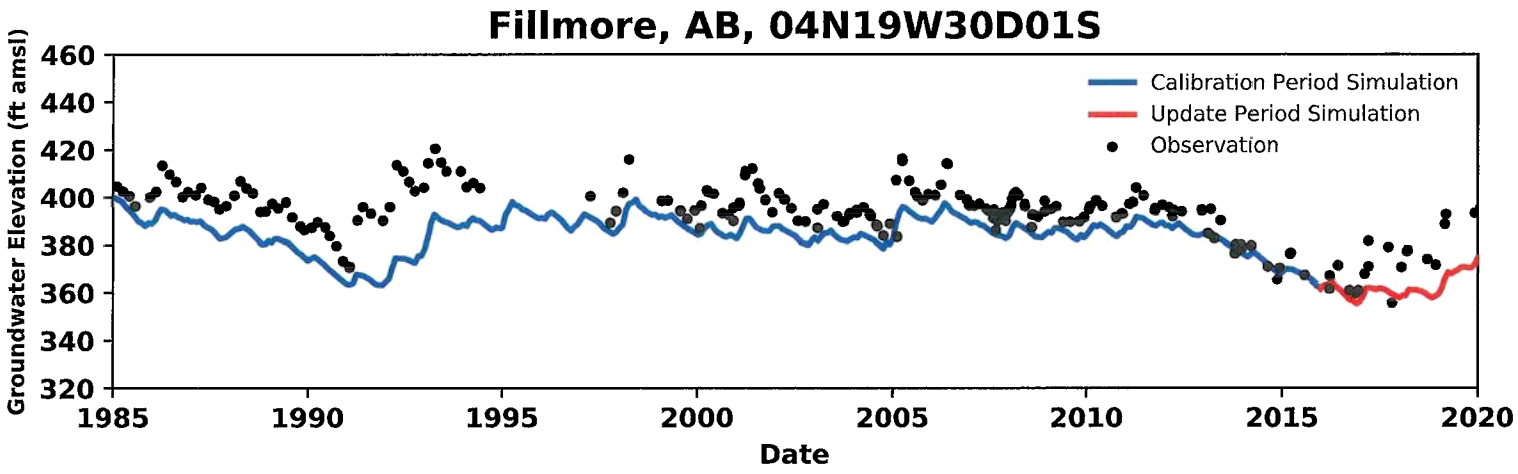

Fillmore, AB, 04N19W31R01S
Groundwater Elevation (ft amsl)
460
440
420
400
380
360
340
320
300
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

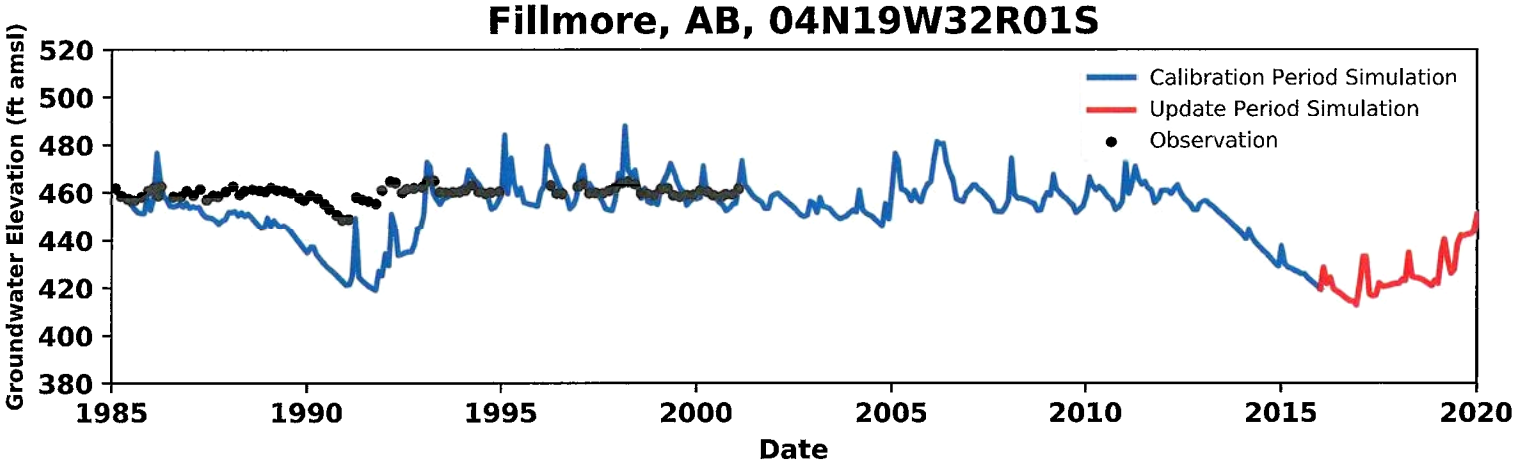

Fillmore, AB, 03N21W12F07S
Groundwater Elevation (ft amsl)
300
280
260
240
220
200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

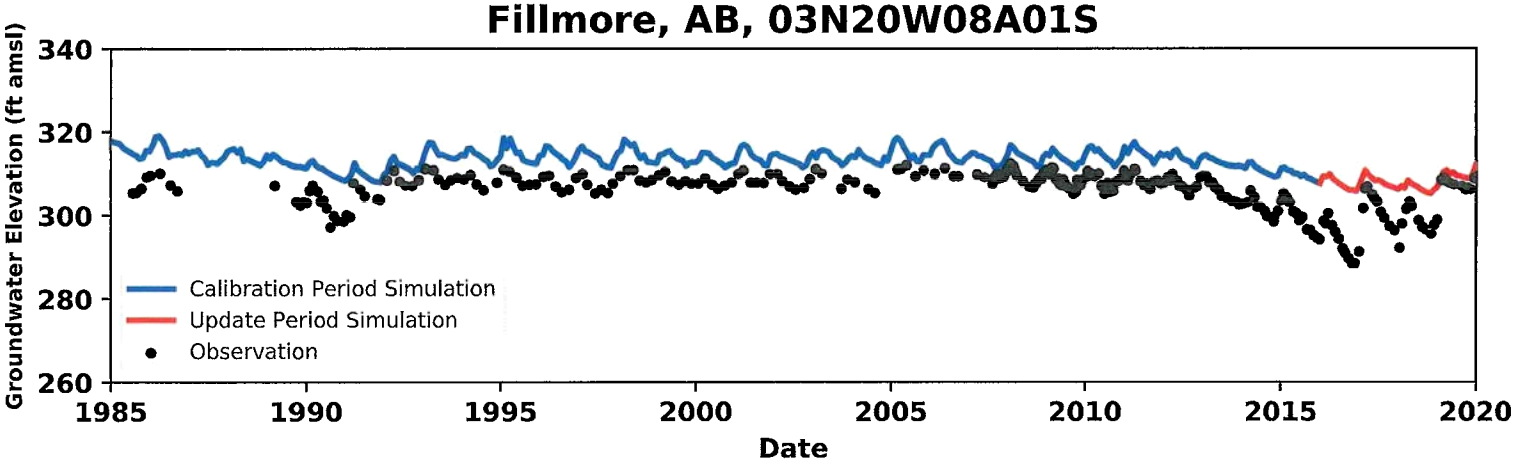

Fillmore, AB, 04N20W26L01S
Groundwater Elevation (ft amsl)
420
400
380
360
340
320
300
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

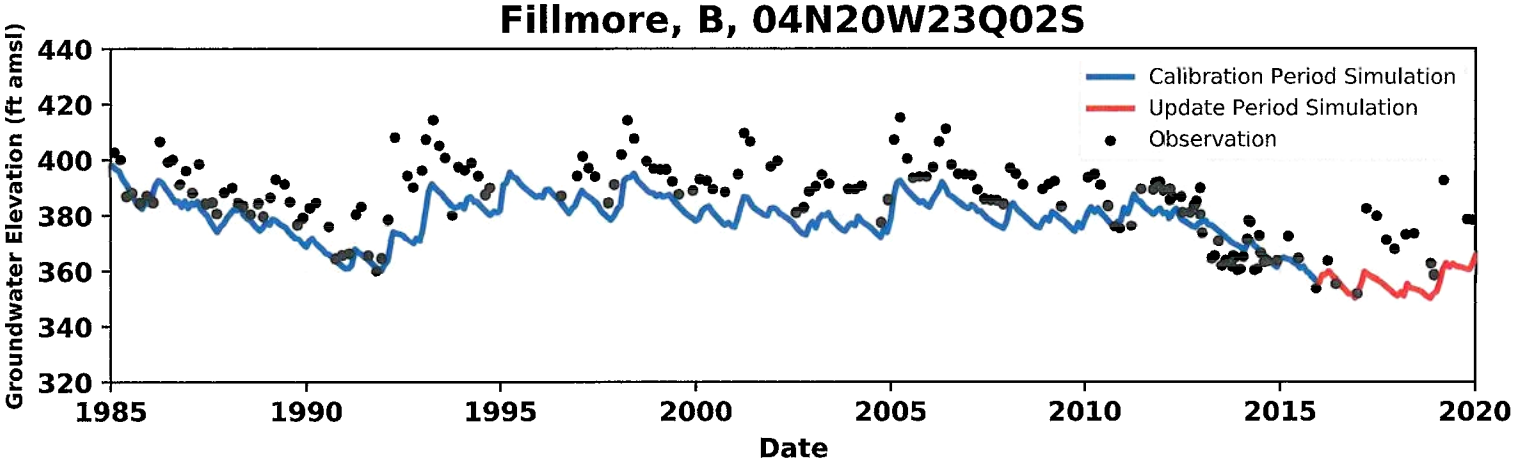

Fillmore, AB, 04N20W26A02S
Groundwater Elevation (ft amsl)
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

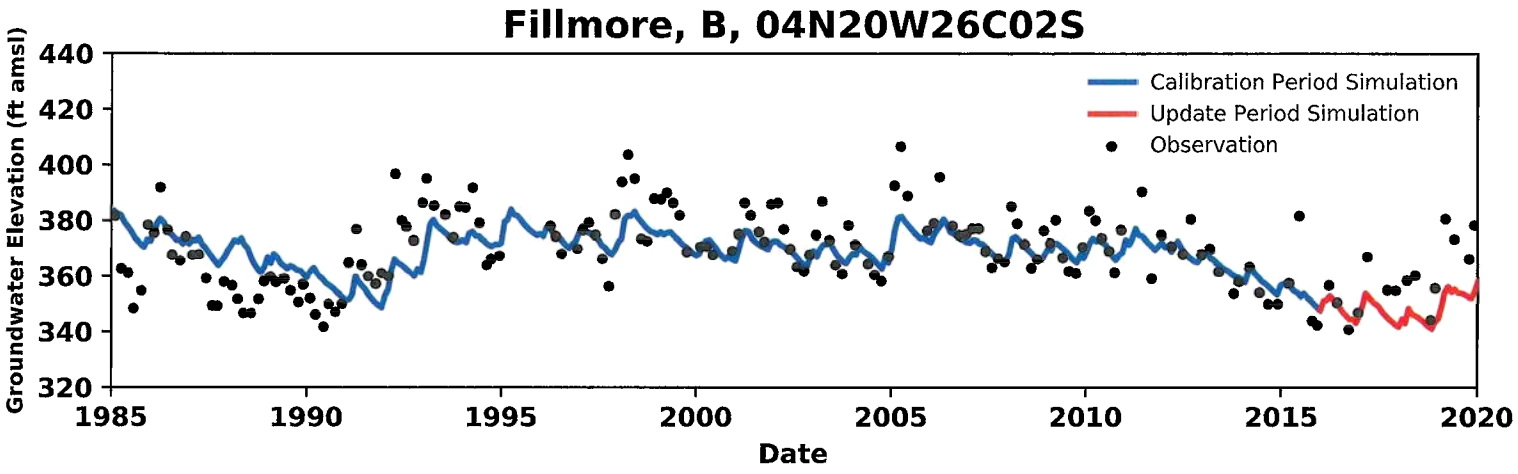

Fillmore, AB, 04N20W24Q04S
Groundwater Elevation (ft amsl)
460
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

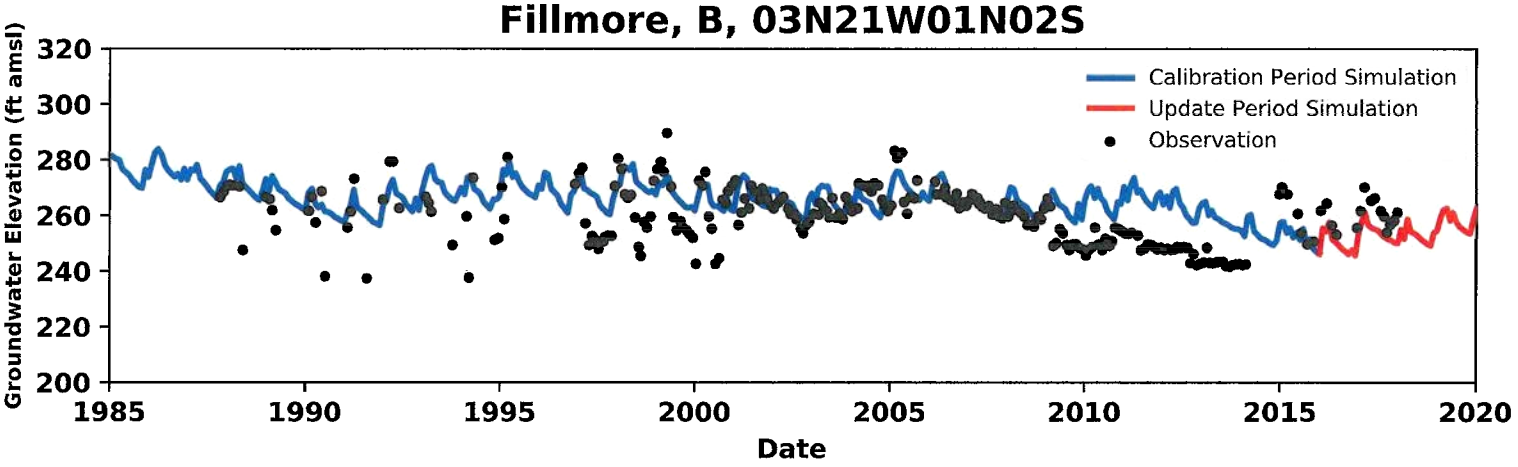

Fillmore, AB, 04N19W30D01S
Groundwater Elevation (ft amsl)
460
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

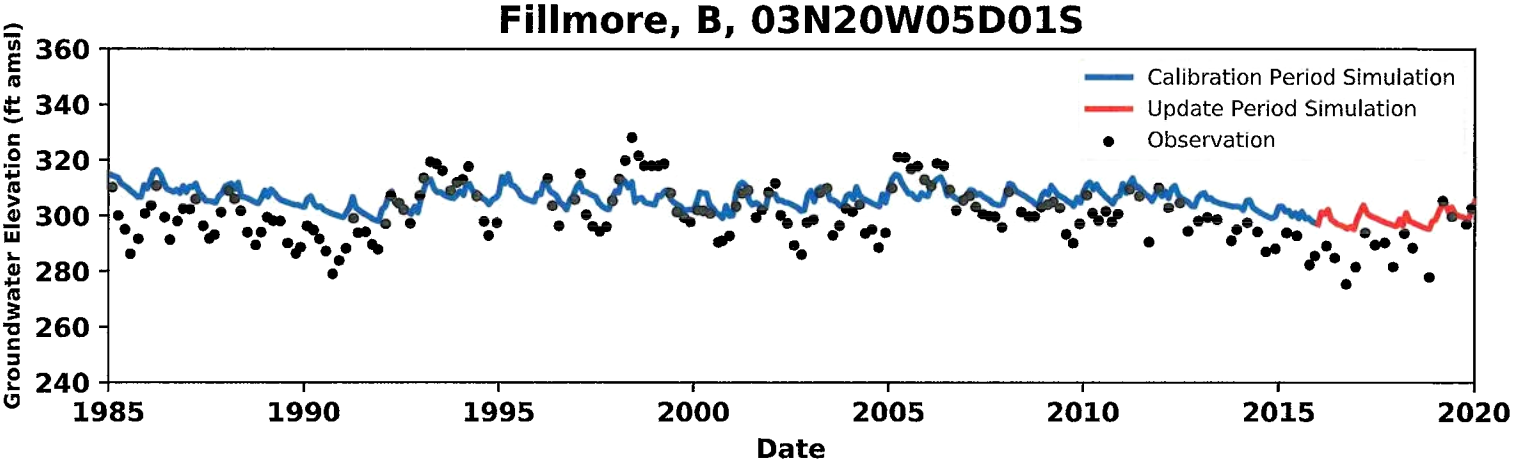

Fillmore, AB, 04N19W32R01S
Groundwater Elevation (ft amsl)
520
500
480
460
440
420
400
380
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

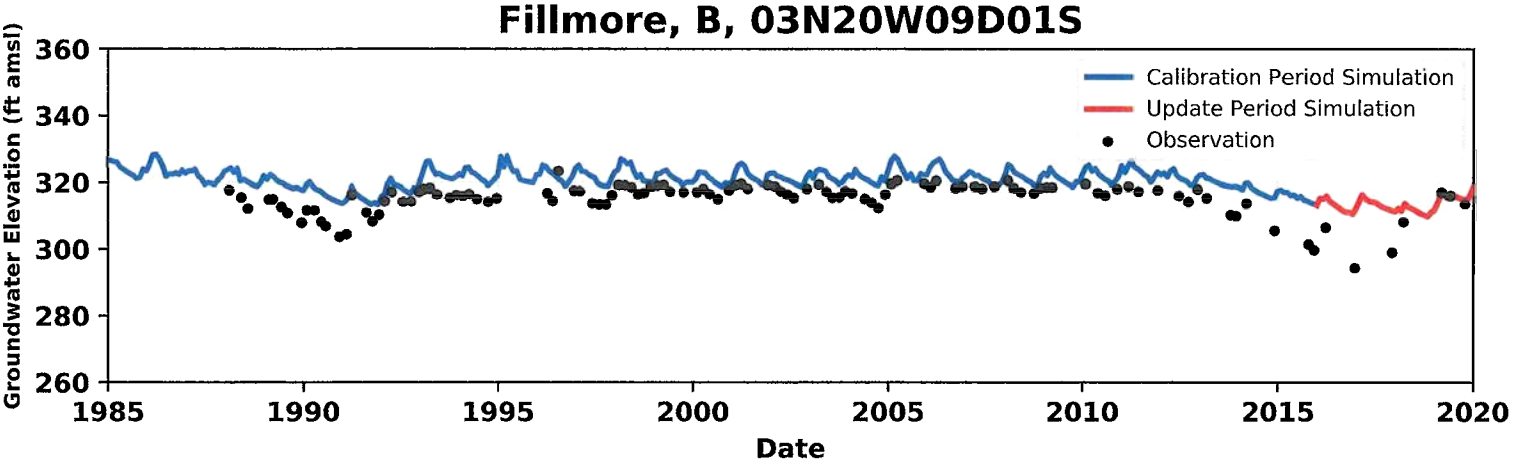

Fillmore, AB, 03N20W08A01S
Groundwater Elevation (ft amsl)
340
320
300
280
260
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

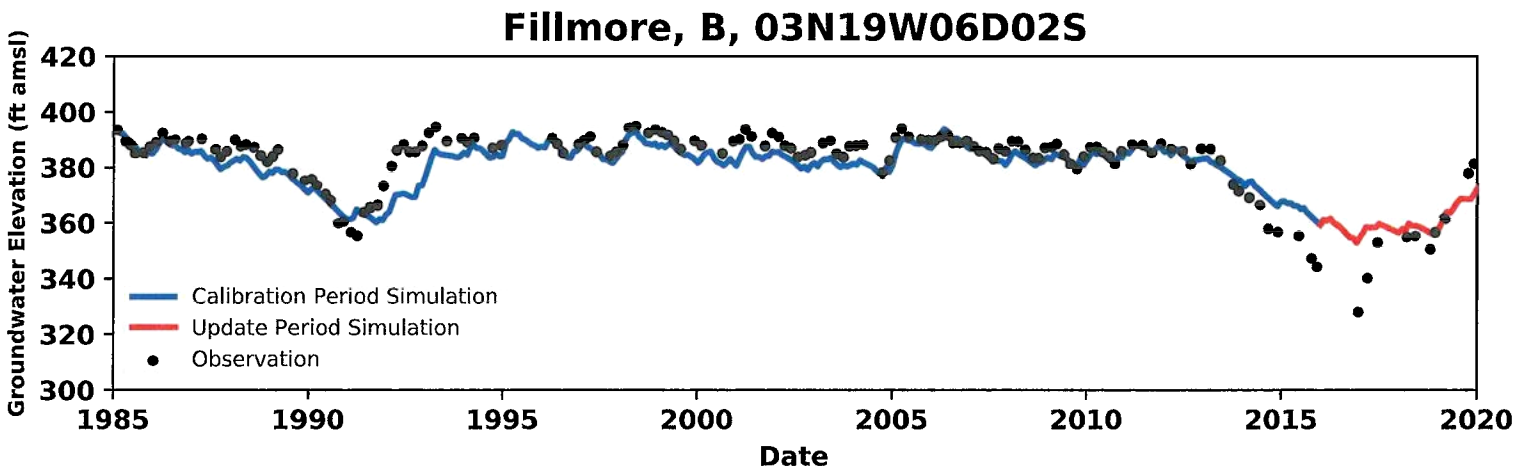

Fillmore, B, 04N20W23Q02S
Groundwater Elevation (ft amsl)
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

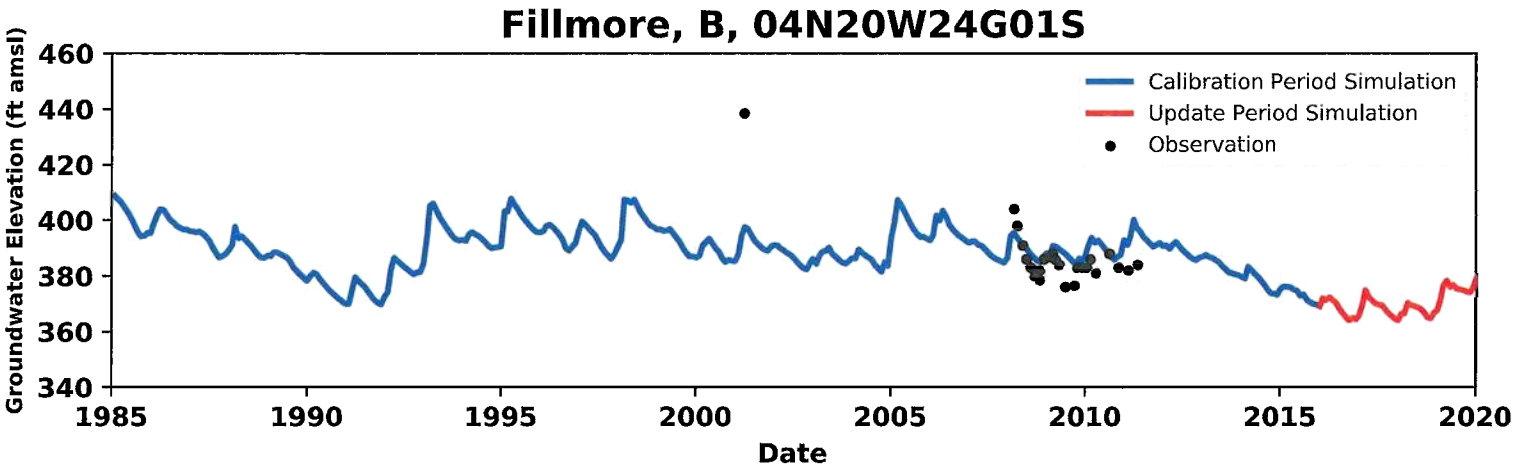

Fillmore, B, 04N20W26C02S
Groundwater Elevation (ft amsl)
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

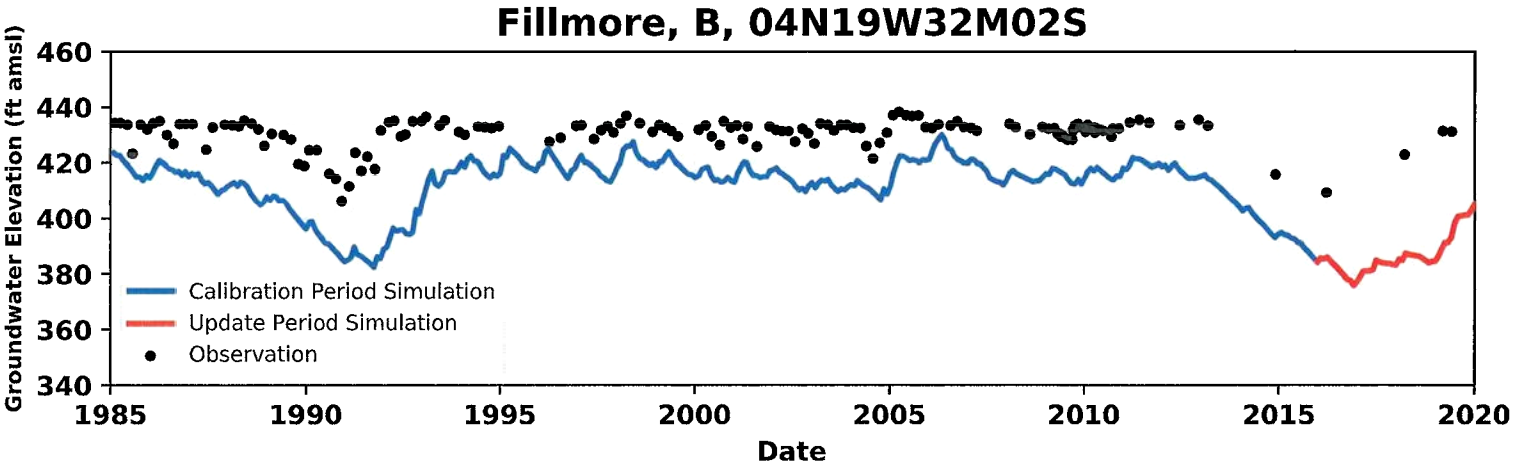

Fillmore, B, 03N21W01N02S
Groundwater Elevation (ft amsl)
320
300
280
260
240
220
200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

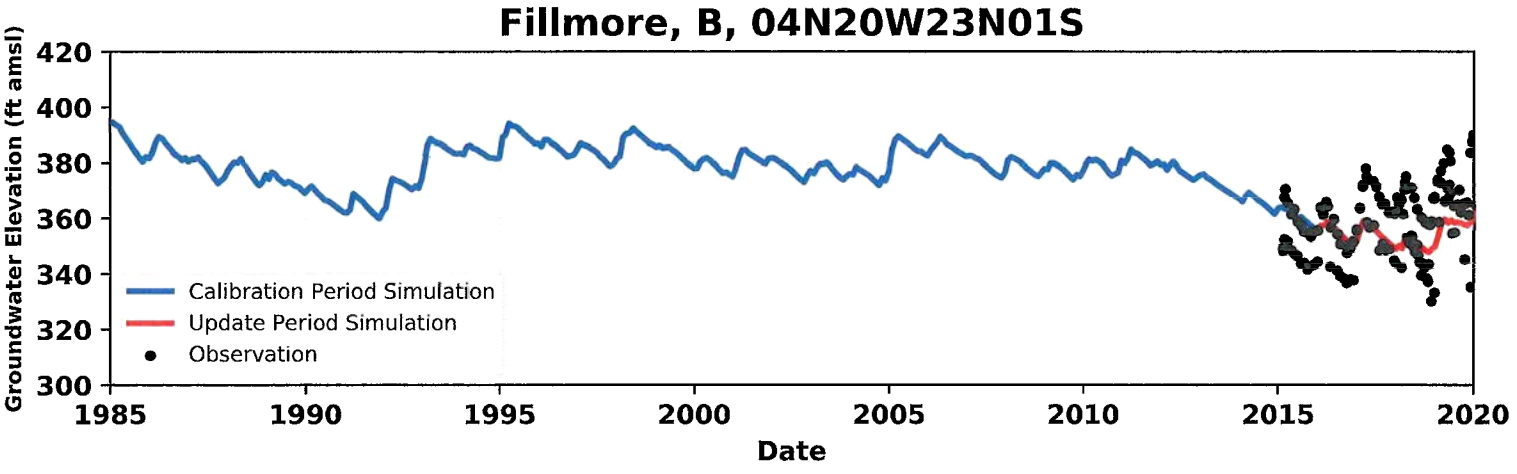

Fillmore, B, 03N20W05D01S
Groundwater Elevation (ft amsl)
360
340
320
300
280
260
240
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

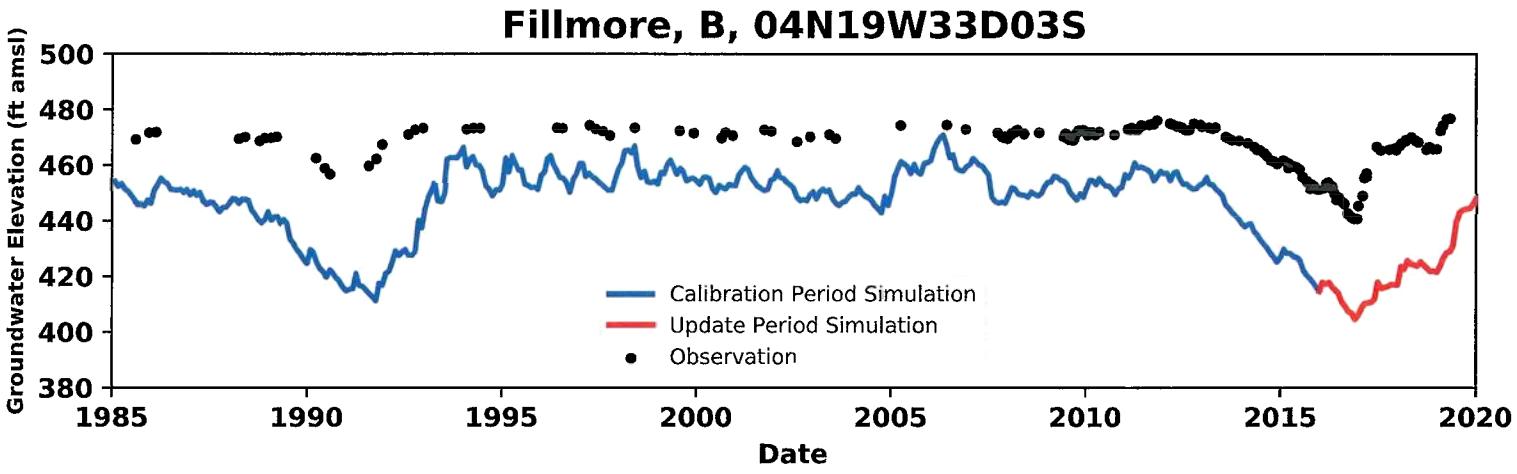

Fillmore, B, 03N20W09D01S
Groundwater Elevation (ft amsl)
360
340
320
300
280
260
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

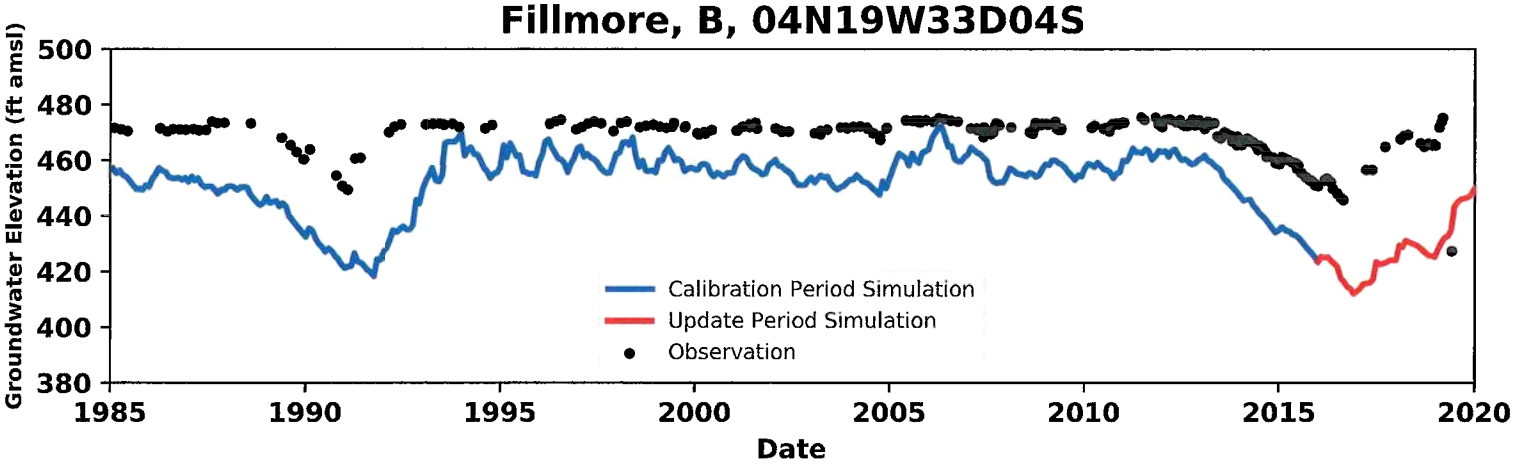

Fillmore, B, 03N19W06D02S
Groundwater Elevation (ft amsl)
420
400
380
360
340
320
300
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

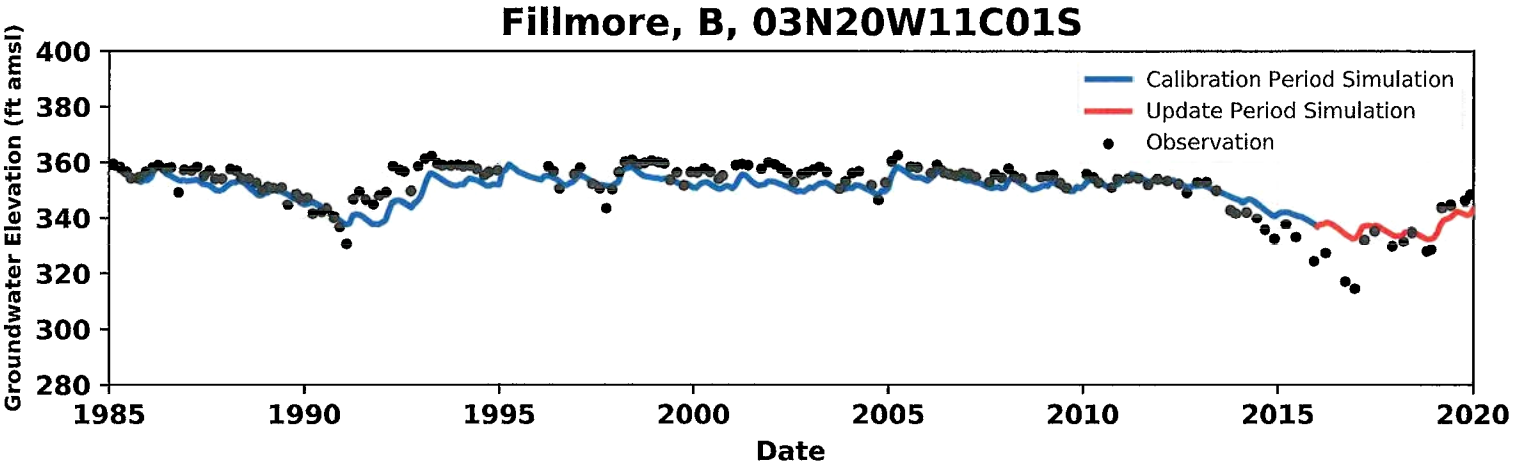

Fillmore, B, 04N20W24G01S
Groundwater Elevation (ft amsl)
460
440
420
400
380
360
340
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

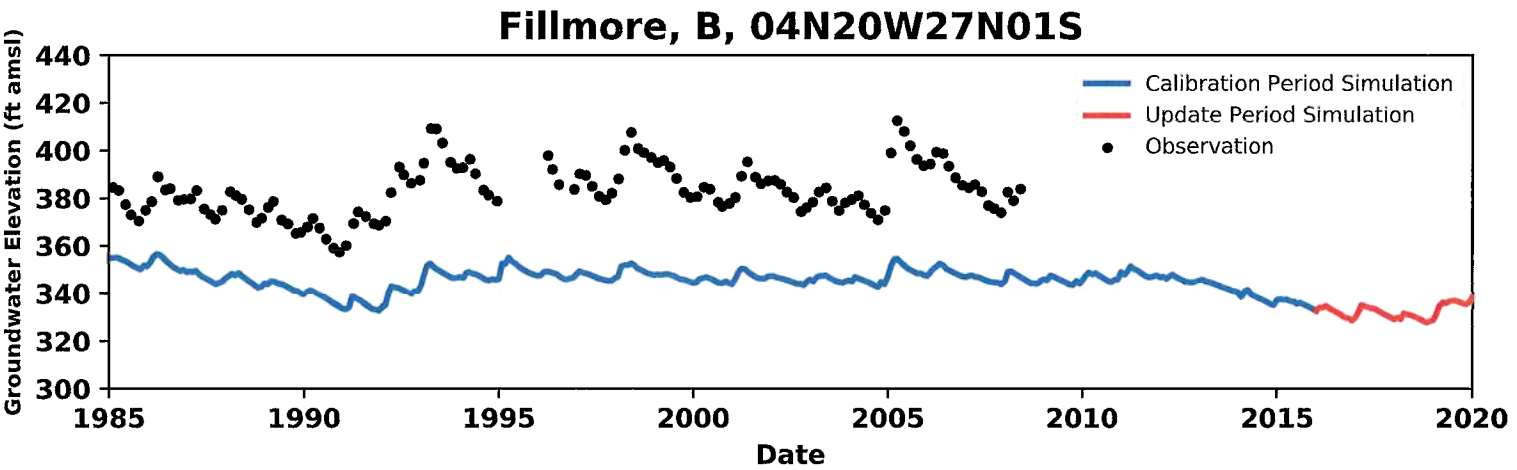

Fillmore, B, 04N19W32M02S
Groundwater Elevation (ft amsl)
460
440
420
400
380
360
340
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Fillmore, B, 04N20W23N01S
Groundwater Elevation (ft amsl)
420
400
380
360
340
320
300
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

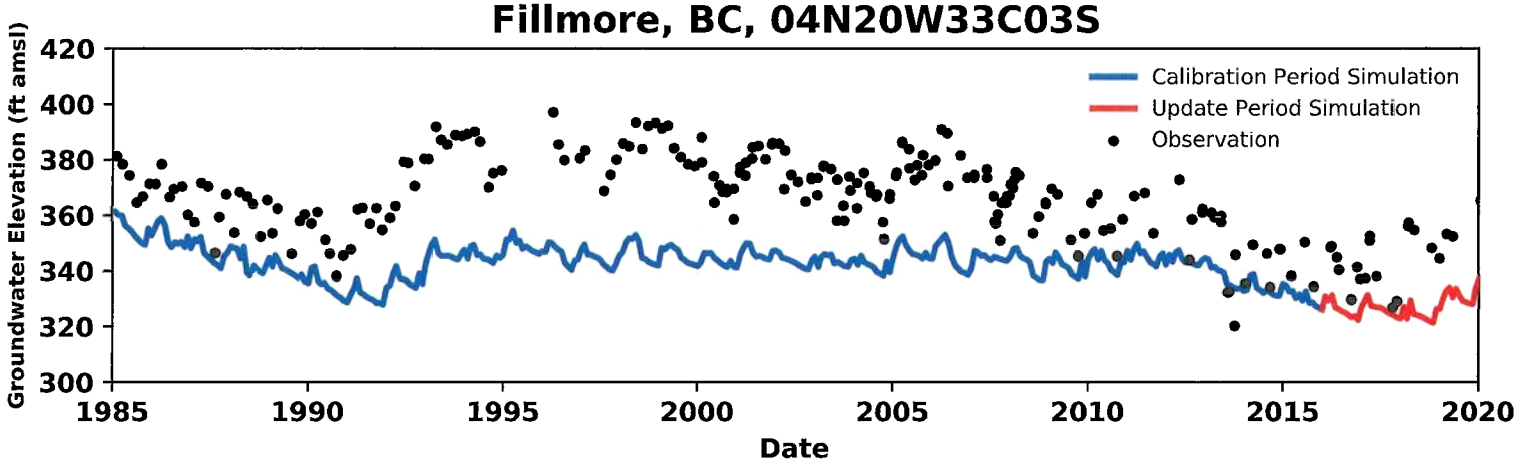

Fillmore, B, 04N19W33D03S
Groundwater Elevation (ft amsl)
500
480
460
440
420
400
380
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Fillmore, B, 04N19W33D04S
Groundwater Elevation (ft amsl)
500
480
460
440
420
400
380
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

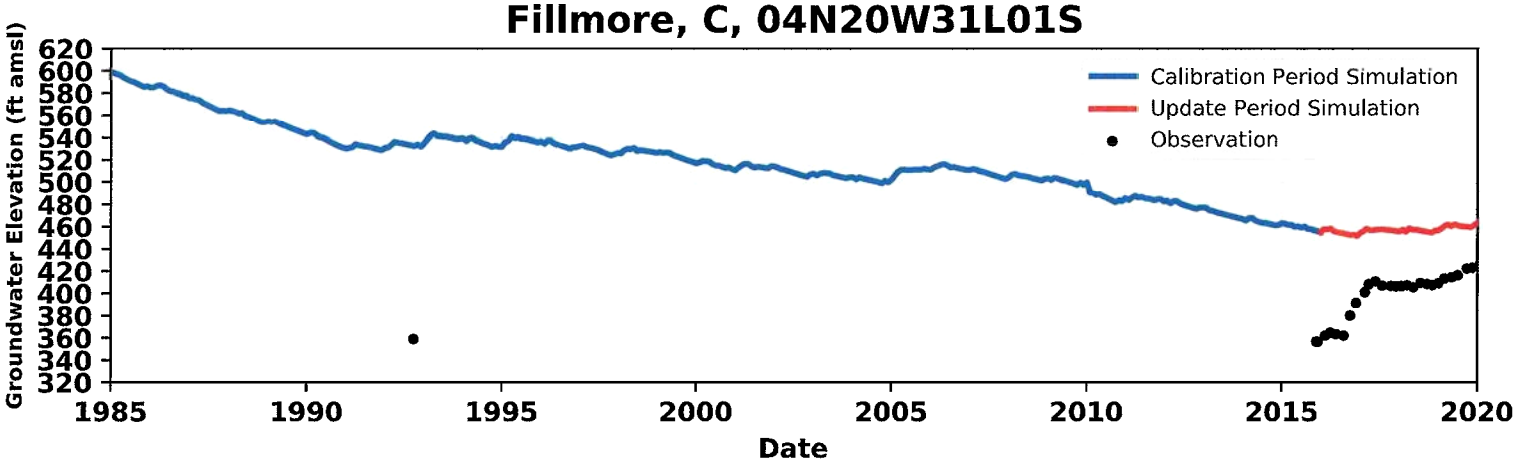

Fillmore, B, 03N20W11C01S
Groundwater Elevation (ft amsl)
400
380
360
340
320
300
280
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Fillmore, B, 04N20W27N01S
Groundwater Elevation (ft amsl)
440
420
400
380
360
340
320
300
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

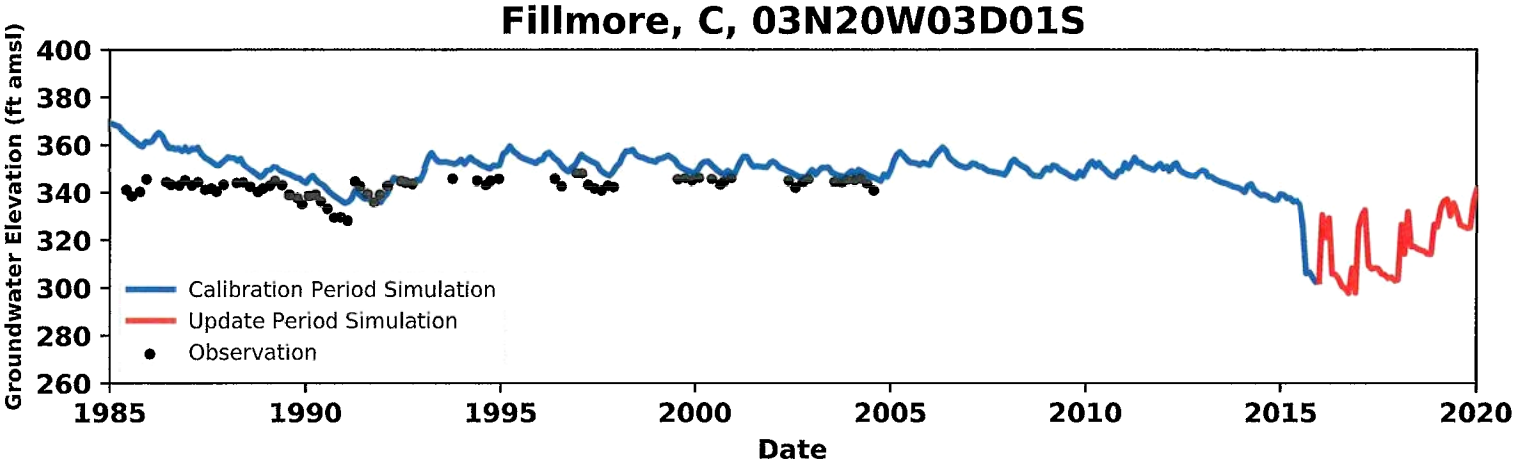
Fillmore, BC, 04N20W33C03S



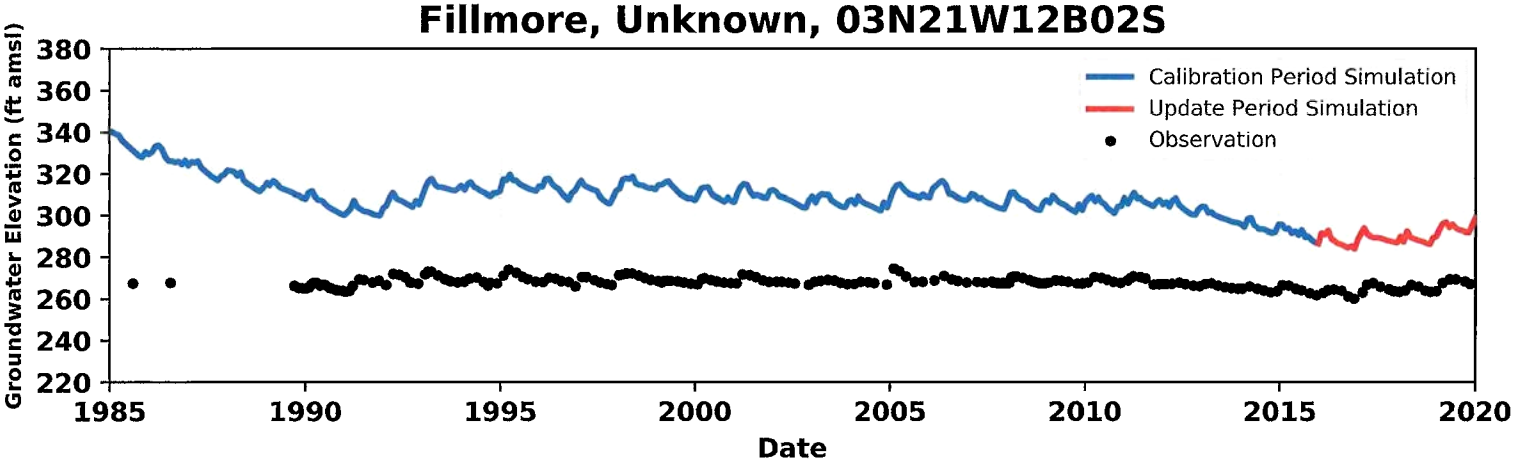
Fillmore, C, 04N20W31L01S

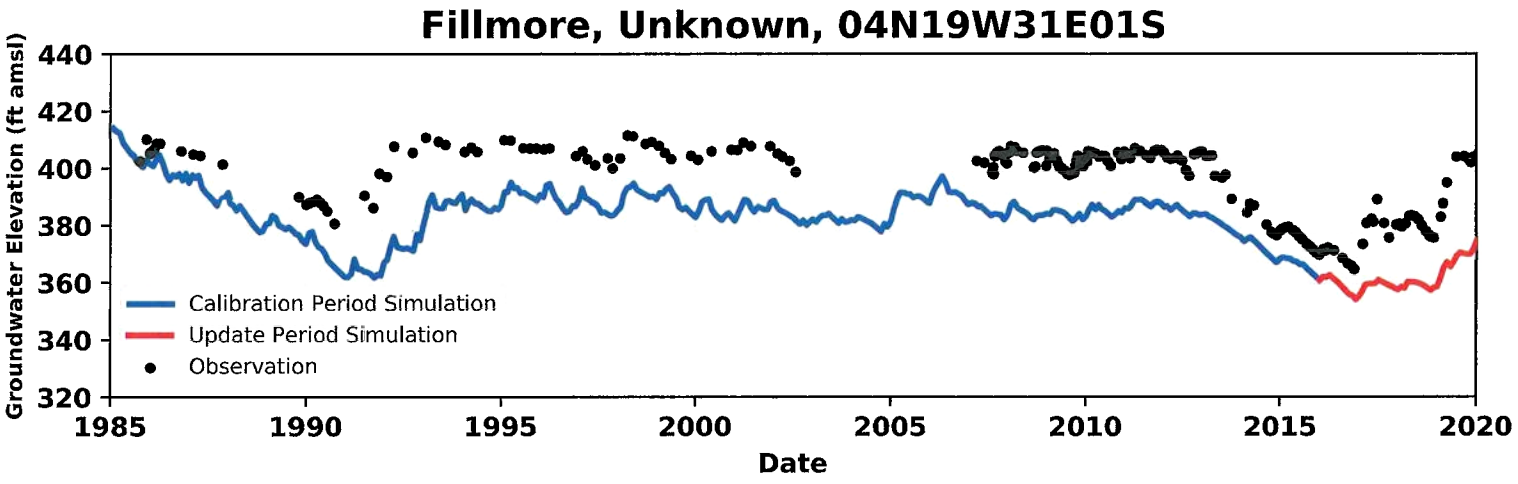


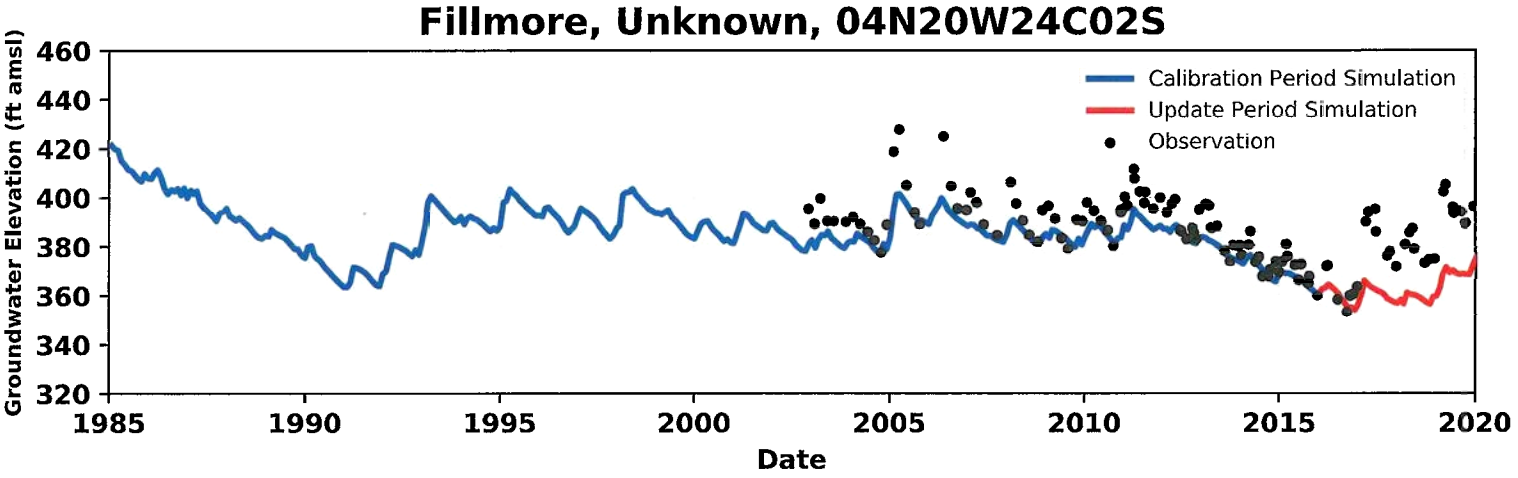
Fillmore, C, 03N20W03D01S

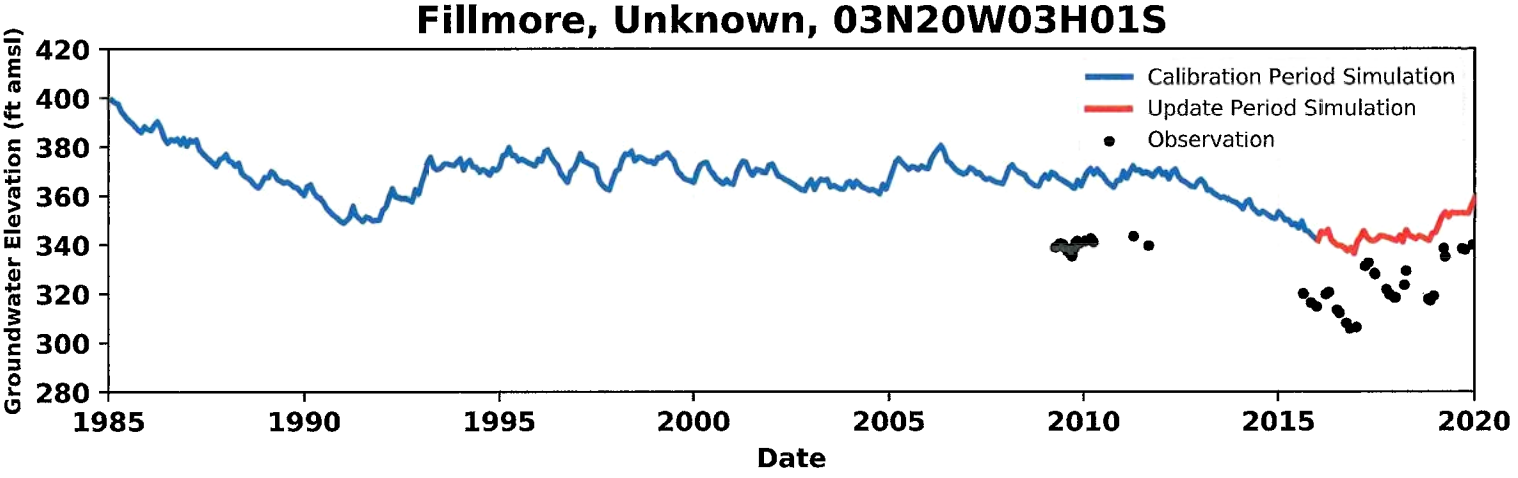


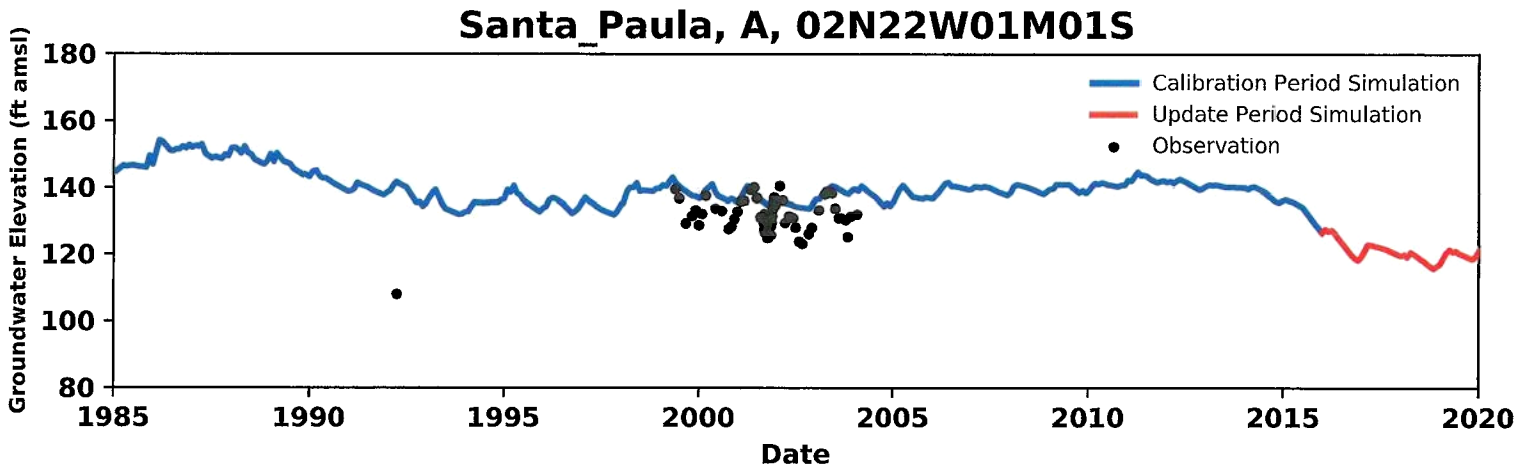
Fillmore, Unknown, 03N21W12B02S

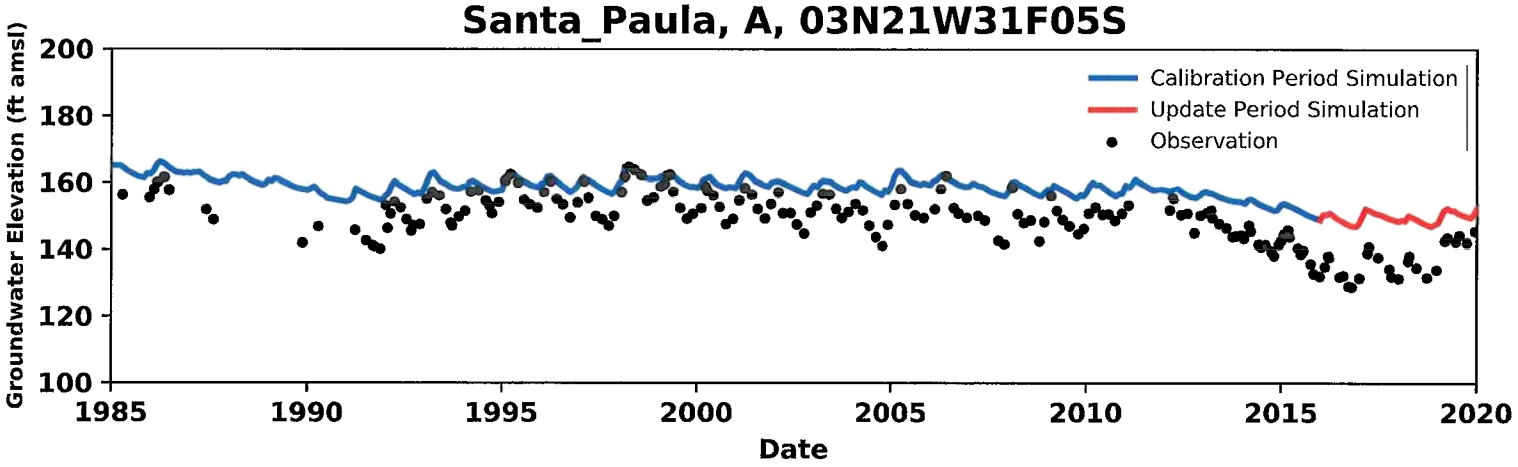


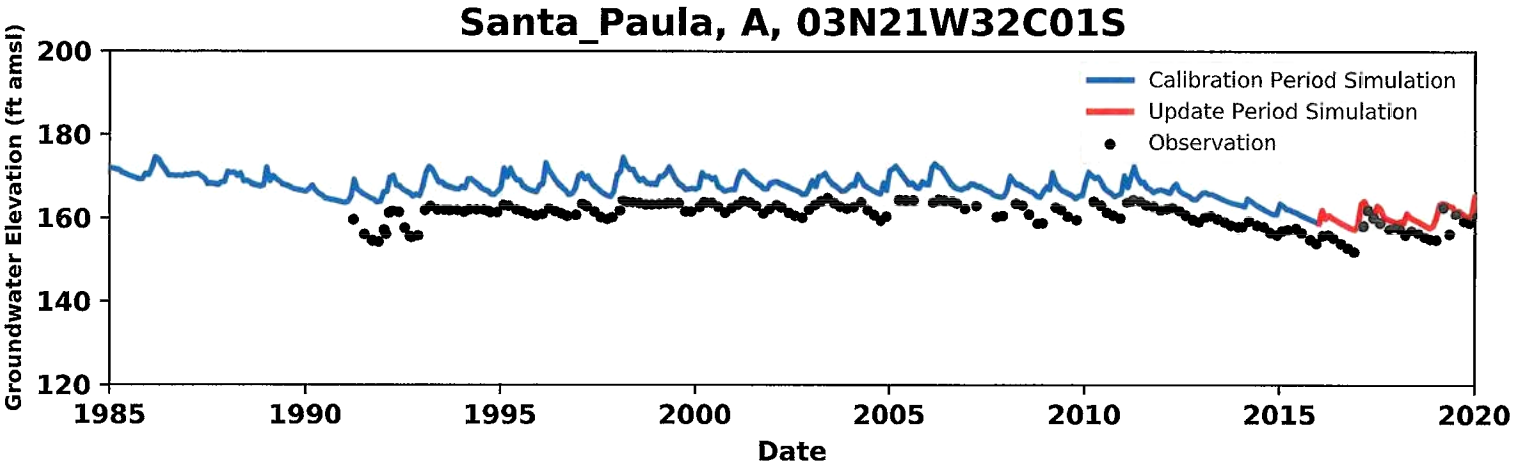

Fillmore, Unknown, 04N19W31E01S
Groundwater Elevation (ft amsl)
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

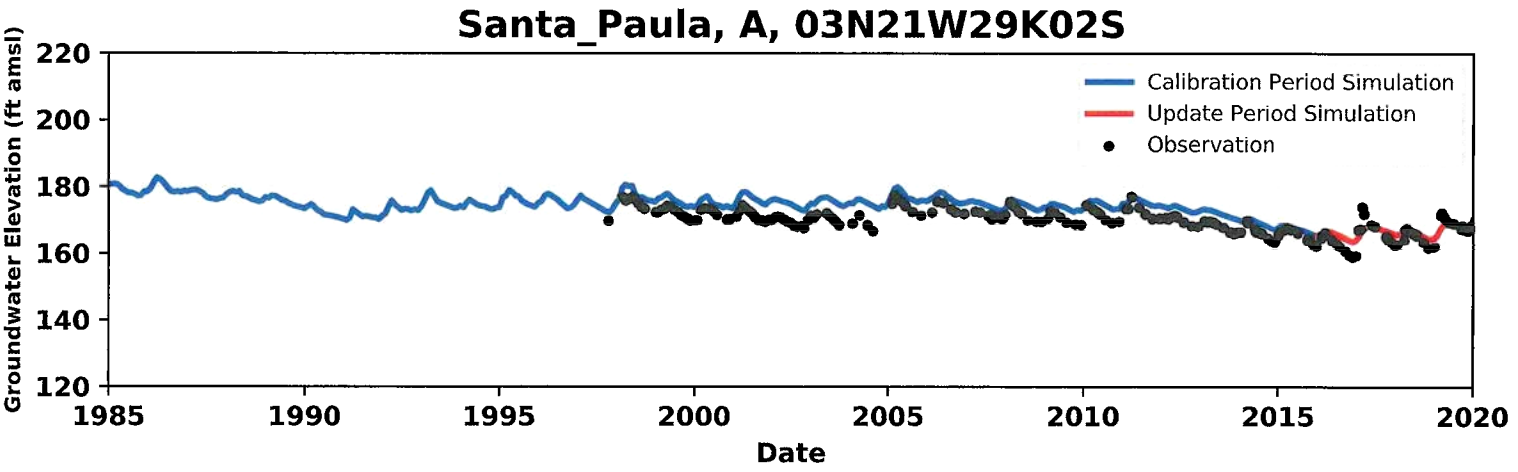

Fillmore, Unknown, 04N20W24C02S
Groundwater Elevation (ft amsl)
460
440
420
400
380
360
340
320
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

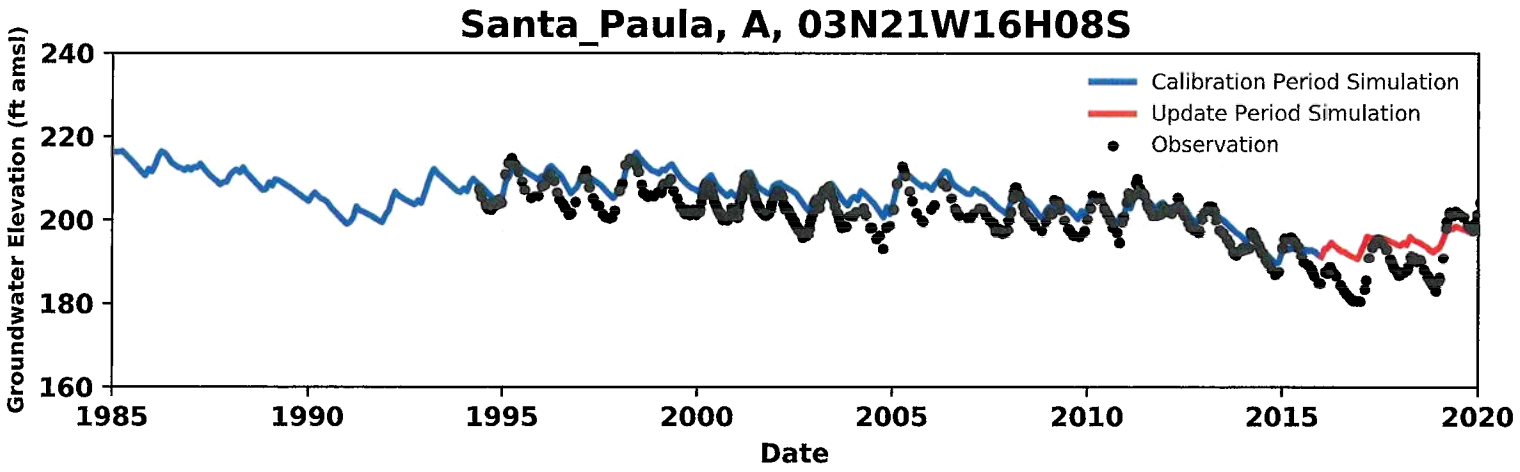

Fillmore, Unknown, 03N20W03H01S
Groundwater Elevation (ft amsl)
420
400
380
360
340
320
300
280
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

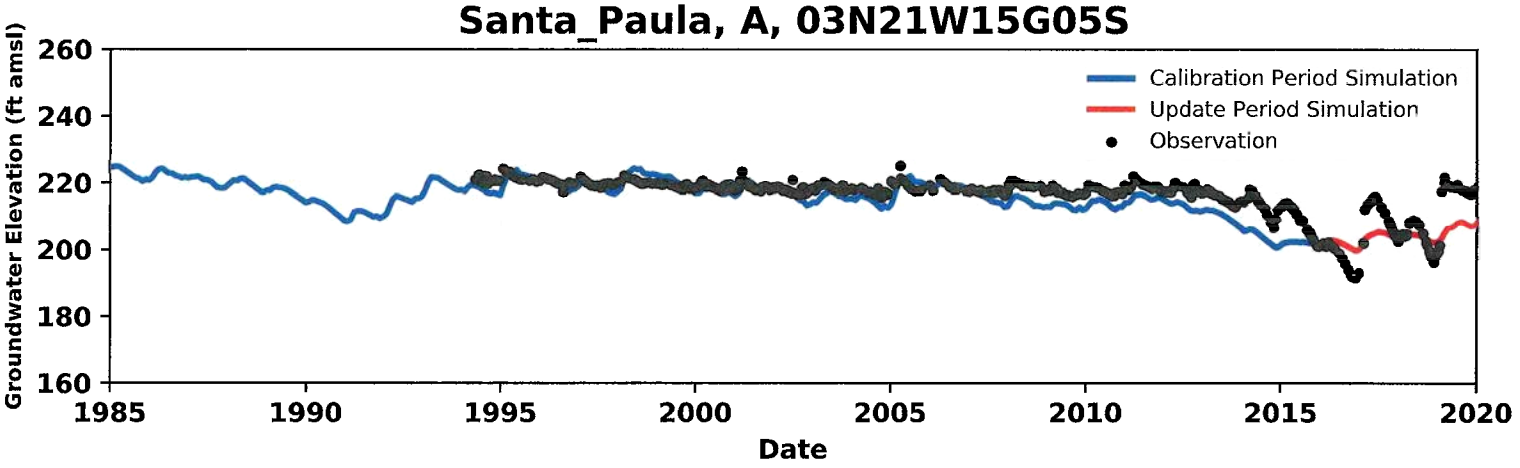

Santa_Paula, A, 02N22W01M01S
Groundwater Elevation (ft amsl)
180
160
140
120
100
80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

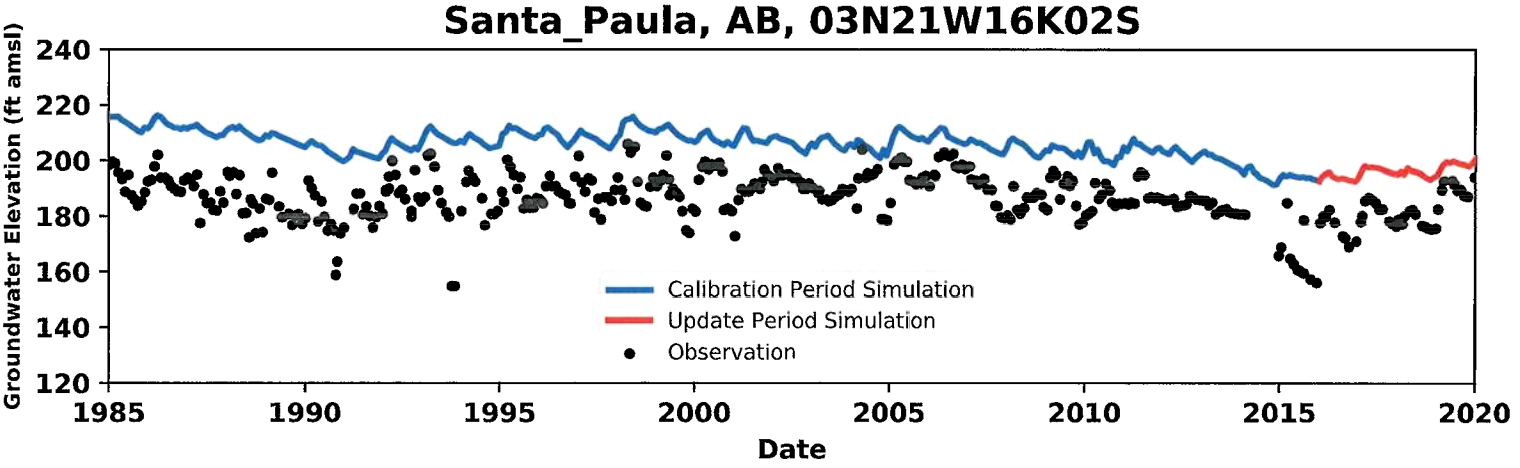

Santa_Paula, A, 03N21W31F05S
Groundwater Elevation (ft amsl)
200
180
160
140
120
100
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

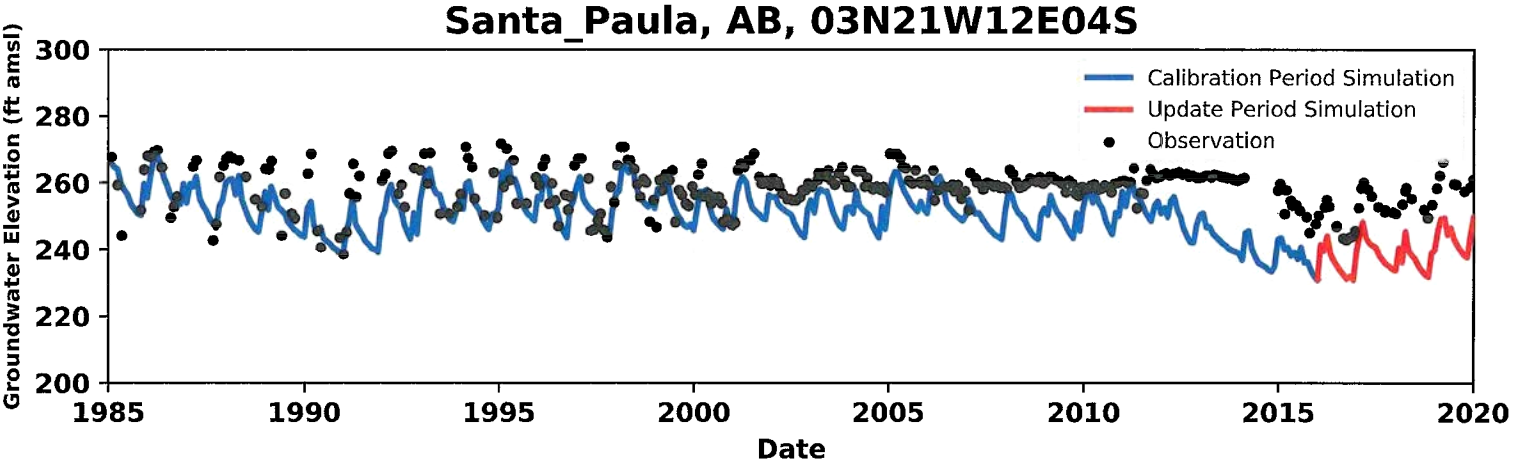

Santa_Paula, A, 03N21W32C01S
Groundwater Elevation (ft amsl)
200
180
160
140
120
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

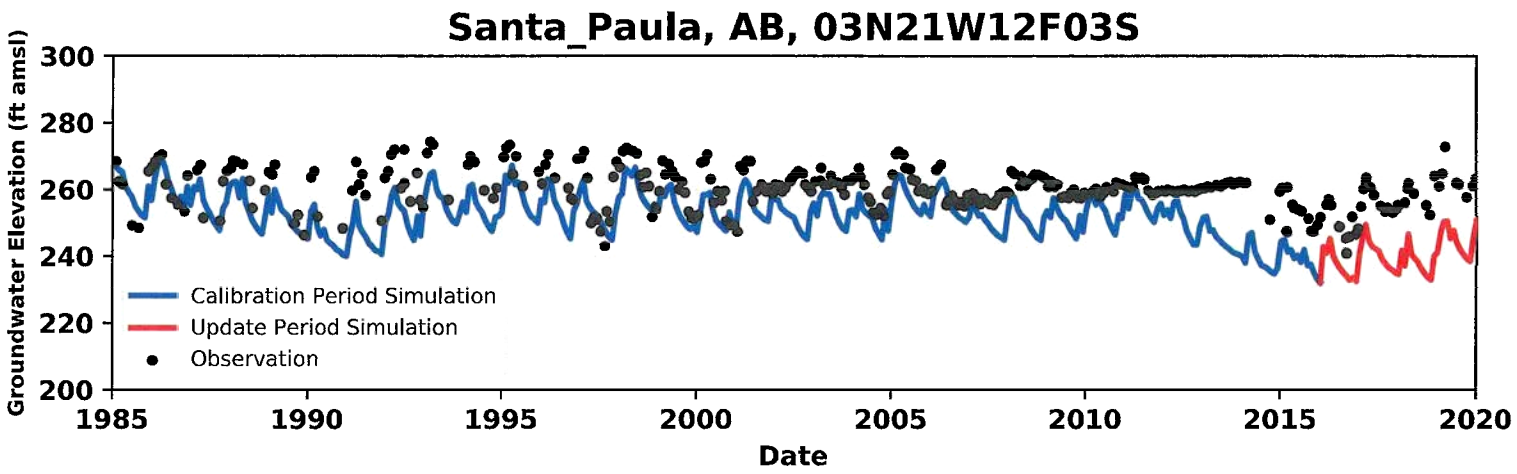

Santa_Paula, A, 03N21W29K02S
Groundwater Elevation (ft amsl)
220
200
180
160
140
120
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

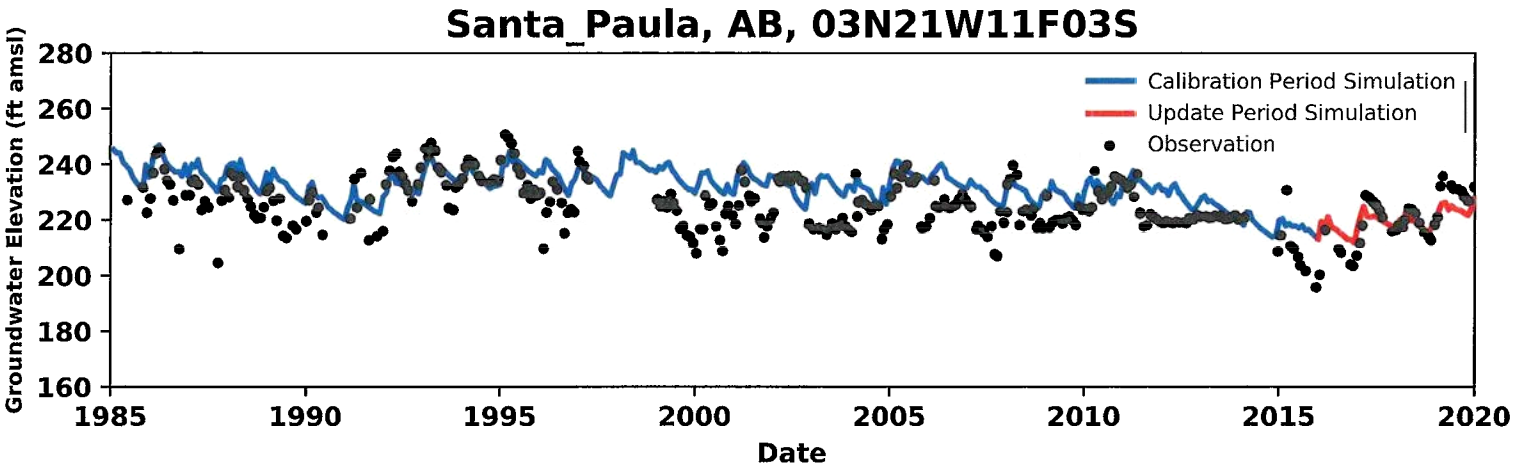

Santa_Paula, A, 03N21W16H08S
Groundwater Elevation (ft amsl)
240
220
200
180
160
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

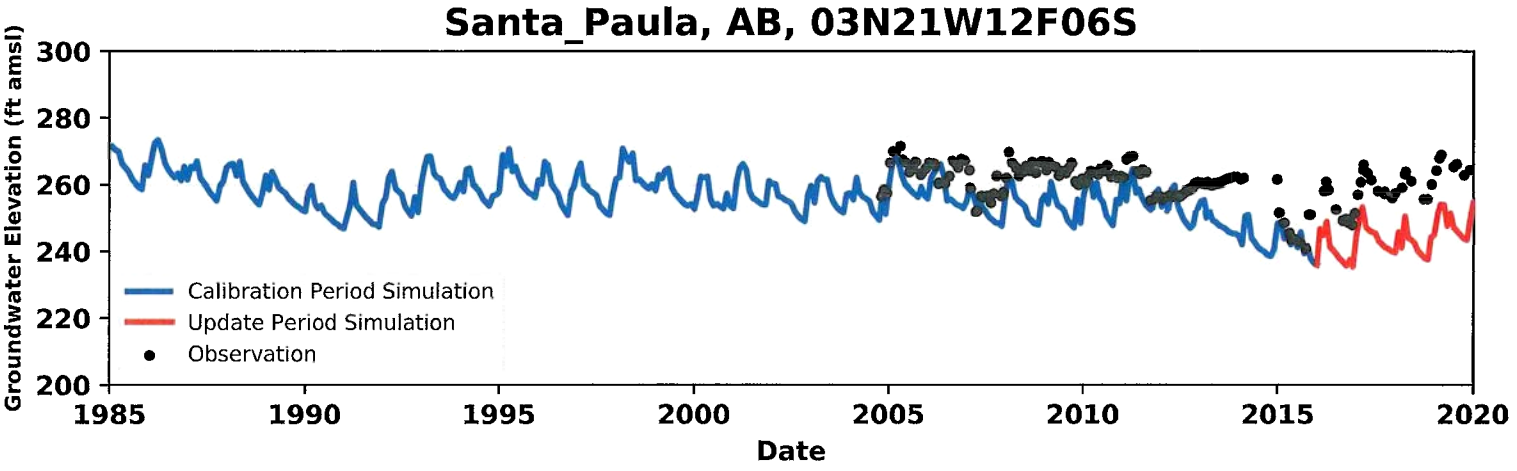

Santa_Paula, A, 03N21W15G05S
Groundwater Elevation (ft amsl)
260
240
220
200
180
160
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

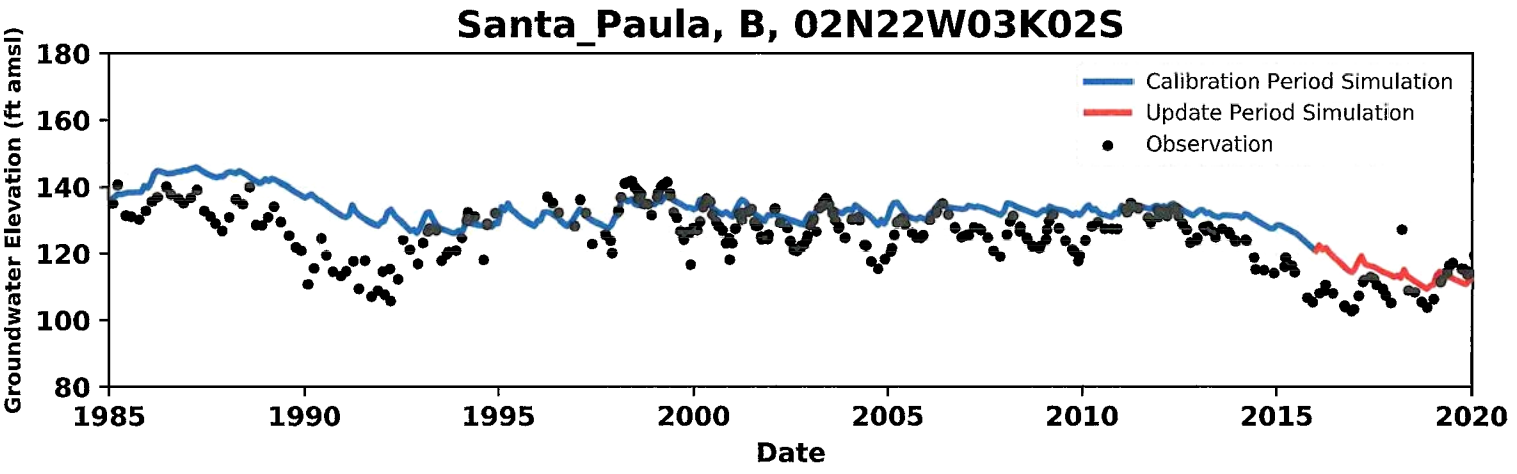

Santa_Paula, AB, 03N21W16K02S
Groundwater Elevation (ft amsl)
240
220
200
180
160
140
120
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

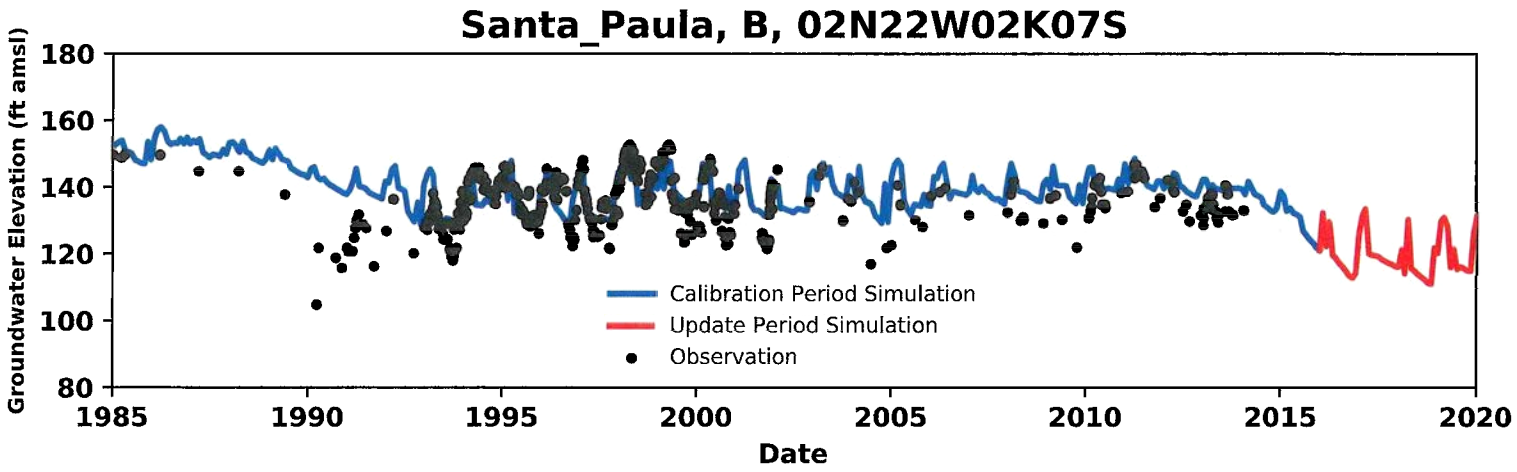

Santa_Paula, AB, 03N21W12E04S
Groundwater Elevation (ft amsl)
300
280
260
240
220
200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, AB, 03N21W12F03S
Groundwater Elevation (ft amsl)
300
280
260
240
220
200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, AB, 03N21W11F03S
Groundwater Elevation (ft amsl)
280
260
240
220
200
180
160
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, AB, 03N21W12F06S
Groundwater Elevation (ft amsl)
300
280
260
240
220
200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 02N22W03K02S
Groundwater Elevation (ft amsl)
180
160
140
120
100
80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 02N22W02K07S
Groundwater Elevation (ft amsl)
180
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140
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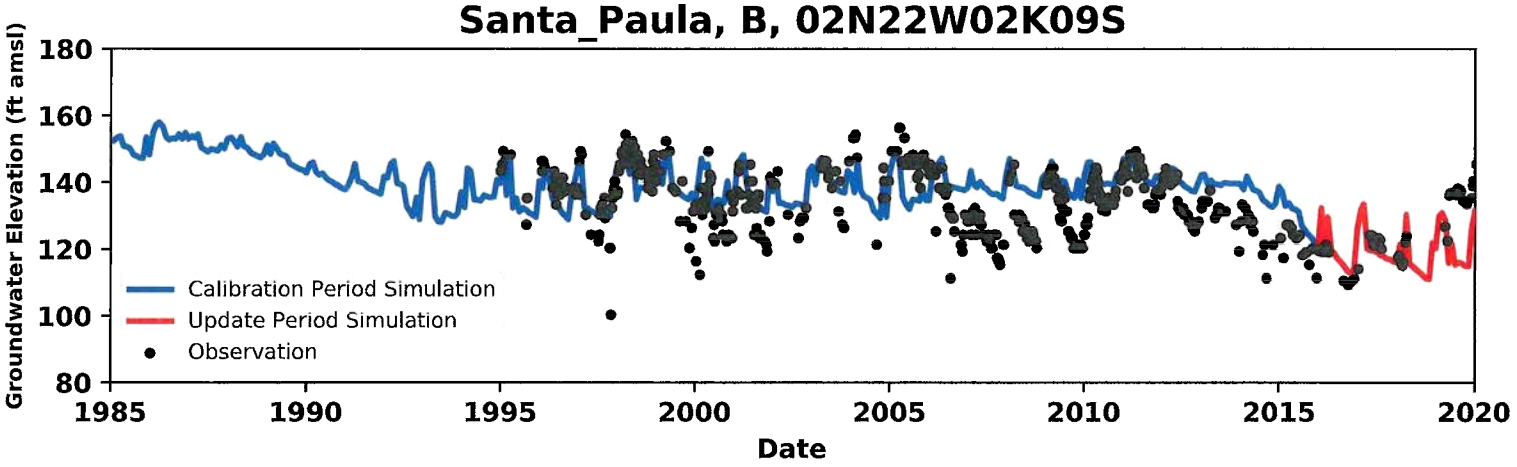
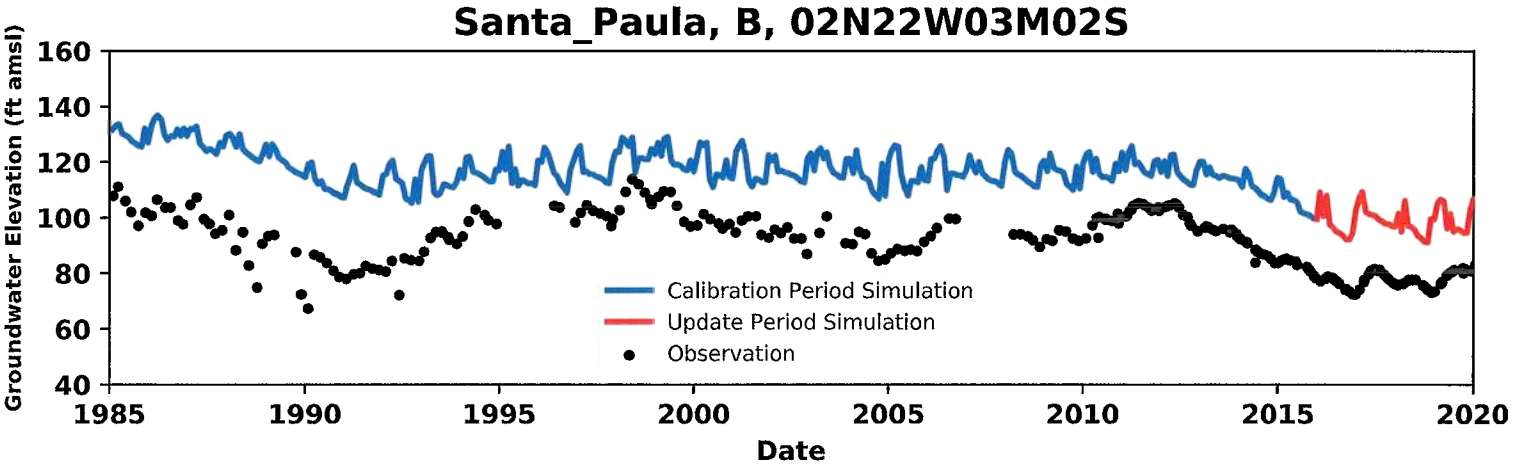
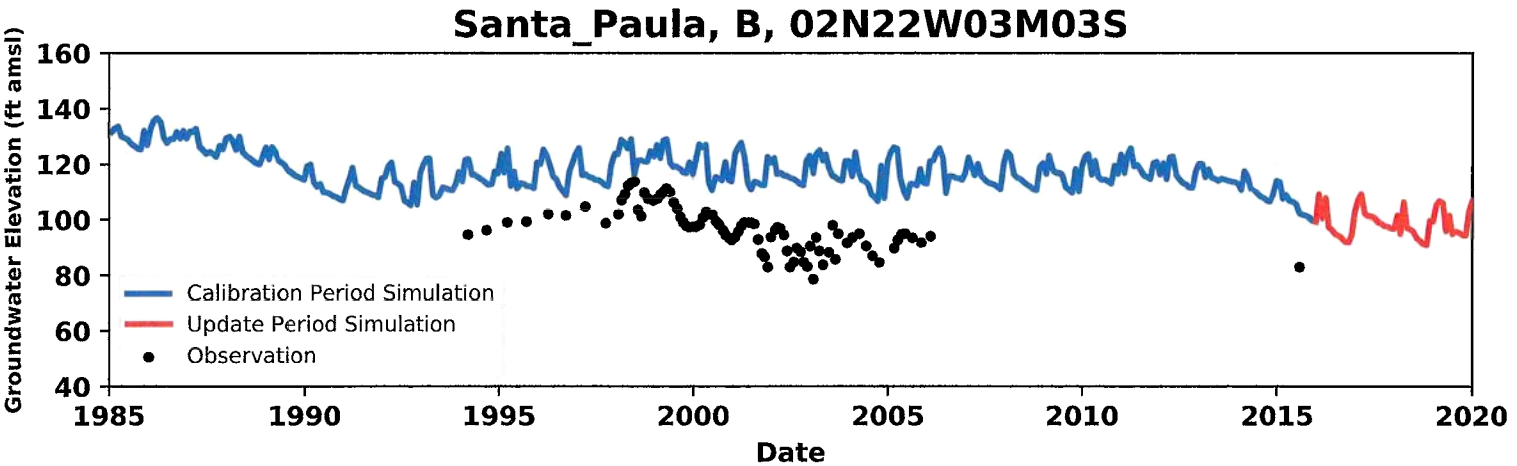
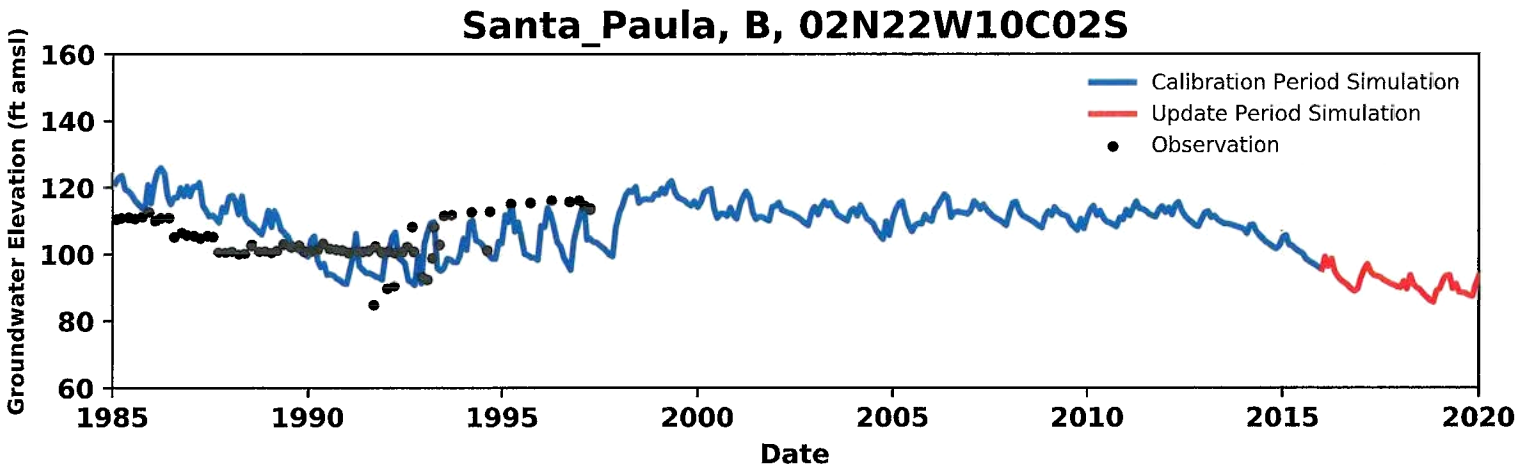
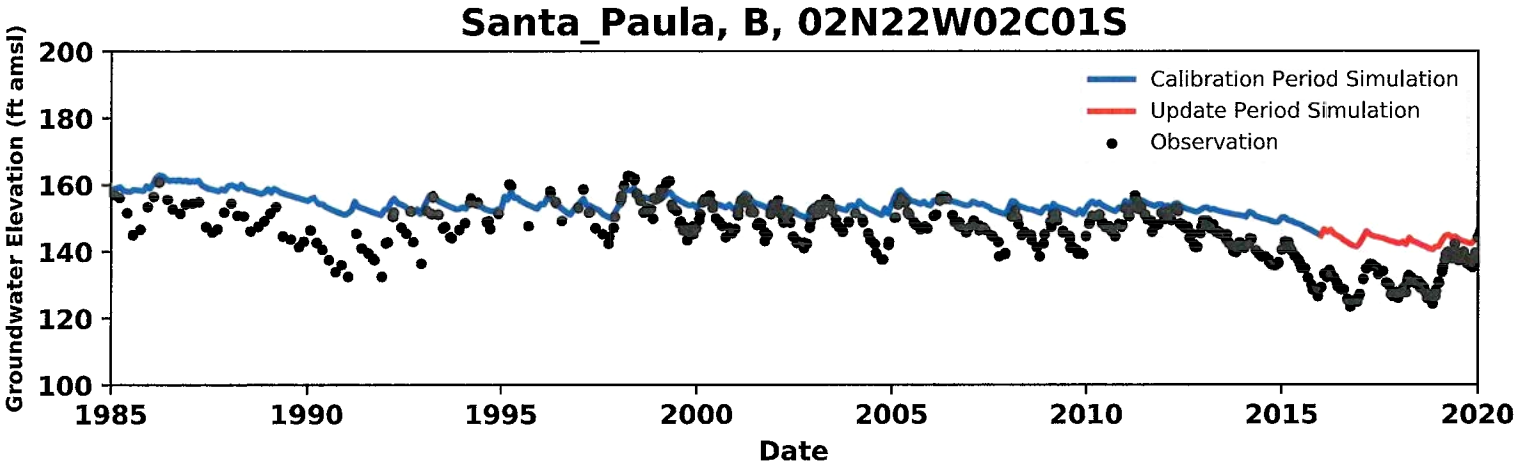
100
80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 02N22W02K09S
Groundwater Elevation (ft amsl)
180
160
140
120
100
80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 02N22W03M02S
Groundwater Elevation (ft amsl)
160
140
120
100
80
60
40
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 02N22W03M03S
Groundwater Elevation (ft amsl)
160
140
120
100
80
60
40
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 02N22W10C02S
Groundwater Elevation (ft amsl)
160
140
120
100
80
60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 02N22W02C01S
Groundwater Elevation (ft amsl)
200
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1985
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1995
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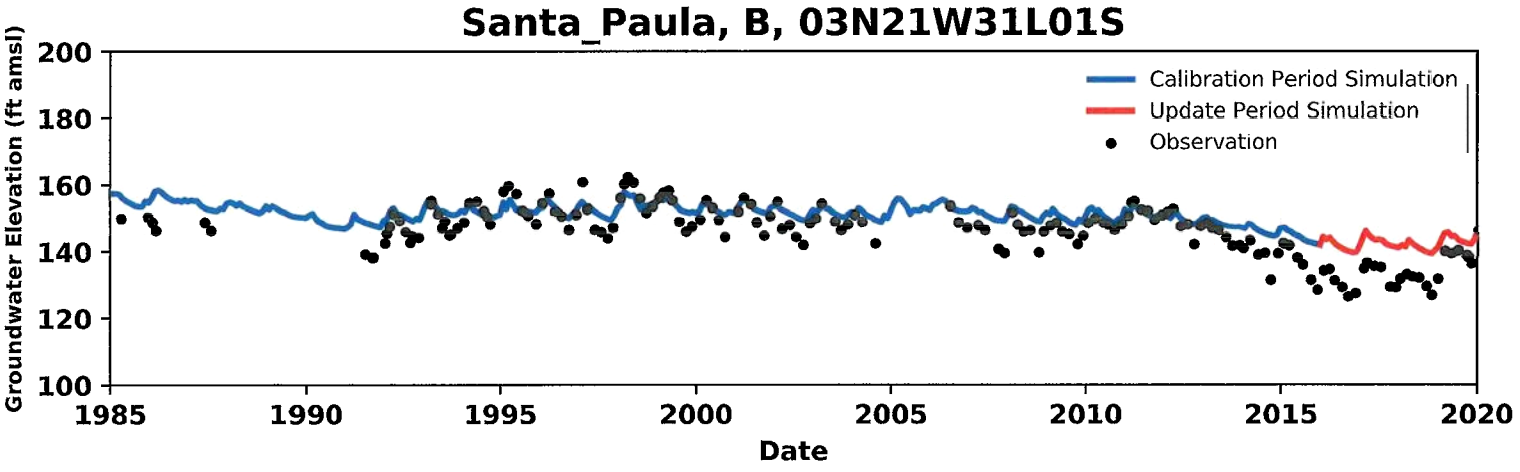
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W31L01S
Groundwater Elevation (ft amsl)
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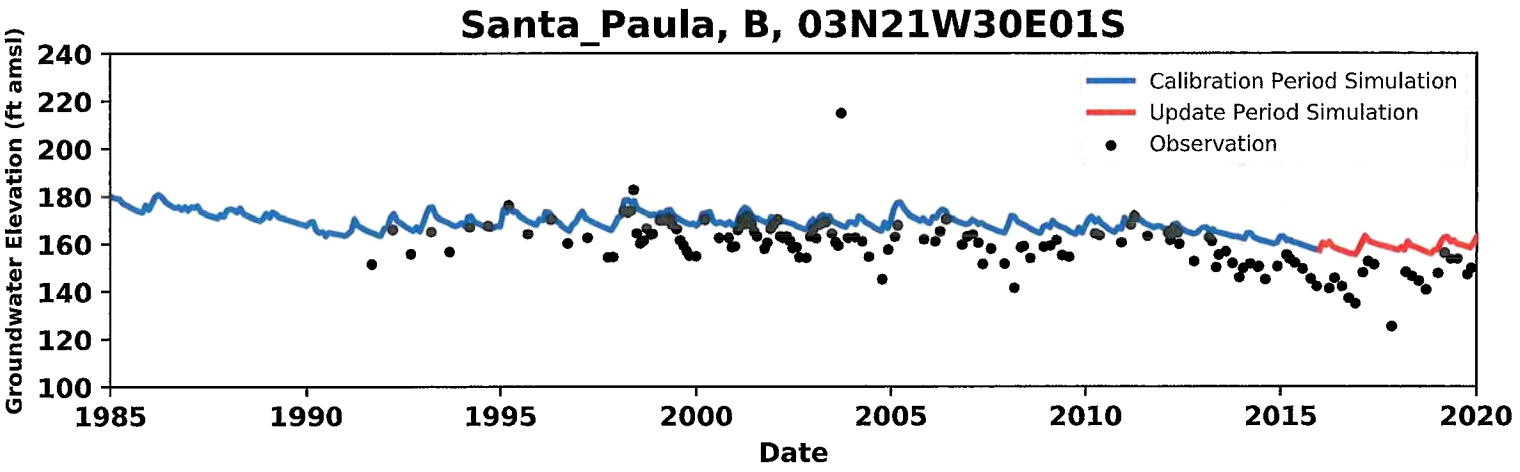
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W30E01S
Groundwater Elevation (ft amsl)
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220
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2005
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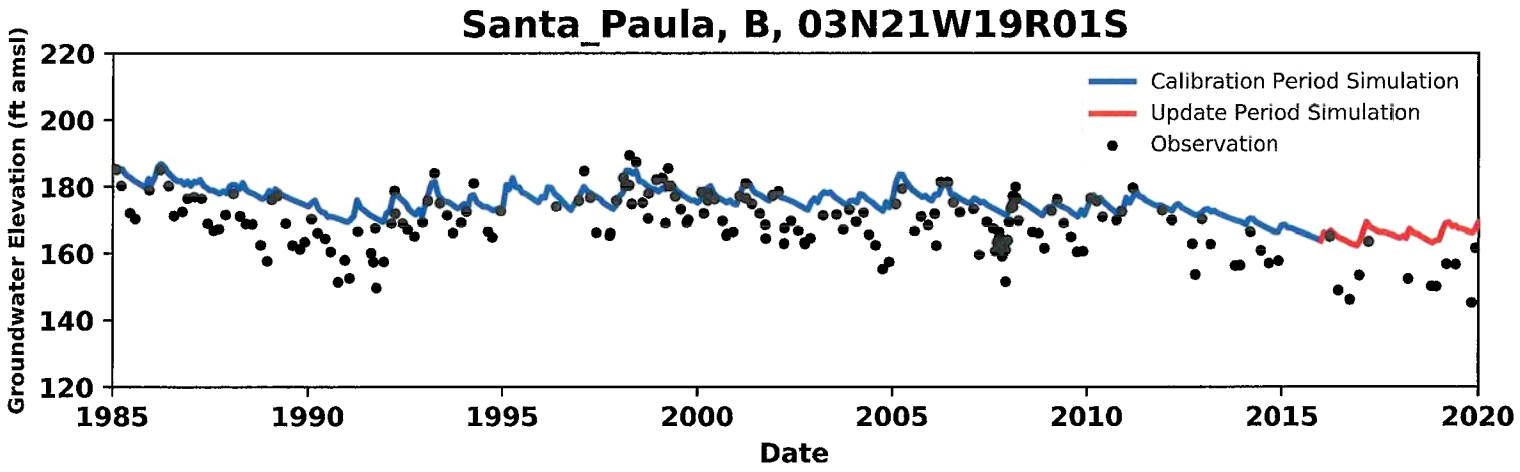
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W19R01S
Groundwater Elevation (ft amsl)
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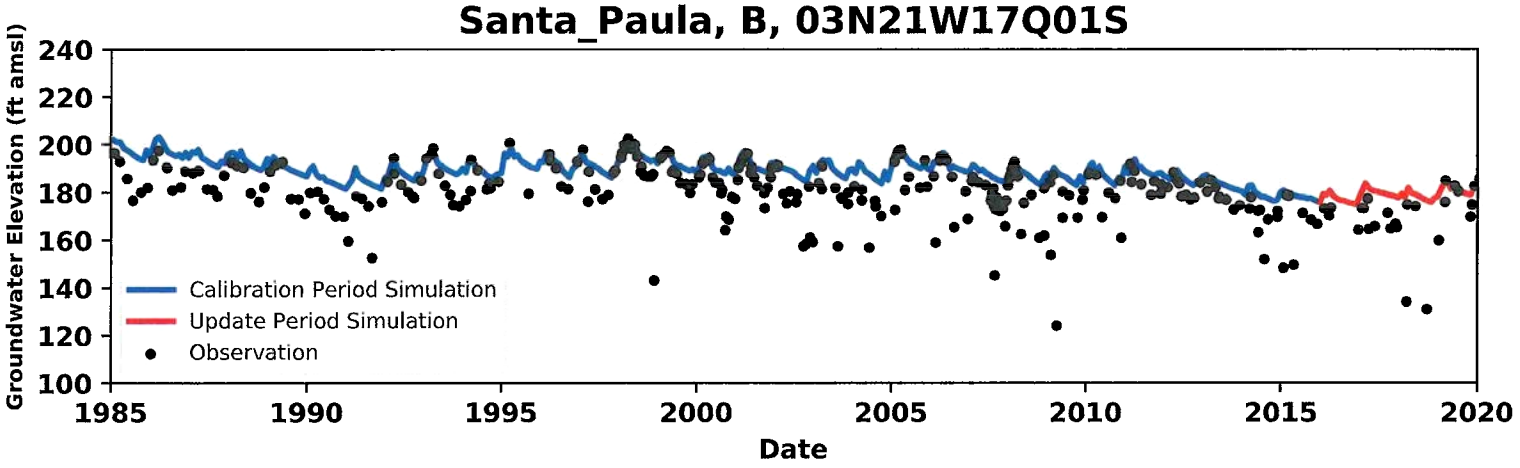
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W17Q01S
Groundwater Elevation (ft amsl)
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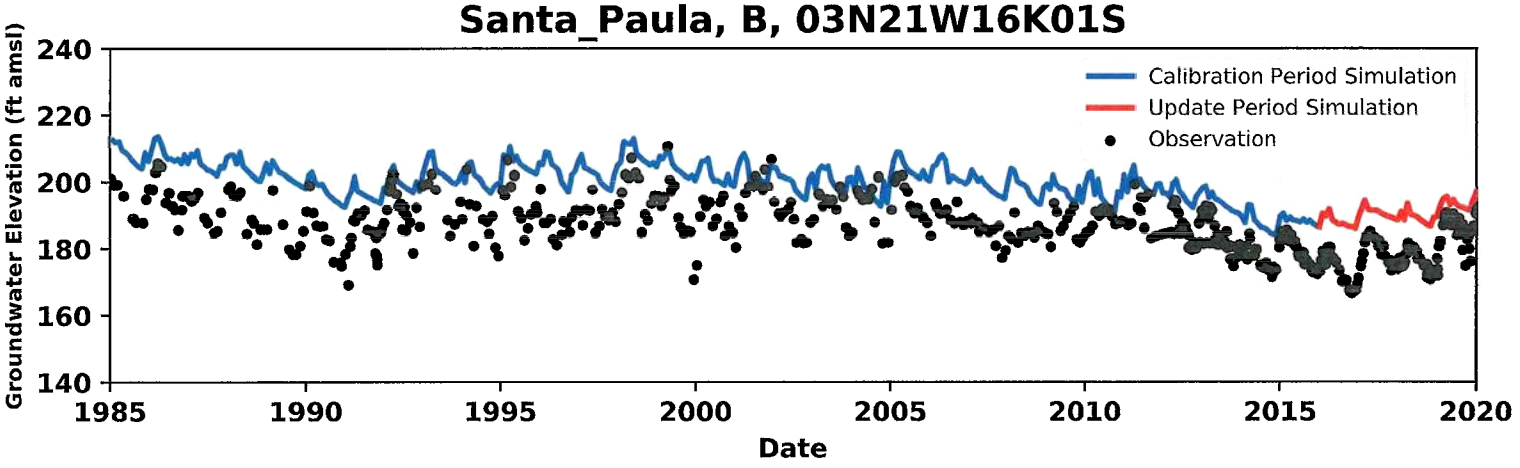
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W16K01S
Groundwater Elevation (ft amsl)
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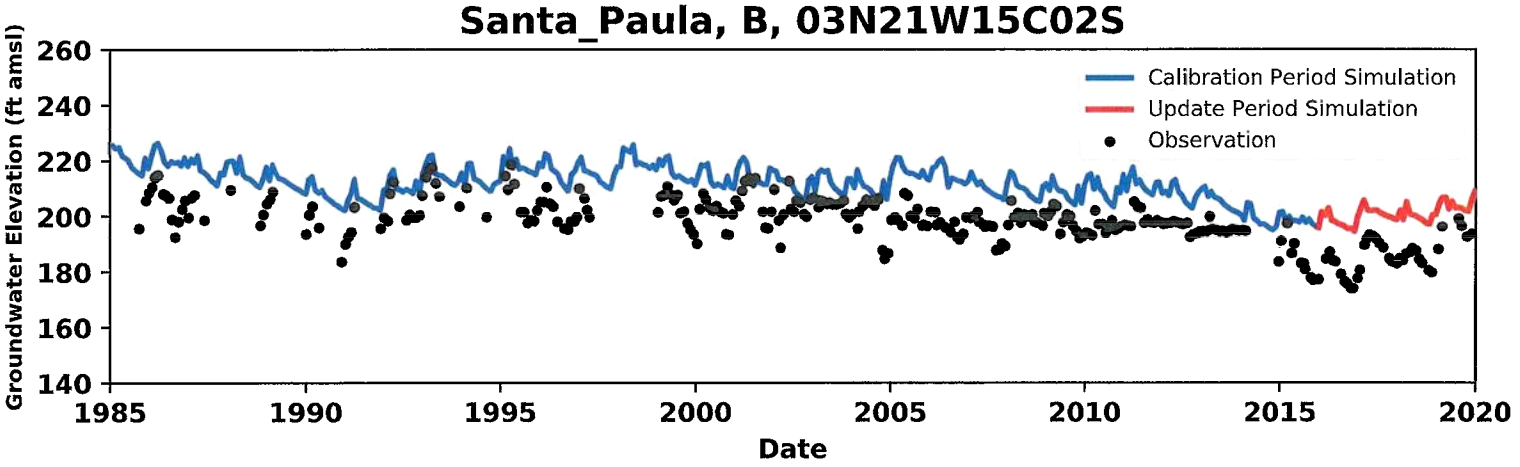
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W15C02S
Groundwater Elevation (ft amsl)
260
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2005
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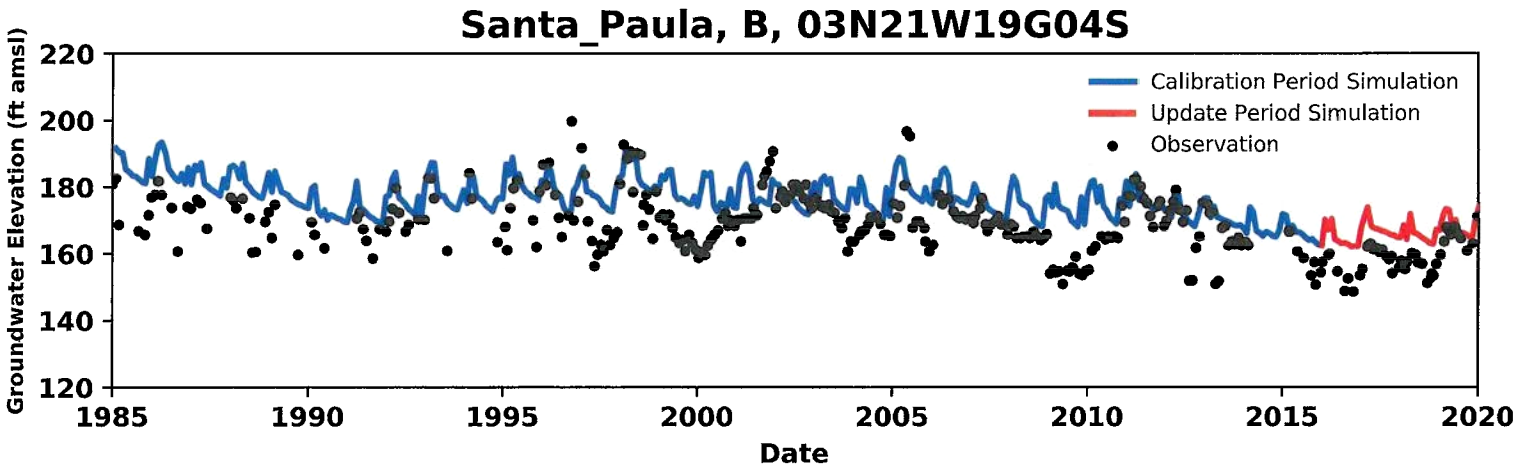
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W19G04S
Groundwater Elevation (ft amsl)
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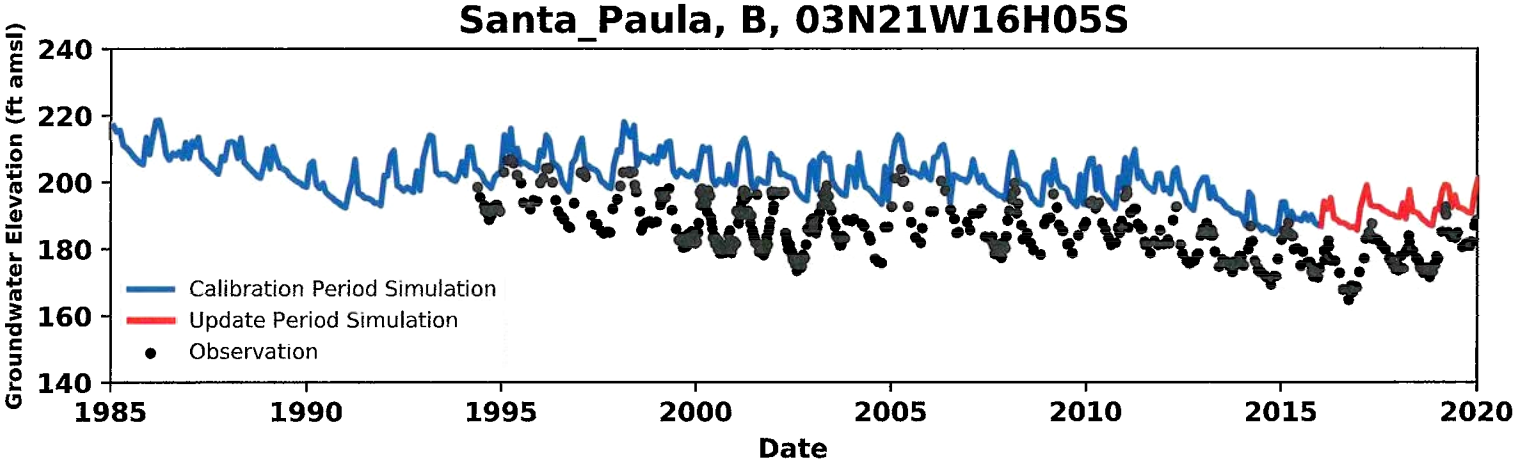
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W16H05S
Groundwater Elevation (ft amsl)
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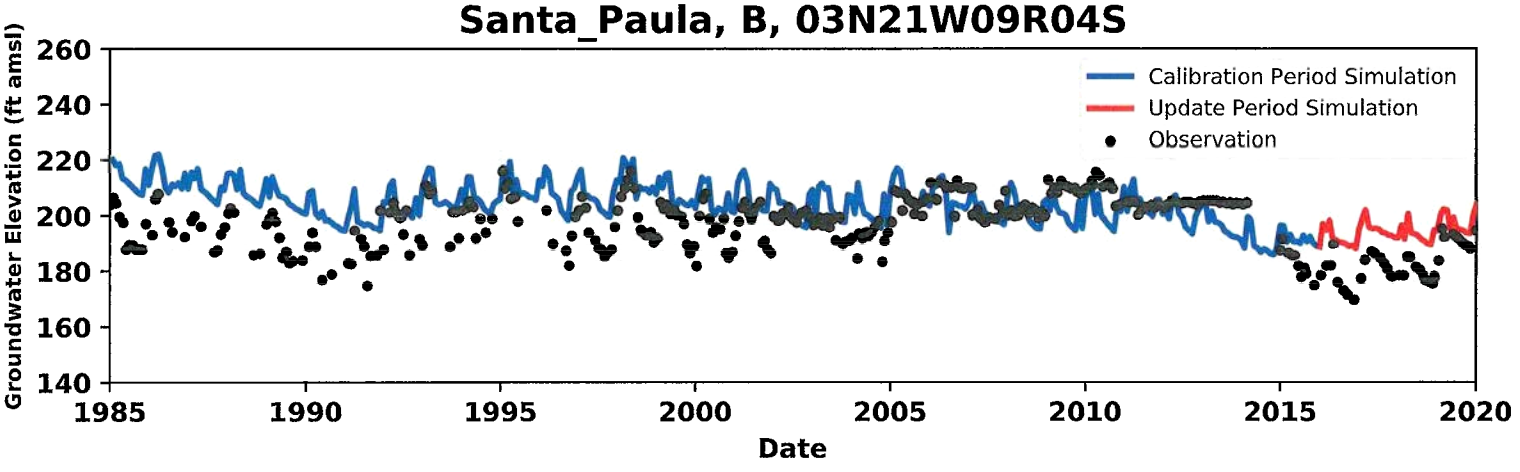
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W09R04S
Groundwater Elevation (ft amsl)
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2005
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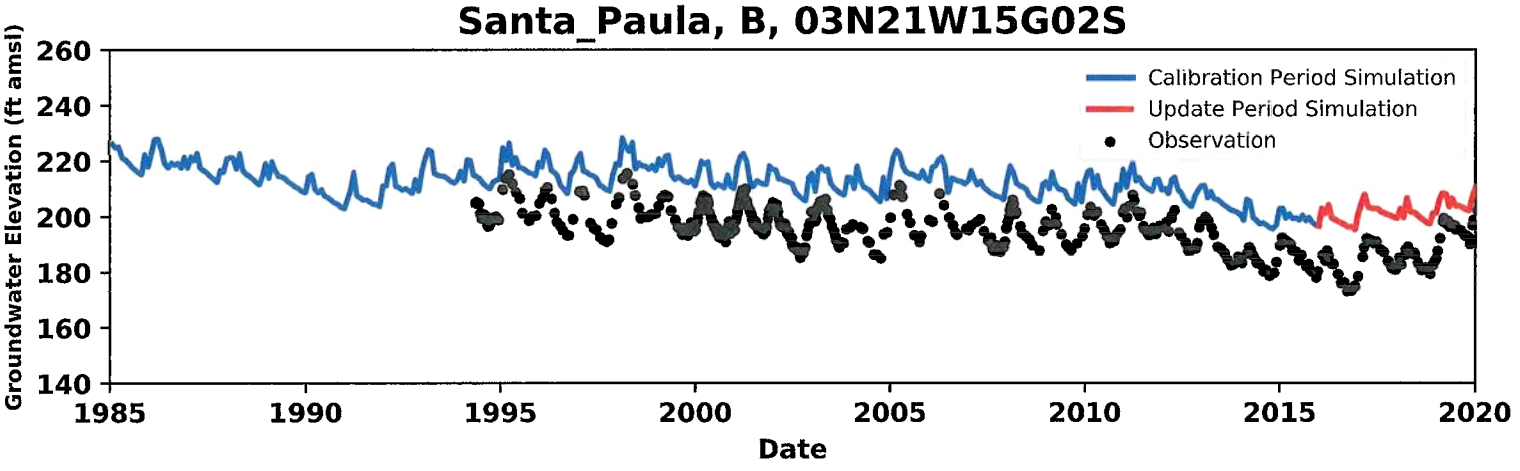
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W15G02S
Groundwater Elevation (ft amsl)
260
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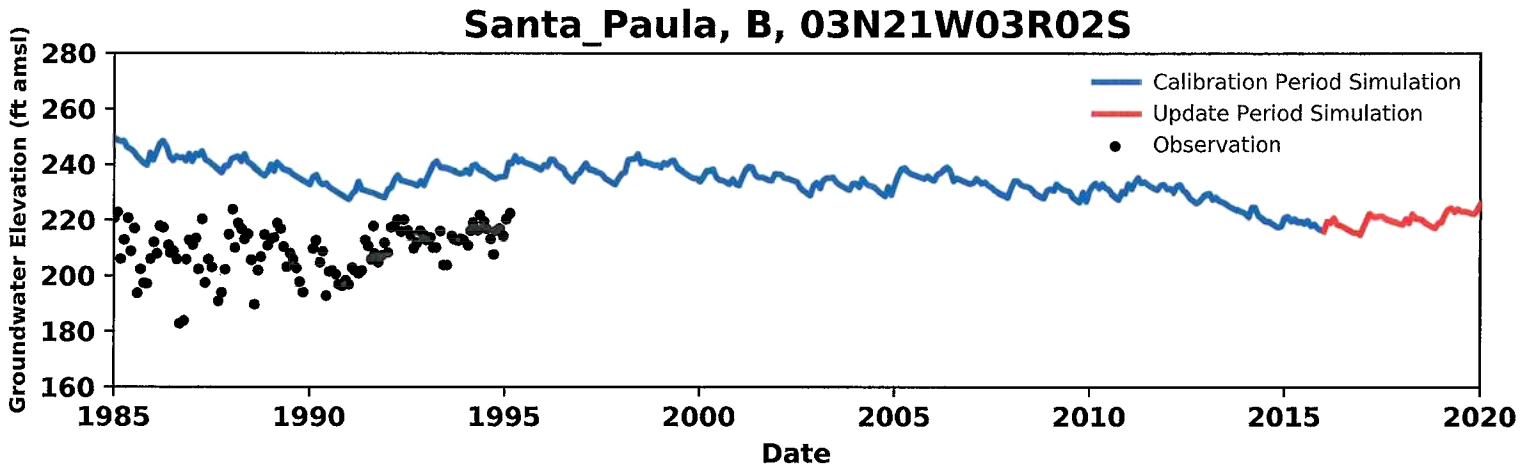
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W03R02S
Groundwater Elevation (ft amsl)
280
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220
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180
160
1985
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1995
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2005
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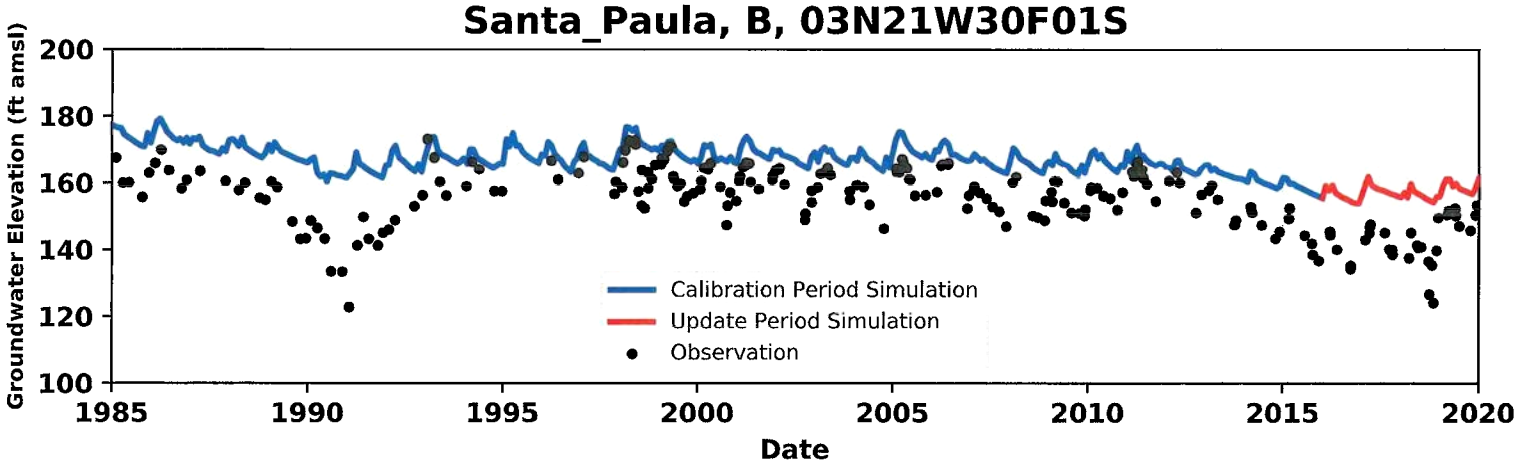
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W30F01S
Groundwater Elevation (ft amsl)
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100
1985
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1995
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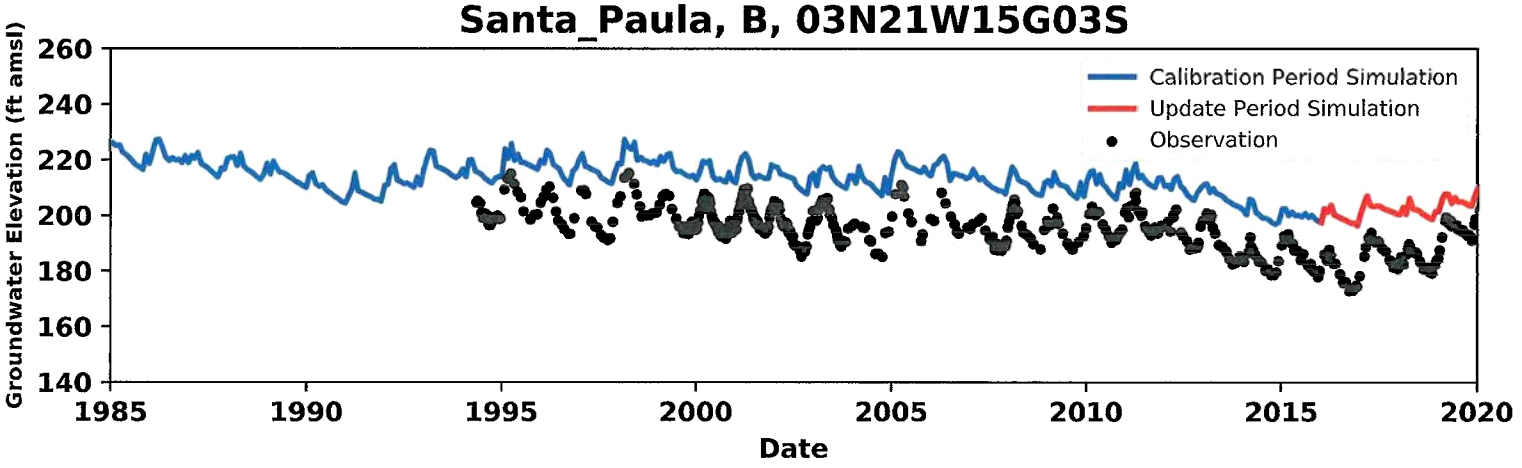
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W15G03S
Groundwater Elevation (ft amsl)
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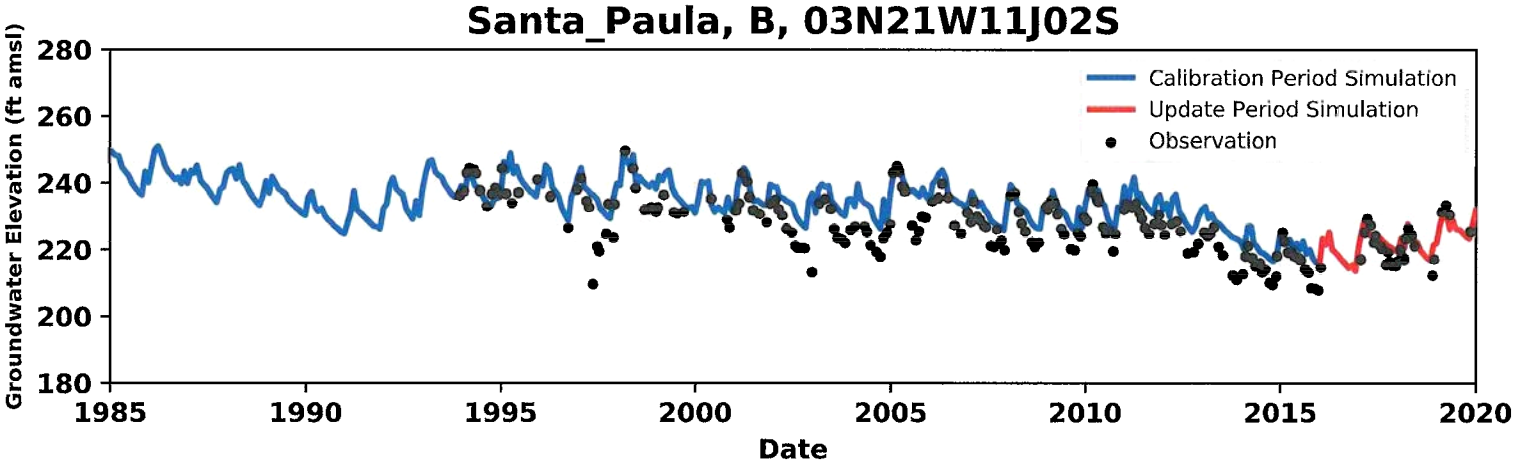
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W11J02S
Groundwater Elevation (ft amsl)
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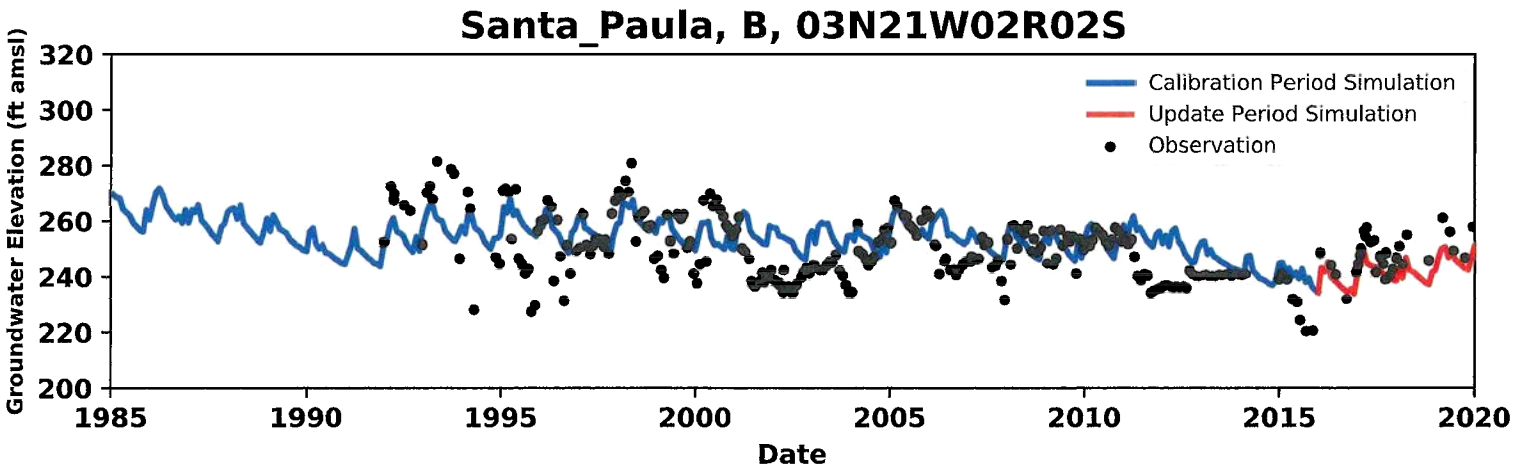
180
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W02R02S
Groundwater Elevation (ft amsl)
320
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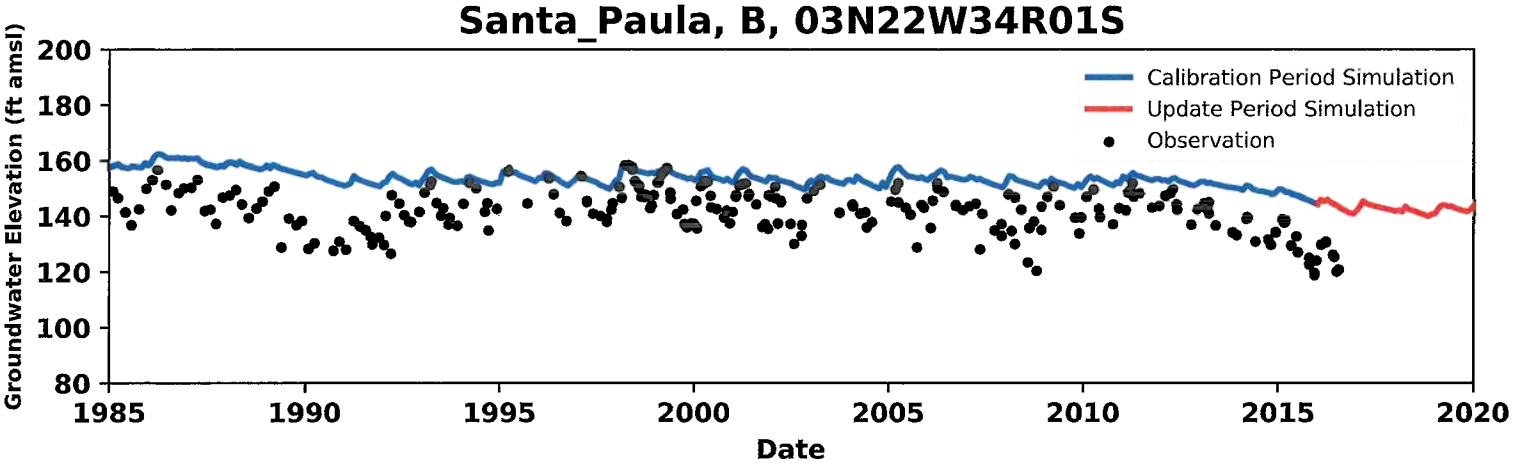
200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N22W34R01S
Groundwater Elevation (ft amsl)
200
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80
1985
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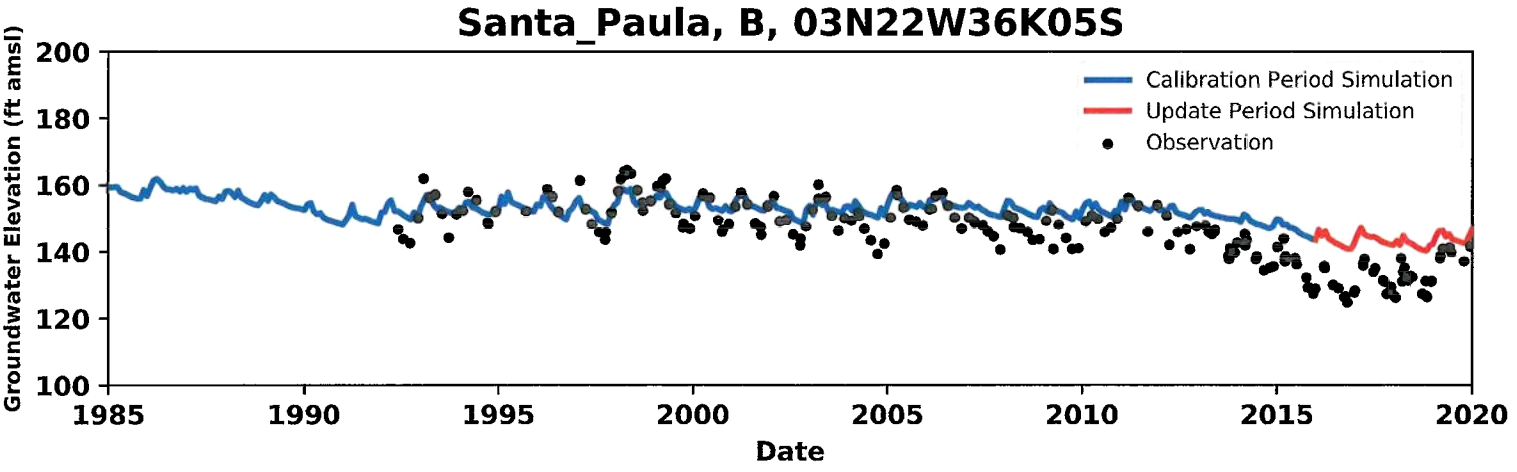
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N22W36K05S
Groundwater Elevation (ft amsl)
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100
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2010
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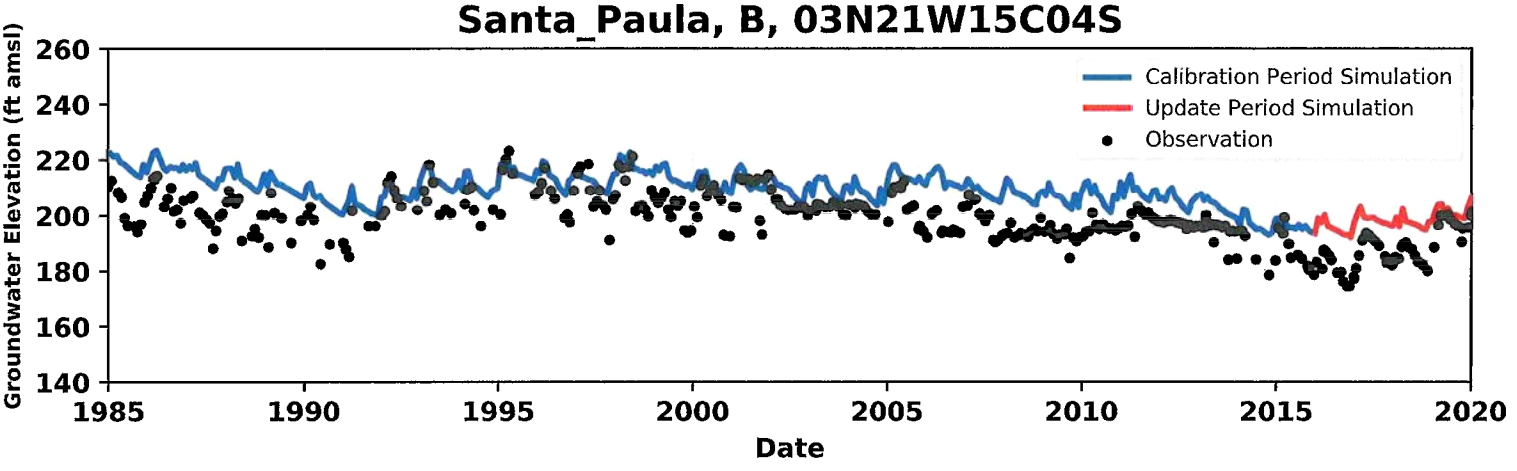
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W15C04S
Groundwater Elevation (ft amsl)
260
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200
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1985
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1995
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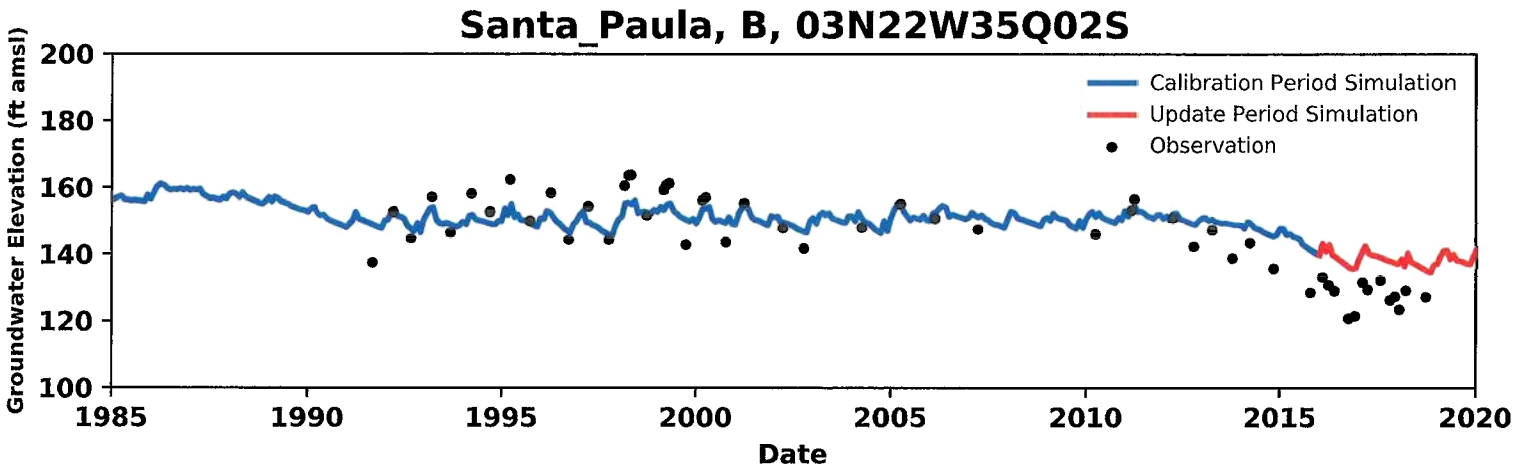
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N22W35Q02S
Groundwater Elevation (ft amsl)
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120
100
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1995
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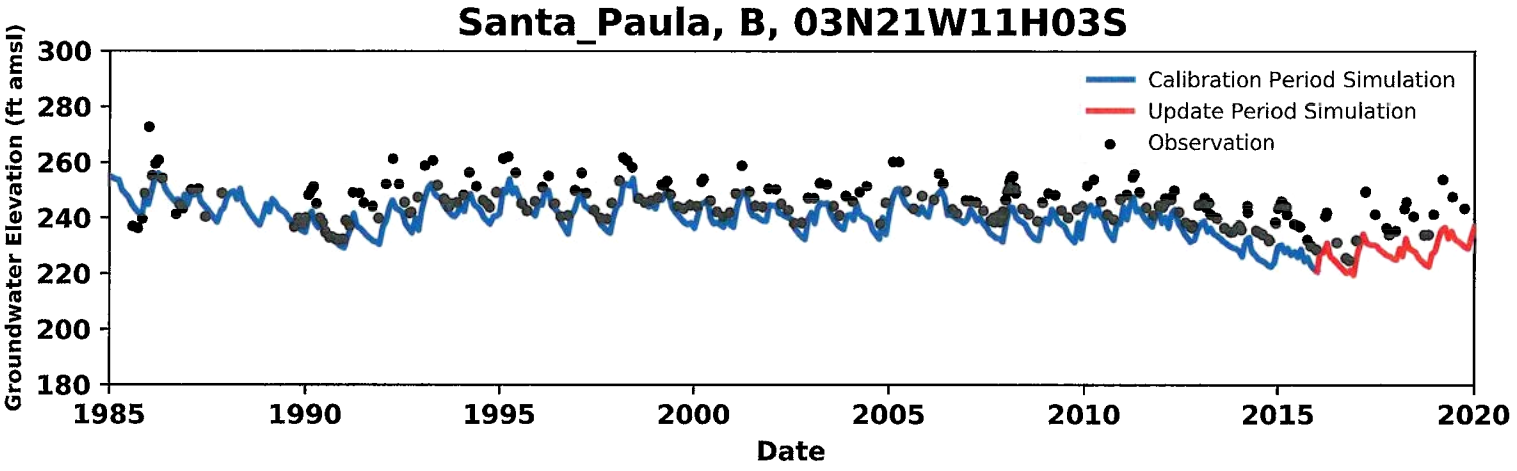
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W11H03S
Groundwater Elevation (ft amsl)
300
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240
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1985
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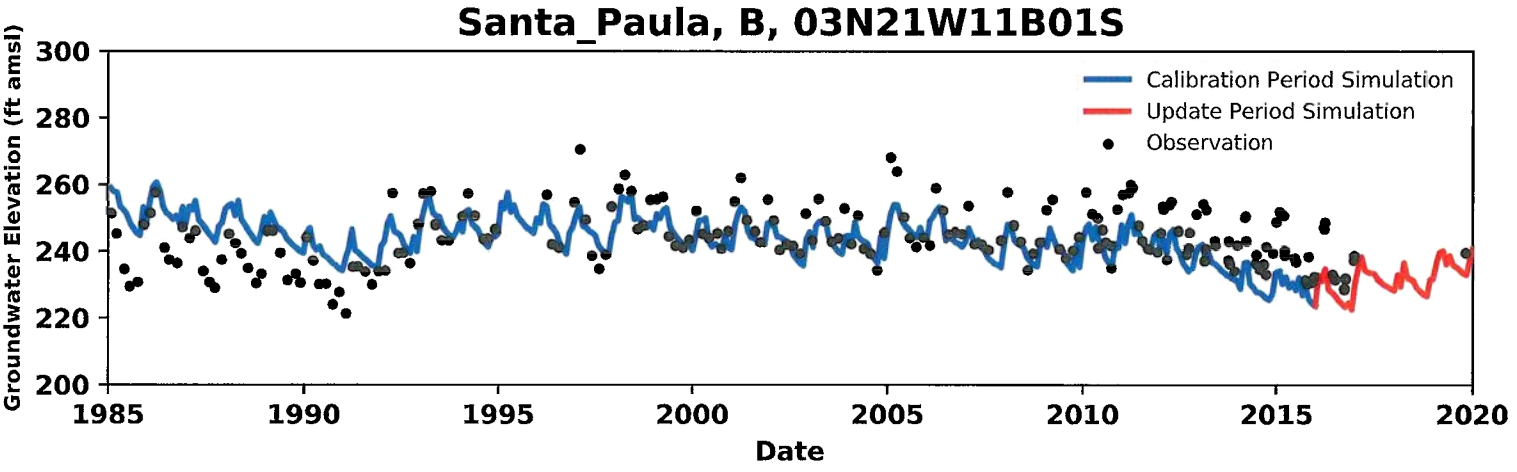
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, B, 03N21W11B01S
Groundwater Elevation (ft amsl)
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260
240
220
200
1985
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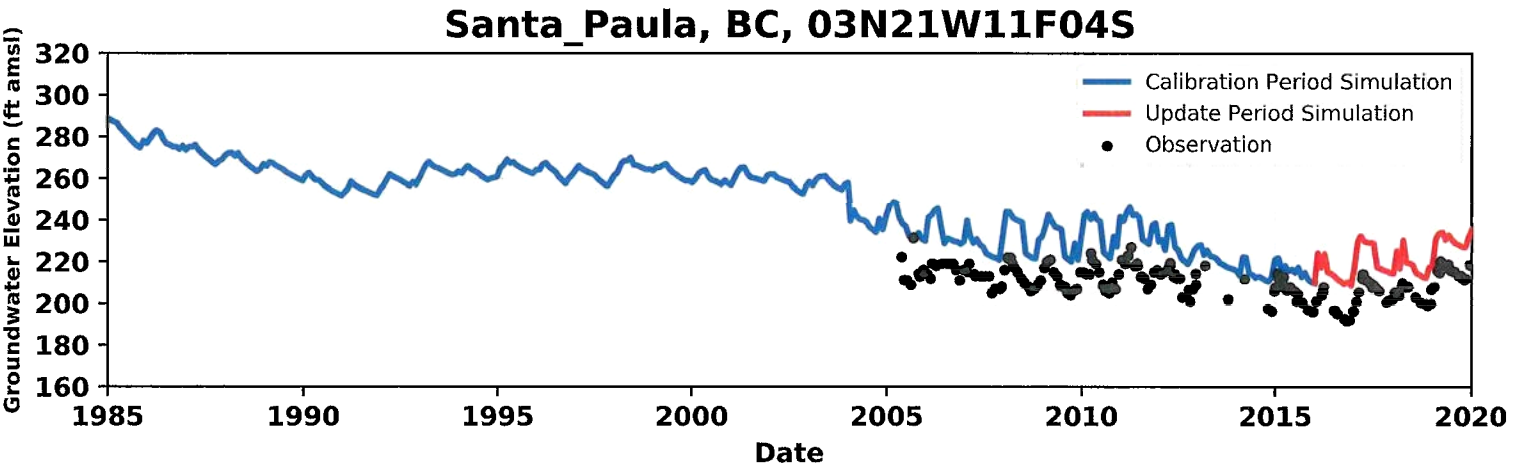
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, BC, 03N21W11F04S
Groundwater Elevation (ft amsl)
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280
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1985
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2005
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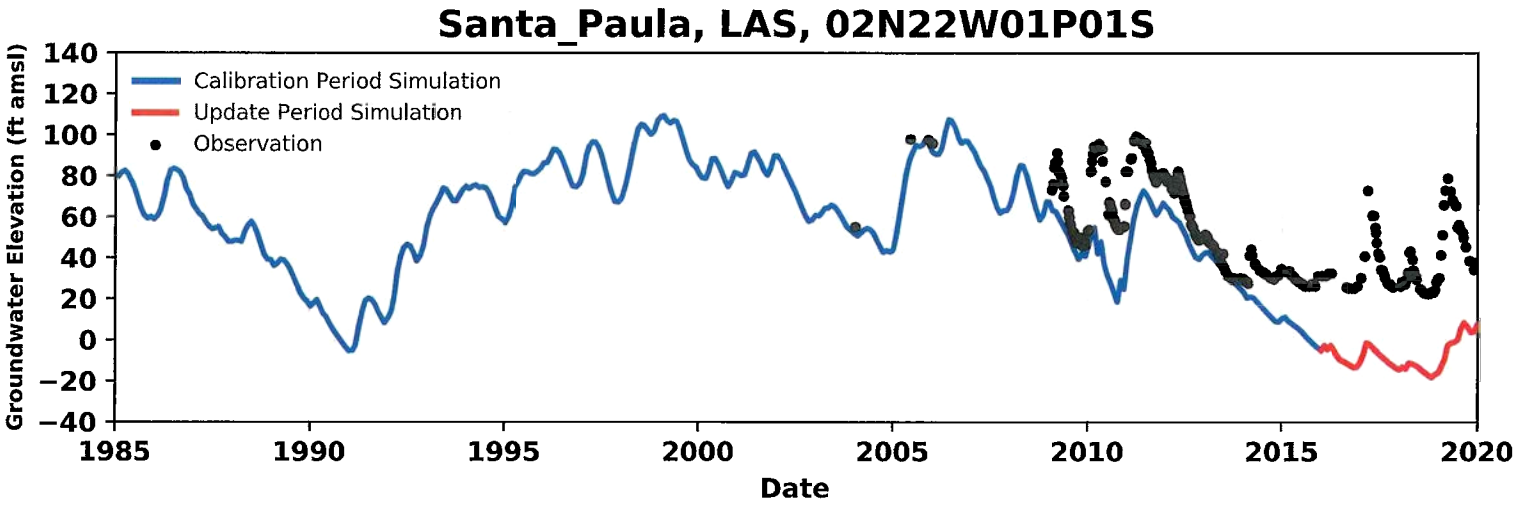
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Santa_Paula, LAS, 02N22W01P01S
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
140
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80
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40
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2010
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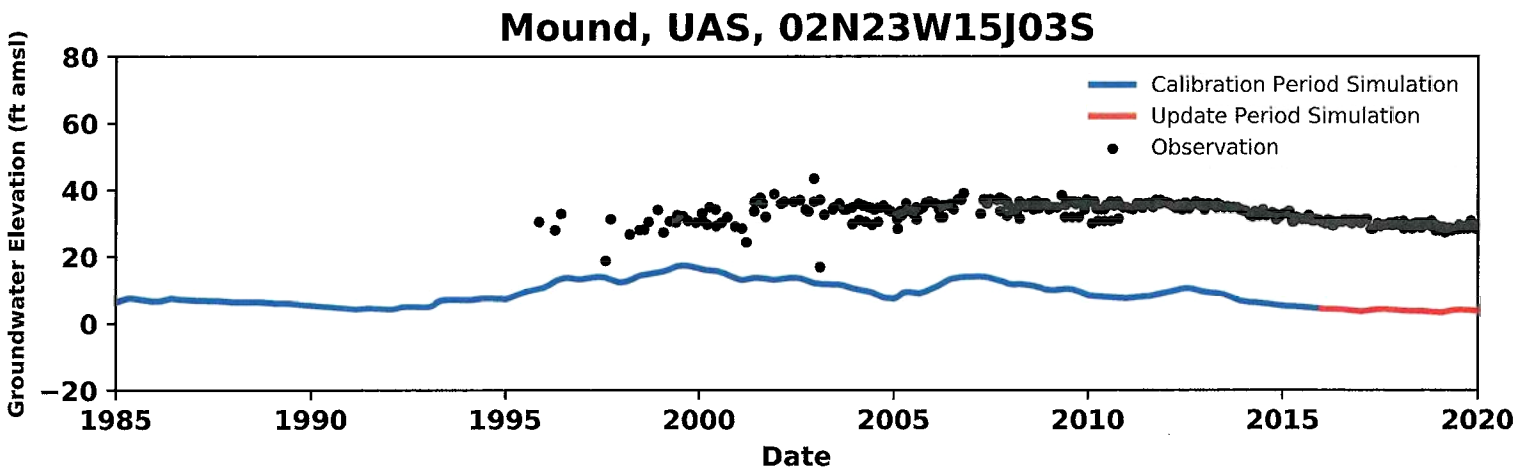
2020
Date


Mound, UAS, 02N23W15J03S
Groundwater Elevation (ft amsl)
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40
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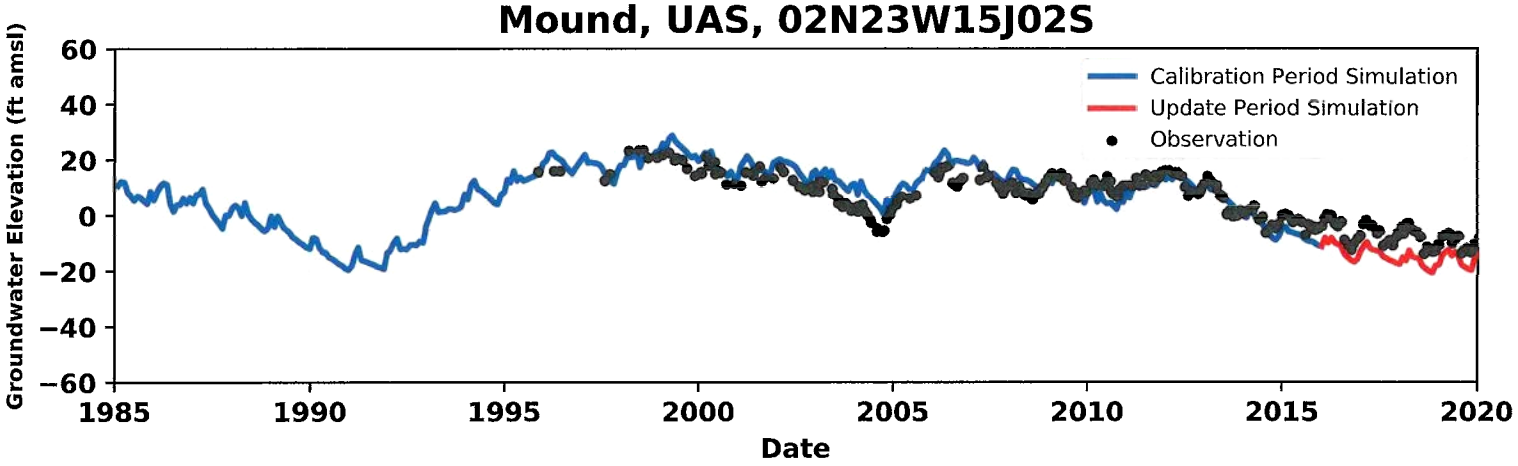
0
−20
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, UAS, 02N23W15J02S
Groundwater Elevation (ft amsl)
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40
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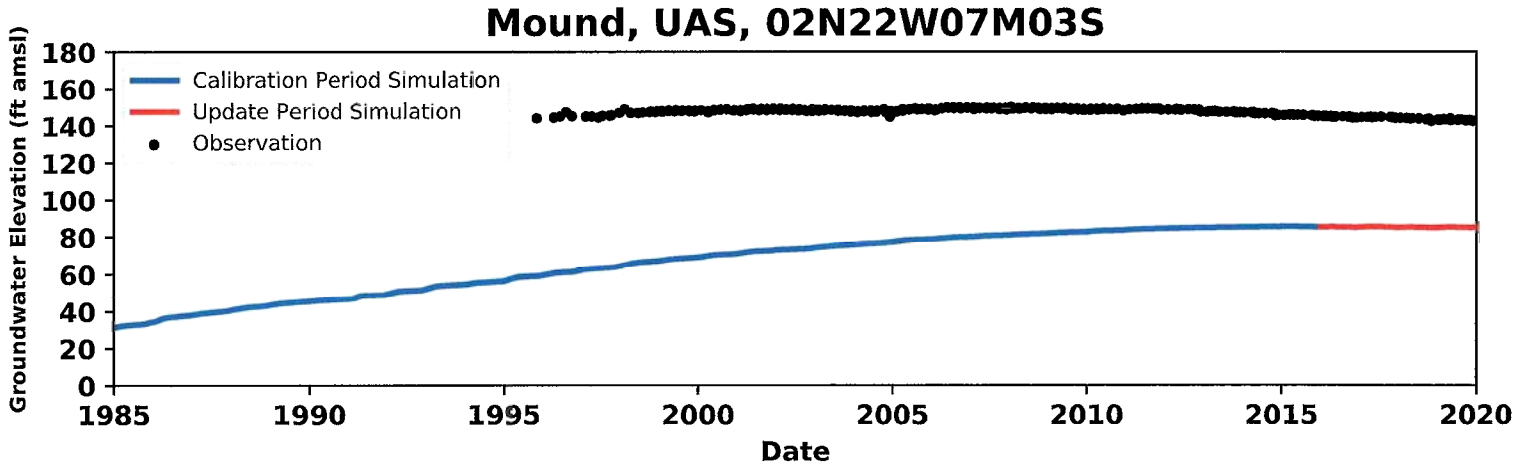
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, UAS, 02N22W07M03S
Groundwater Elevation (ft amsl)
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160
140
120
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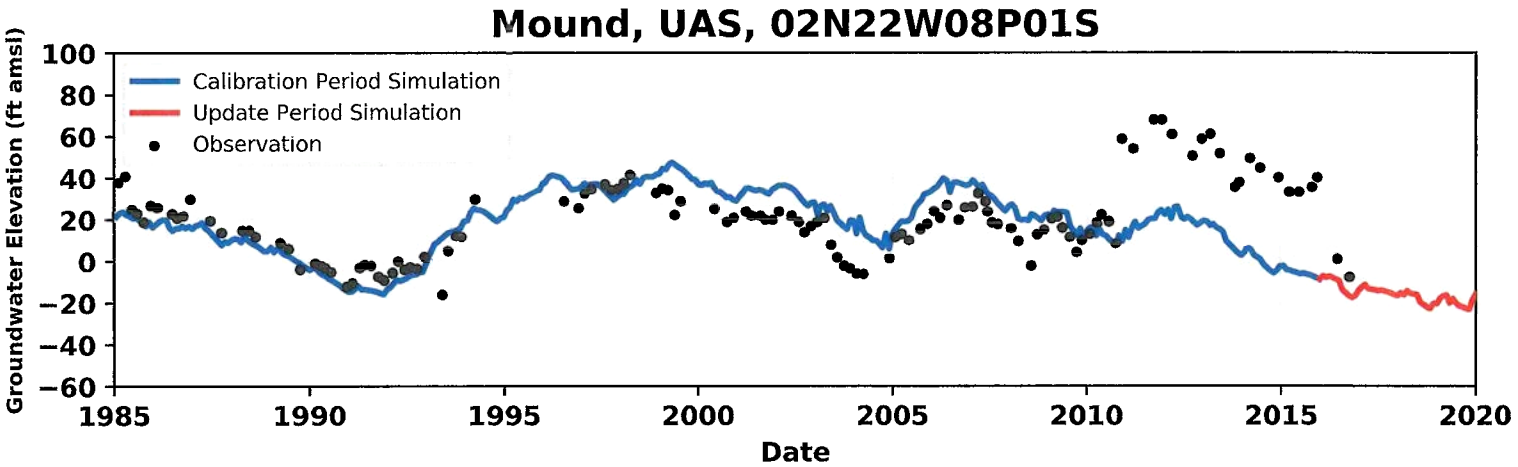
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, UAS, 02N22W08P01S
Groundwater Elevation (ft amsl)
100
80
60
40
20
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1985
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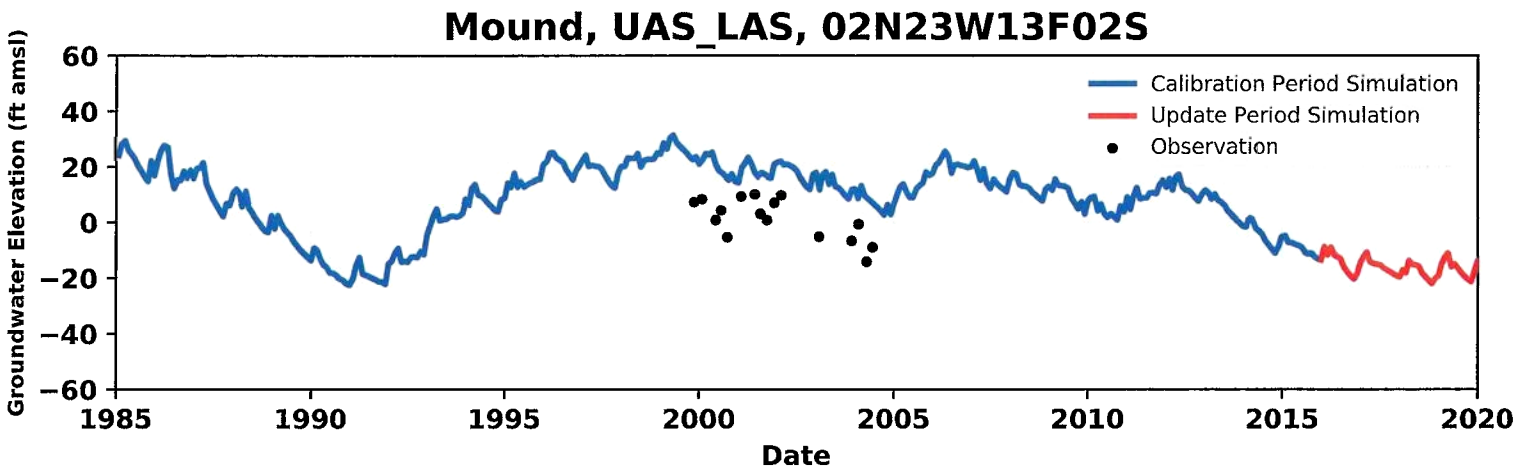
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, UAS_LAS, 02N23W13F02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
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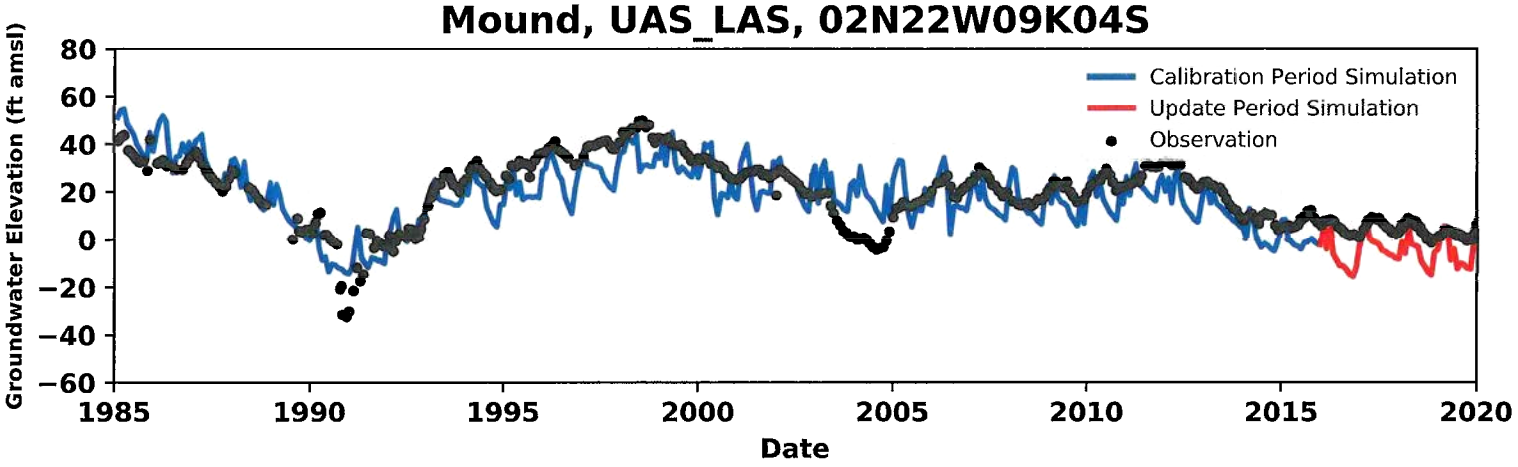
2010
2015
2020


Mound, UAS_LAS, 02N22W09K04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
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0
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1985
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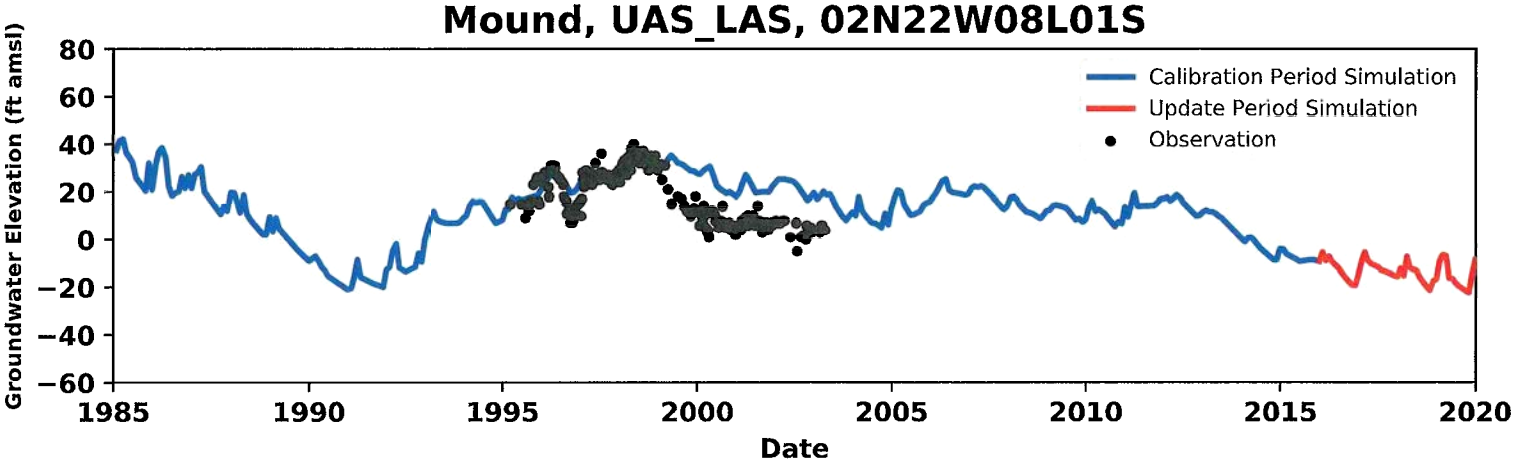
2010
2015
2020


Mound, UAS_LAS, 02N22W08L01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
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40
20
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1985
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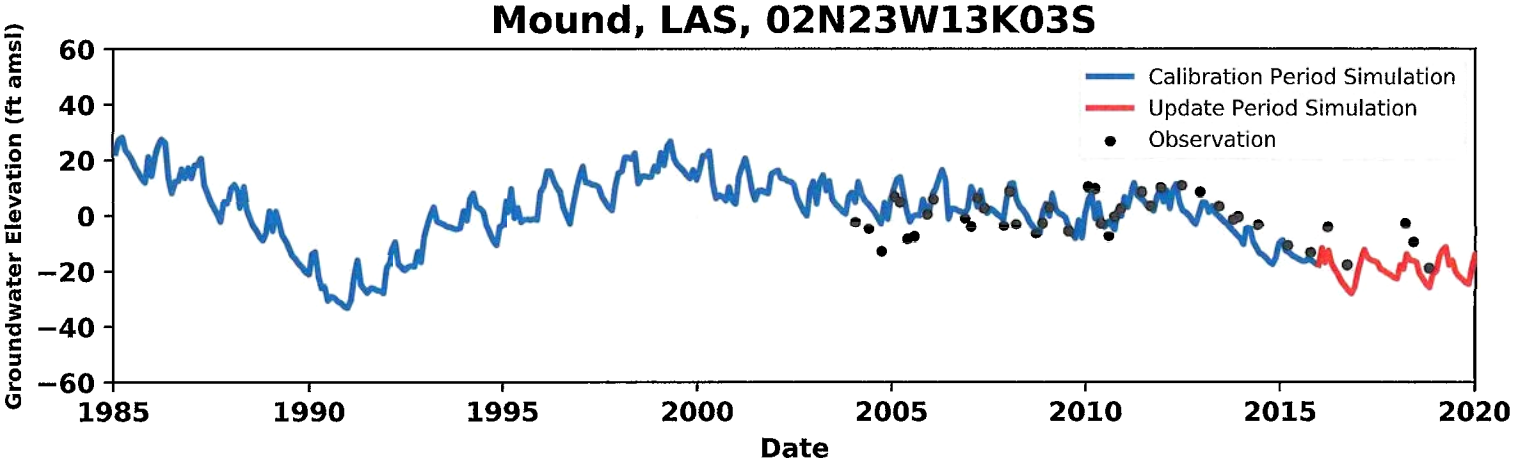
2005
2010
2015
2020


Mound, LAS, 02N23W13K03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
60
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20
0
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1985
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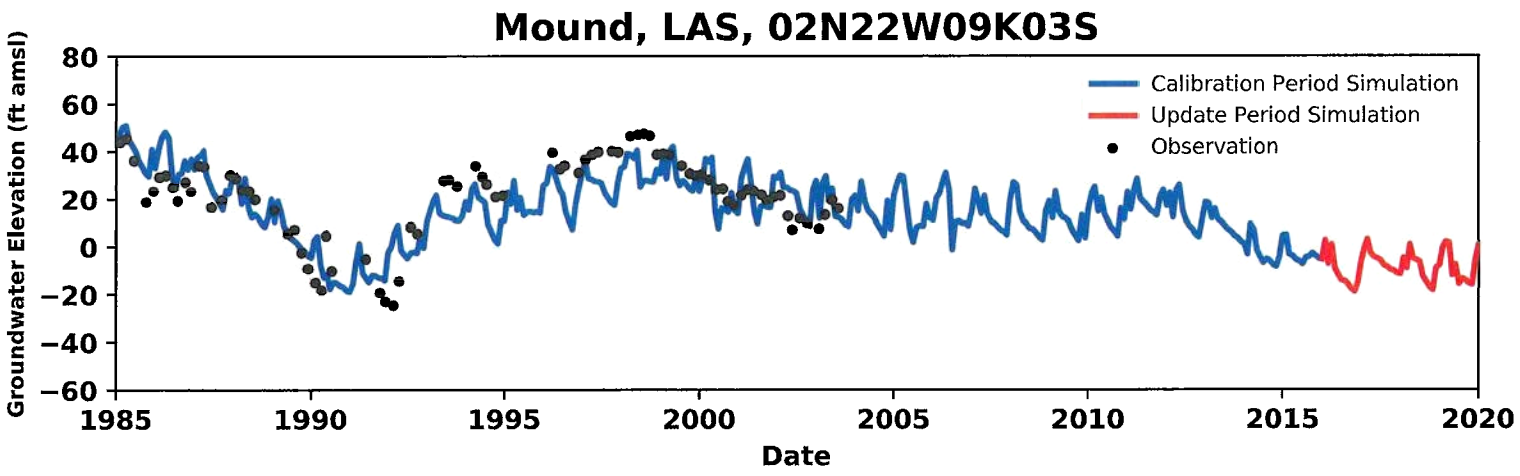
2010
2015
2020


Mound, LAS, 02N22W09K03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
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0
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1985
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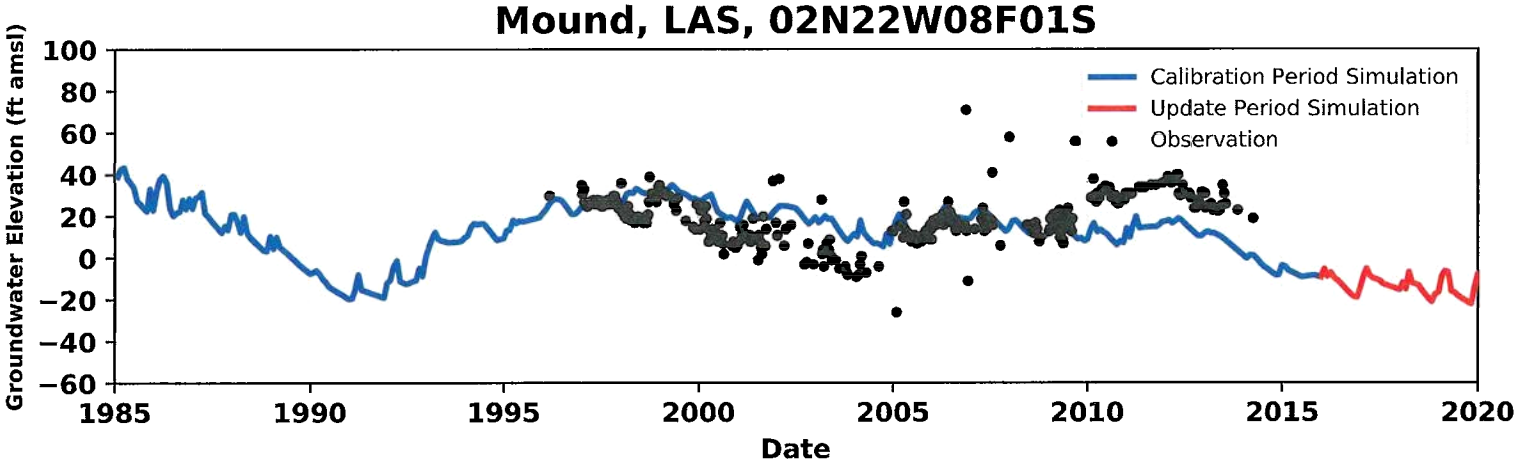
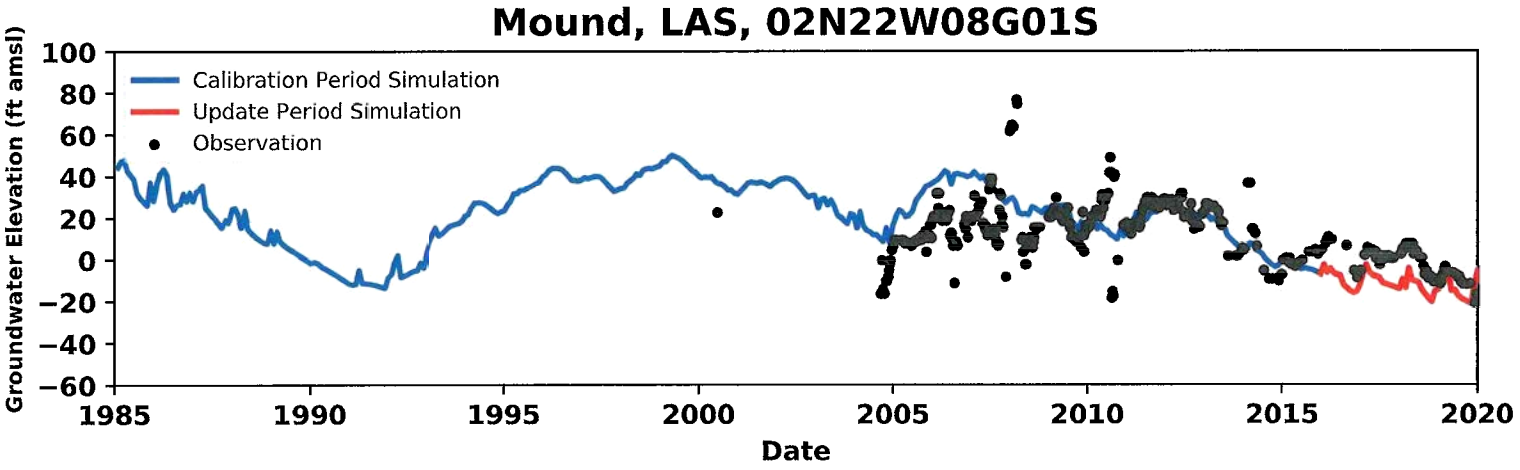

Mound, LAS, 02N22W08F01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
100
80
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020


Mound, LAS, 02N22W08G01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
100
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1985
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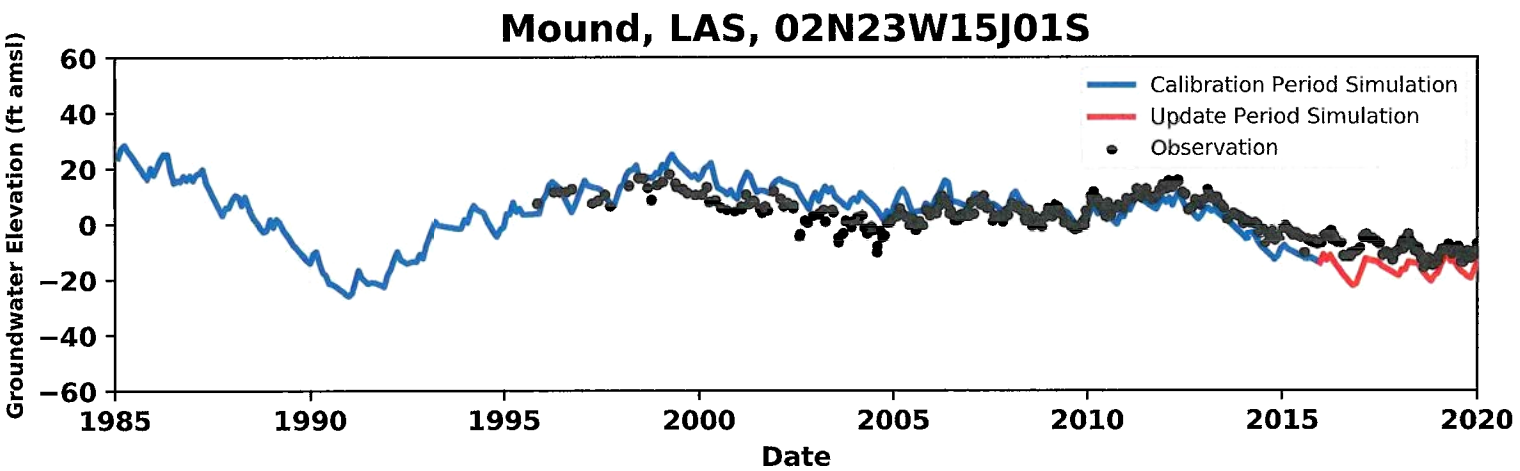
Mound, LAS, 02N23W15J01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
60
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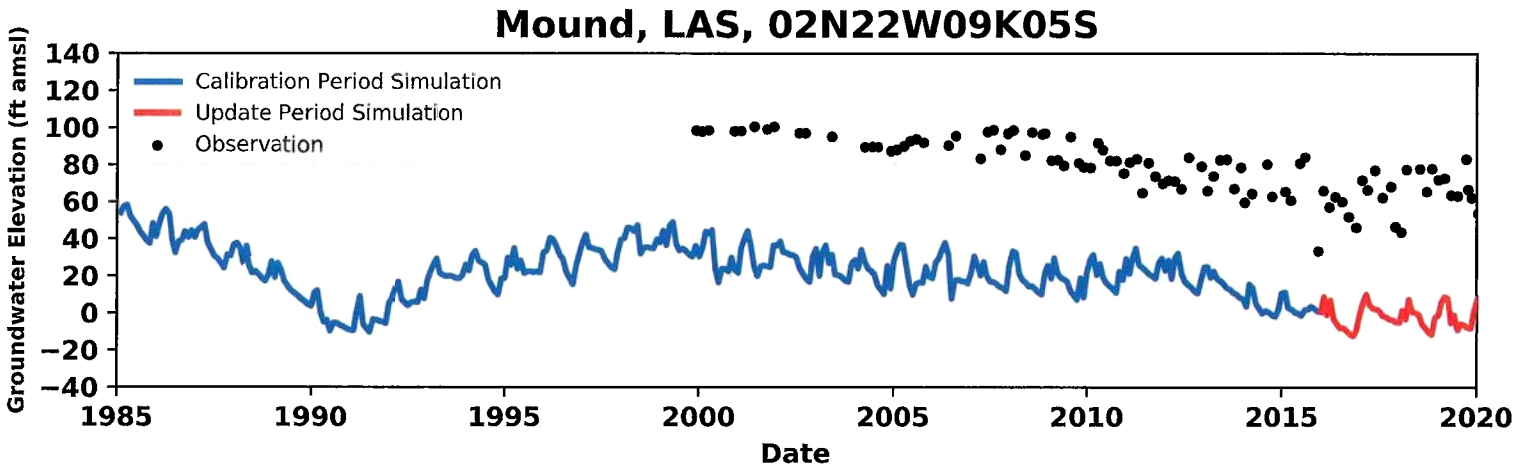
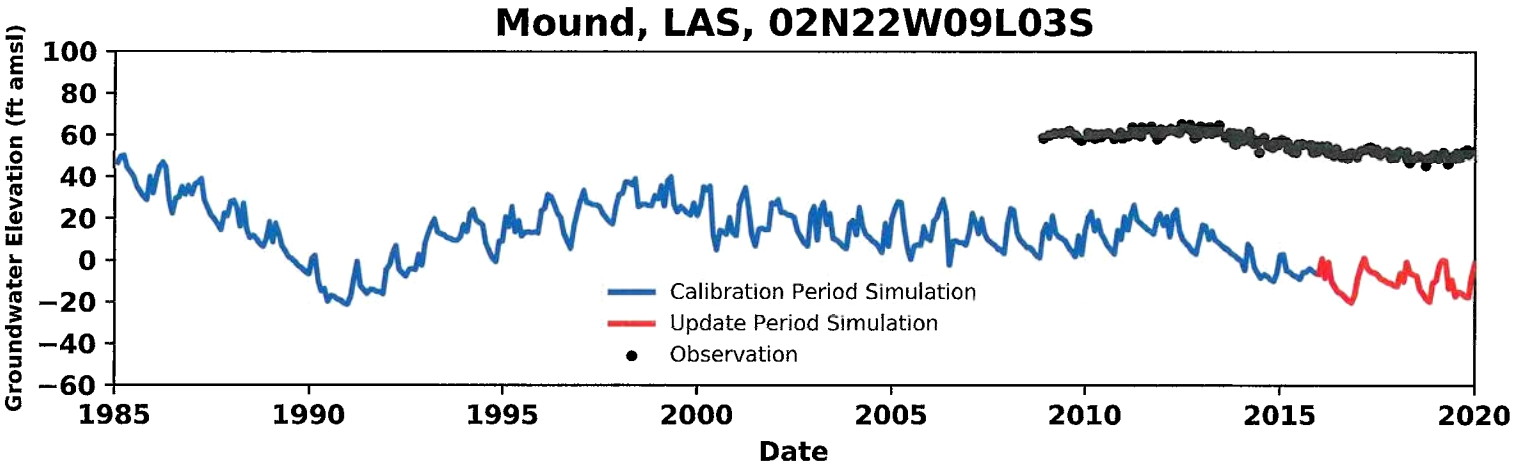
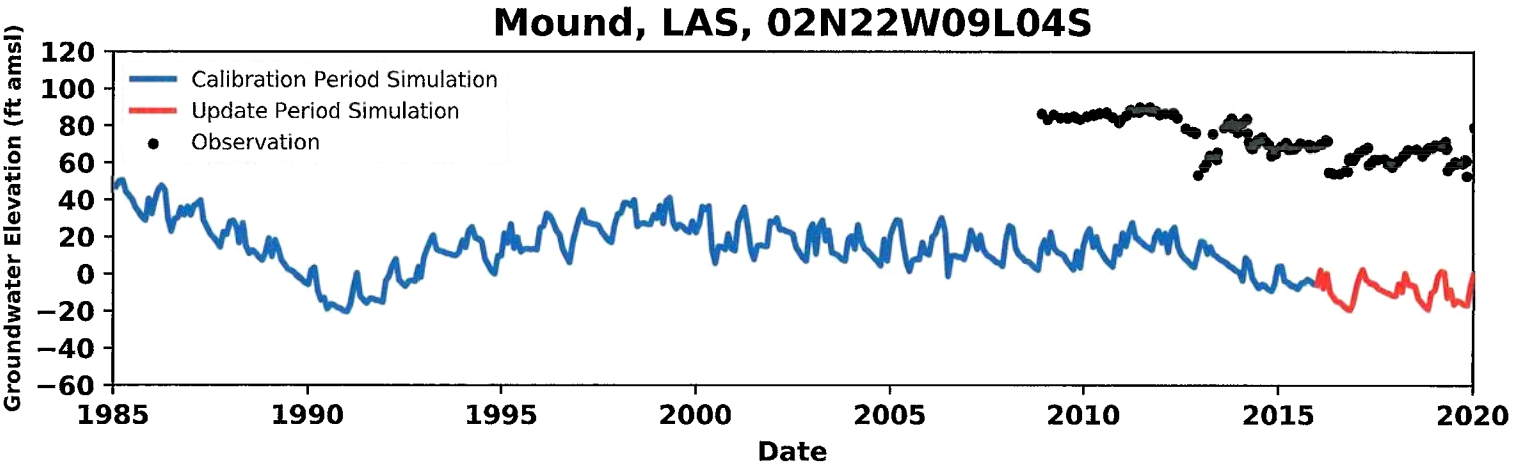
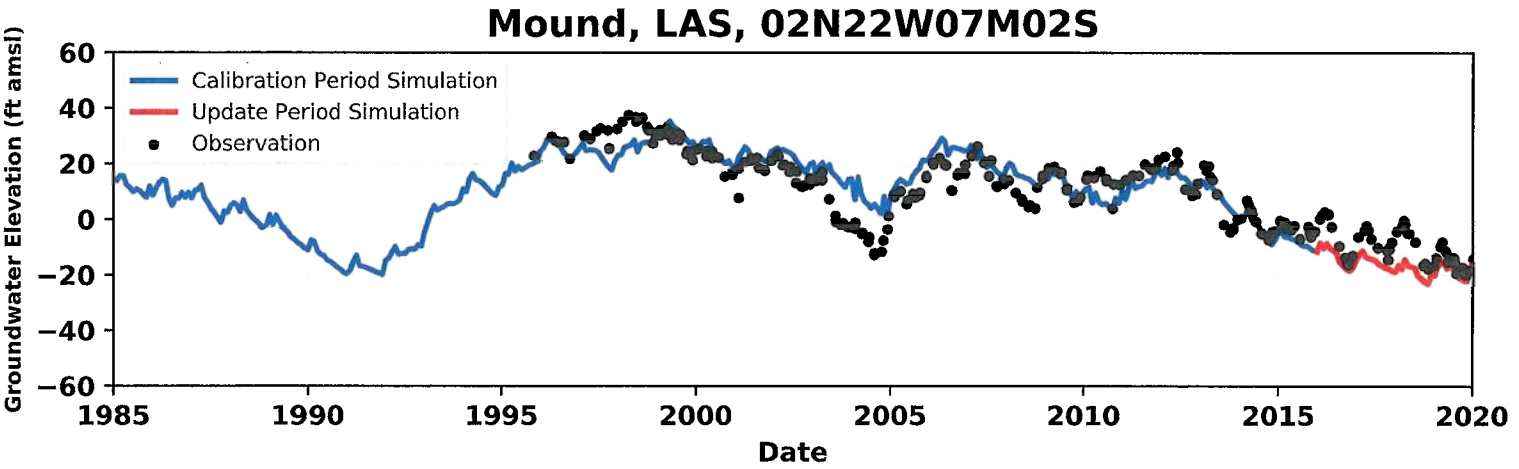
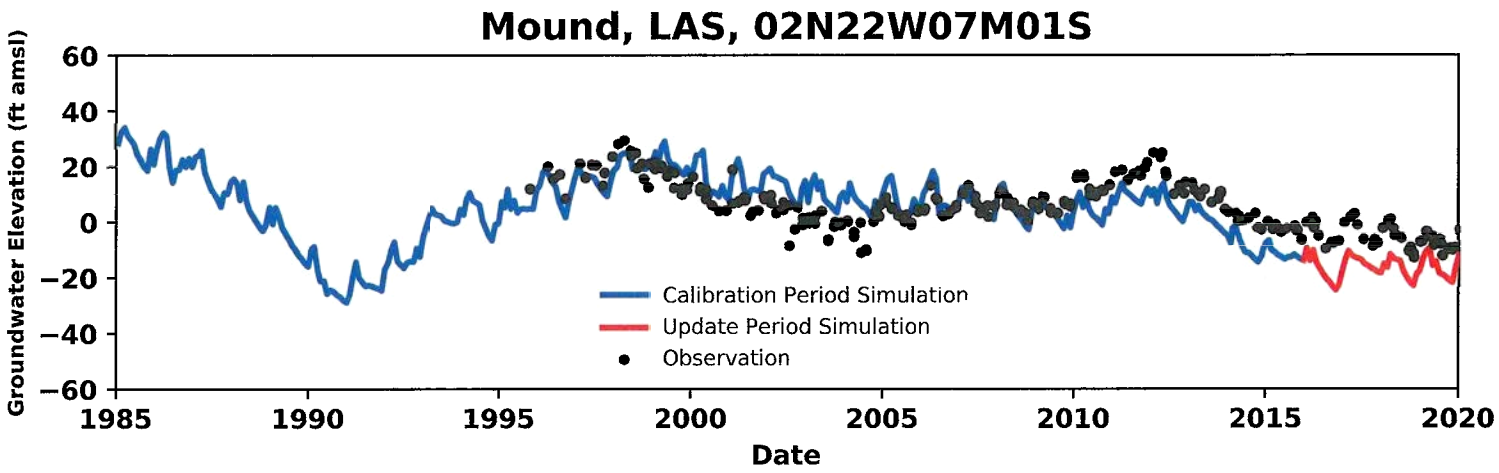

Mound, LAS, 02N22W09K05S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date


Mound, LAS, 02N22W09L03S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date


Mound, LAS, 02N22W09L04S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date


Mound, LAS, 02N22W07M02S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date


Mound, LAS, 02N22W07M01S
Groundwater Elevation (ft amsl)
60
40
20
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−60
1985
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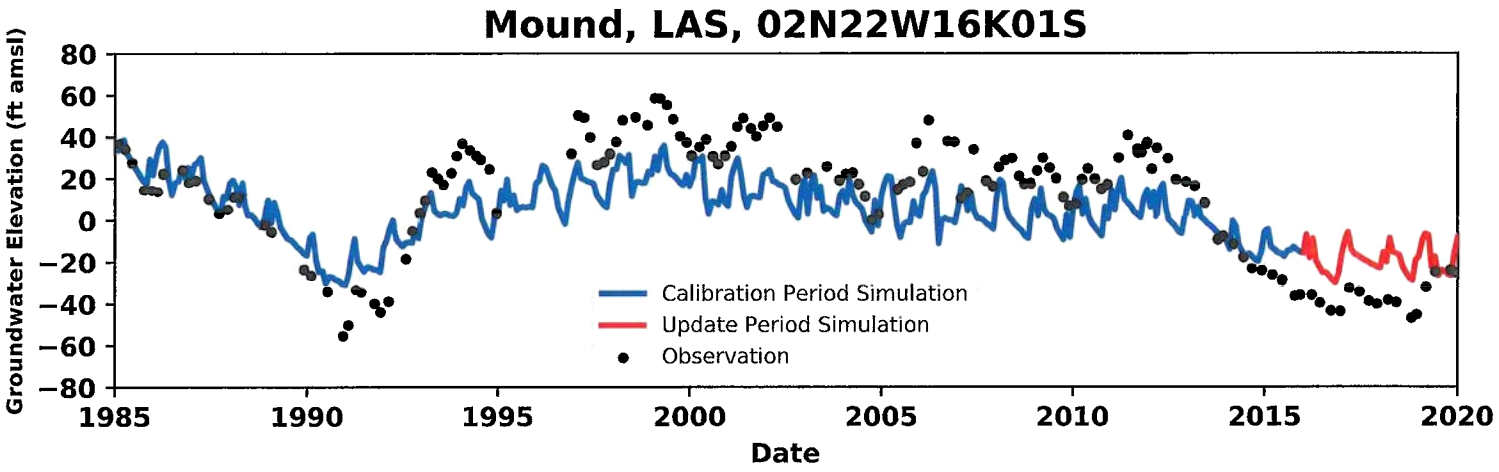
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, LAS, 02N22W16K01S
Groundwater Elevation (ft amsl)
80
60
40
20
0
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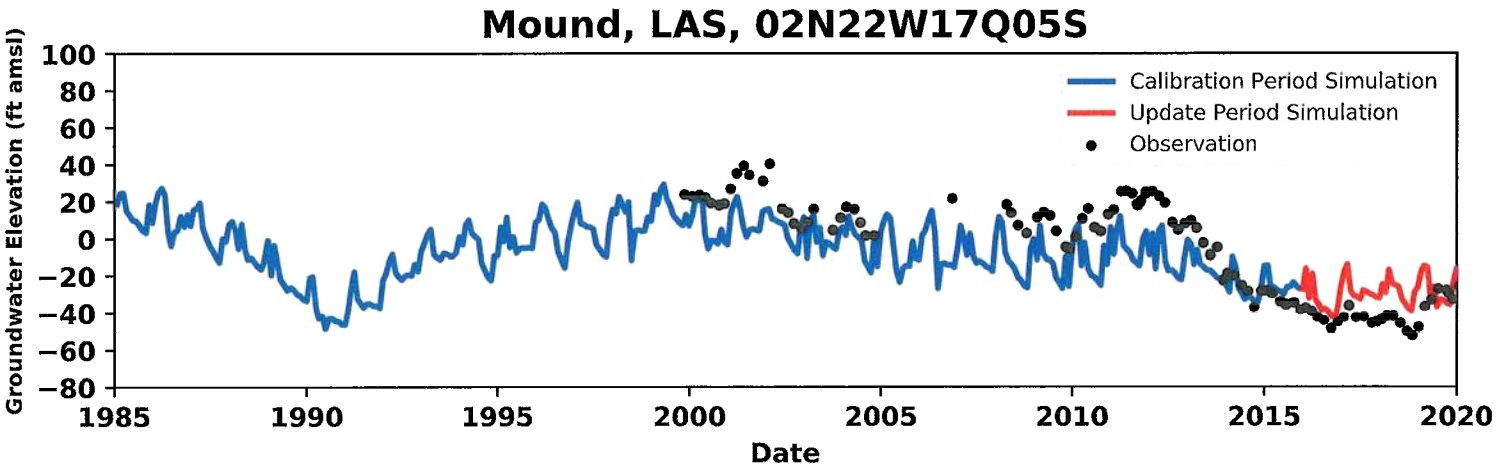
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, LAS, 02N22W17Q05S
Groundwater Elevation (ft amsl)
100
80
60
40
20
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2005
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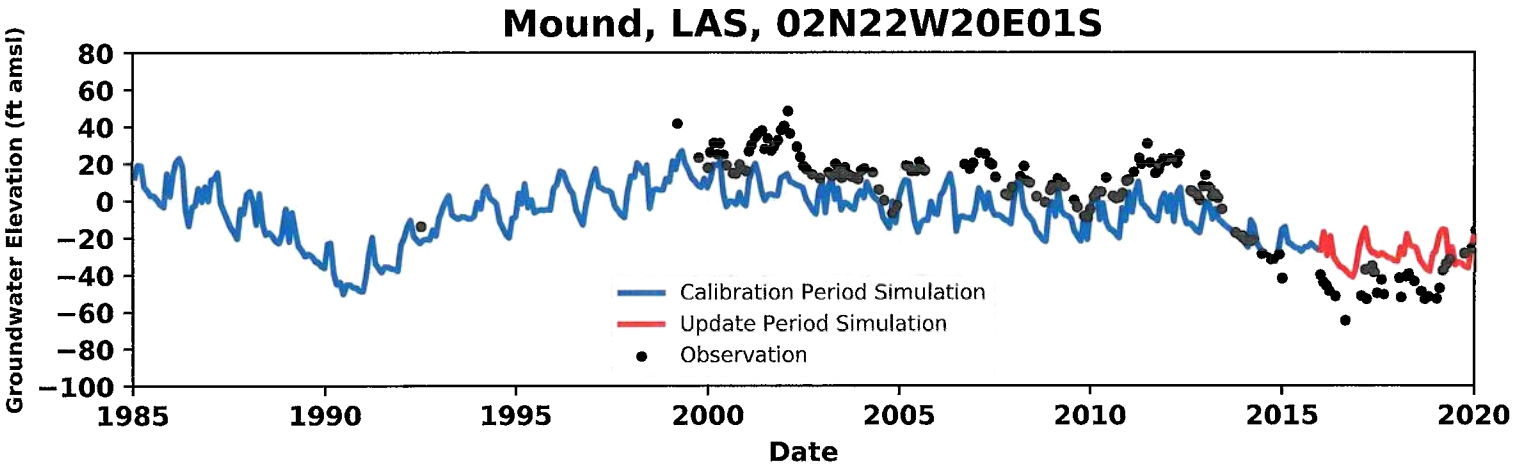
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, LAS, 02N22W20E01S
Groundwater Elevation (ft amsl)
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60
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20
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−20
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1985
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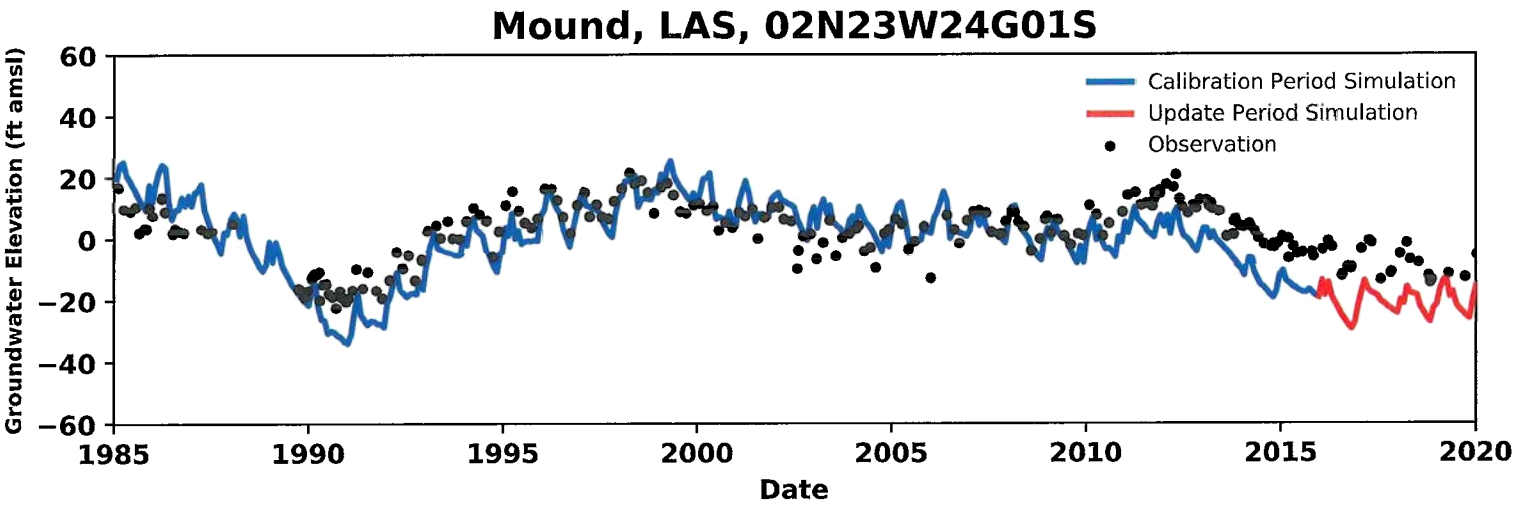
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Mound, LAS, 02N23W24G01S
Groundwater Elevation (ft amsl)
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40
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0
−20
−40
−60
1985
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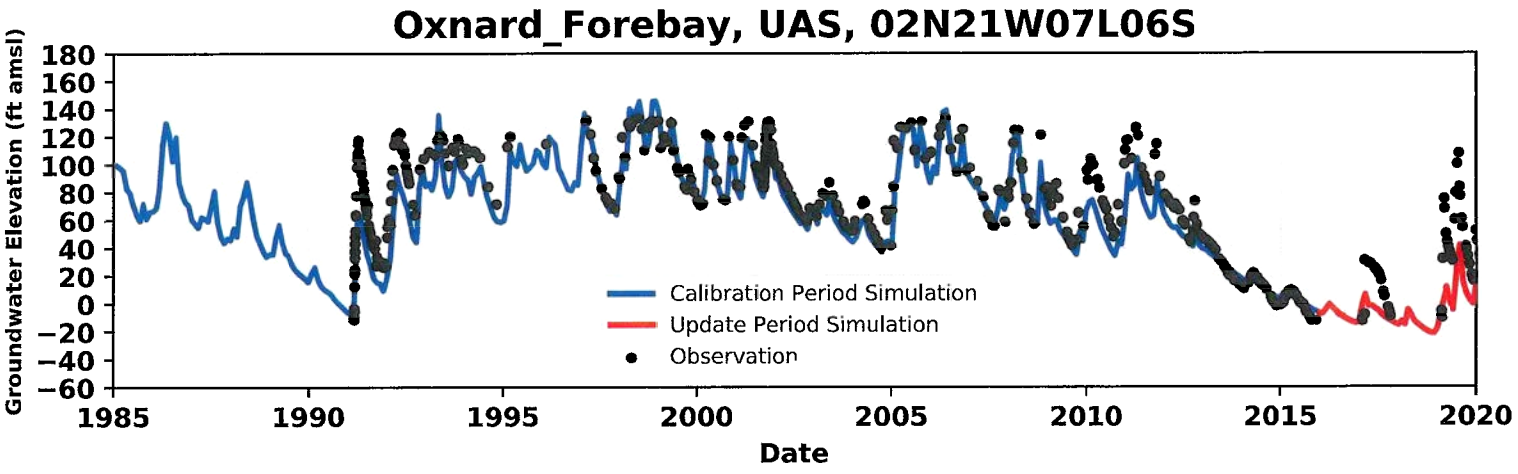
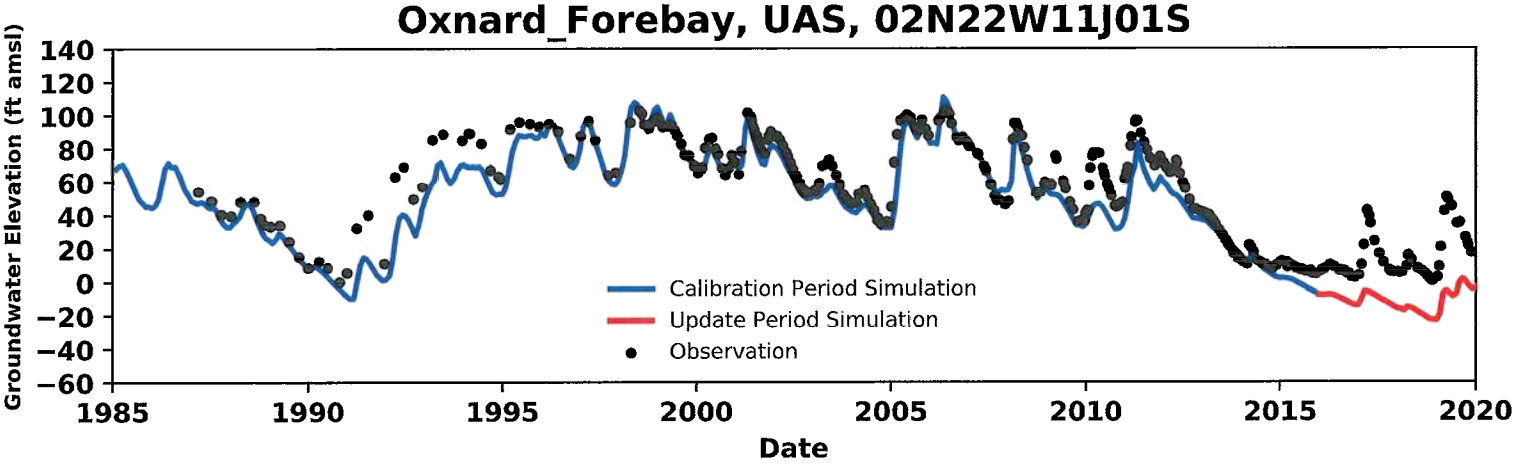
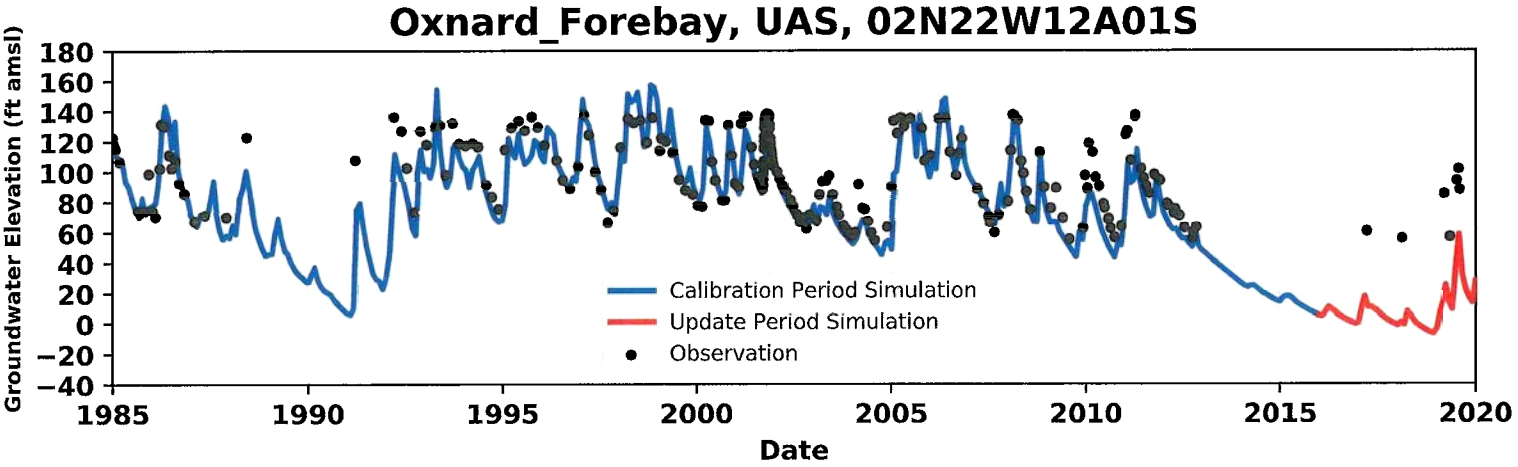
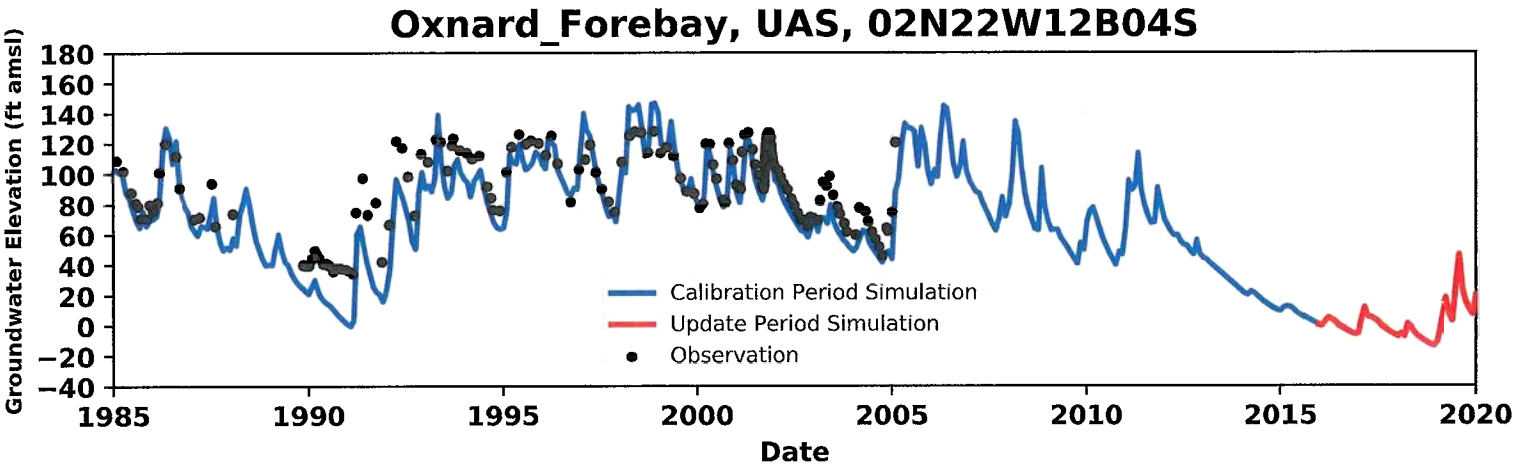
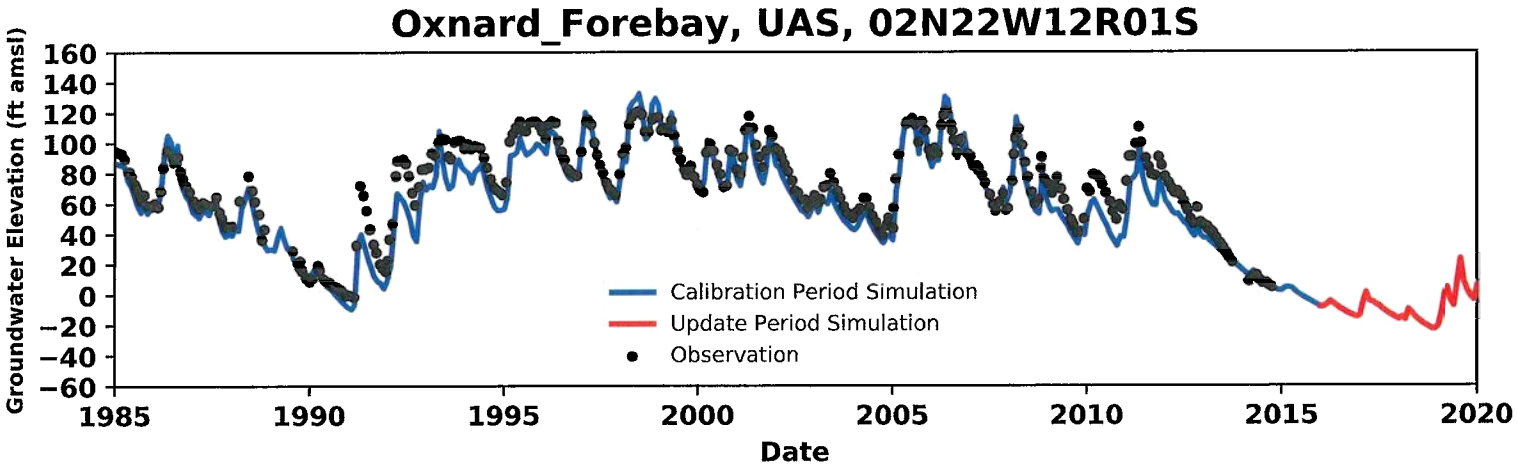
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N21W07L06S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W11J01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W12A01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W12B04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W12R01S
Groundwater Elevation (ft amsl)
160
140
120
100
80
60
40
20
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−20
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−60
1985
1990
1995
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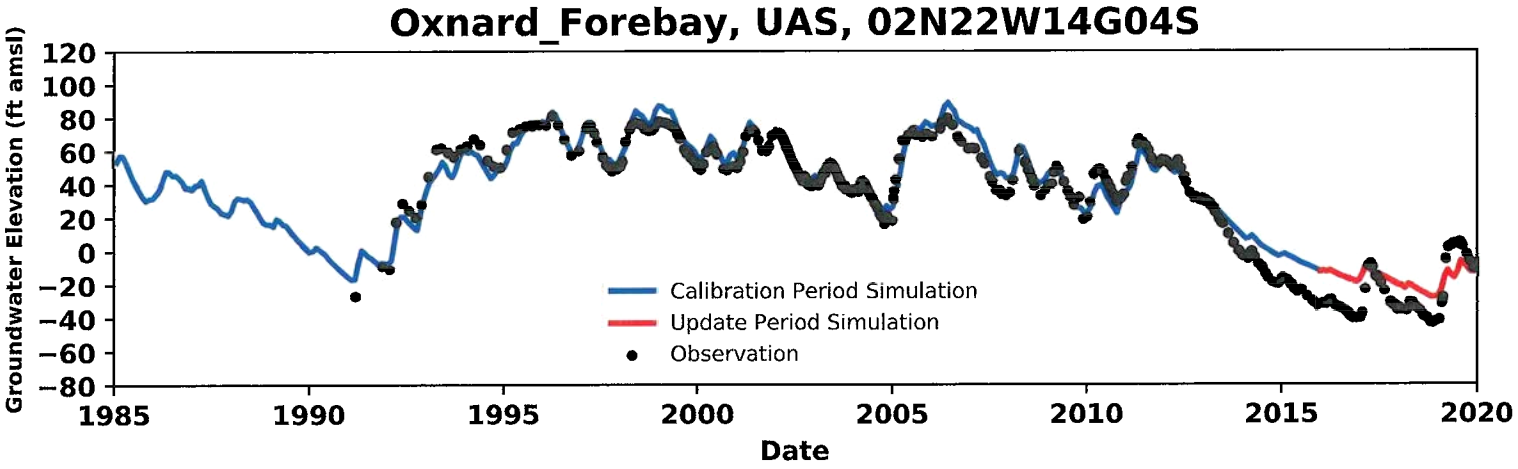
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W14G04S
Groundwater Elevation (ft amsl)
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100
80
60
40
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2005
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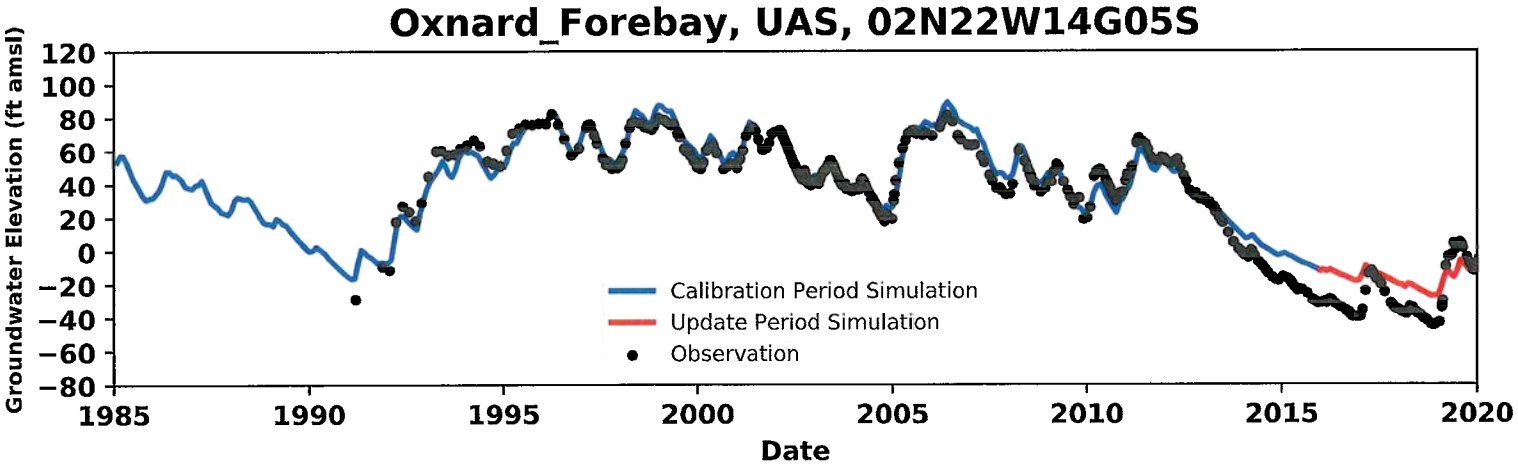
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W14G05S
Groundwater Elevation (ft amsl)
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100
80
60
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−80
1985
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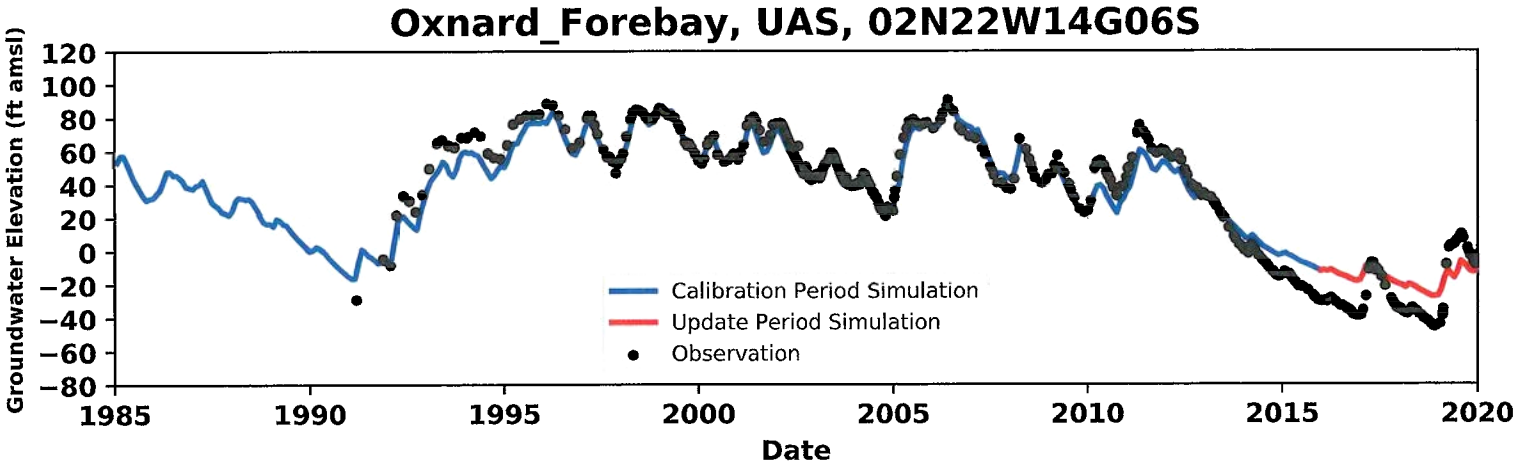
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W14G06S
Groundwater Elevation (ft amsl)
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80
60
40
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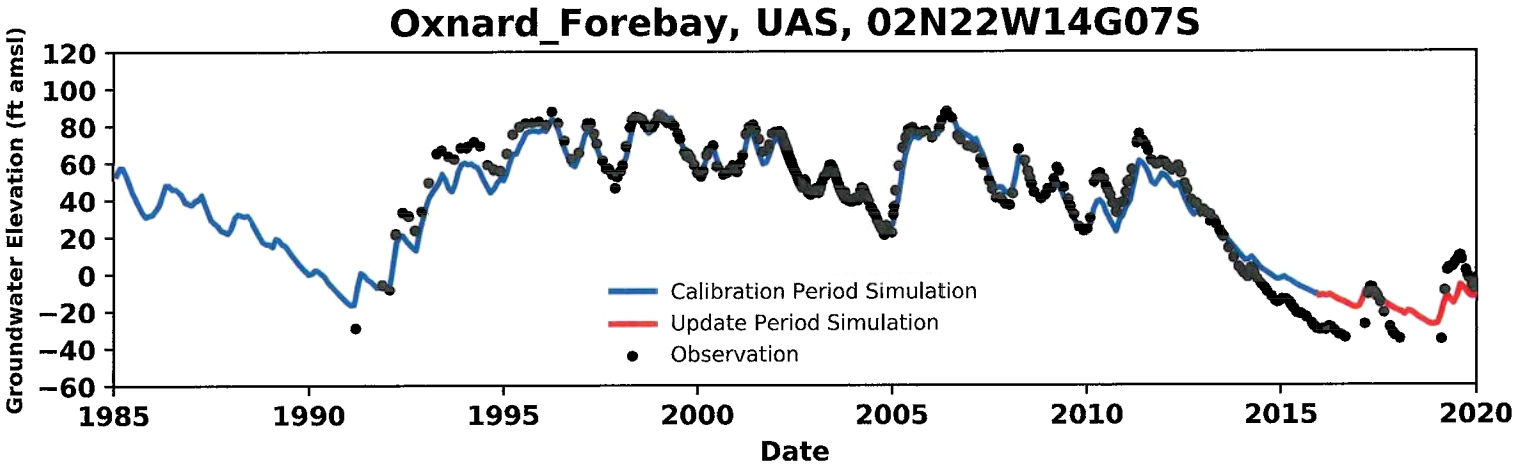
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W14G07S
Groundwater Elevation (ft amsl)
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2005
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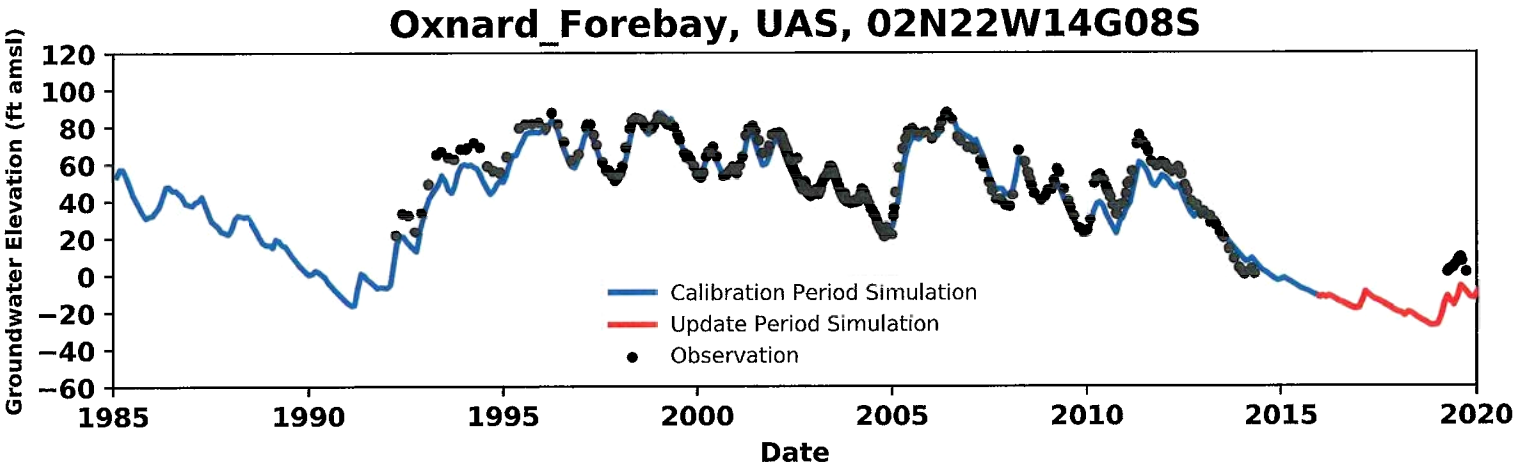
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W14G08S
Groundwater Elevation (ft amsl)
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60
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2005
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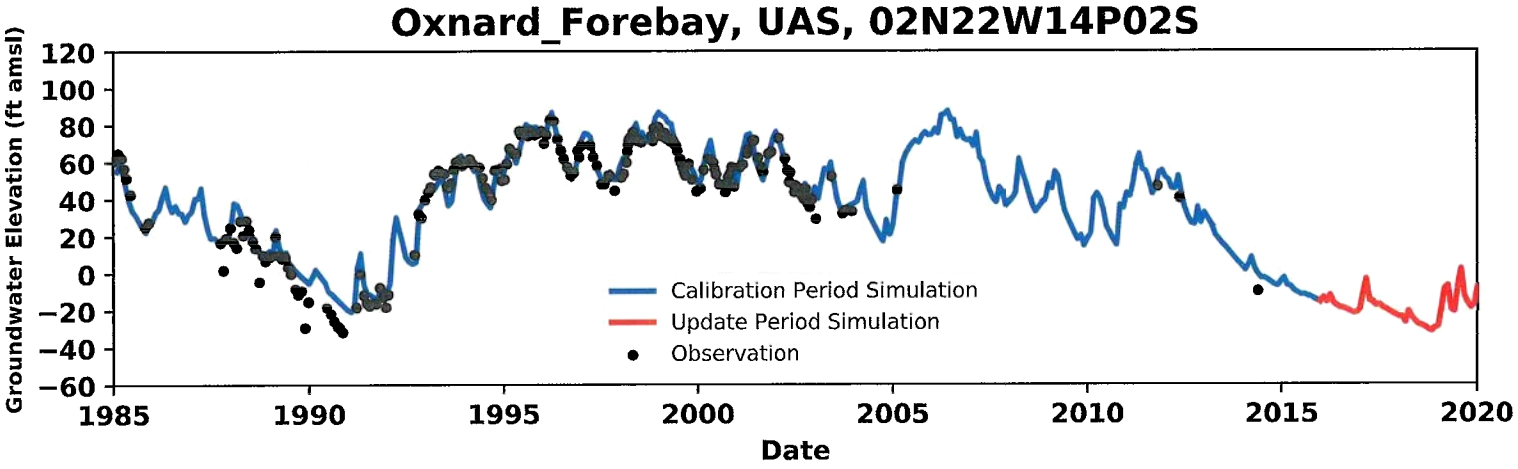
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W14P02S
Groundwater Elevation (ft amsl)
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80
60
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2005
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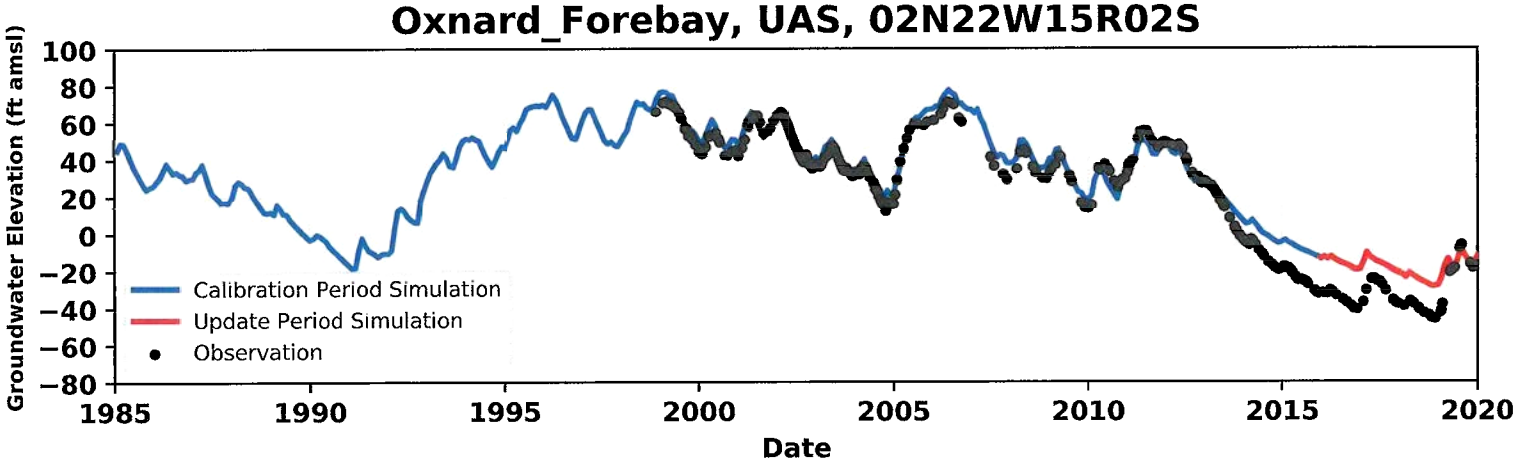
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W15R02S
Groundwater Elevation (ft amsl)
100
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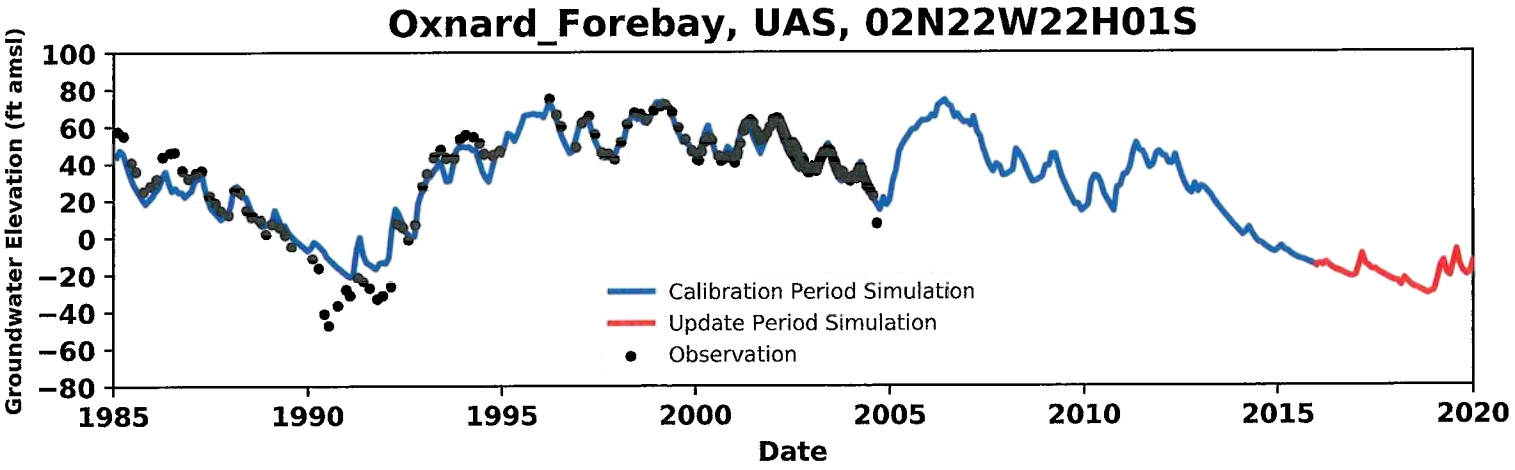
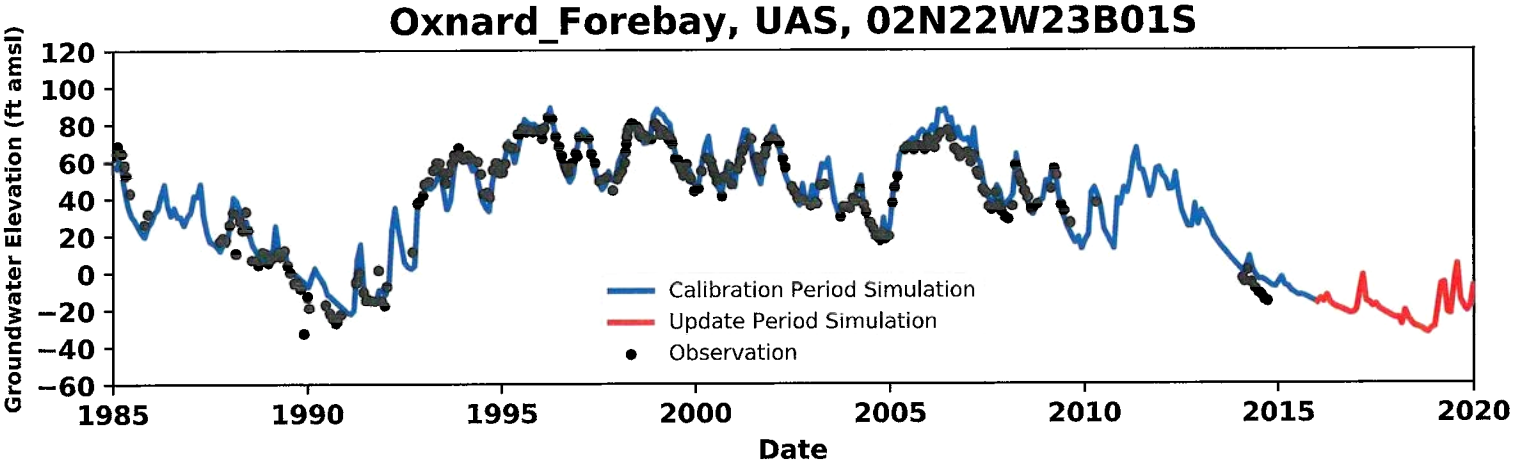
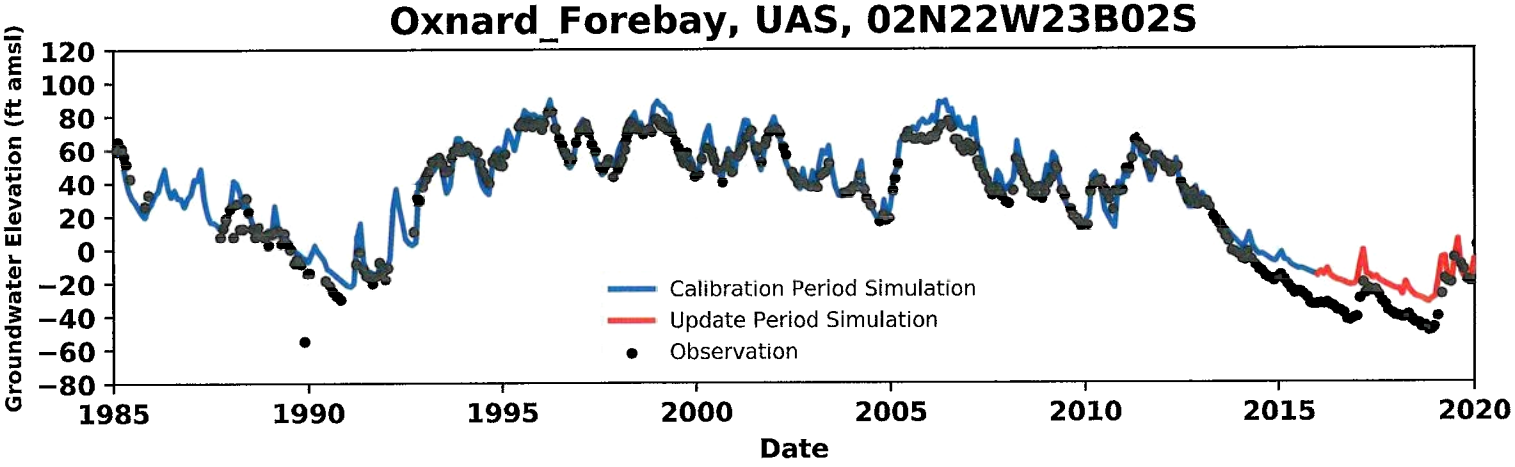
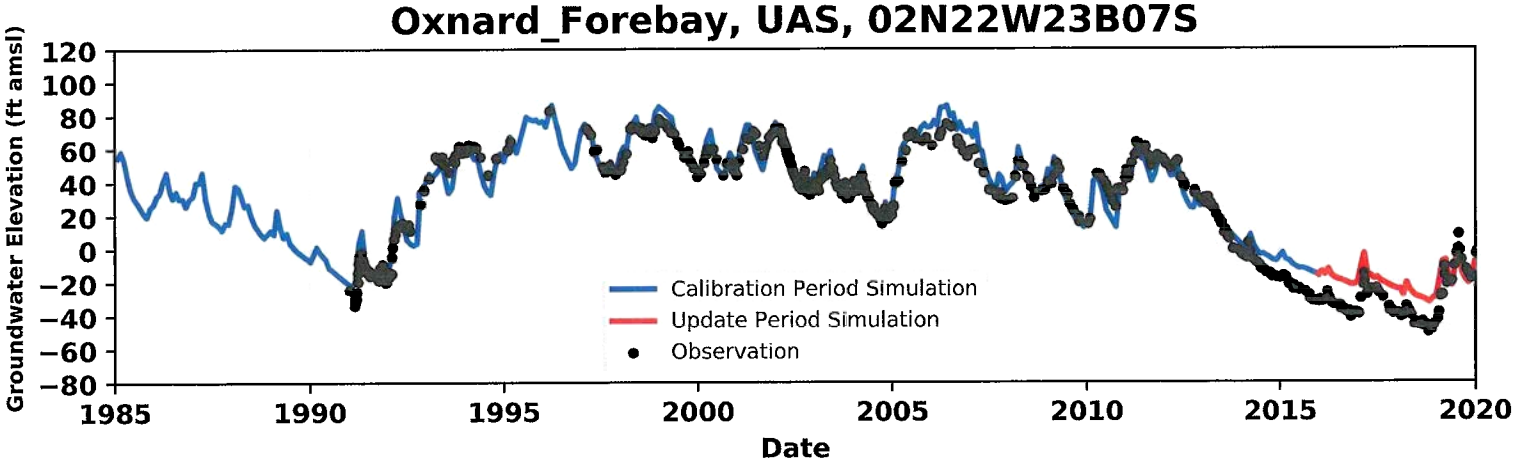
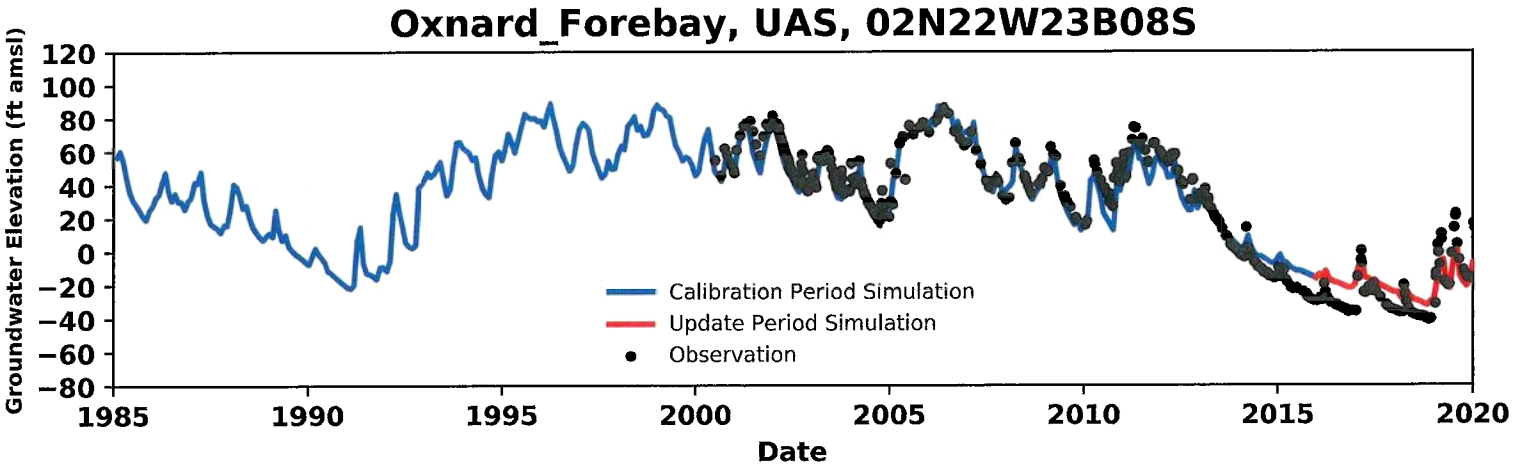
Date
Calibration Period Simulation
Update Period Simulation
Observation

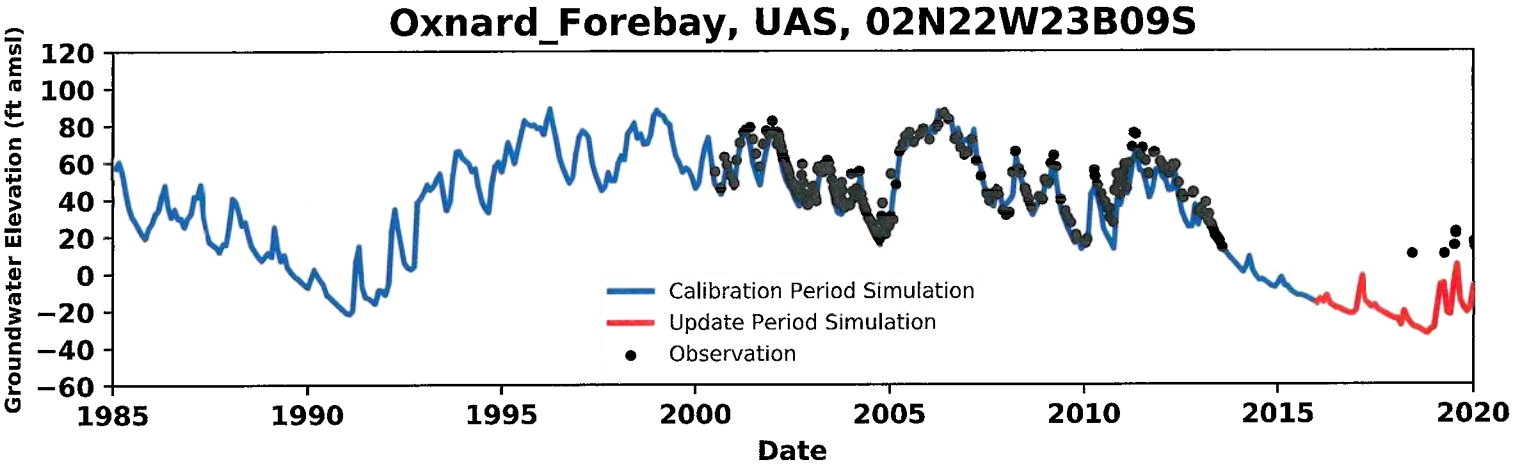

Oxnard_Forebay, UAS, 02N22W22H01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

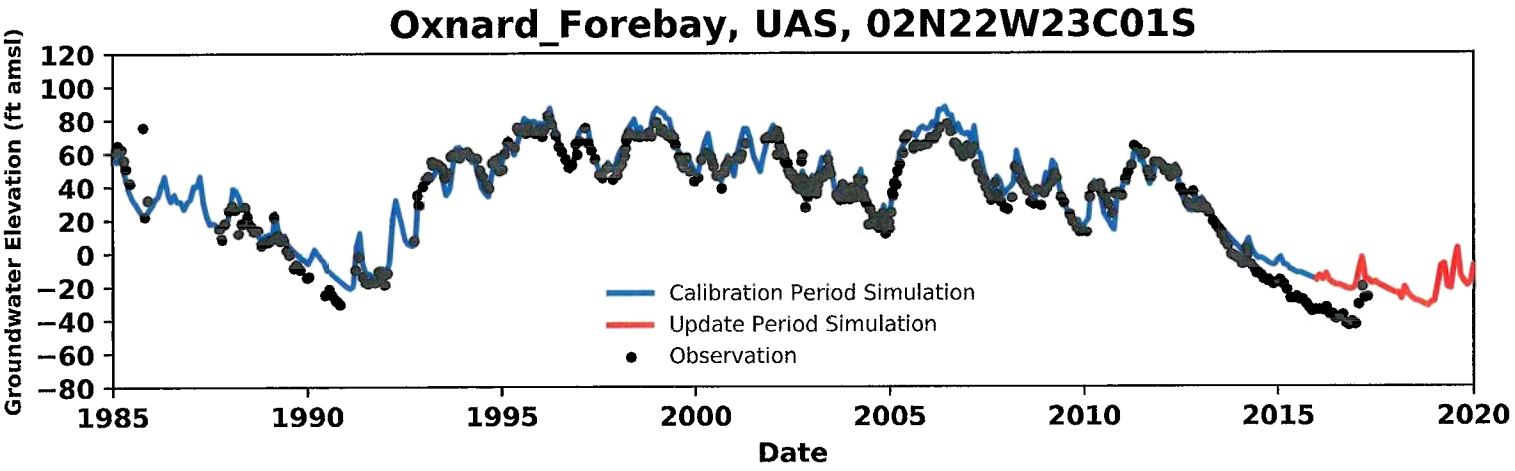

Oxnard_Forebay, UAS, 02N22W23B01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

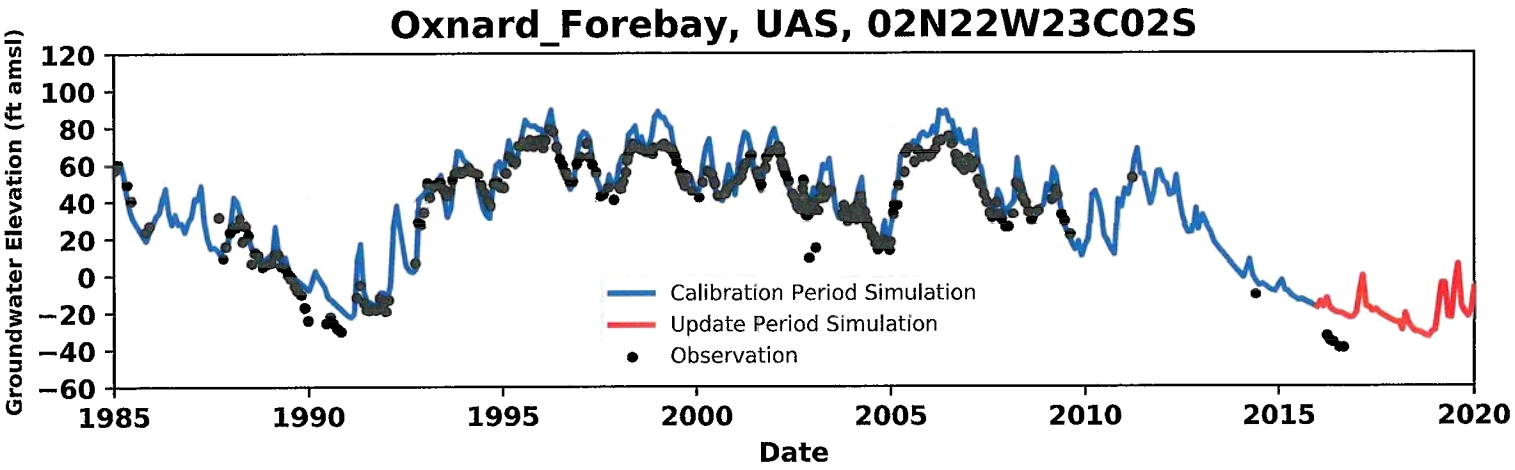

Oxnard_Forebay, UAS, 02N22W23B02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

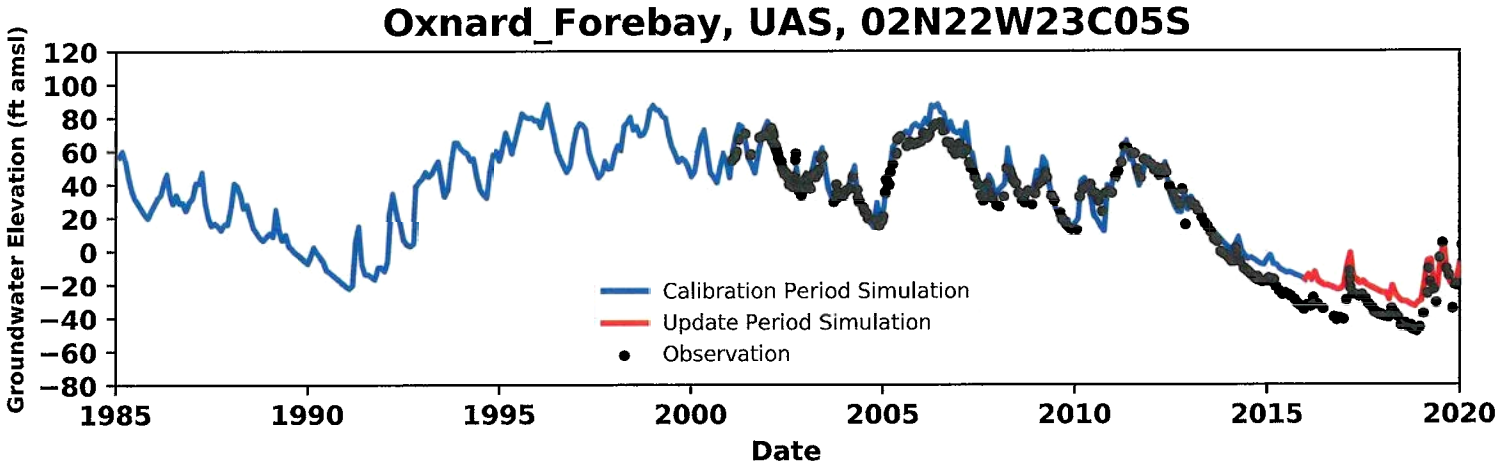

Oxnard_Forebay, UAS, 02N22W23B07S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W23B08S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W23B09S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W23C01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W23C02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W23C05S
Groundwater Elevation (ft amsl)
120
100
80
60
40
20
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−80
1985
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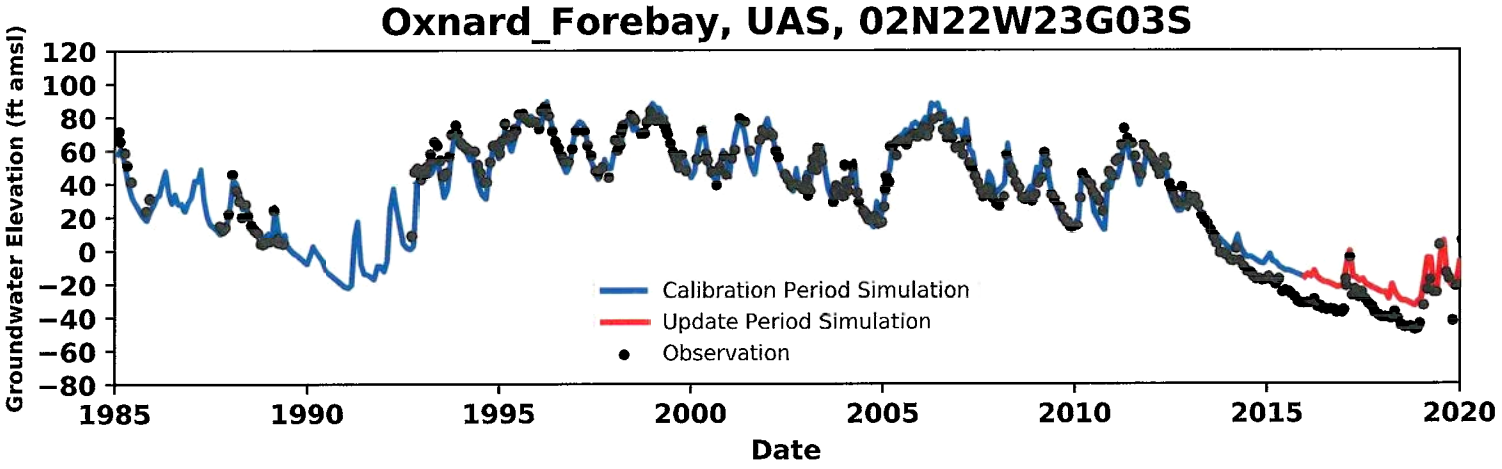
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W23G03S
Groundwater Elevation (ft amsl)
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100
80
60
40
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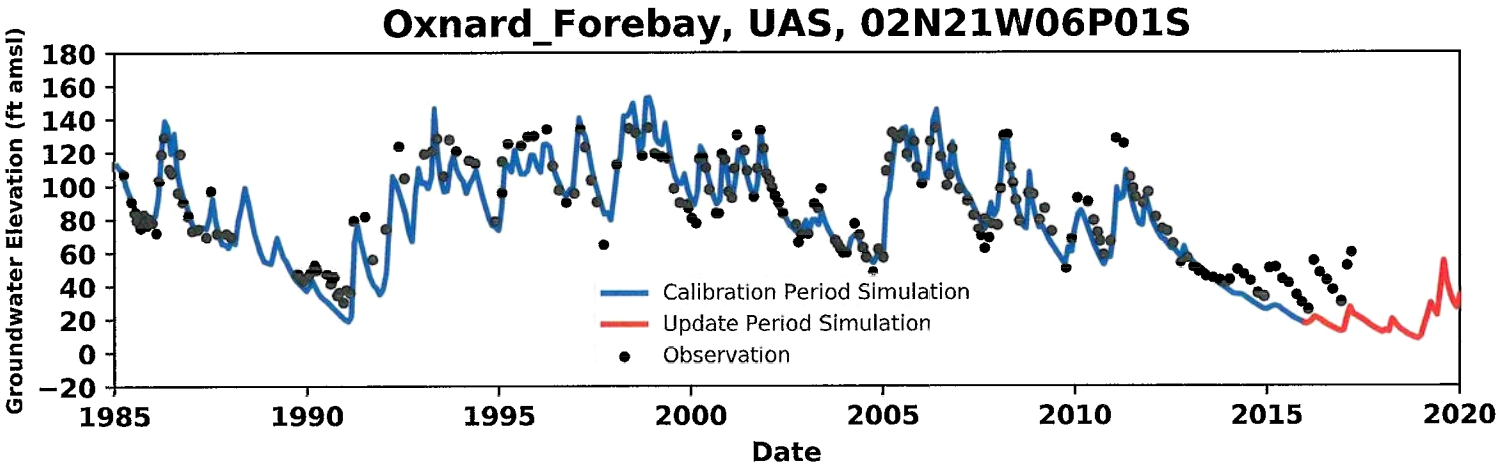
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N21W06P01S
Groundwater Elevation (ft amsl)
180
160
140
120
100
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−20
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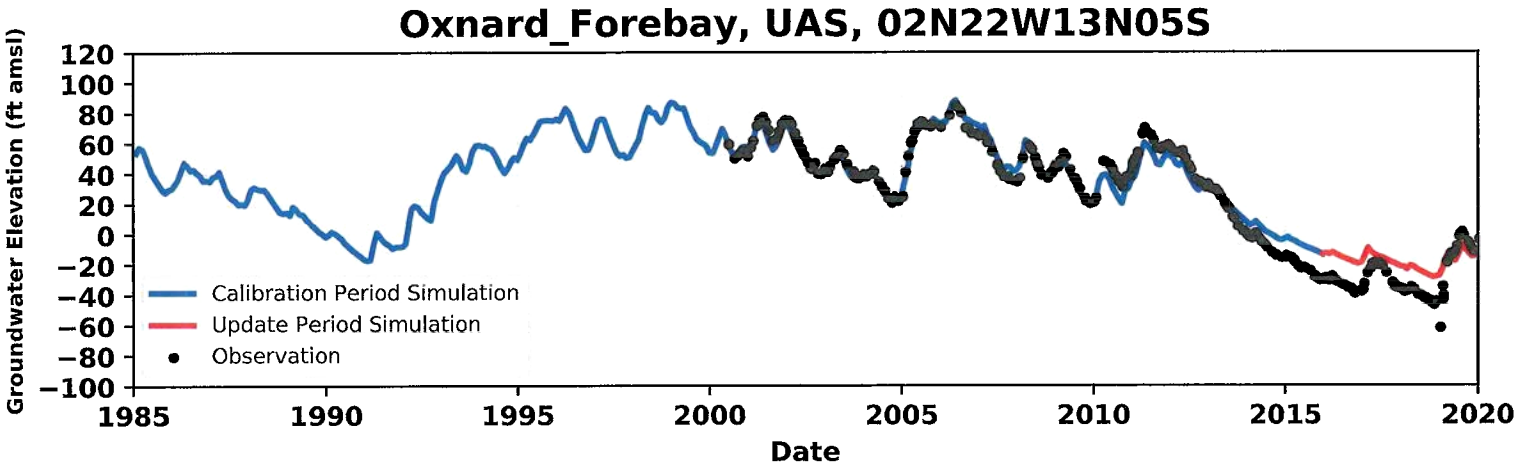
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W13N05S
Groundwater Elevation (ft amsl)
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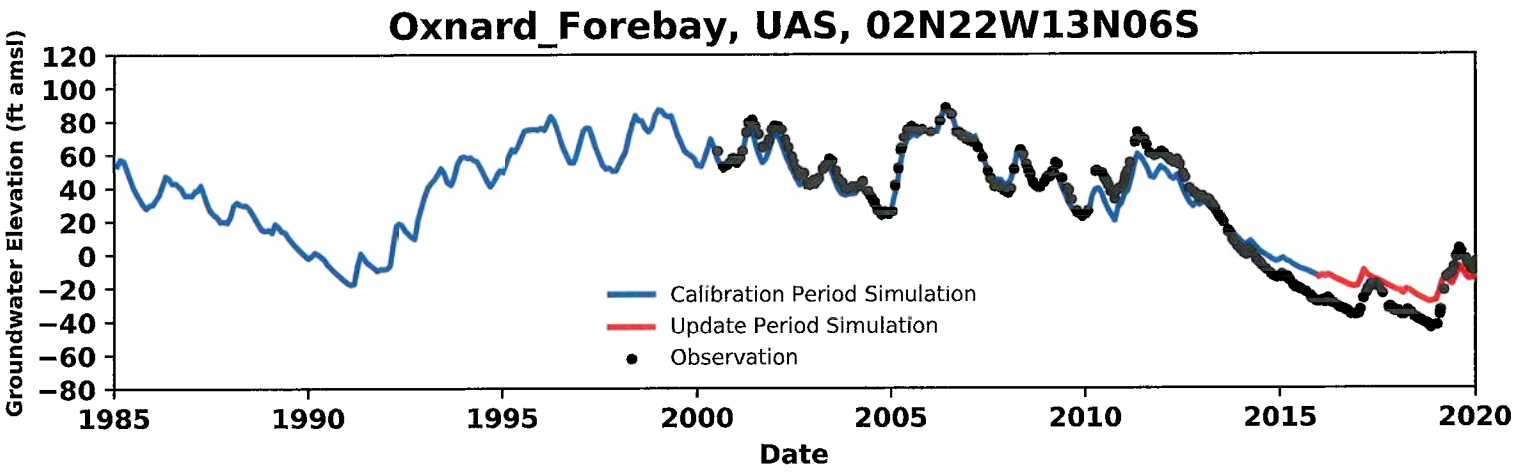
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Forebay, UAS, 02N22W13N06S
Groundwater Elevation (ft amsl)
120
100
80
60
40
20
0
−20
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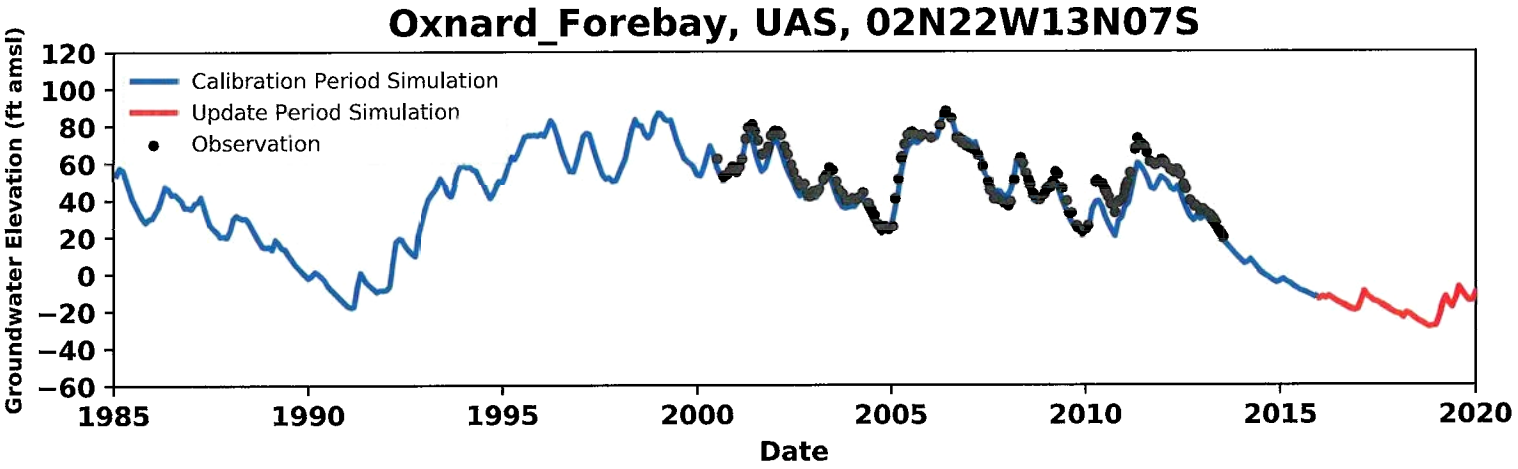
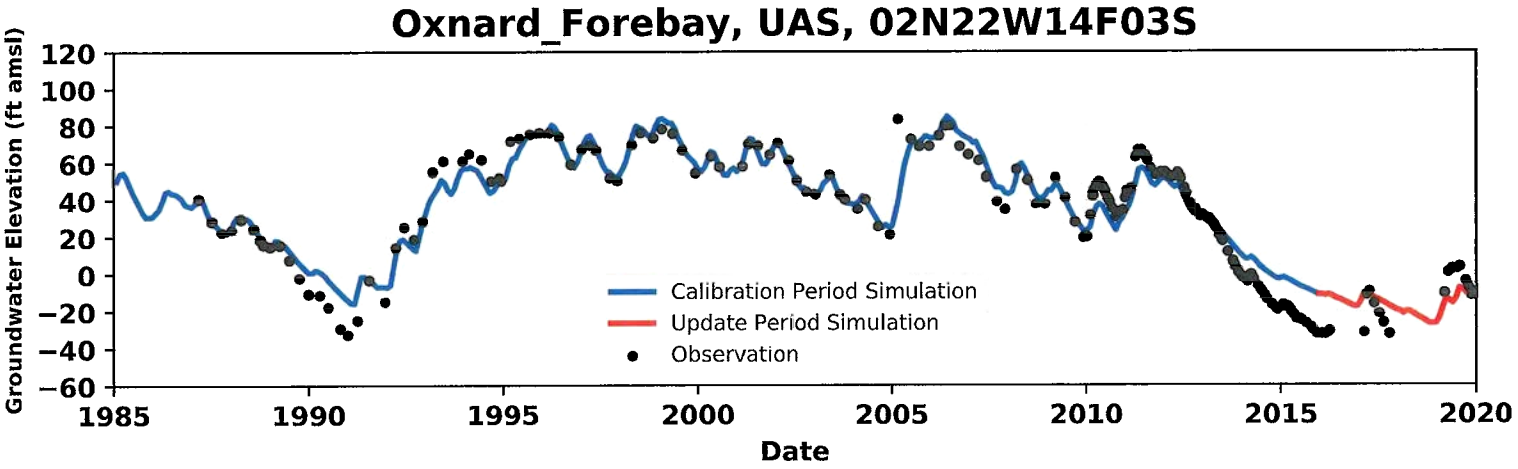
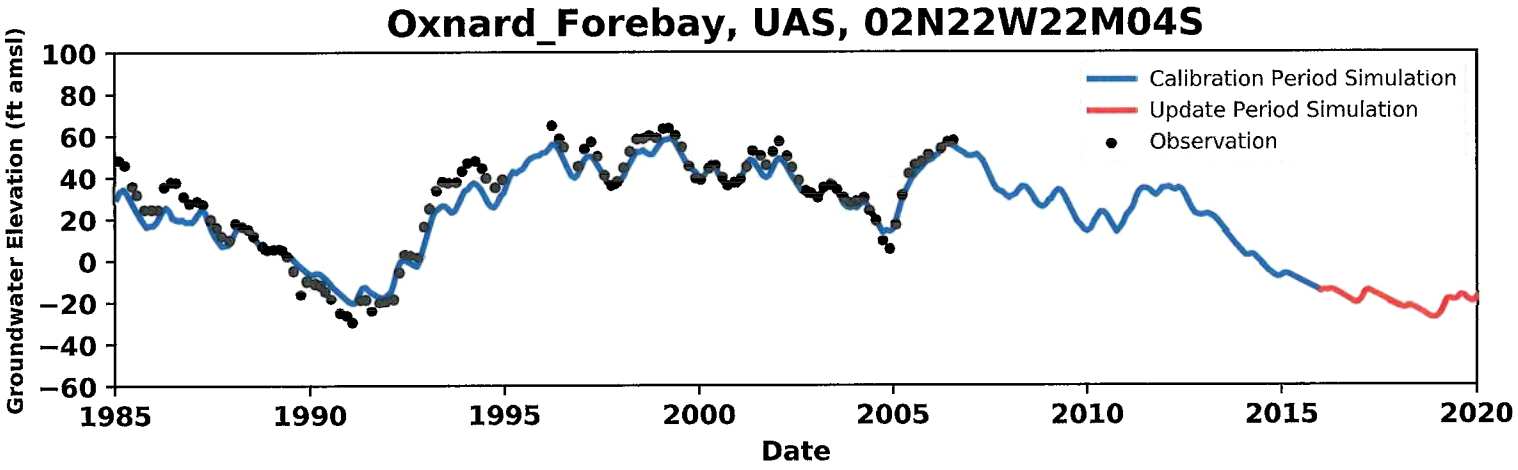
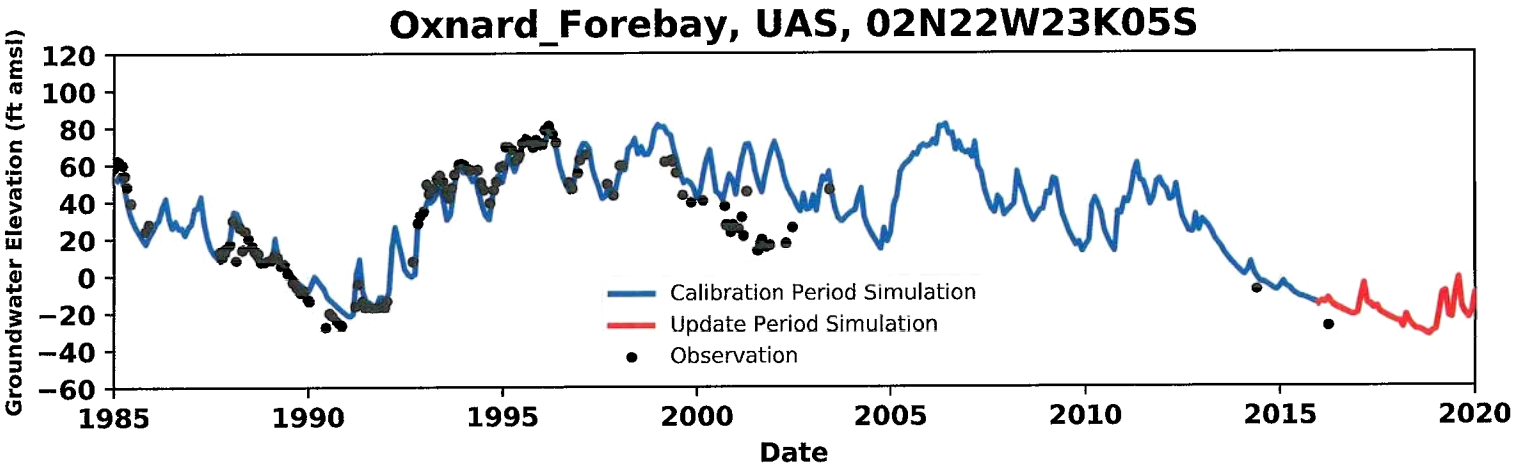
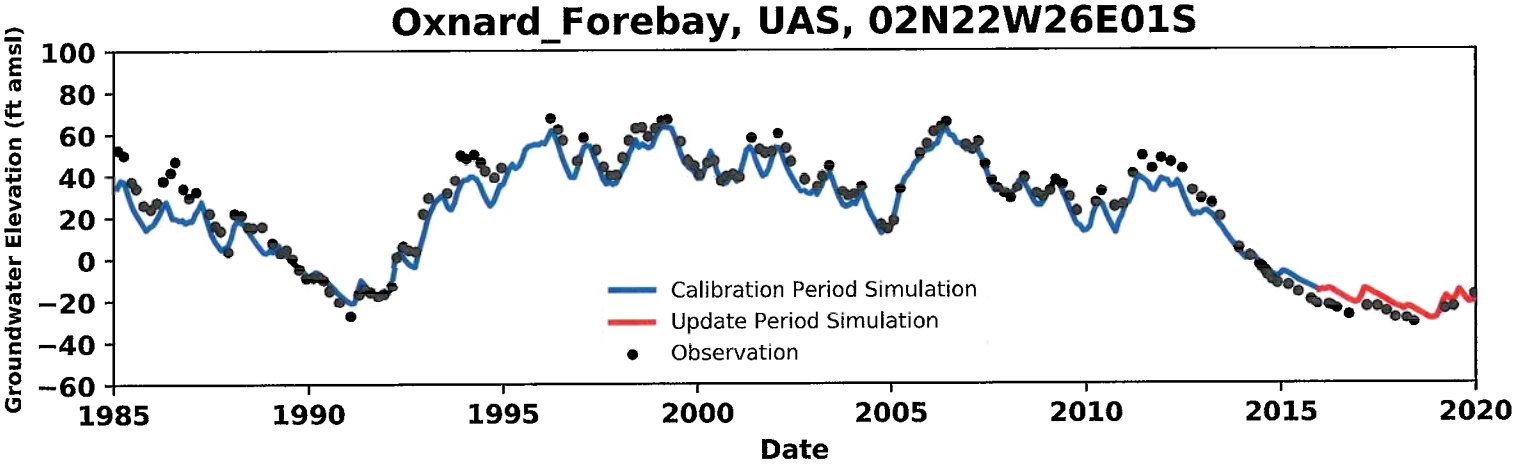
−60
−80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

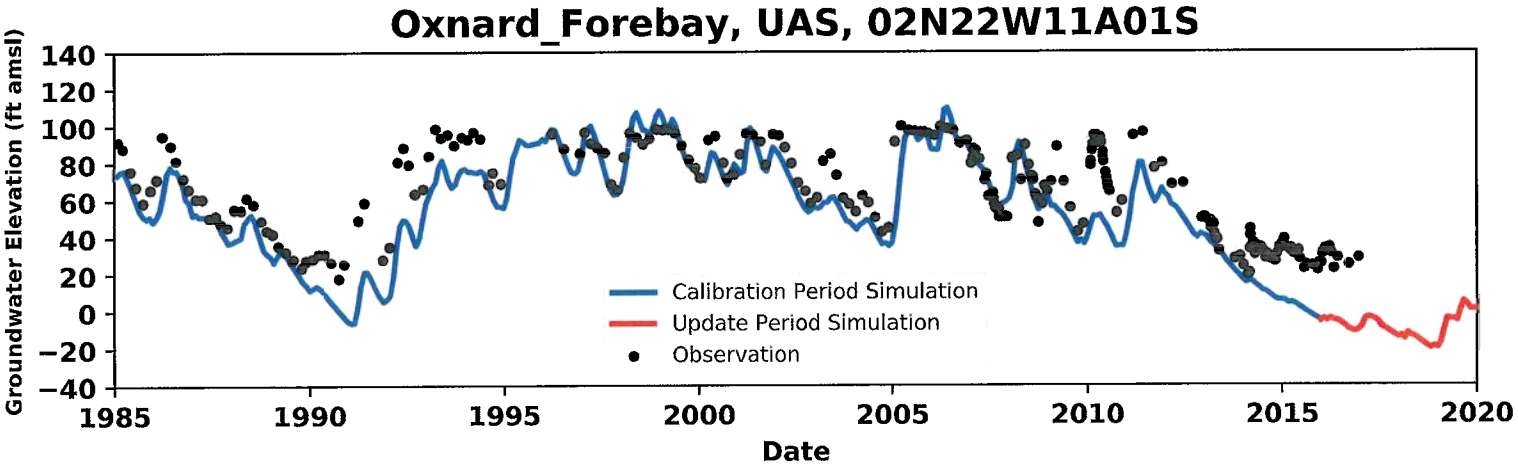

Oxnard_Forebay, UAS, 02N22W13N07S
Groundwater Elevation (ft amsl)
120
100
80
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

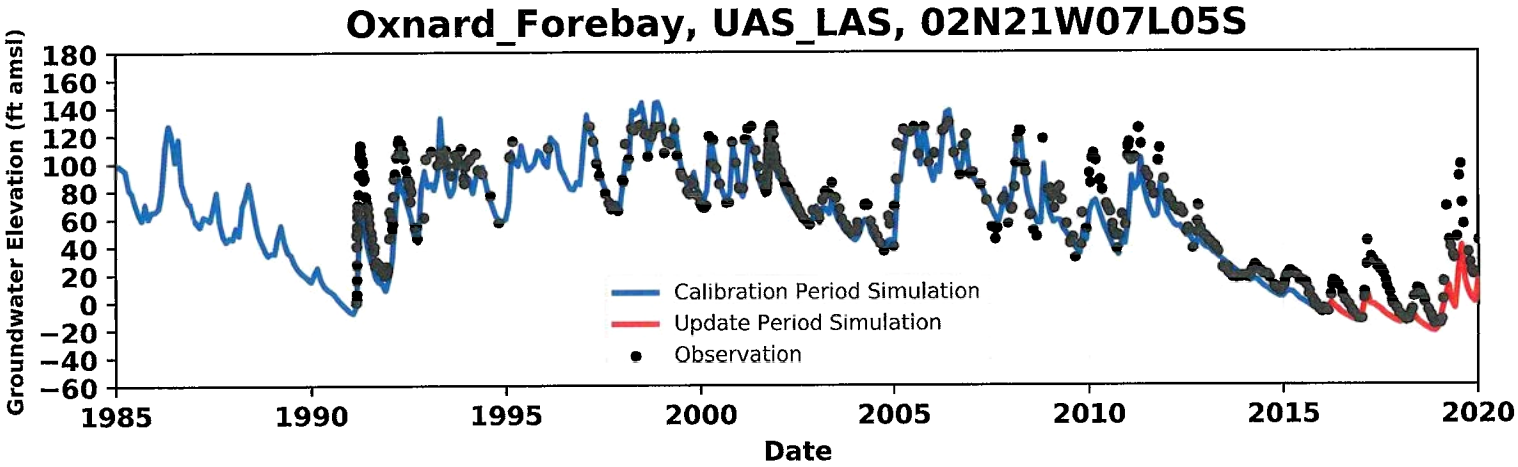

Oxnard_Forebay, UAS, 02N22W14F03S
Groundwater Elevation (ft amsl)
120
100
80
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

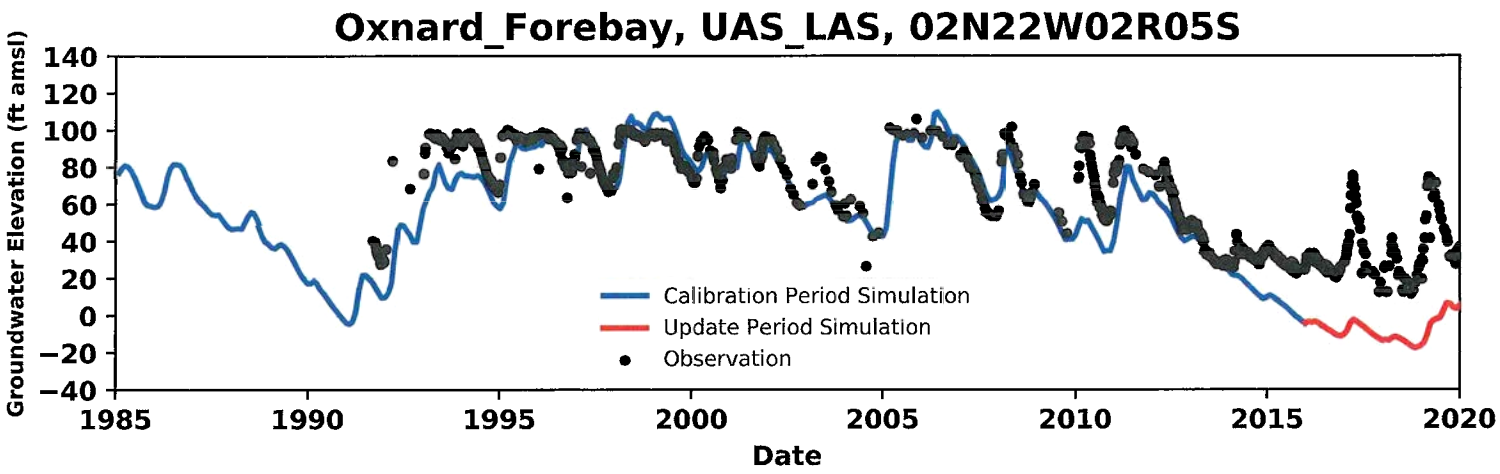

Oxnard_Forebay, UAS, 02N22W22M04S
Groundwater Elevation (ft amsl)
100
80
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

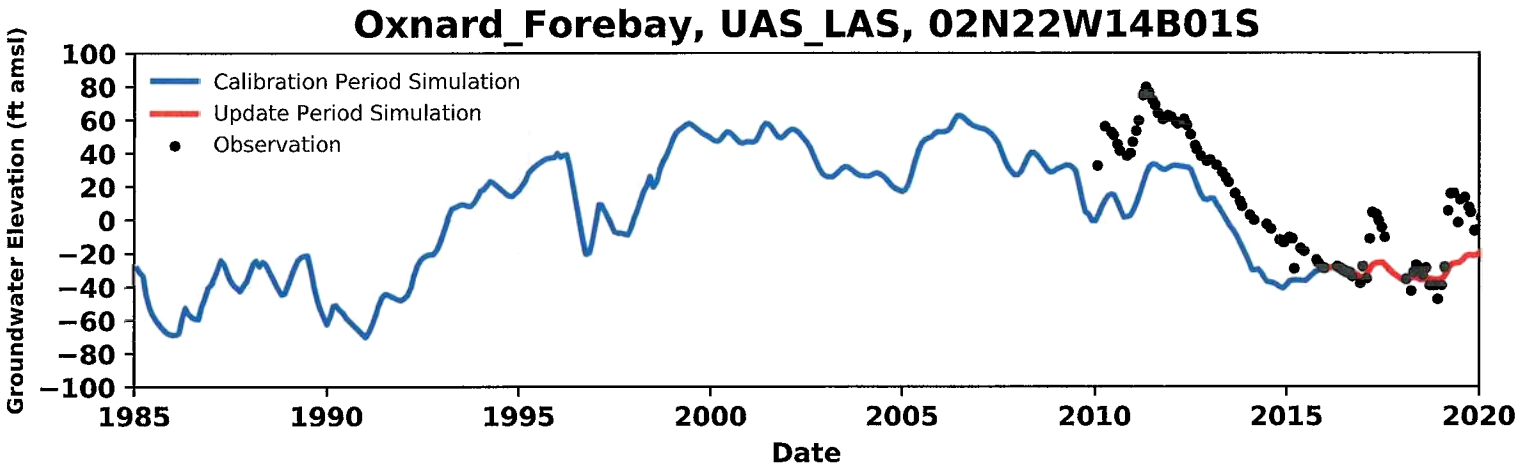

Oxnard_Forebay, UAS, 02N22W23K05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

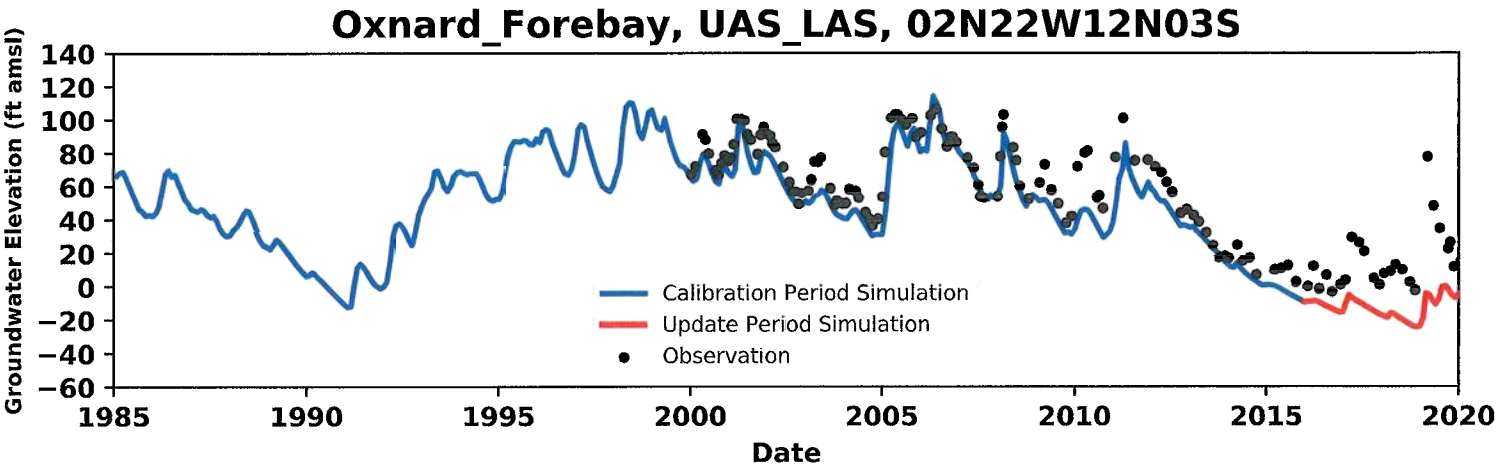

Oxnard_Forebay, UAS, 02N22W26E01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

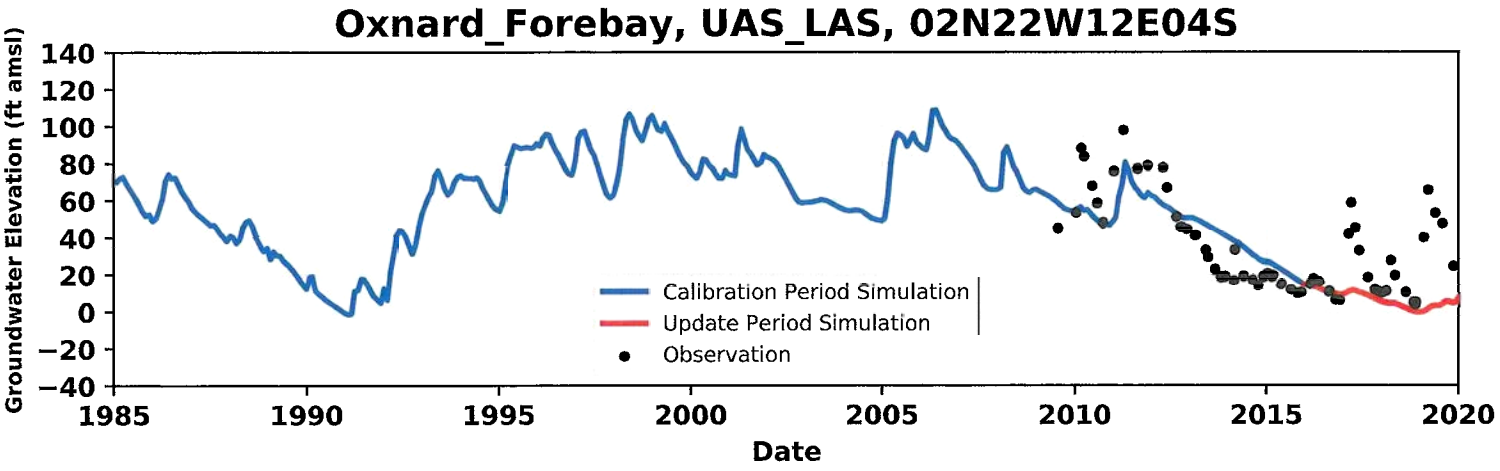

Oxnard_Forebay, UAS, 02N22W11A01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

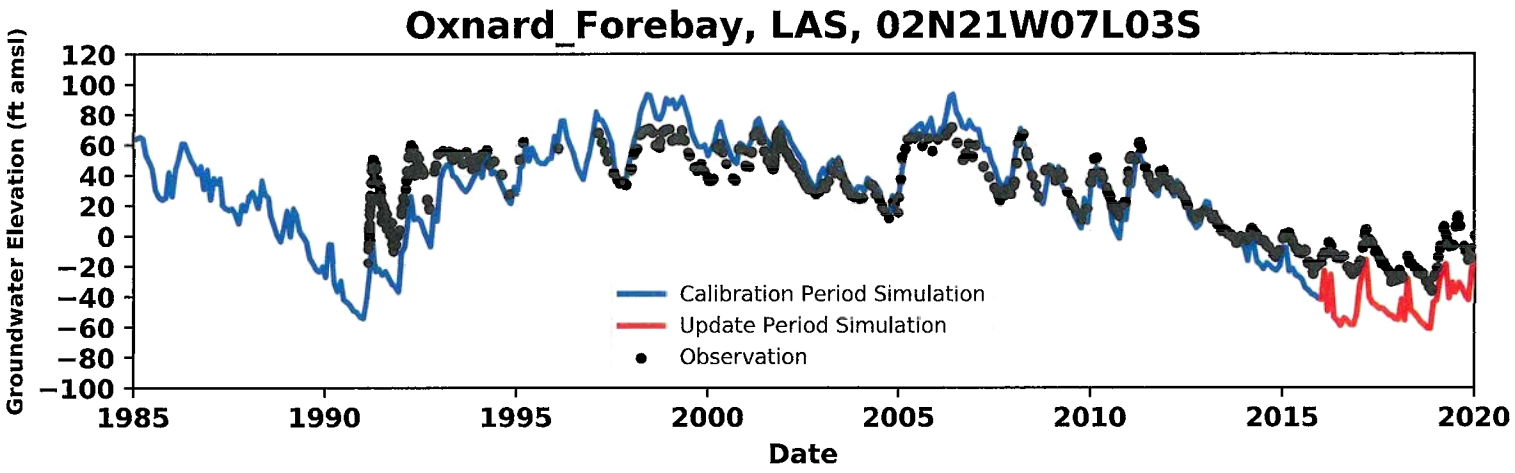

Oxnard_Forebay, UAS_LAS, 02N21W07L05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

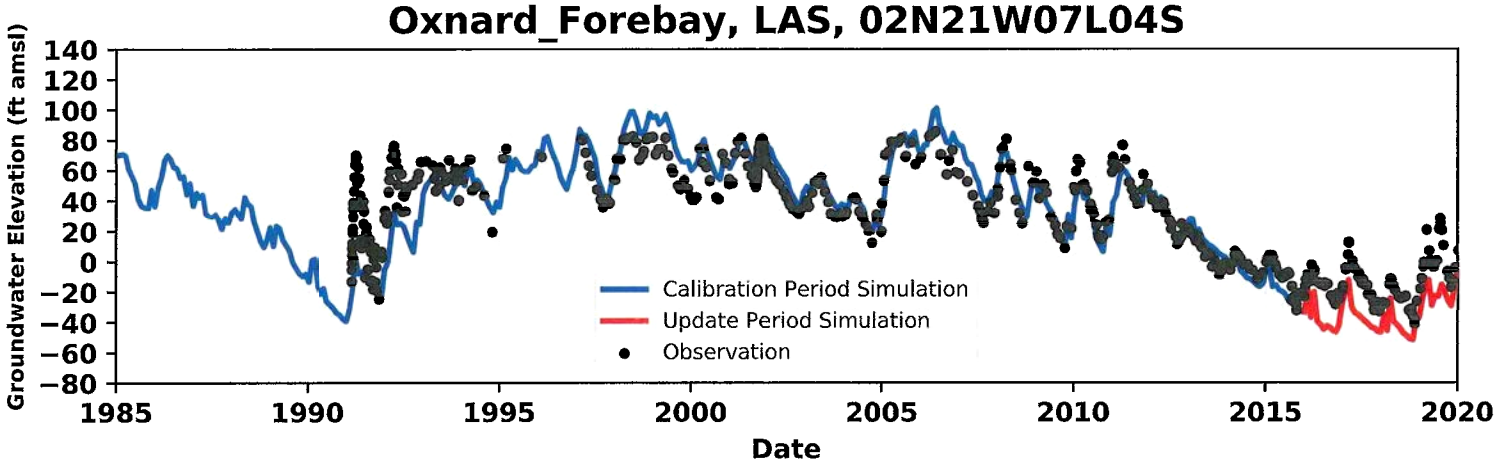

Oxnard_Forebay, UAS_LAS, 02N22W02R05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

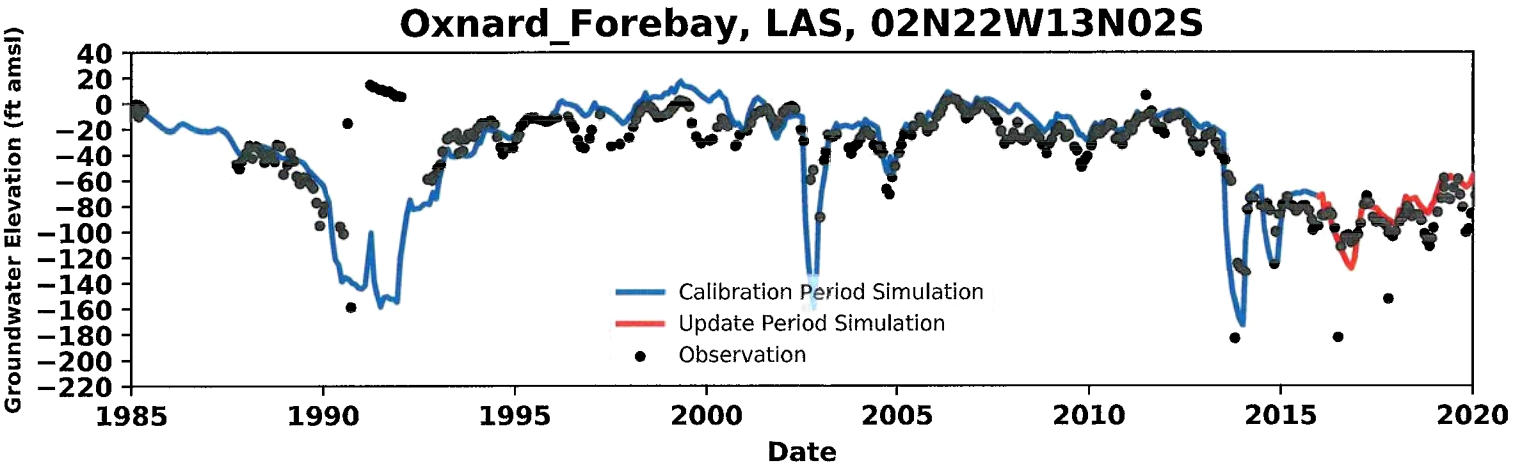

Oxnard_Forebay, UAS_LAS, 02N22W14B01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

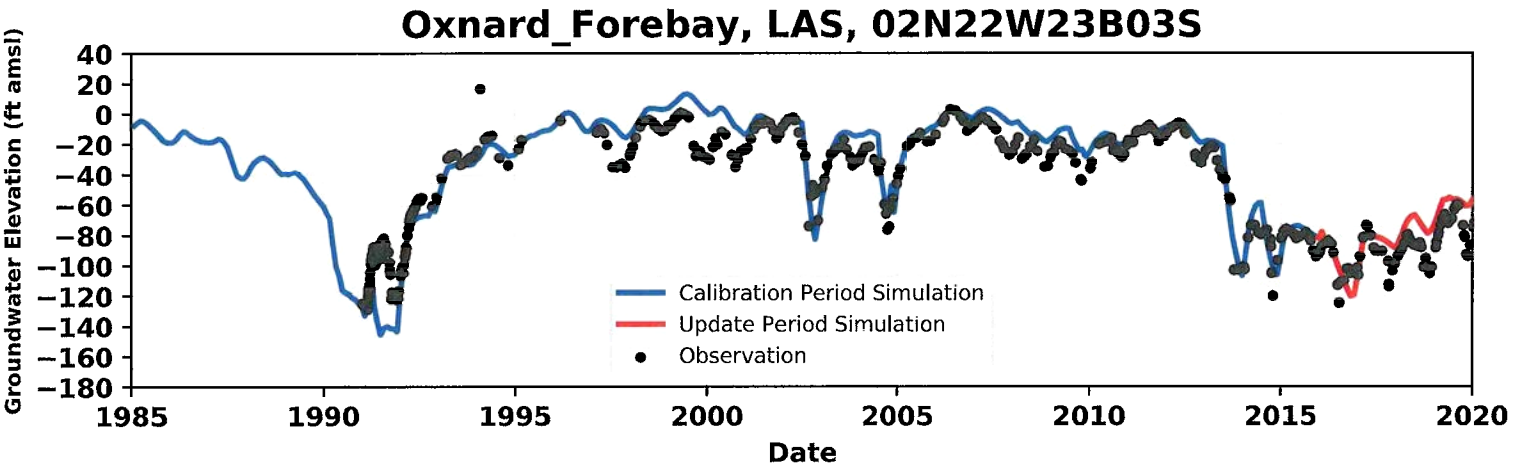

Oxnard_Forebay, UAS_LAS, 02N22W12N03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

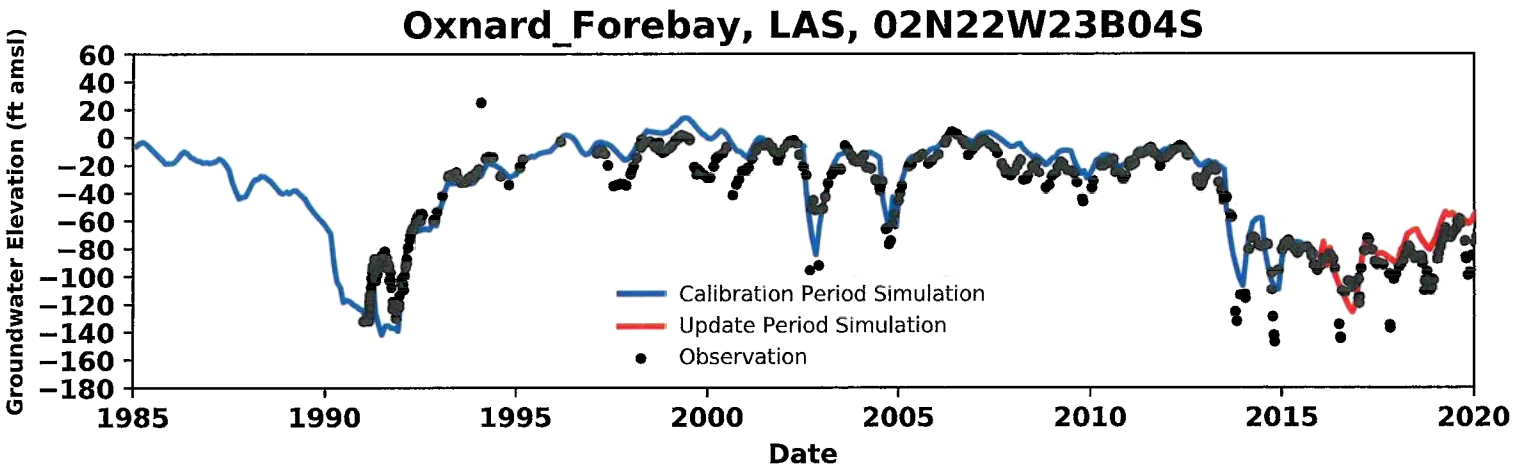

Oxnard_Forebay, UAS_LAS, 02N22W12E04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

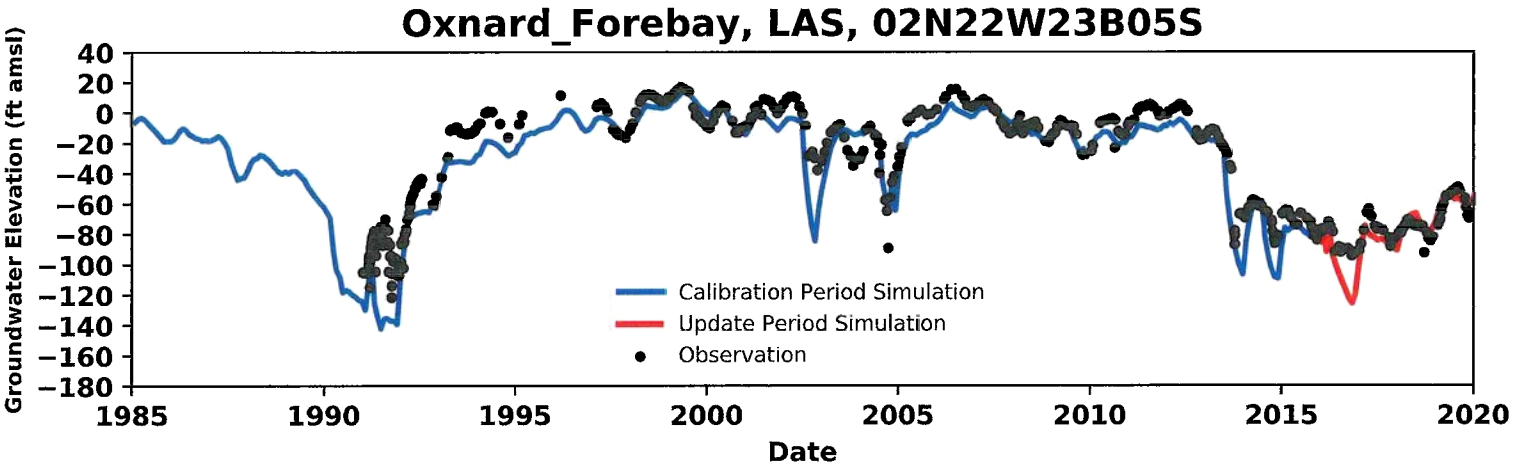

Oxnard_Forebay, LAS, 02N21W07L03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

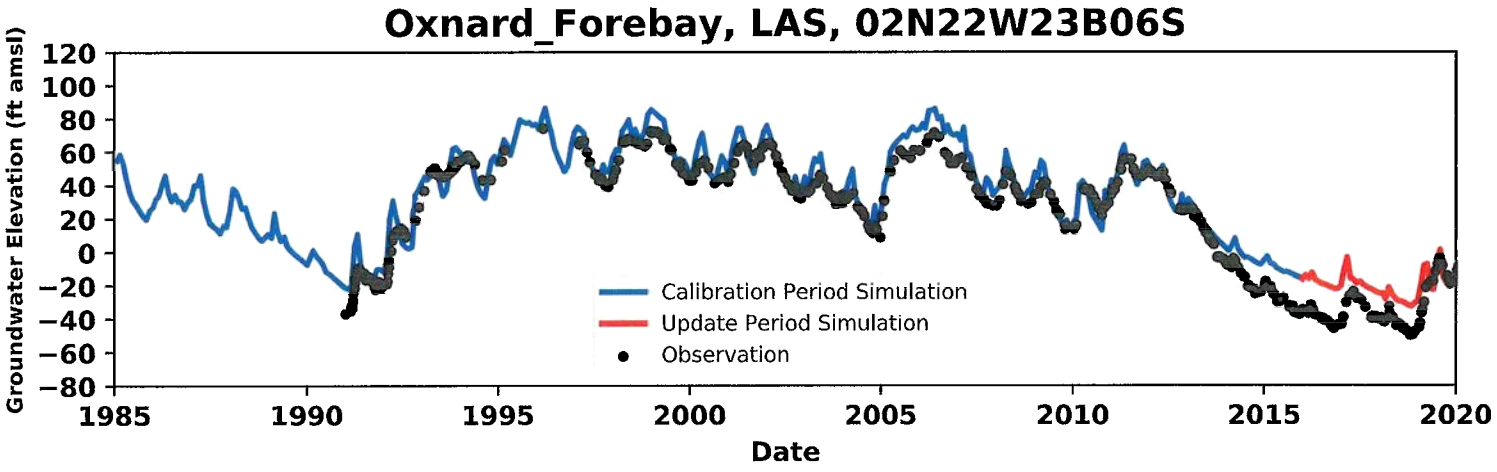

Oxnard_Forebay, LAS, 02N21W07L04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

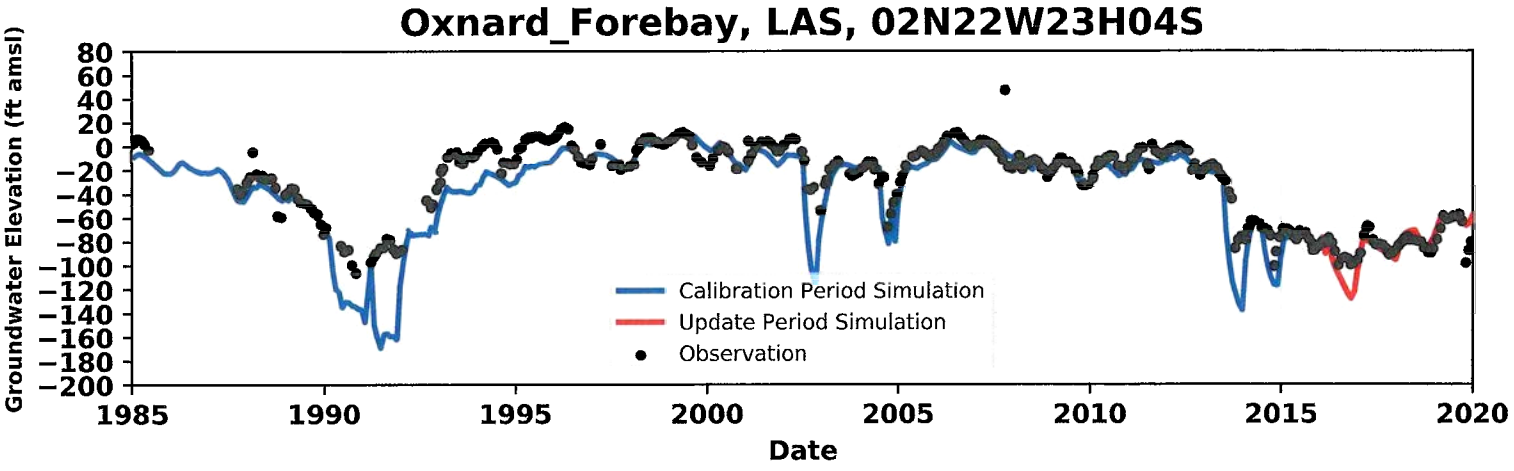

Oxnard_Forebay, LAS, 02N22W13N02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

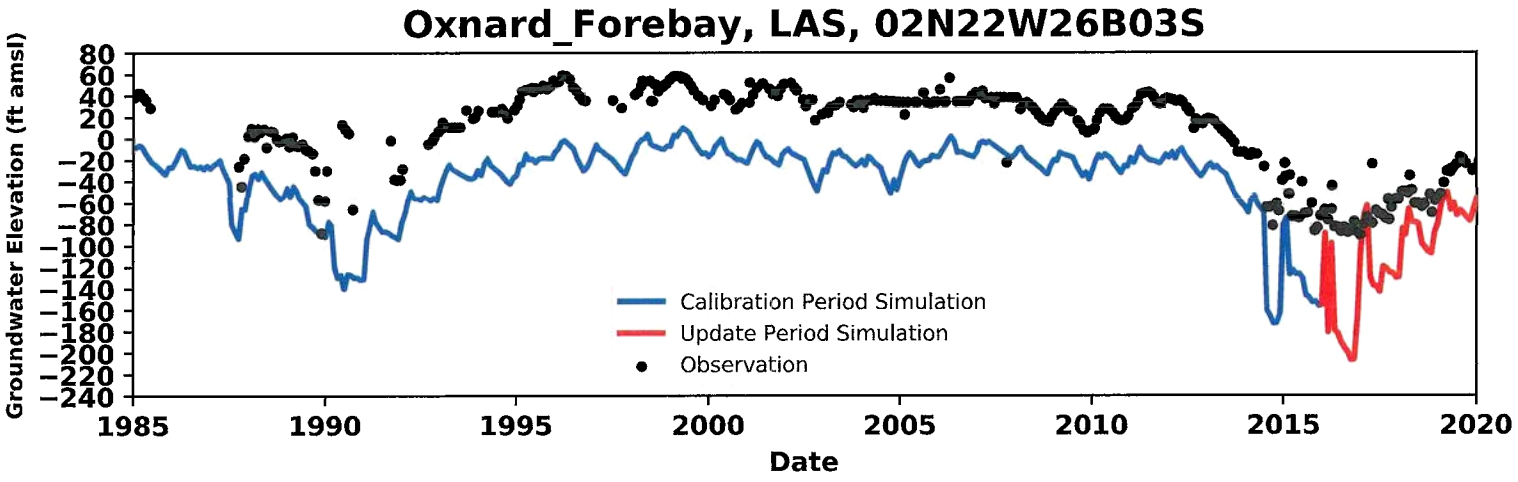

Oxnard_Forebay, LAS, 02N22W23B03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

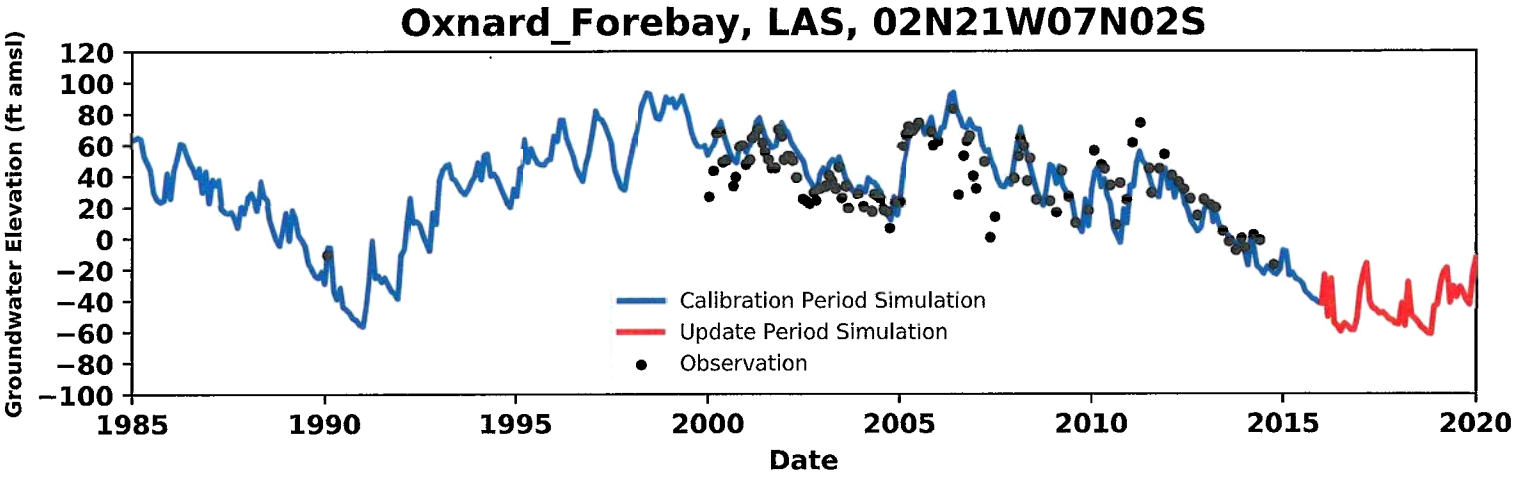

Oxnard_Forebay, LAS, 02N22W23B04S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

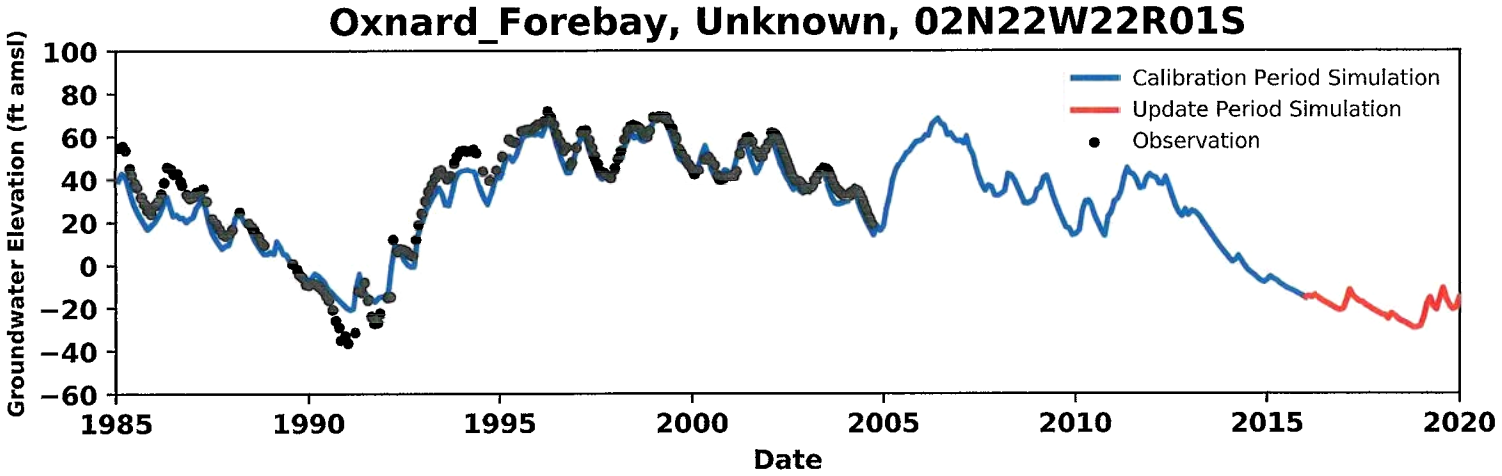

Oxnard_Forebay, LAS, 02N22W23B05S
Groundwater Elevation (ft amsl)
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

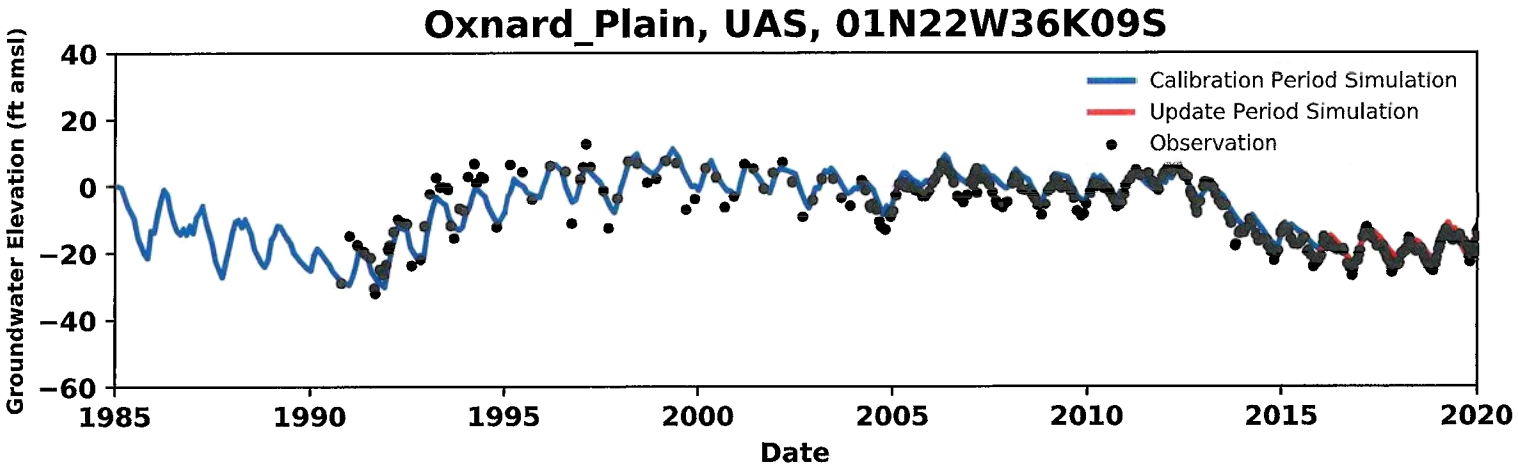

Oxnard_Forebay, LAS, 02N22W23B06S
Groundwater Elevation (ft amsl)
120
100
80
60
40
20
0
−20
−40
−60
−80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

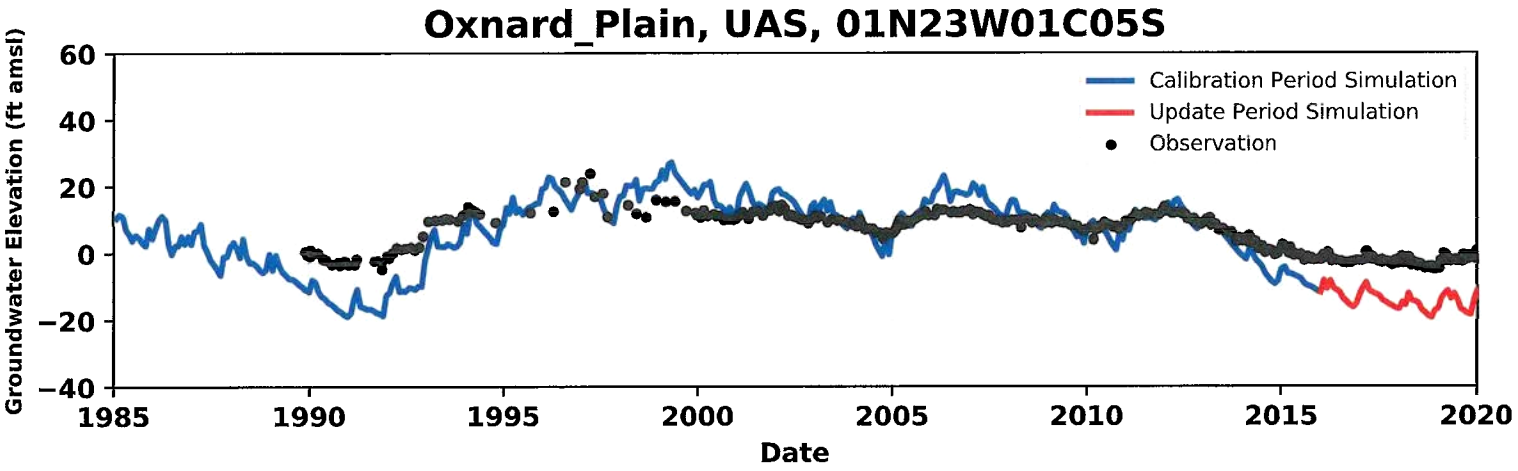

Oxnard_Forebay, LAS, 02N22W23H04S
Groundwater Elevation (ft amsl)
80
60
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

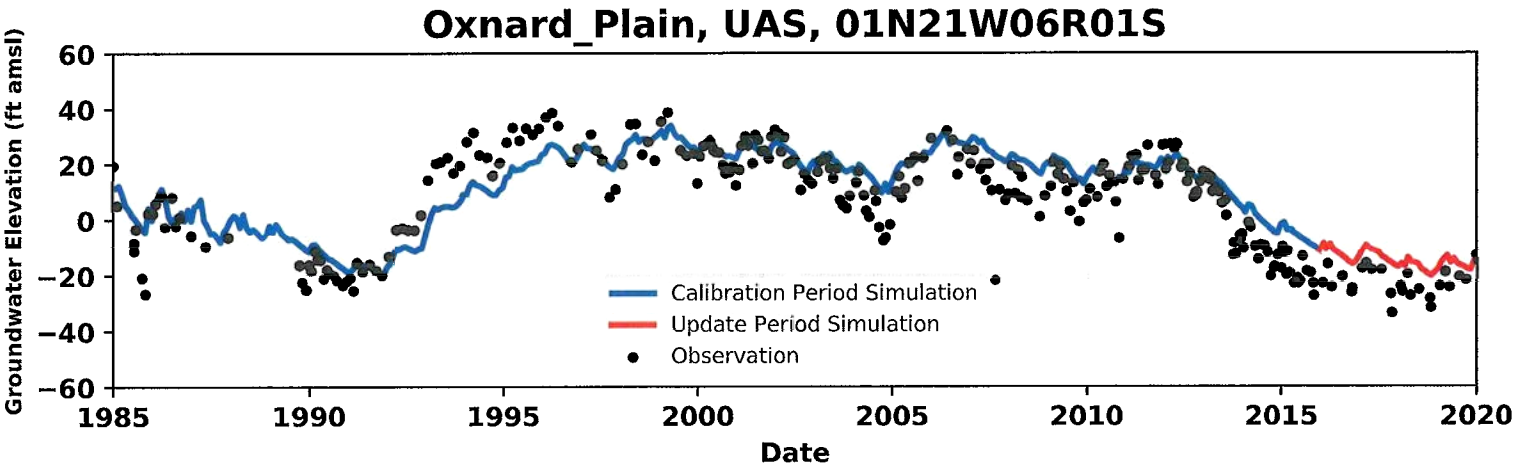

Oxnard_Forebay, LAS, 02N22W26B03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

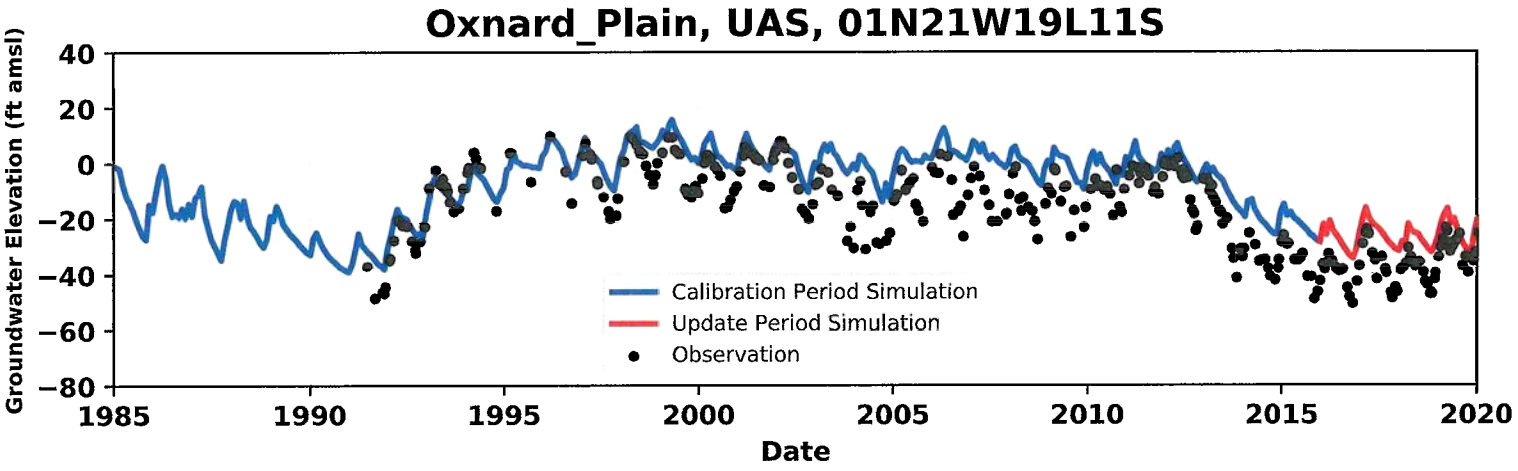

Oxnard_Forebay, LAS, 02N21W07N02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

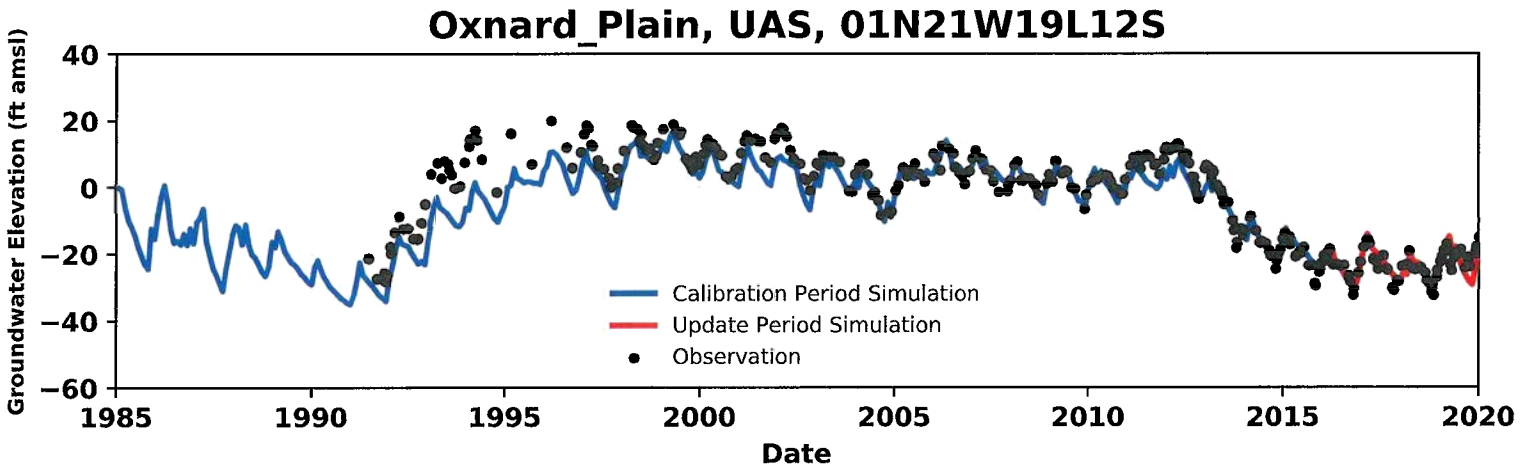

Oxnard_Forebay, Unknown, 02N22W22R01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

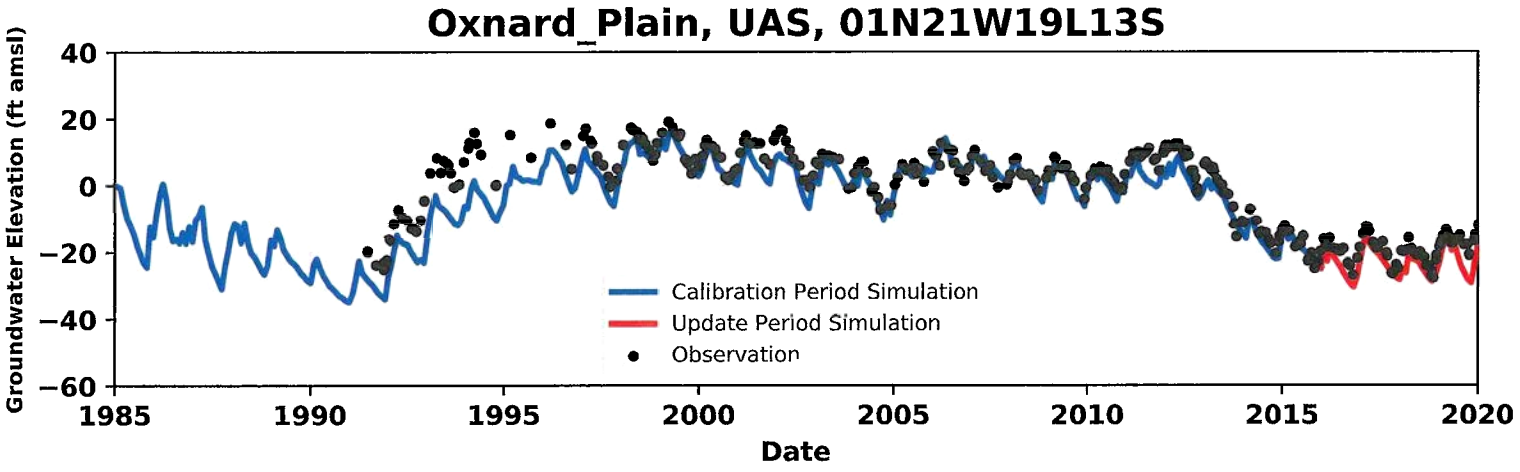

Oxnard_Plain, UAS, 01N22W36K09S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

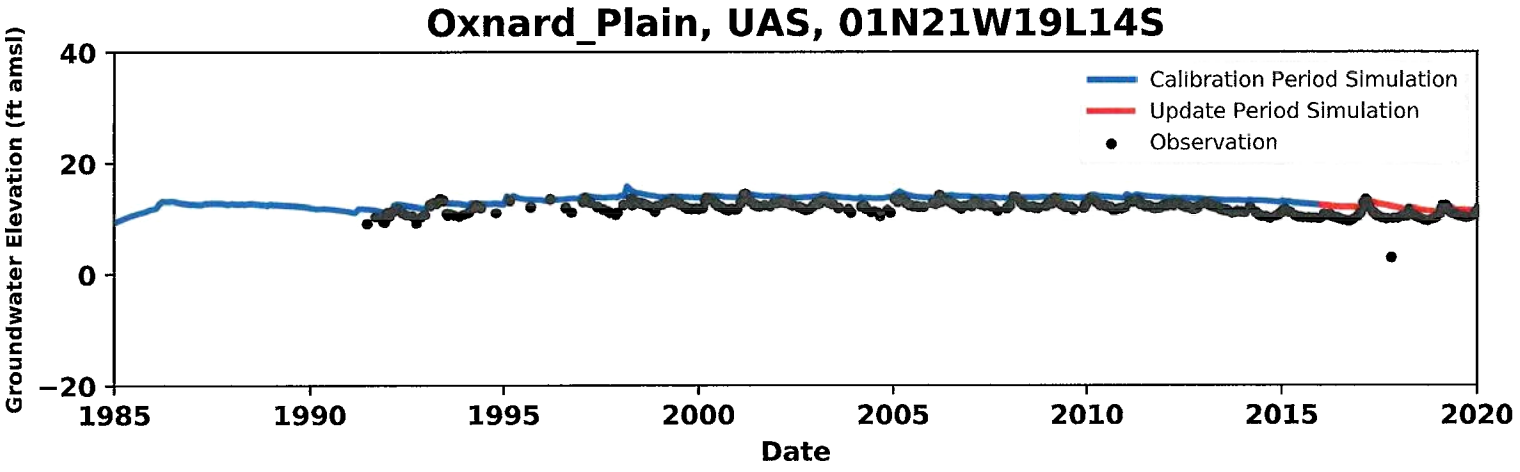

Oxnard_Plain, UAS, 01N23W01C05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

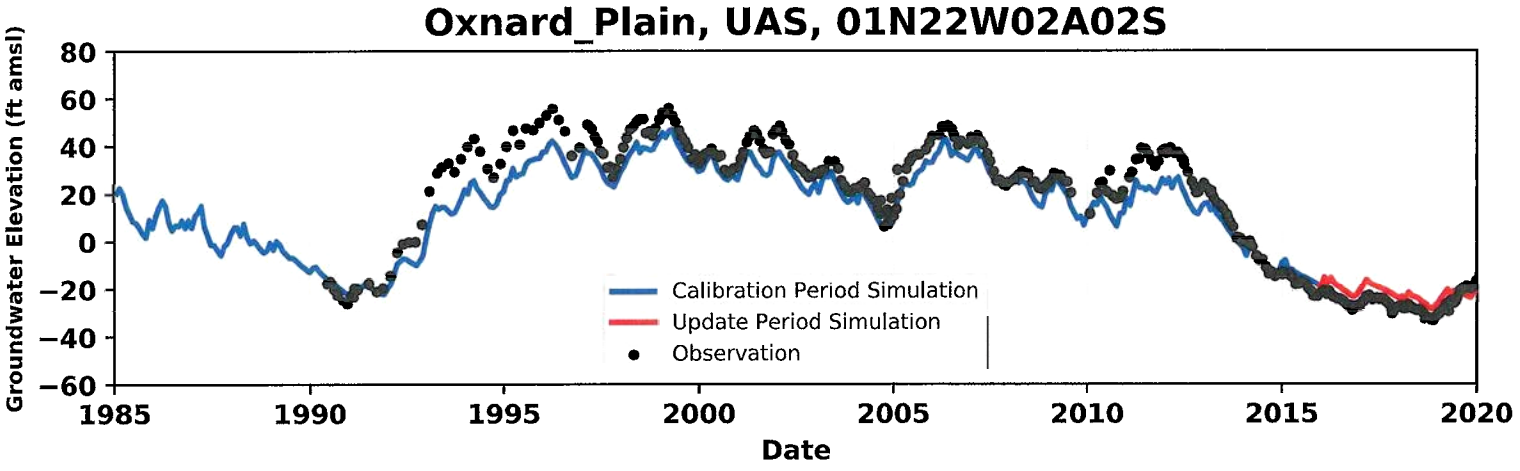

Oxnard_Plain, UAS, 01N21W06R01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

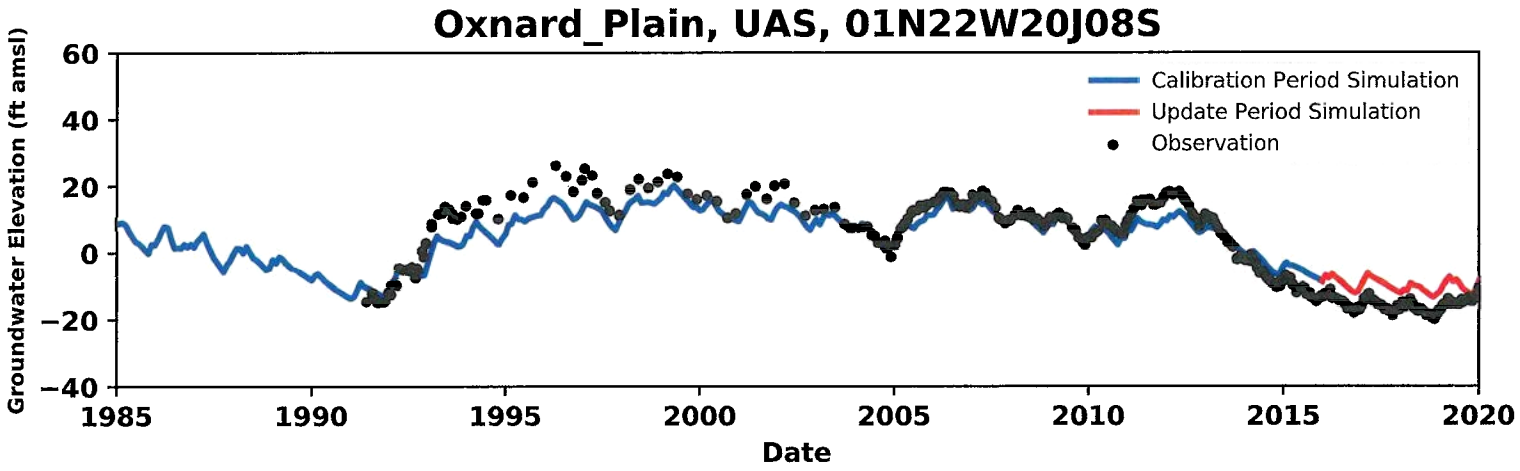

Oxnard_Plain, UAS, 01N21W19L11S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

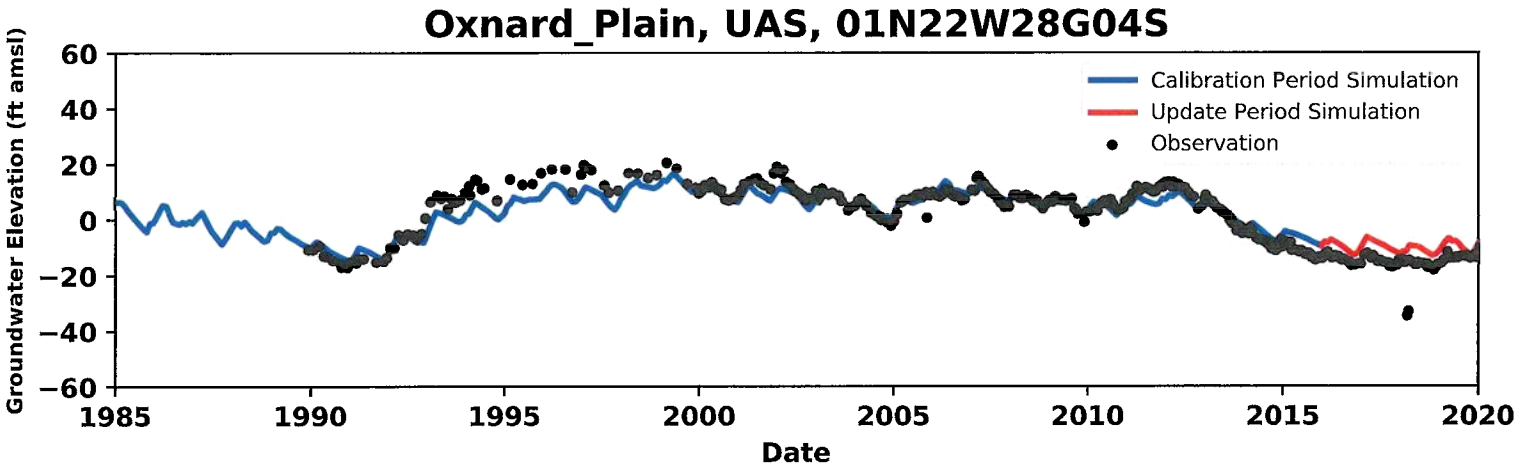

Oxnard_Plain, UAS, 01N21W19L12S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

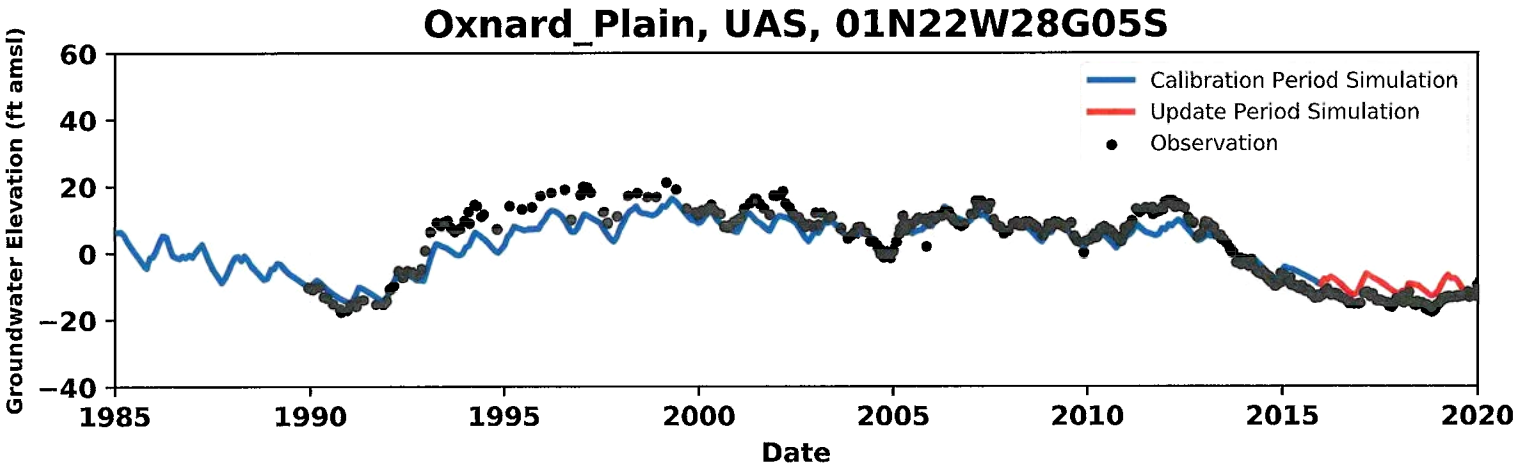

Oxnard_Plain, UAS, 01N21W19L13S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

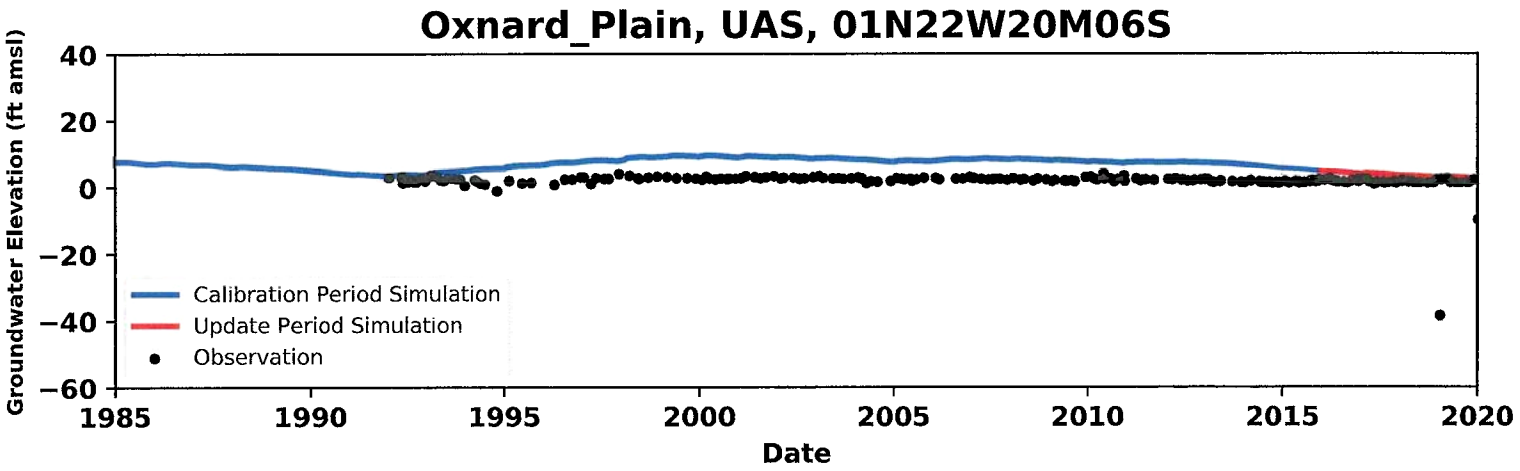

Oxnard_Plain, UAS, 01N21W19L14S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

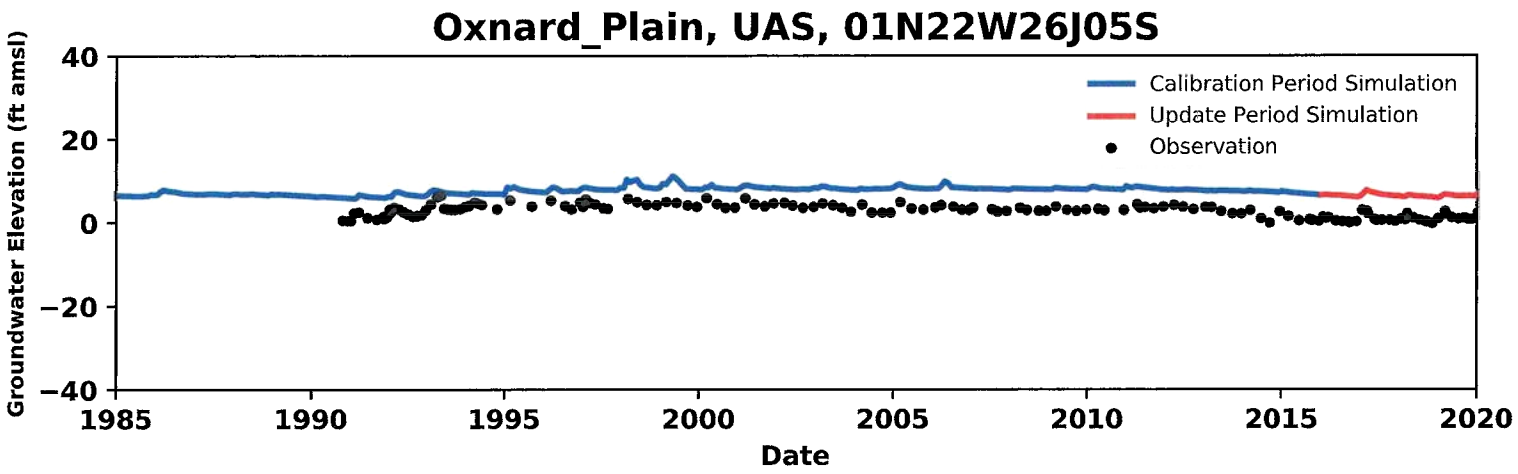

Oxnard_Plain, UAS, 01N22W02A02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W20J08S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W28G04S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W28G05S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W20M06S
Groundwater Elevation (ft amsl)
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W26J05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
40
20
0
−20
−40
1985
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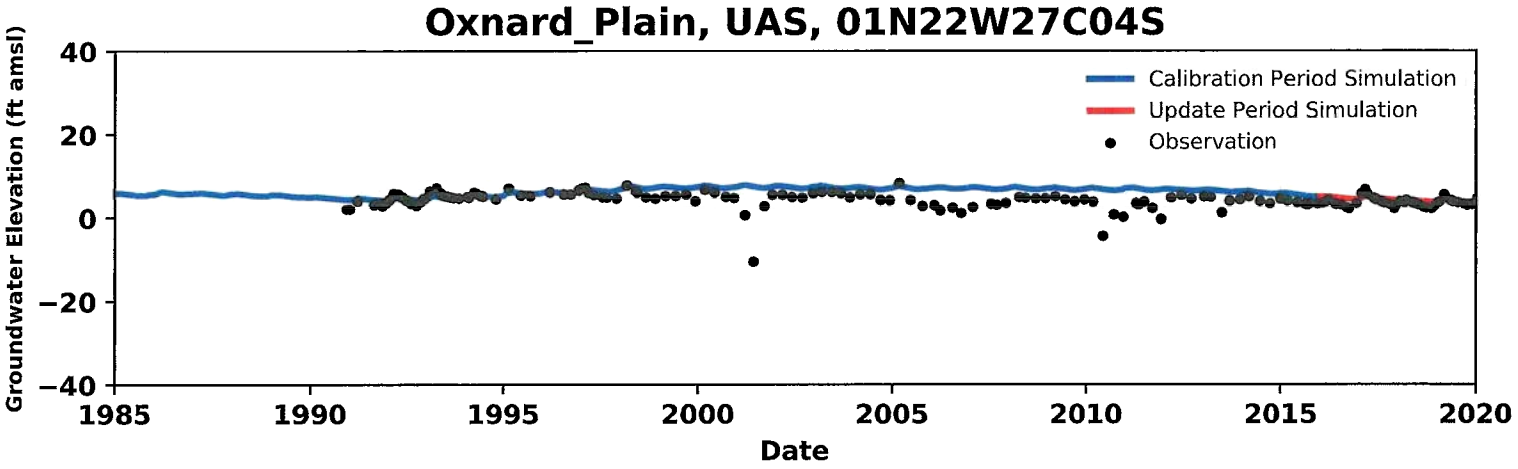
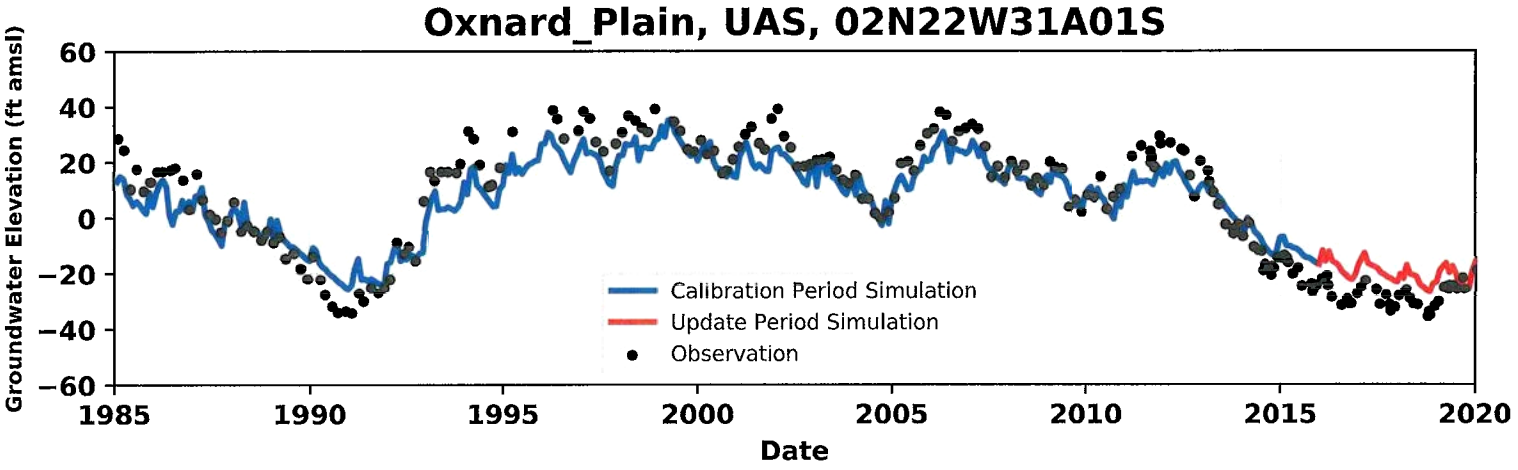
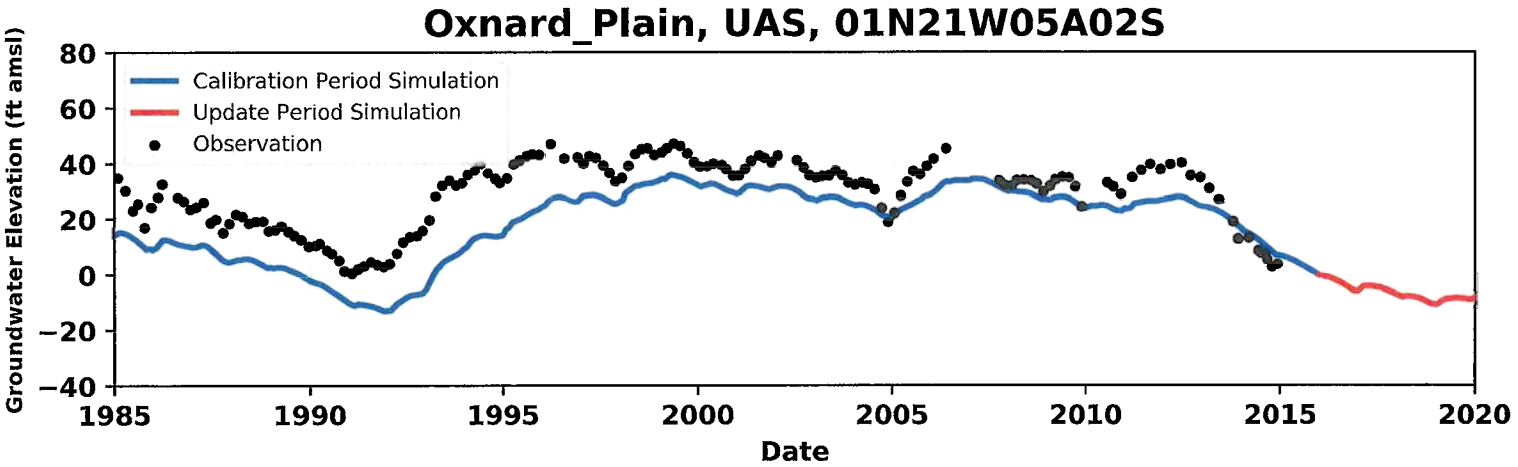
2000
2005
2010
2015
2020


Oxnard_Plain, UAS, 01N22W27C04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
40
20
0
−20
−40
1985
1990
1995
2000
2005
2010
2015
2020


Oxnard_Plain, UAS, 02N22W31A01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020


Oxnard_Plain, UAS, 01N21W05A02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation
80
60
40
20
0
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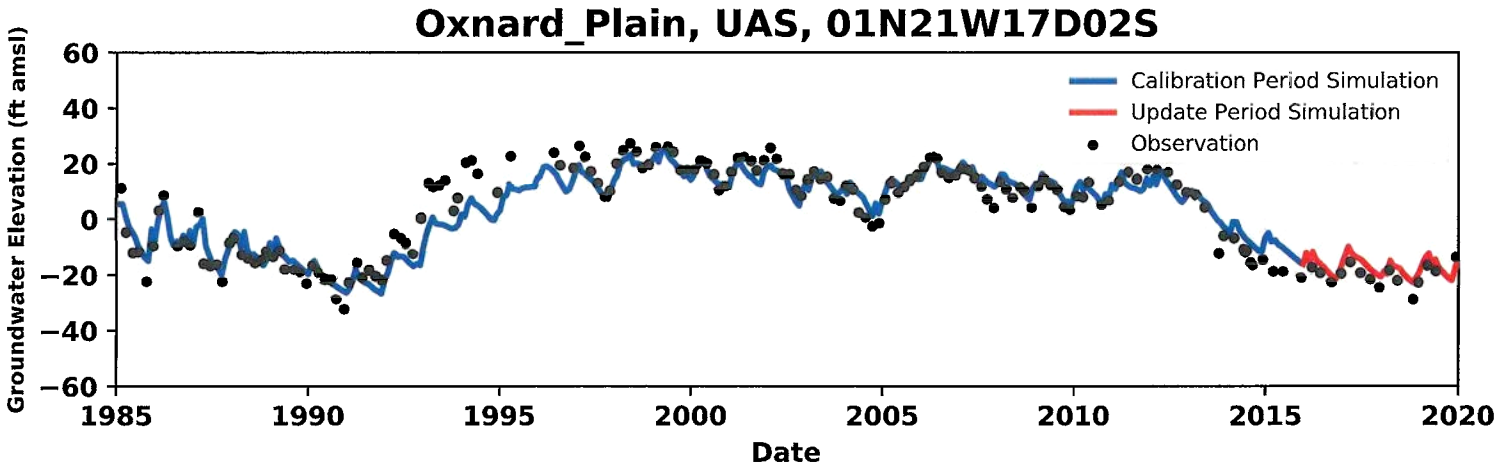
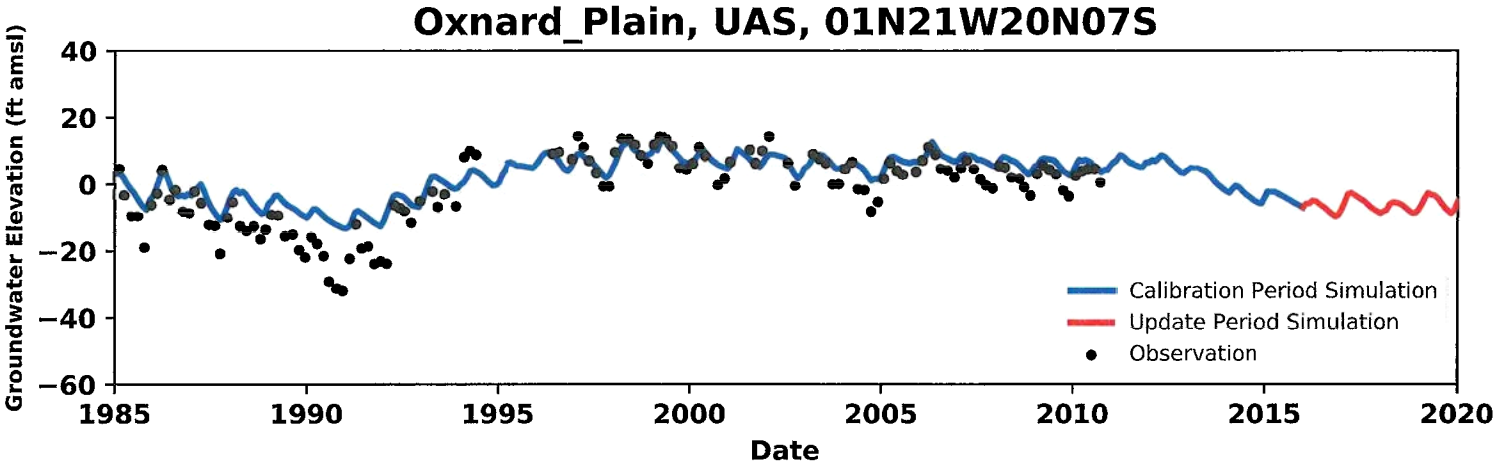
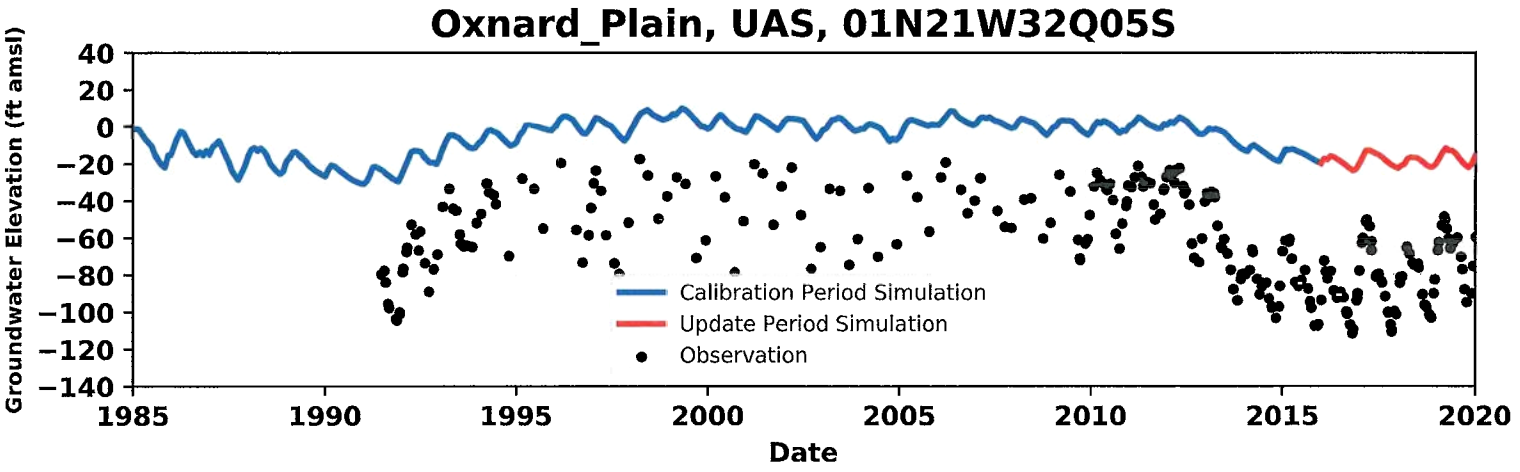

Oxnard_Plain, UAS, 01N21W17D02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N21W20N07S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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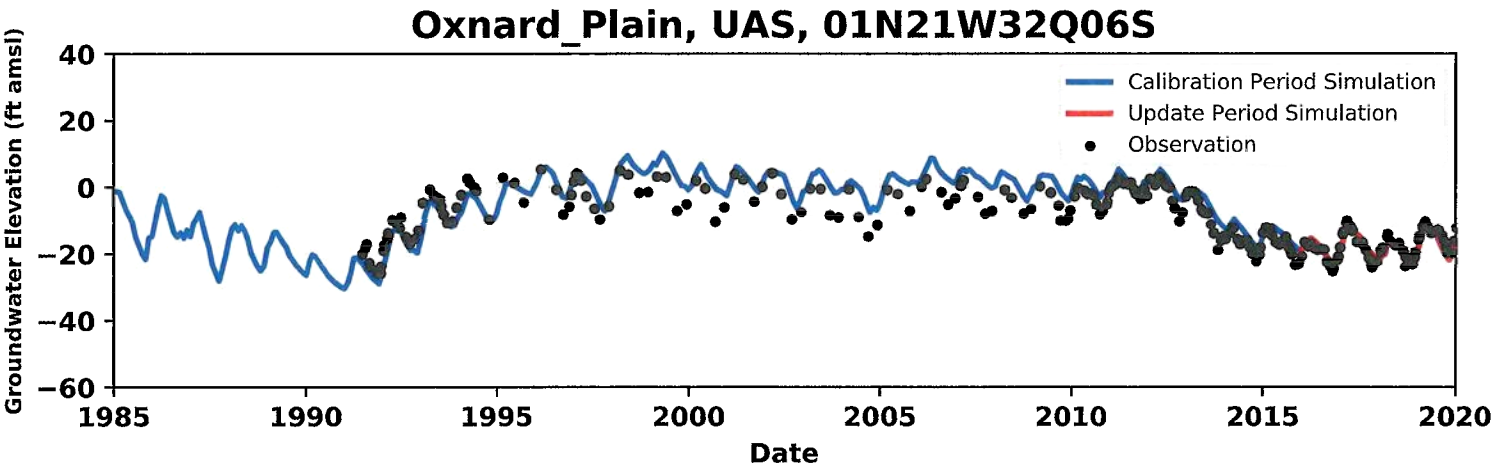
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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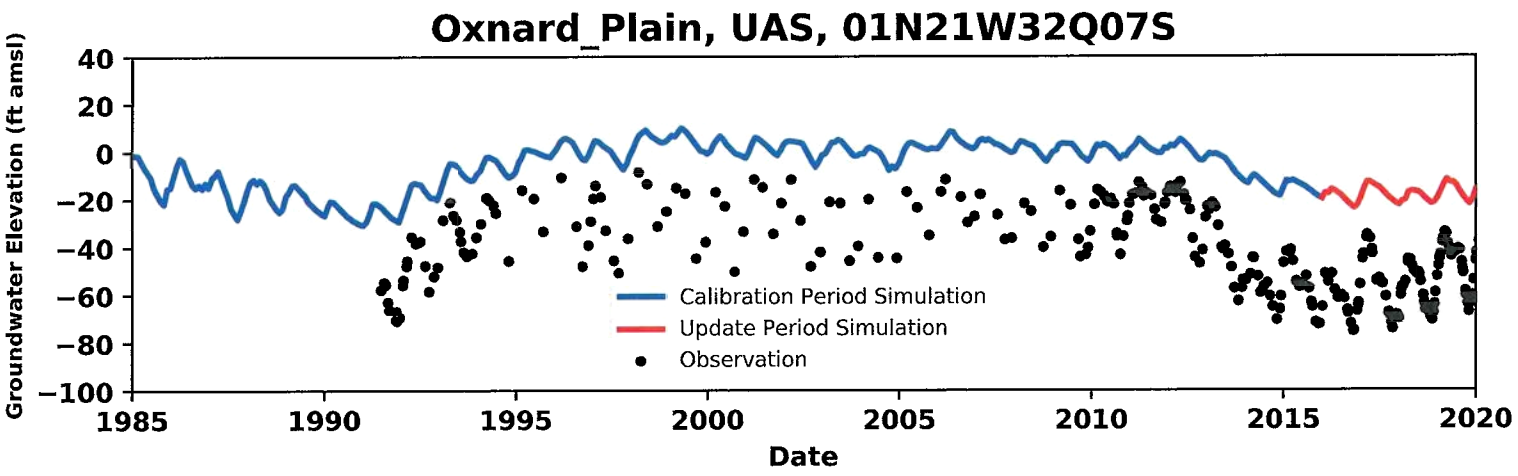
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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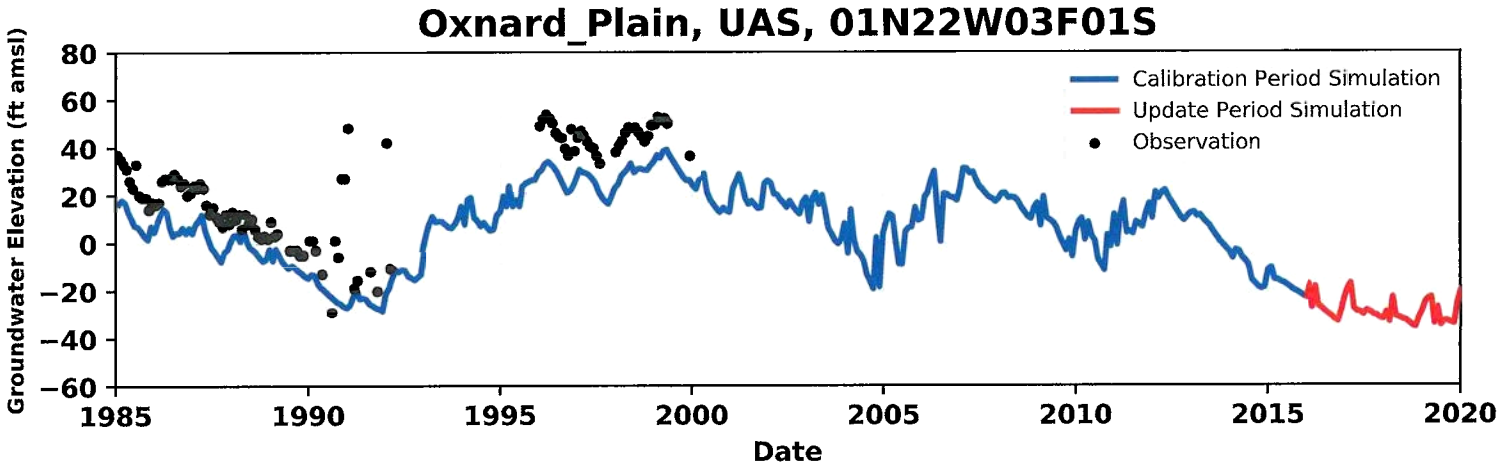
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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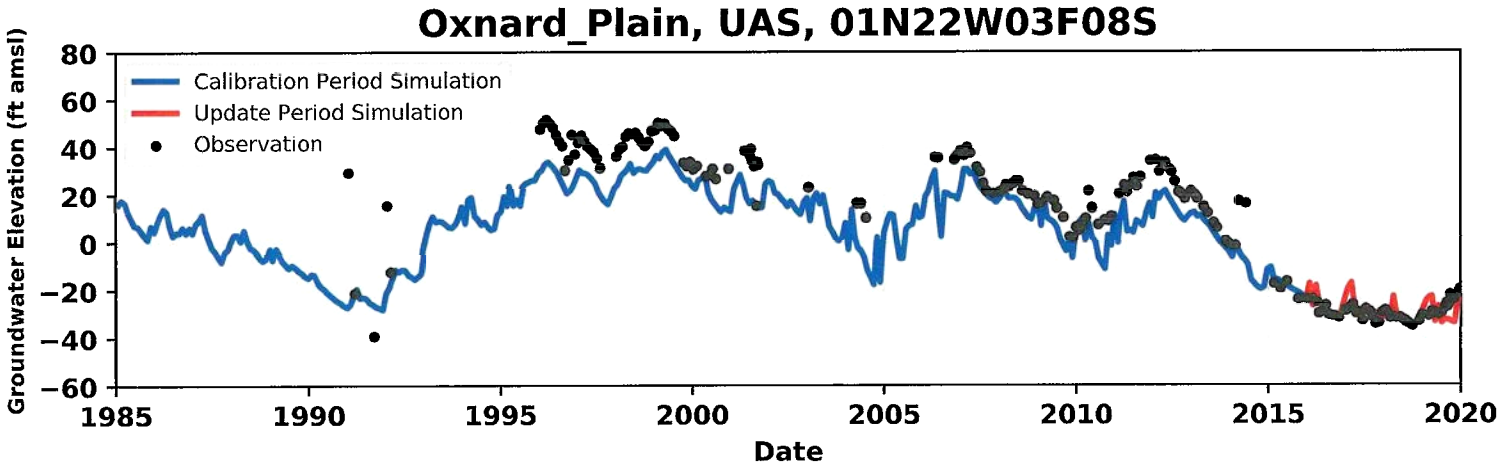
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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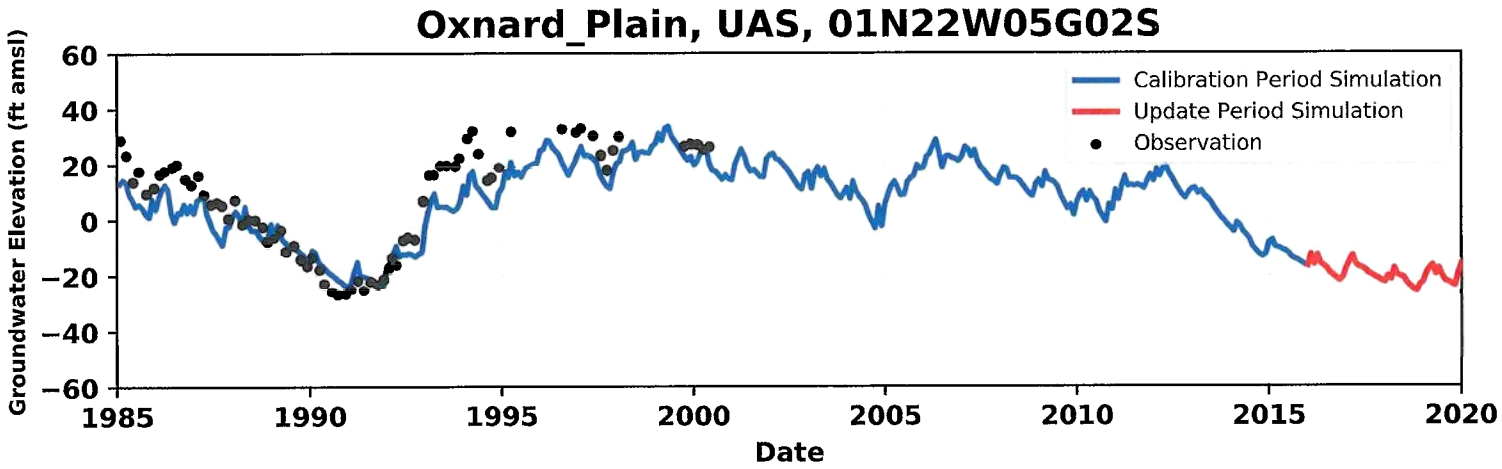
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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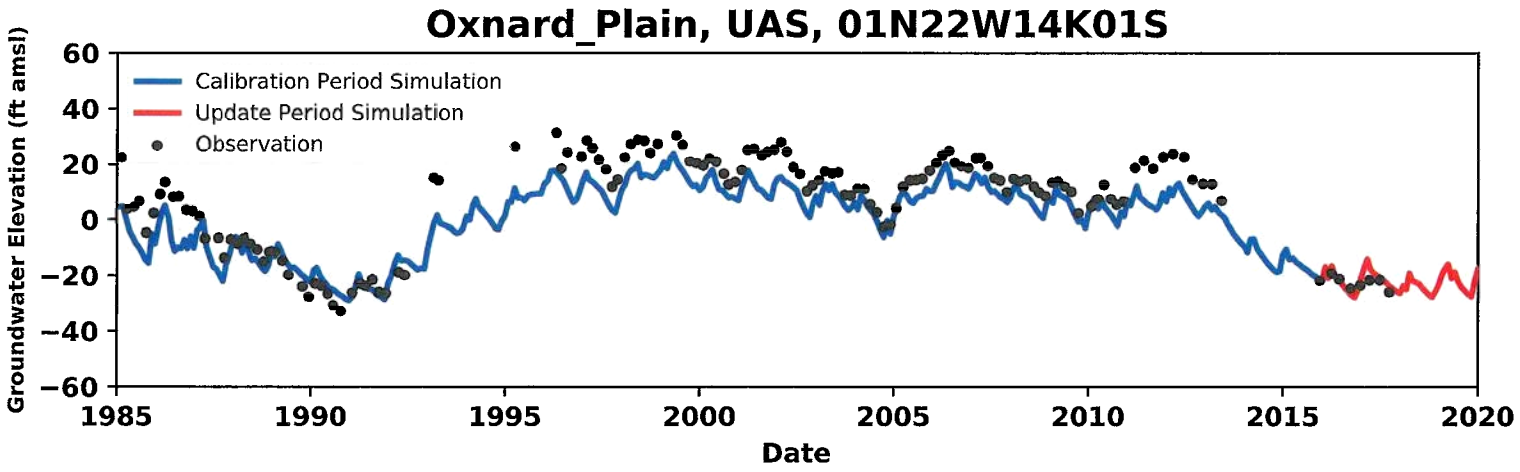
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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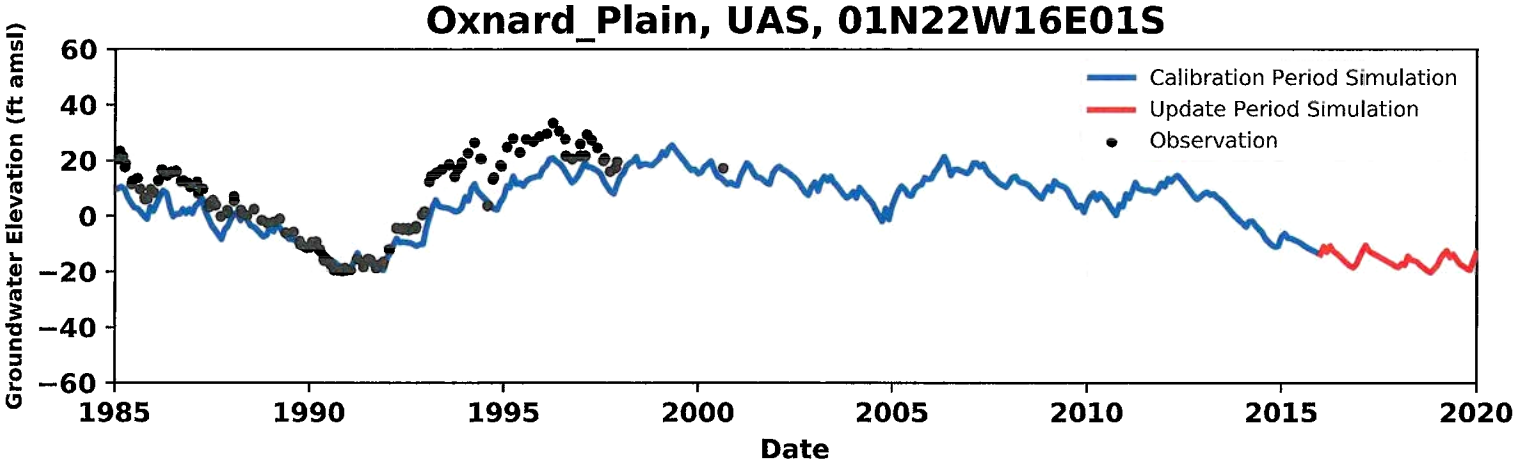
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date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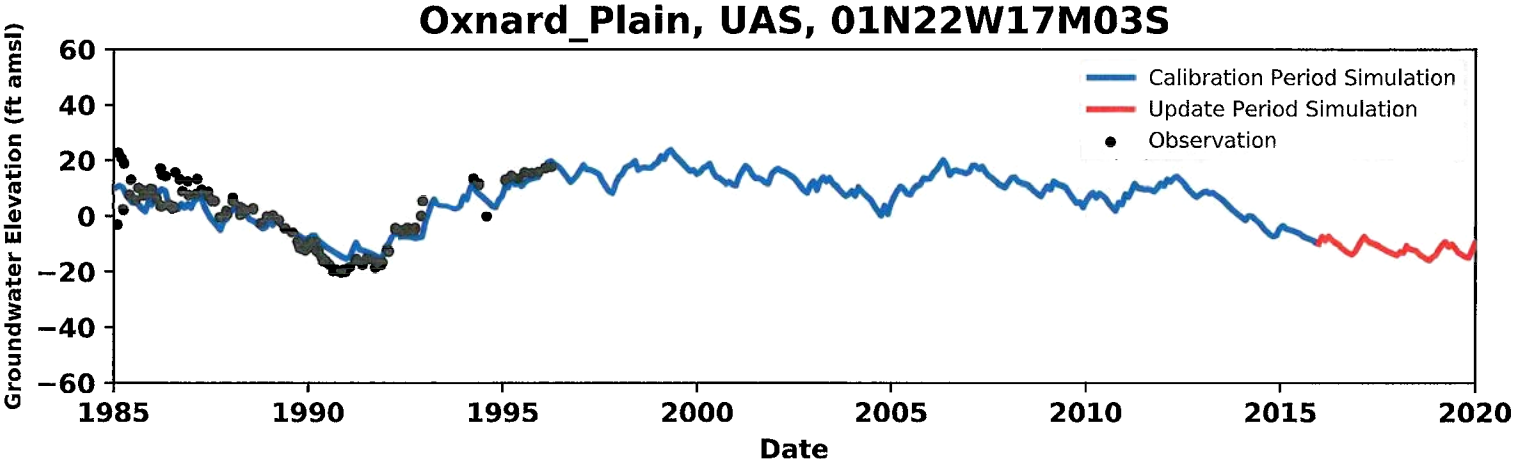
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date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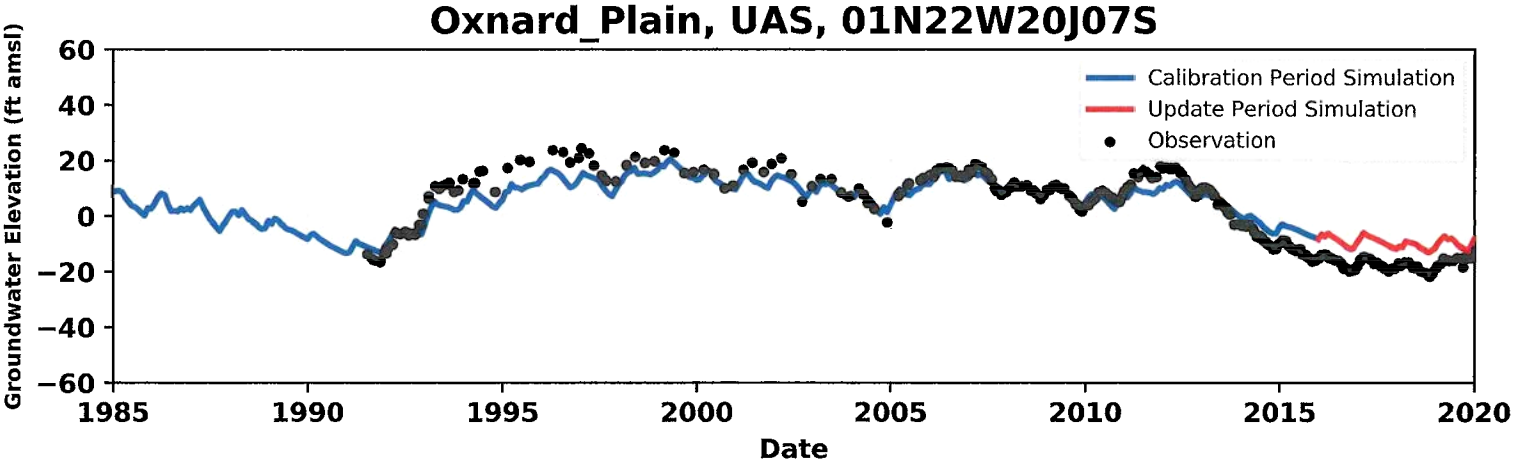
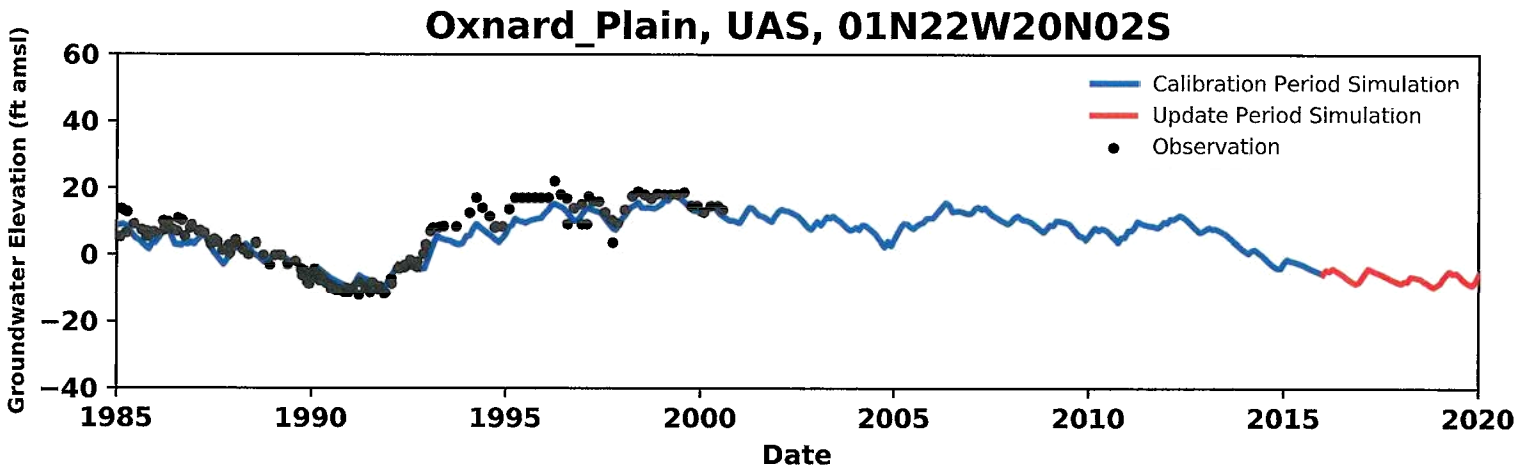
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date


Oxnard_Plain, UAS, 01N22W20J07S
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date


Oxnard_Plain, UAS, 01N22W20N02S
Groundwater Elevation (ft amsl)
60
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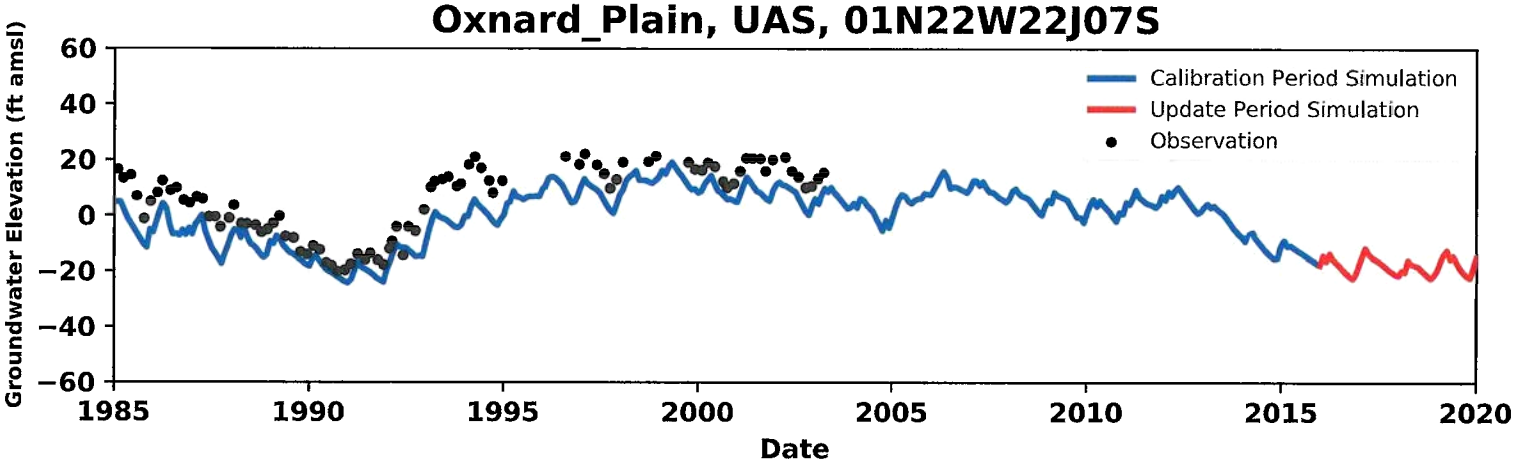
20
0
−20
−40
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W22J07S
Groundwater Elevation (ft amsl)
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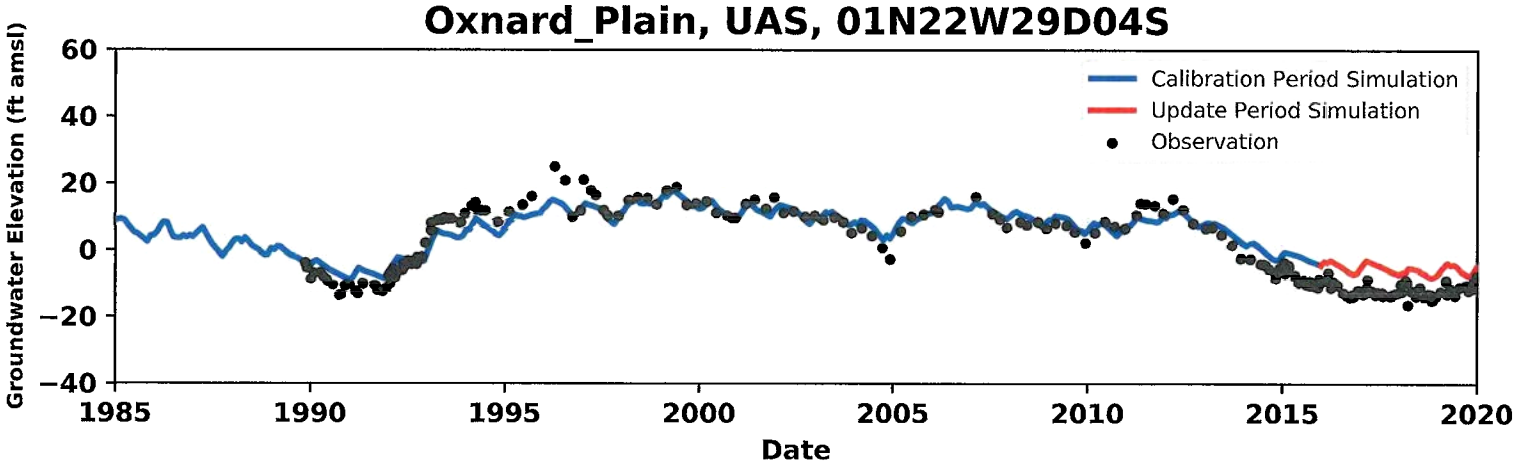
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W29D04S
Groundwater Elevation (ft amsl)
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−40
1985
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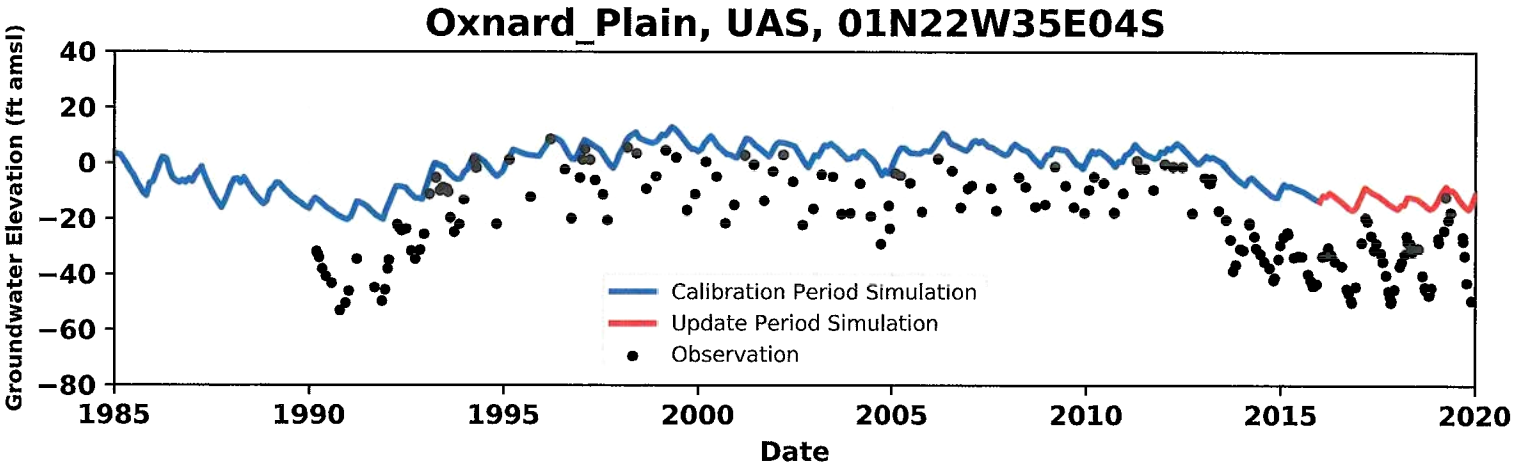
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W35E04S
Groundwater Elevation (ft amsl)
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20
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−40
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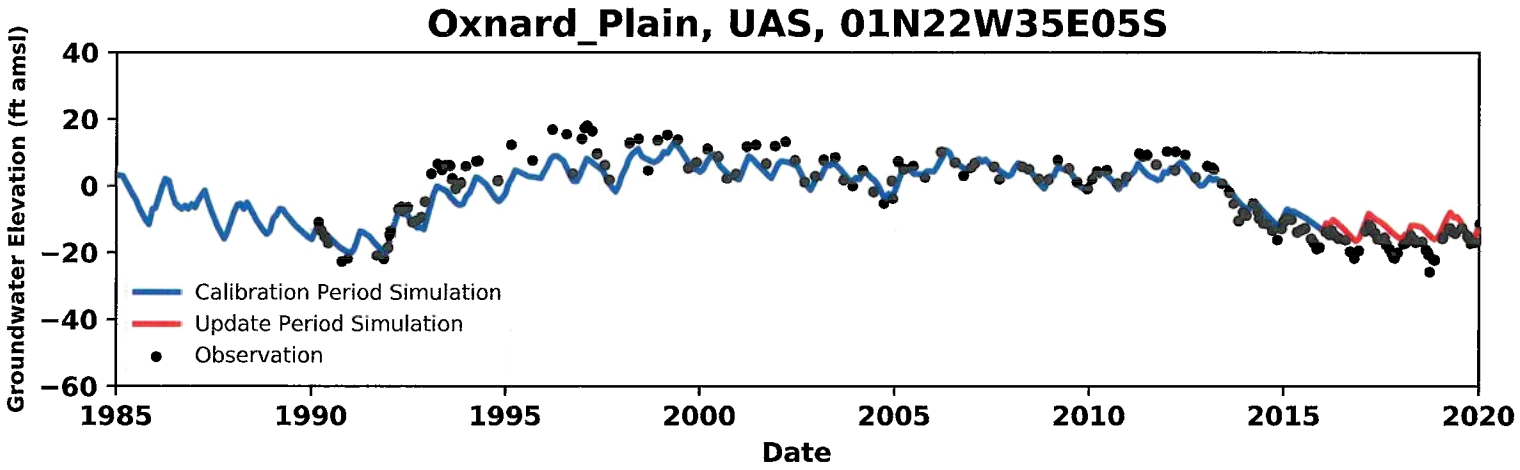
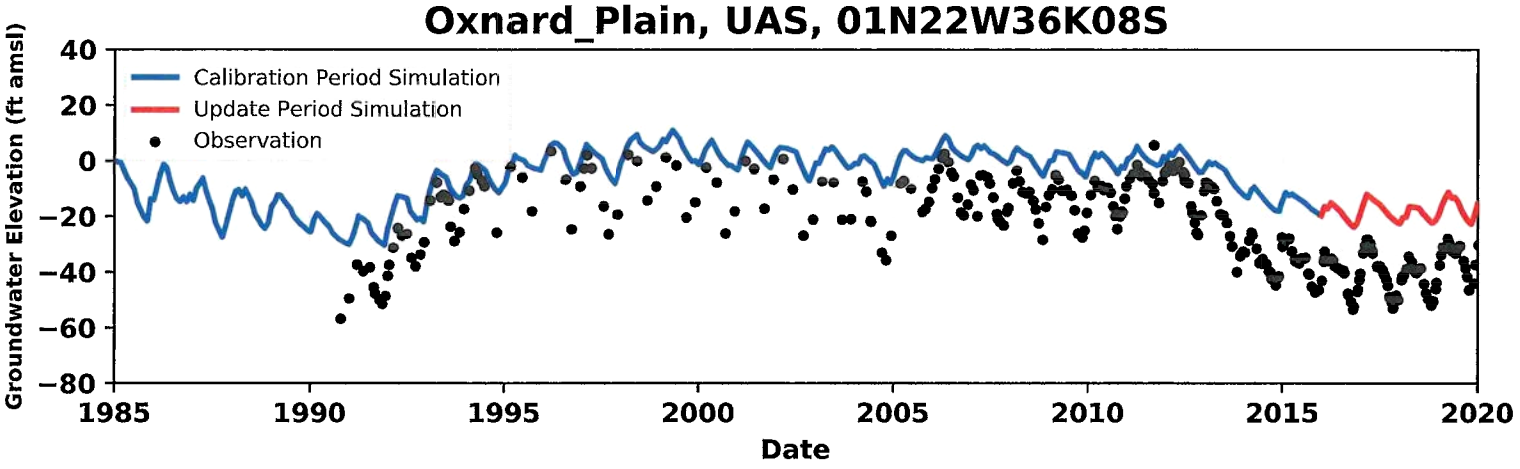
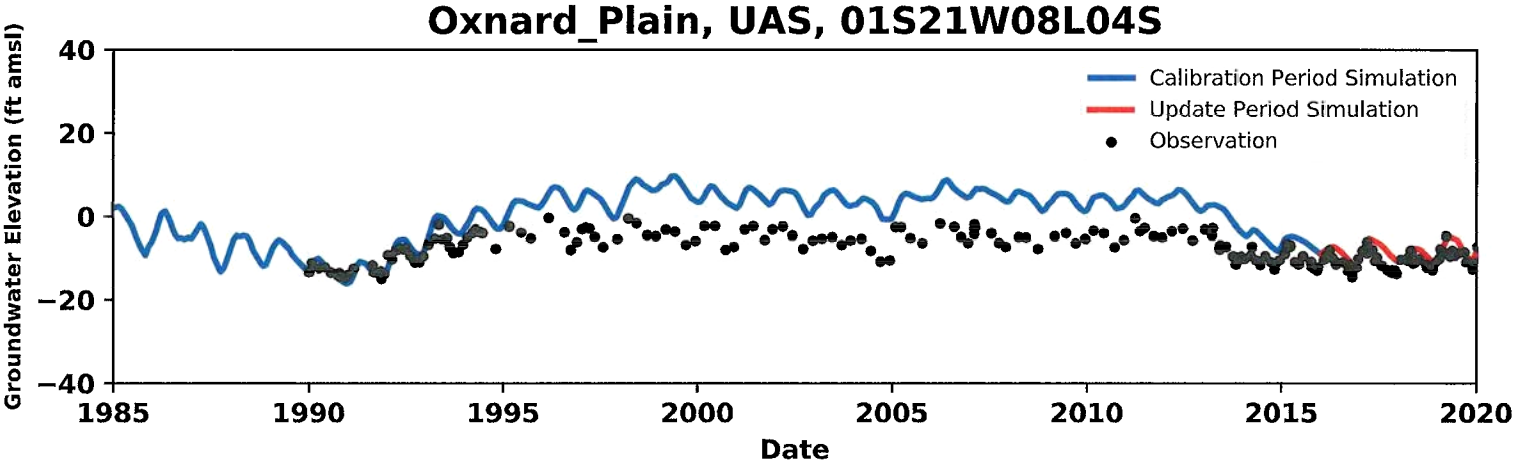
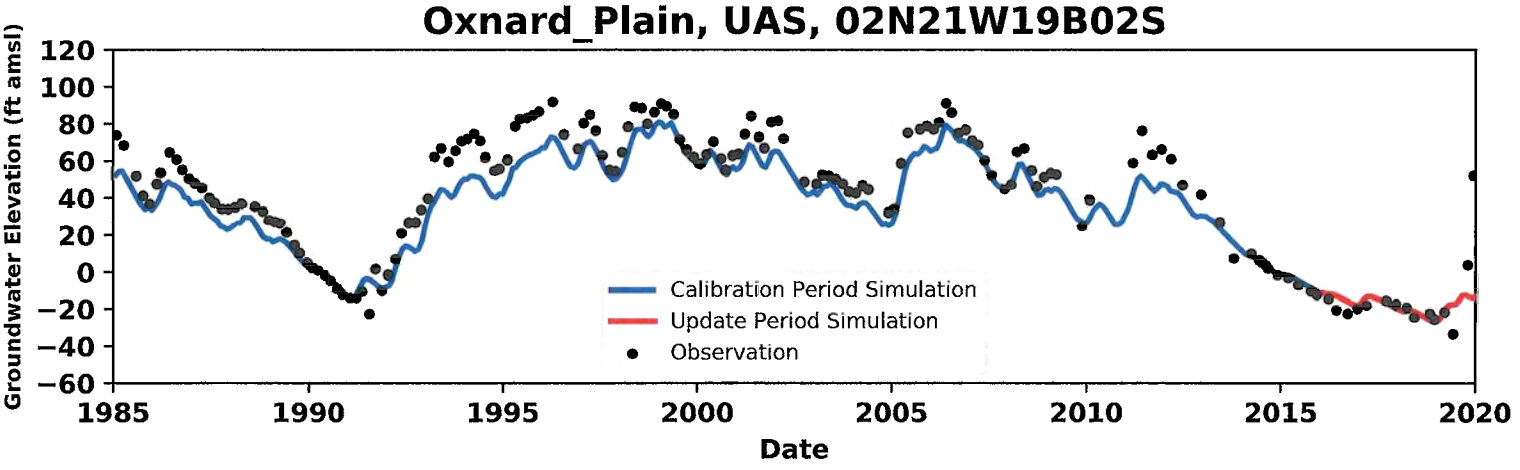
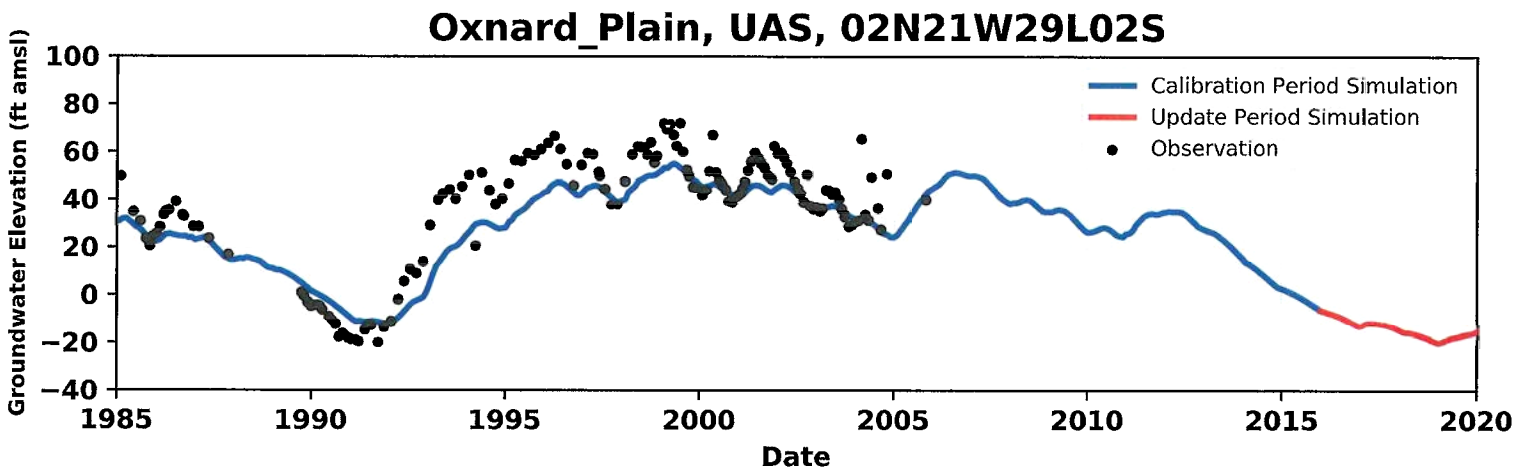
−80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

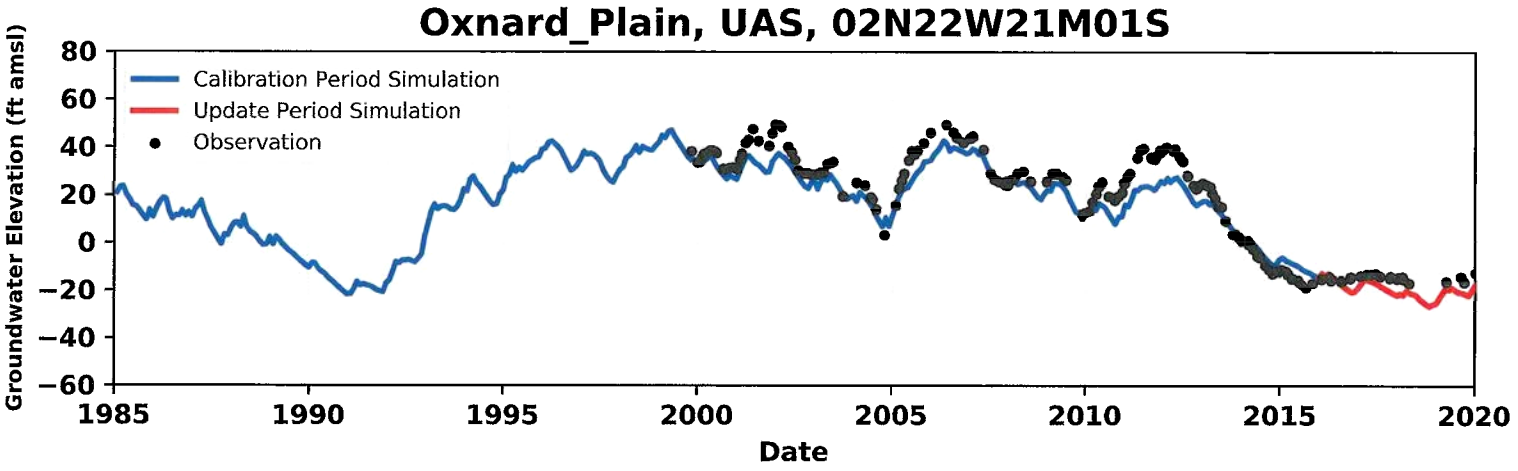

Oxnard_Plain, UAS, 01N22W35E05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

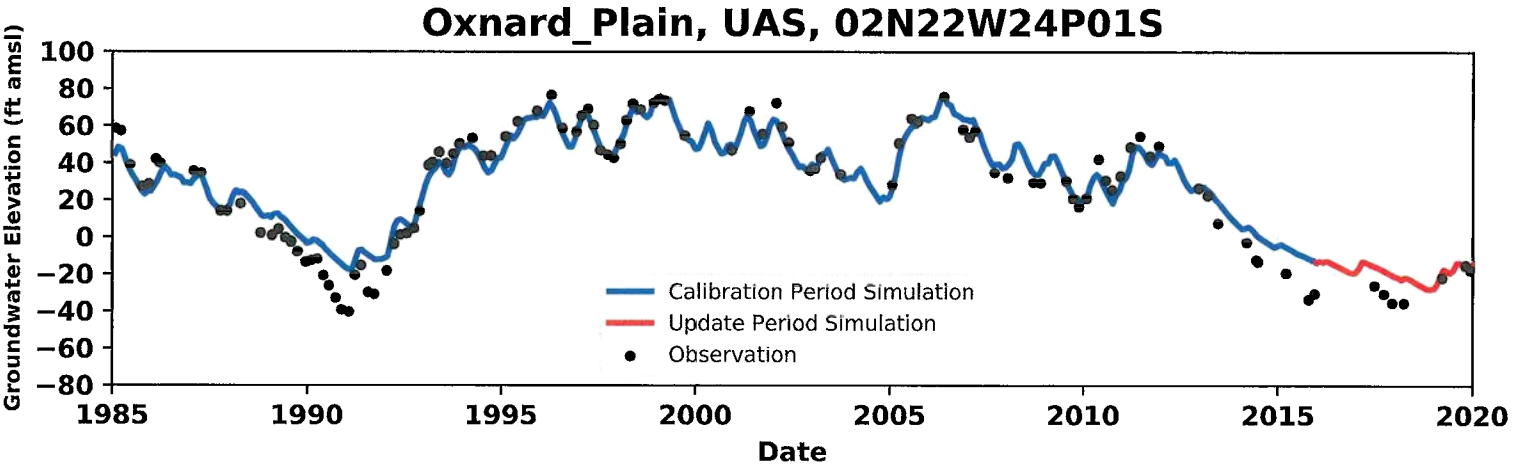

Oxnard_Plain, UAS, 01N22W36K08S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01S21W08L04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 02N21W19B02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 02N21W29L02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 02N22W21M01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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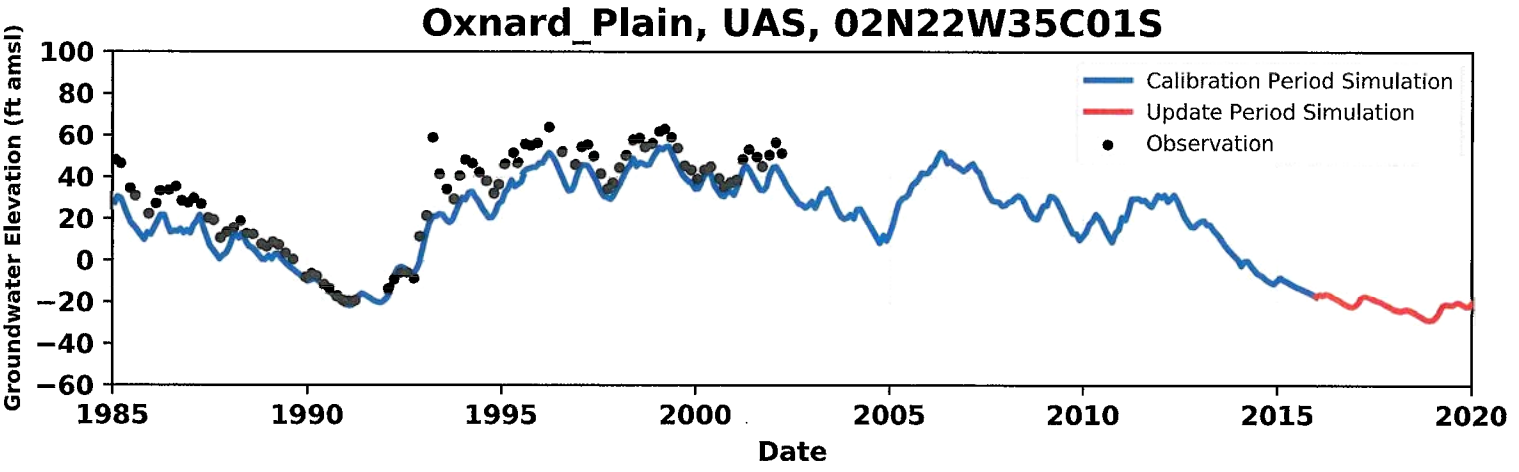
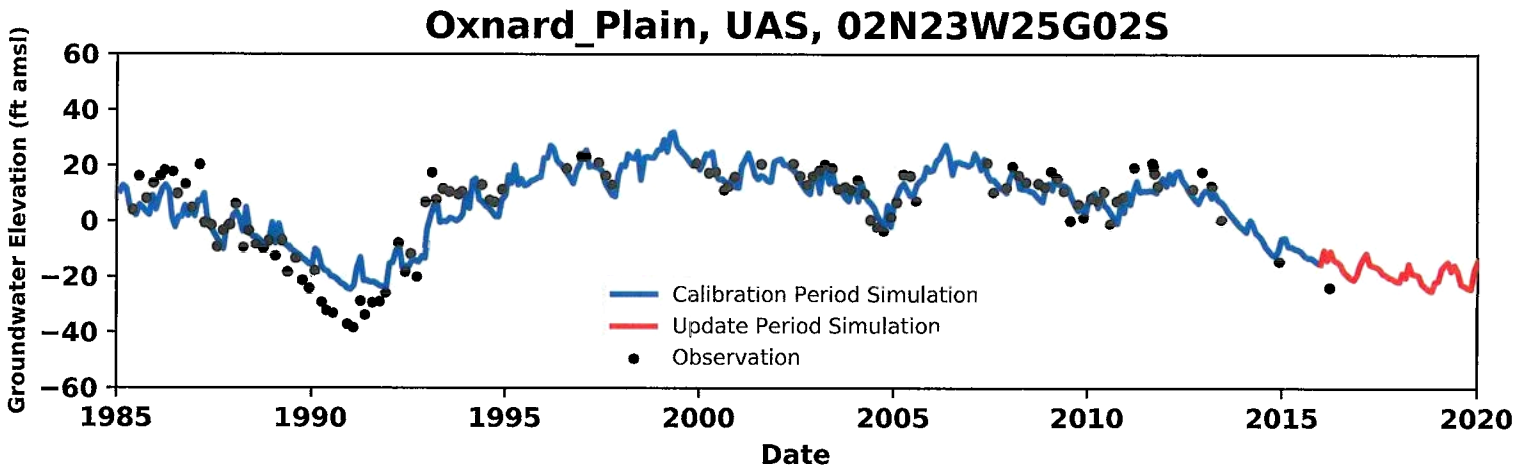
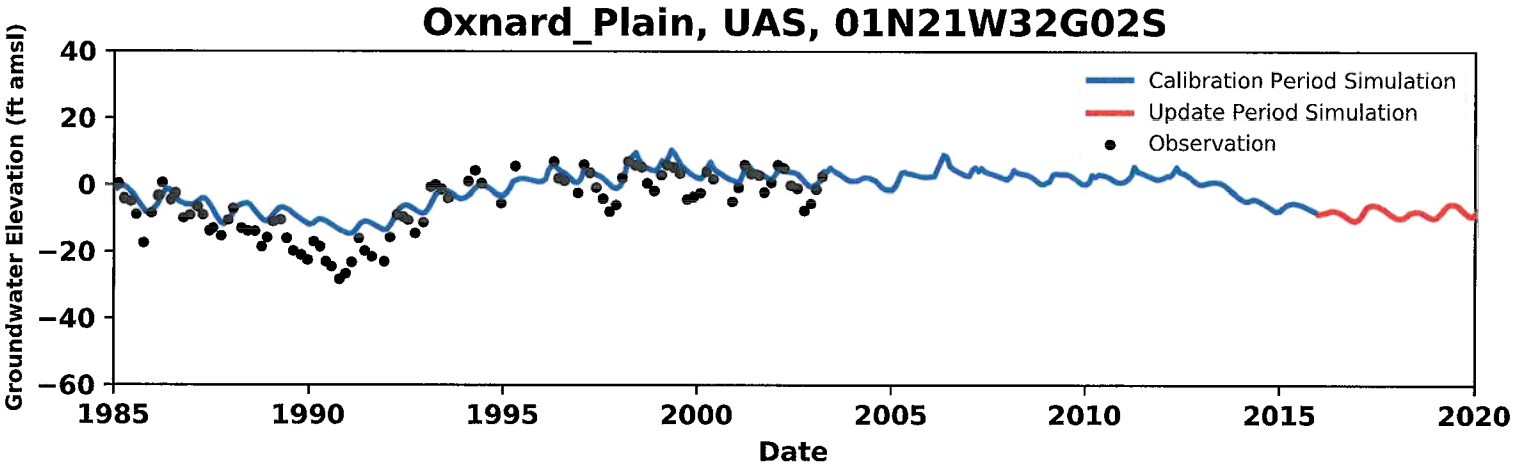
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 02N22W35C01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 02N23W25G02S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N21W32G02S
Groundwater Elevation (ft amsl)
40
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0
−20
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−60
1985
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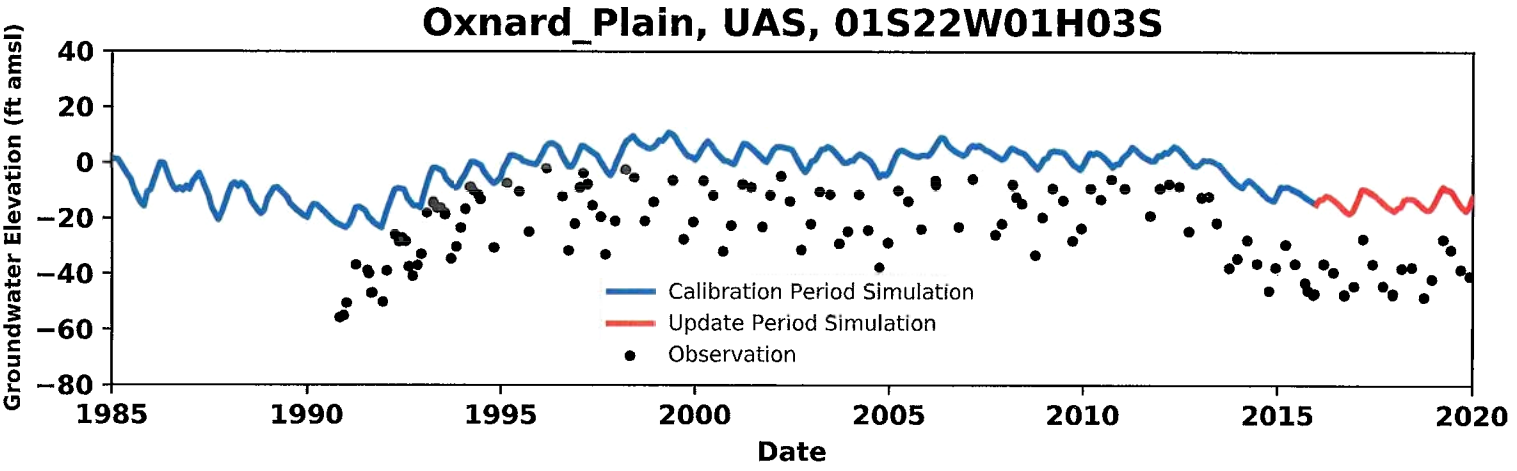
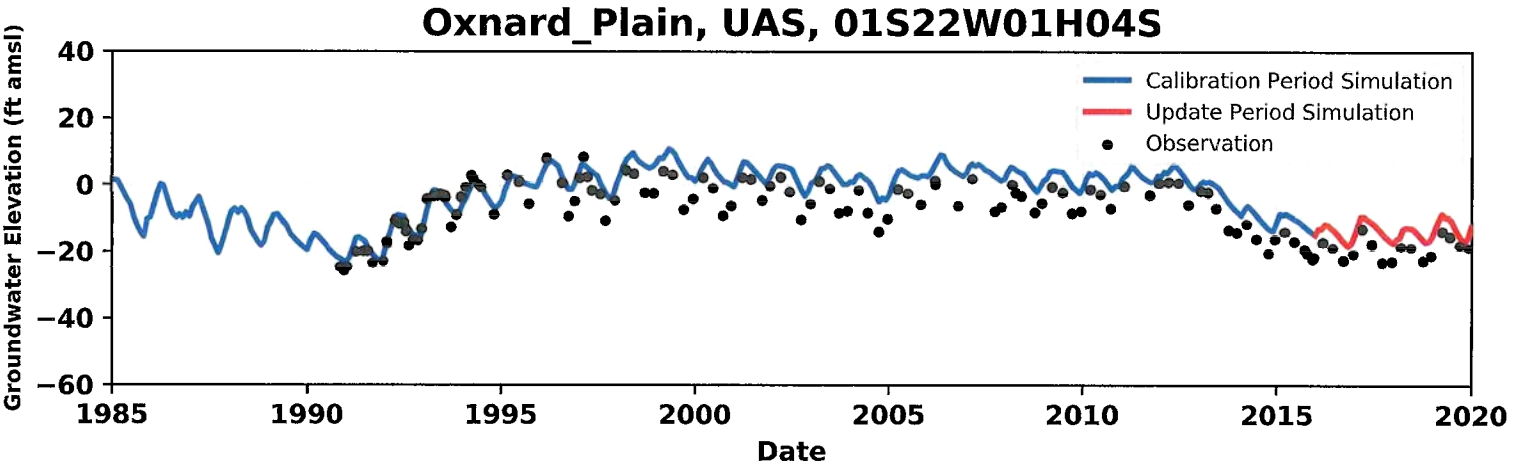
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01S22W01H03S
Groundwater Elevation (ft amsl)
40
20
0
−20
−40
−60
−80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01S22W01H04S
Groundwater Elevation (ft amsl)
40
20
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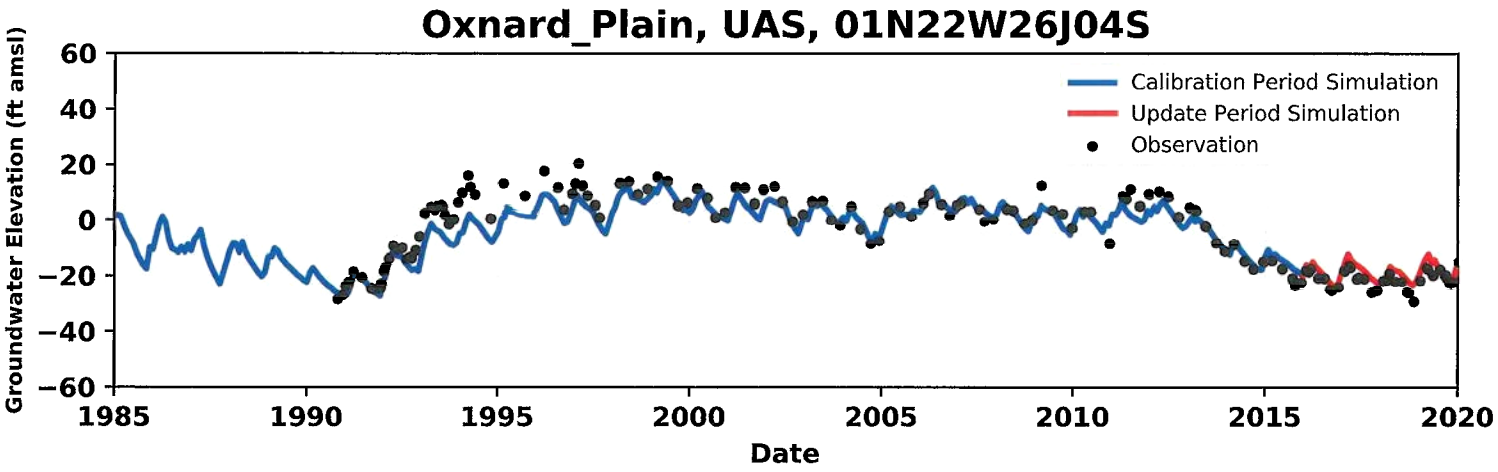
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N22W26J04S
Groundwater Elevation (ft amsl)
60
40
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−60
1985
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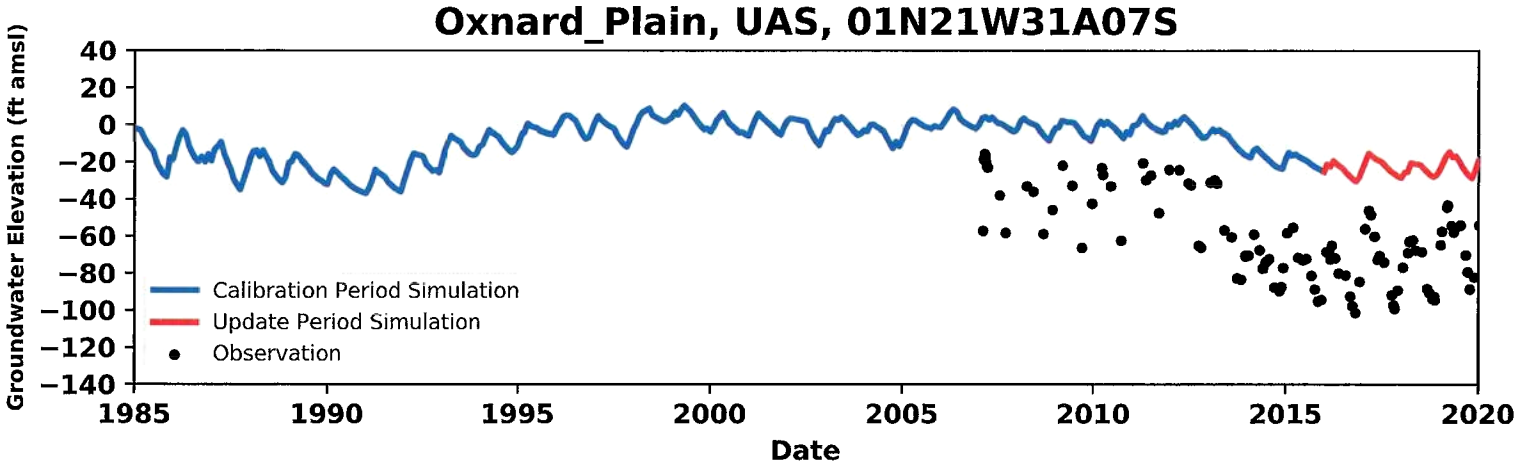
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 01N21W31A07S
Groundwater Elevation (ft amsl)
40
20
0
−20
−40
−60
−80
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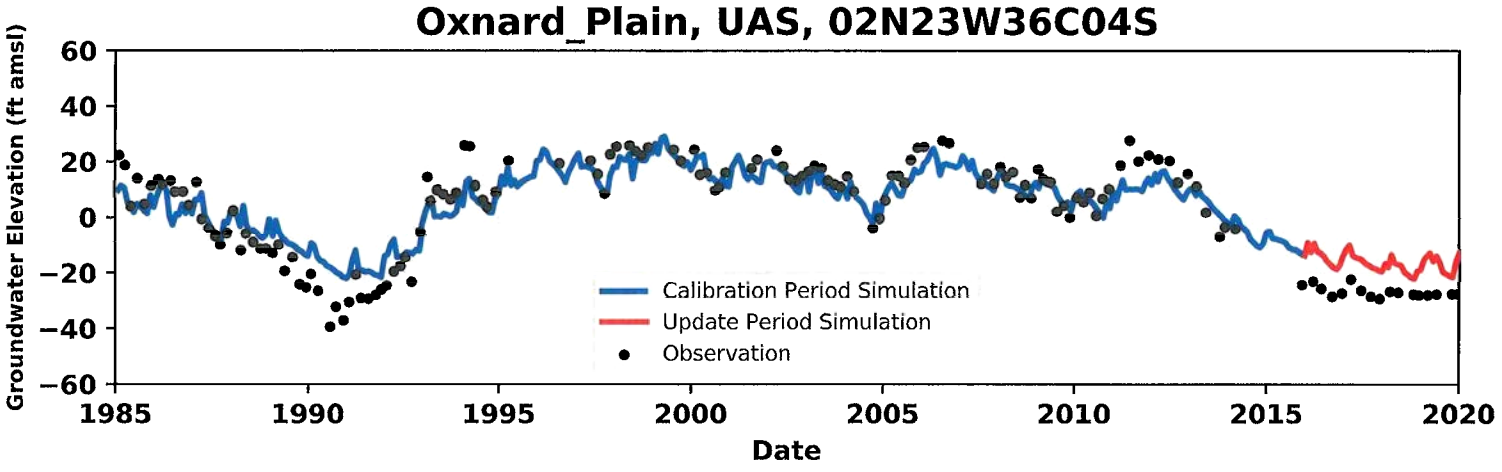
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS, 02N23W36C04S
Groundwater Elevation (ft amsl)
60
40
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−60
1985
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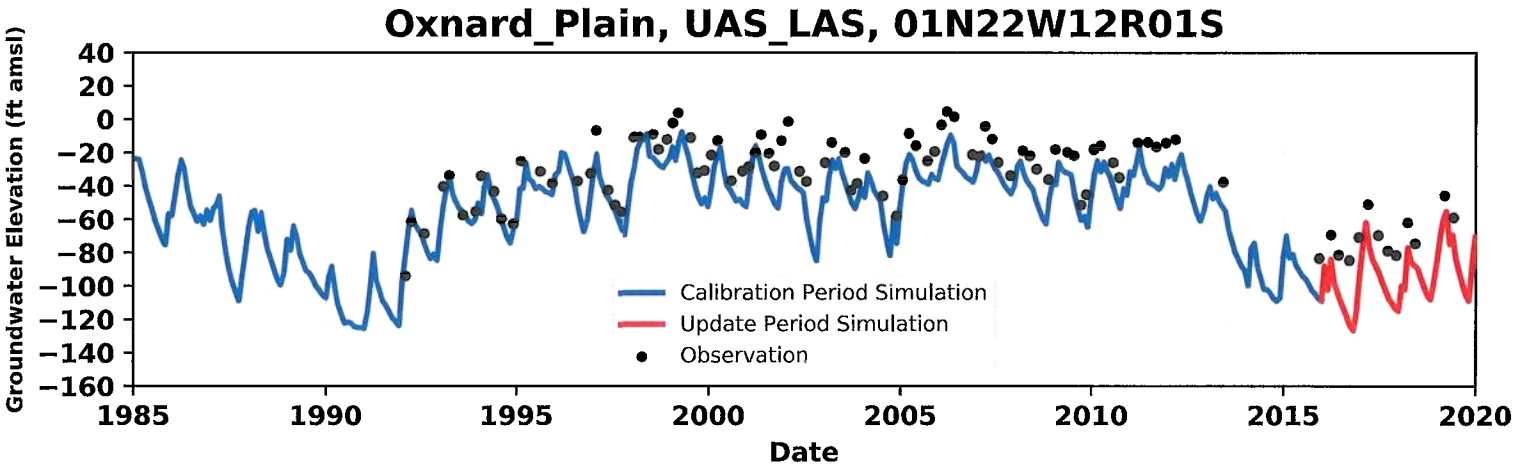
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N22W12R01S
Groundwater Elevation (ft amsl)
40
20
0
−20
−40
−60
−80
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−120
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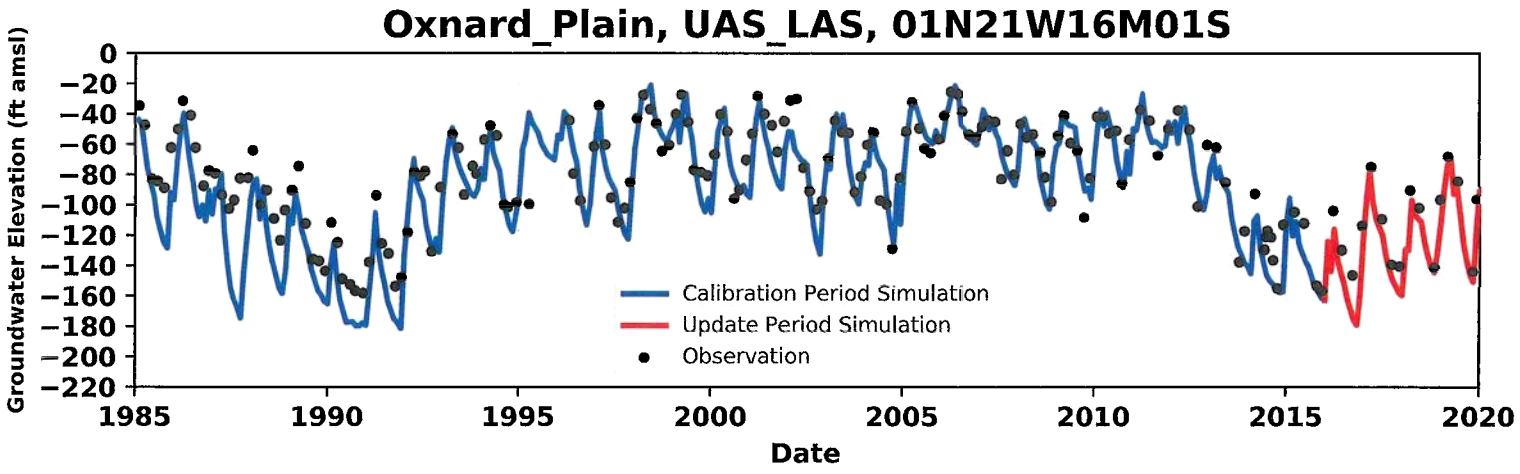
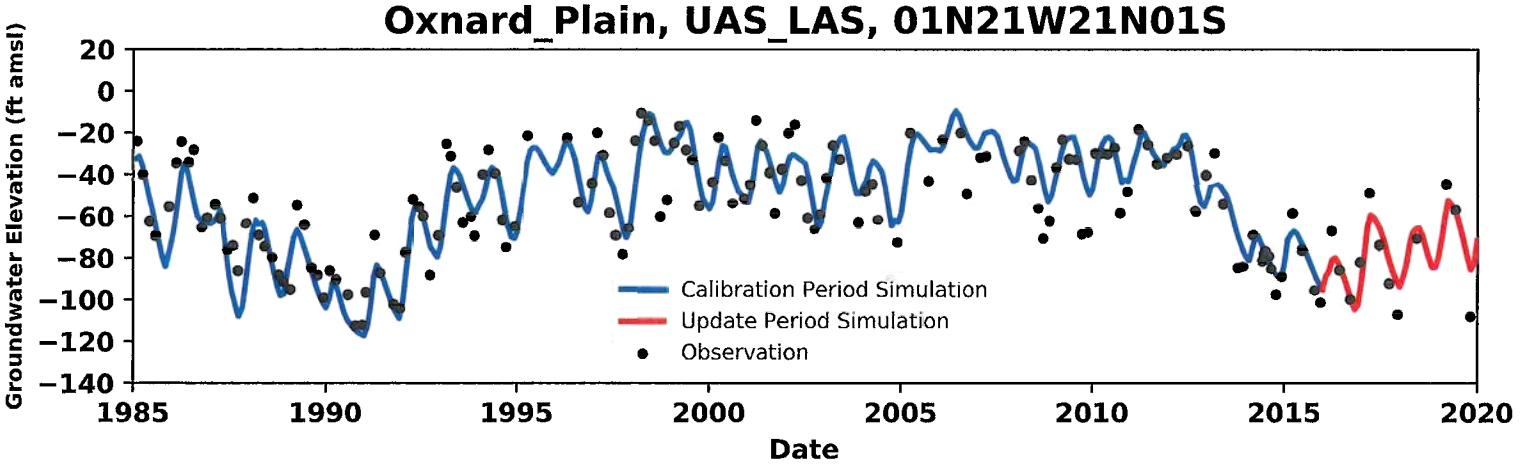
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N21W16M01S
Groundwater Elevation (ft amsl)
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N21W21N01S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
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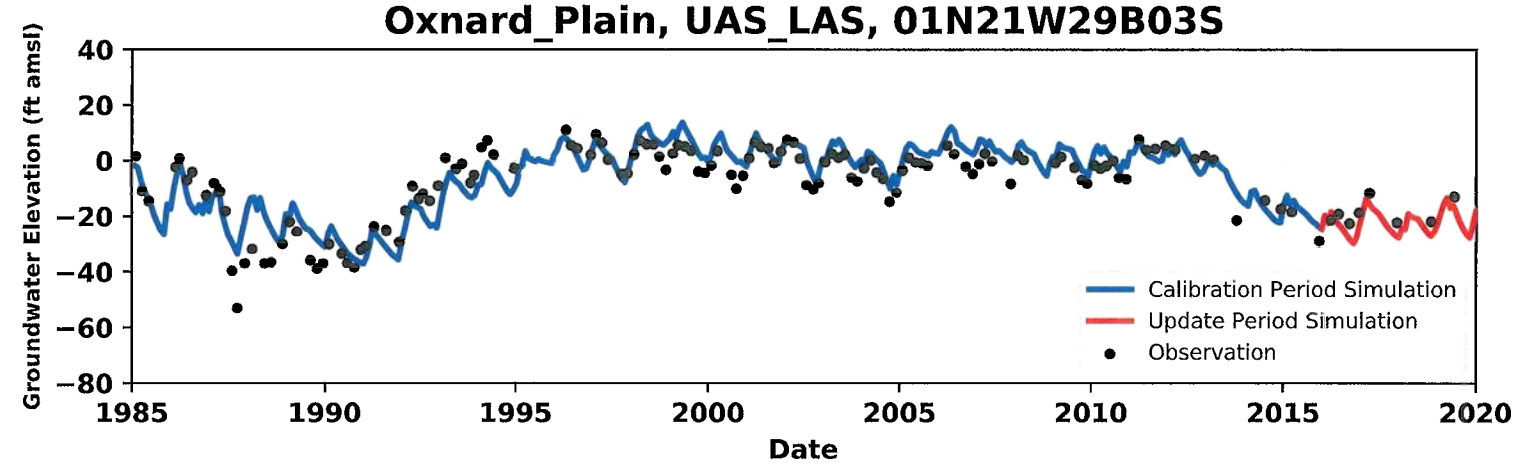
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N21W29B03S
Groundwater Elevation (ft amsl)
40
20
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−80
1985
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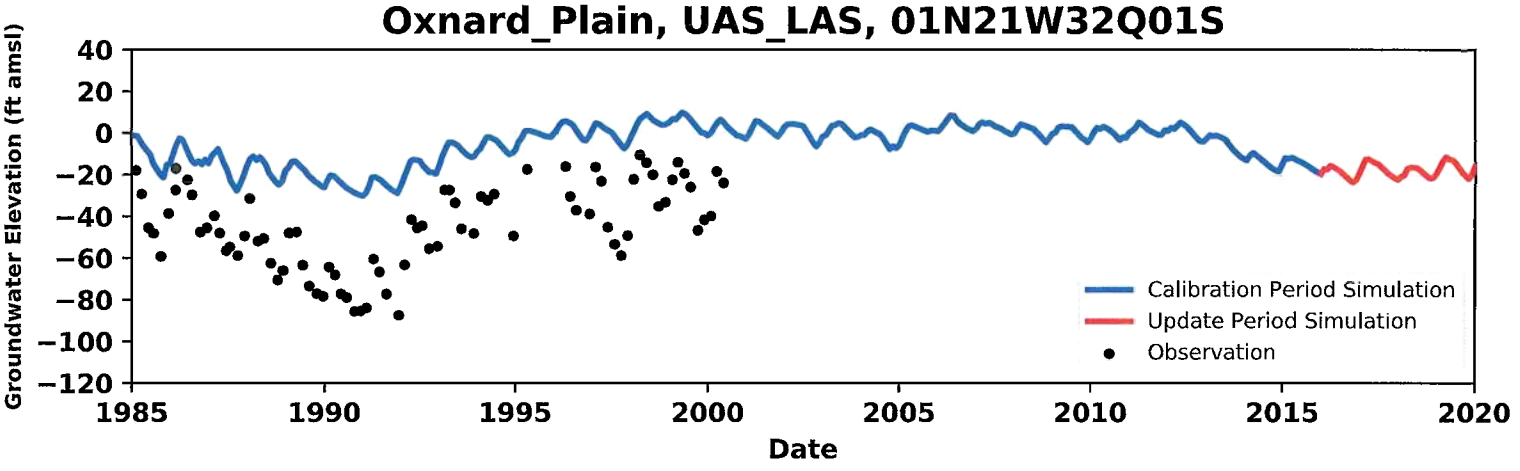
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N21W32Q01S
Groundwater Elevation (ft amsl)
40
20
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−20
−40
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−80
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−120
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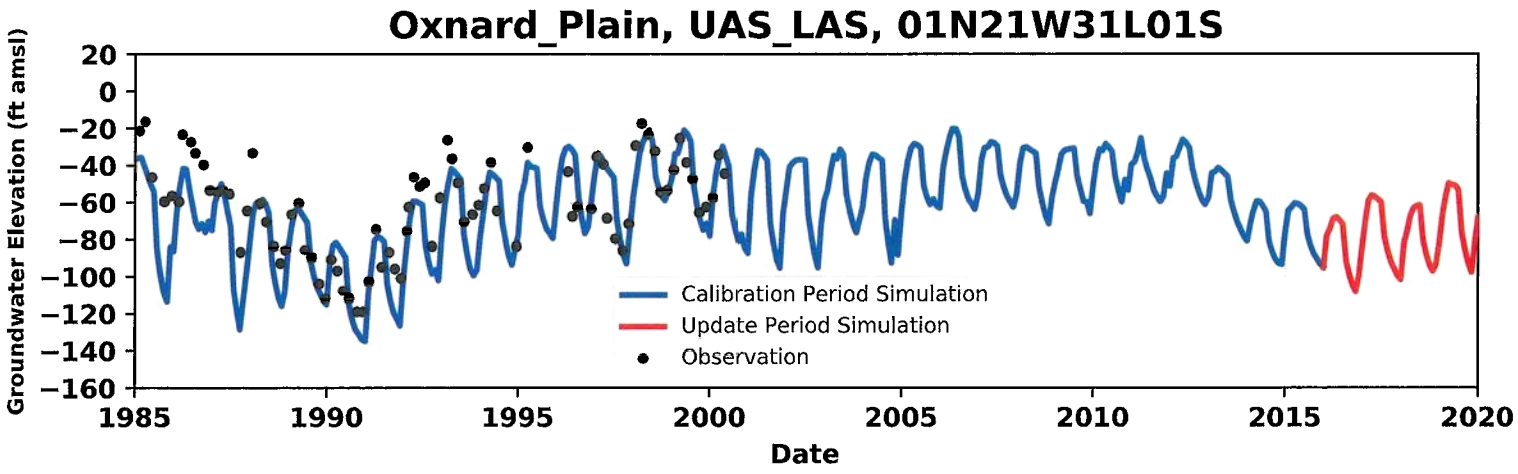
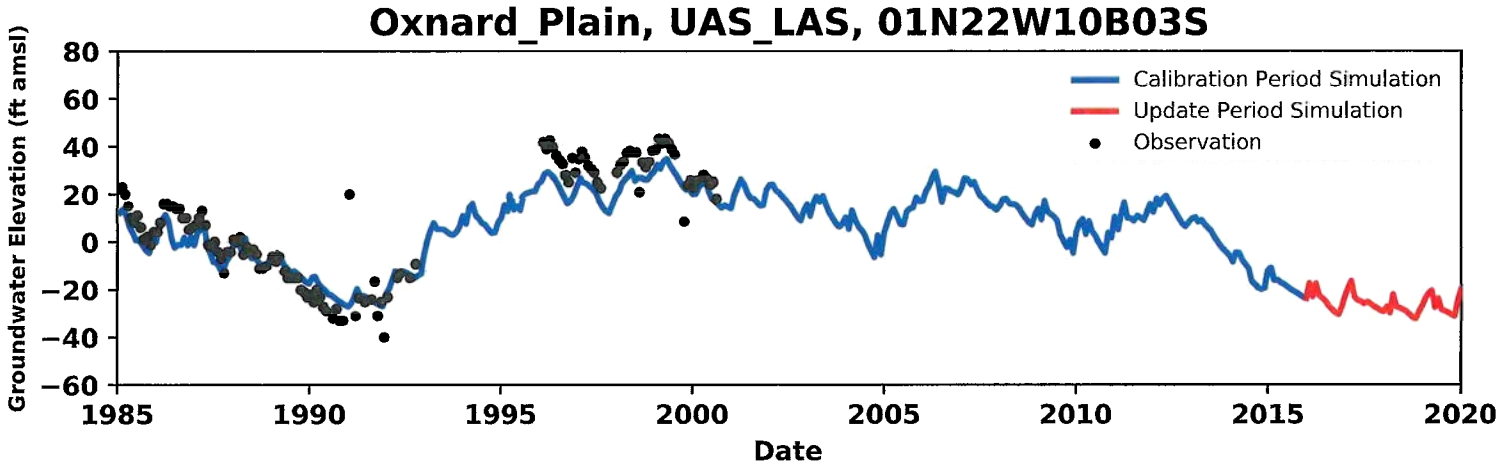
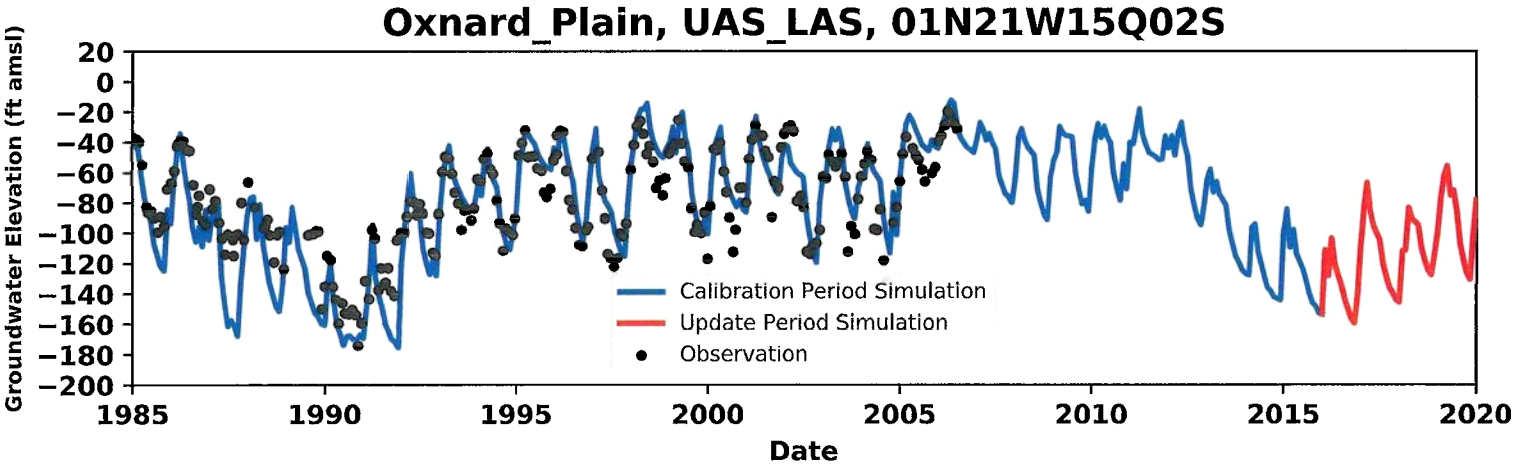
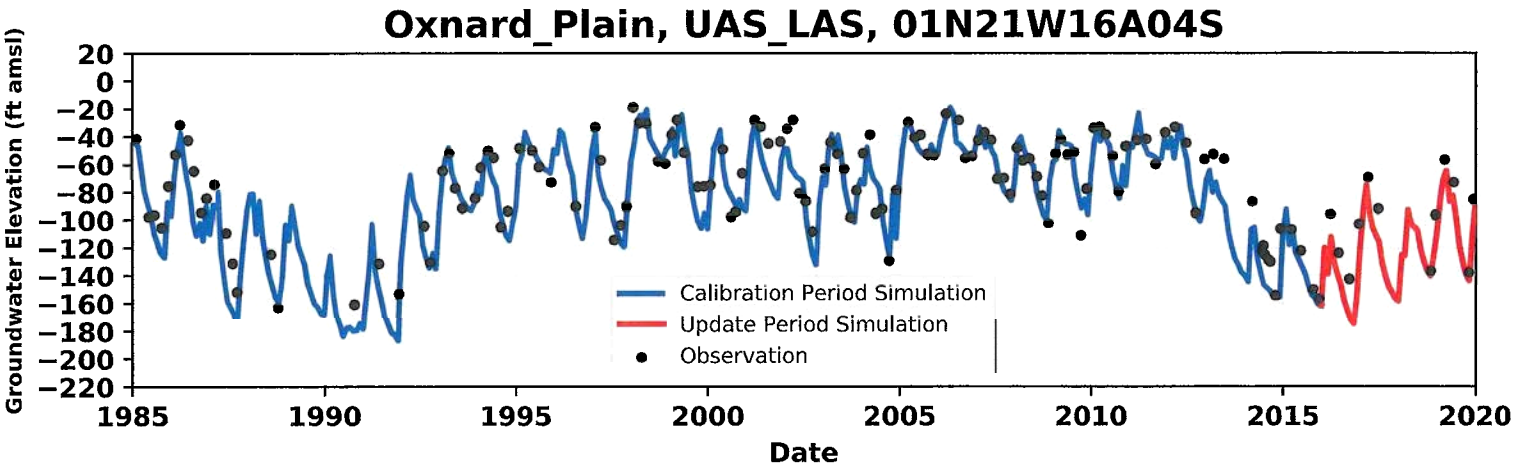
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N21W31L01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N22W10B03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, UAS_LAS, 01N21W15Q02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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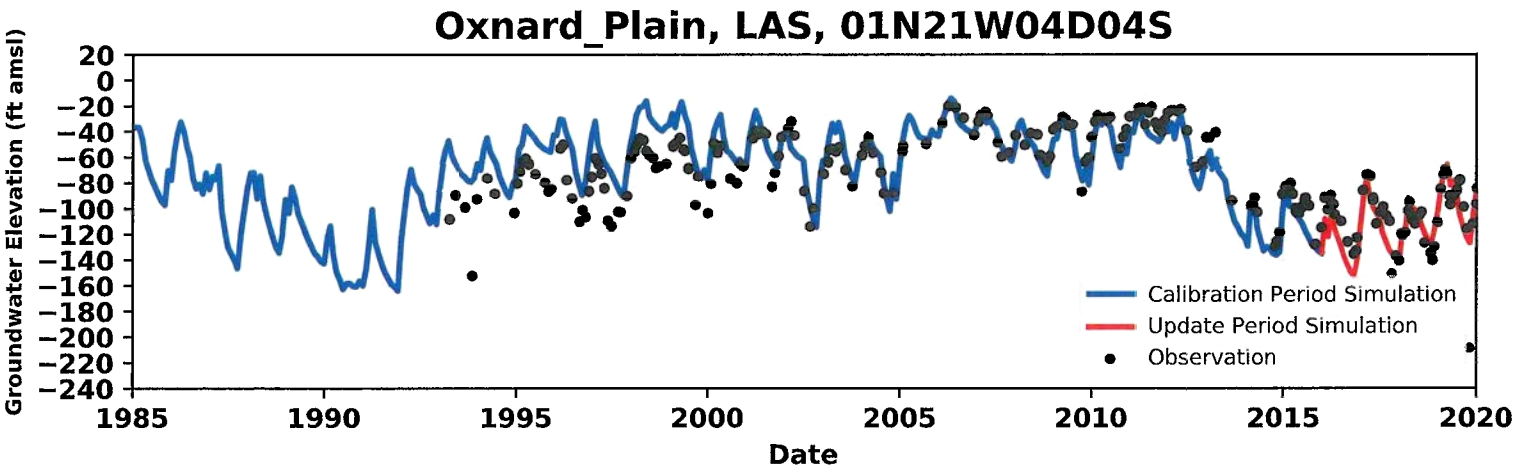
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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Groundwater Elevation (ft amsl)
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0
−20
−40
−60
−80
−100
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−140
−160
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1985
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2015
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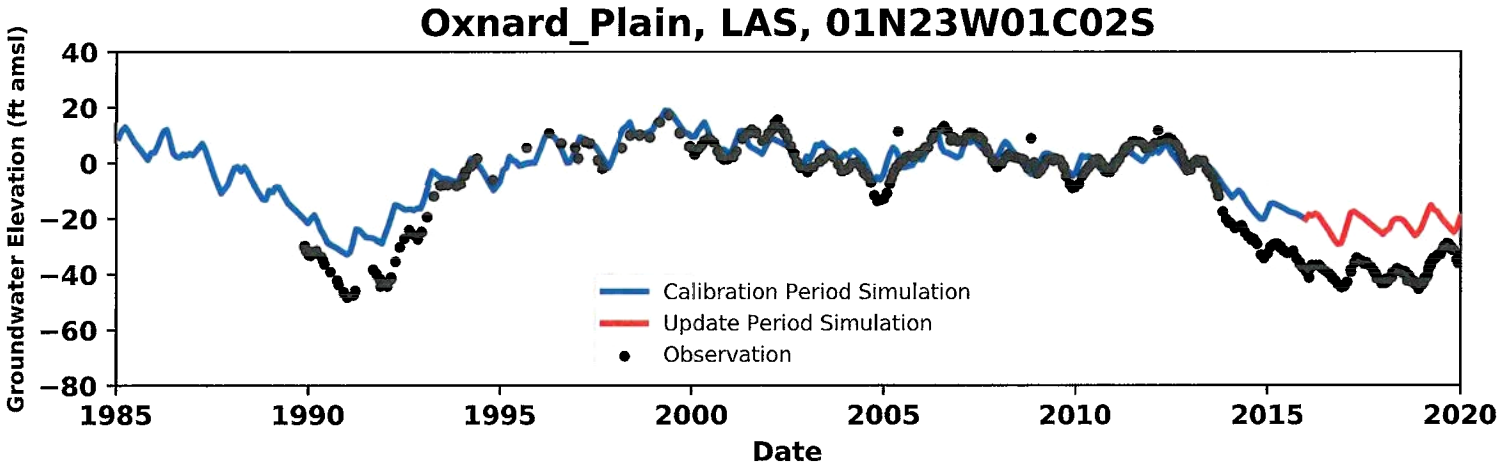
Date
Calibration Period Simulation
Update Period Simulation
Observation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Groundwater Elevation (ft amsl)
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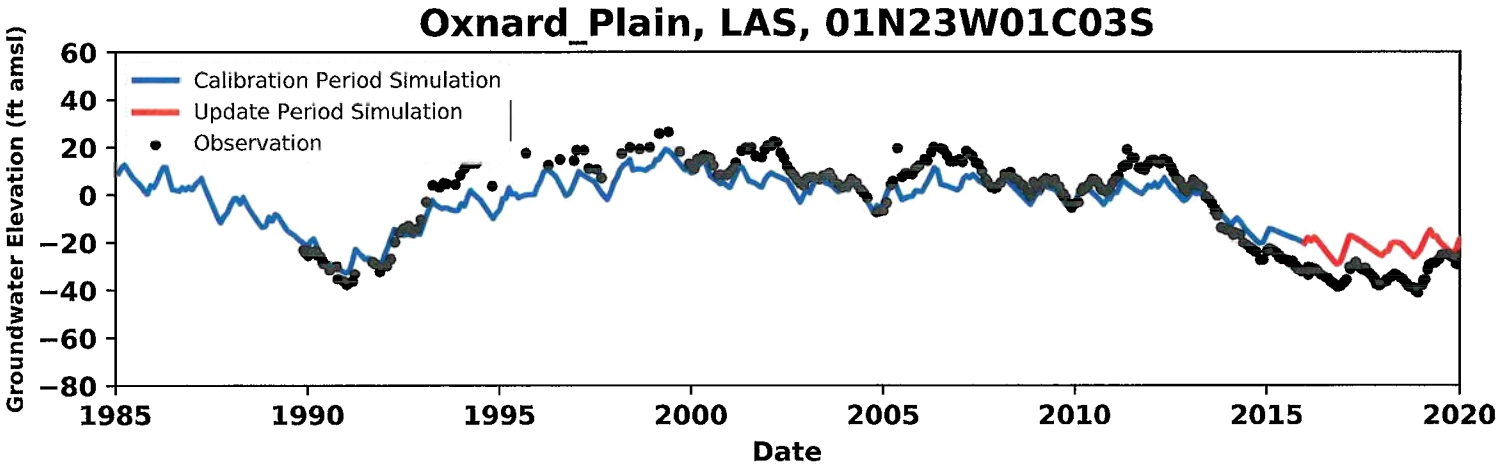
Date
Calibration Period Simulation
Update Period Simulation
Observation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Groundwater Elevation (ft amsl)
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20
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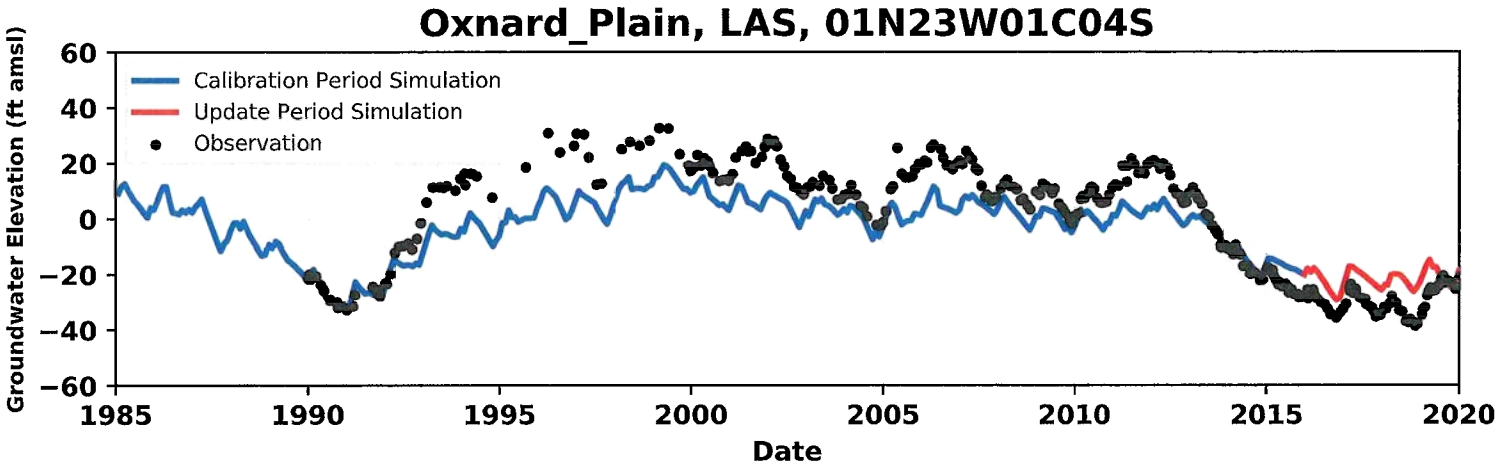
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N23W01C04S
Groundwater Elevation (ft amsl)
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1985
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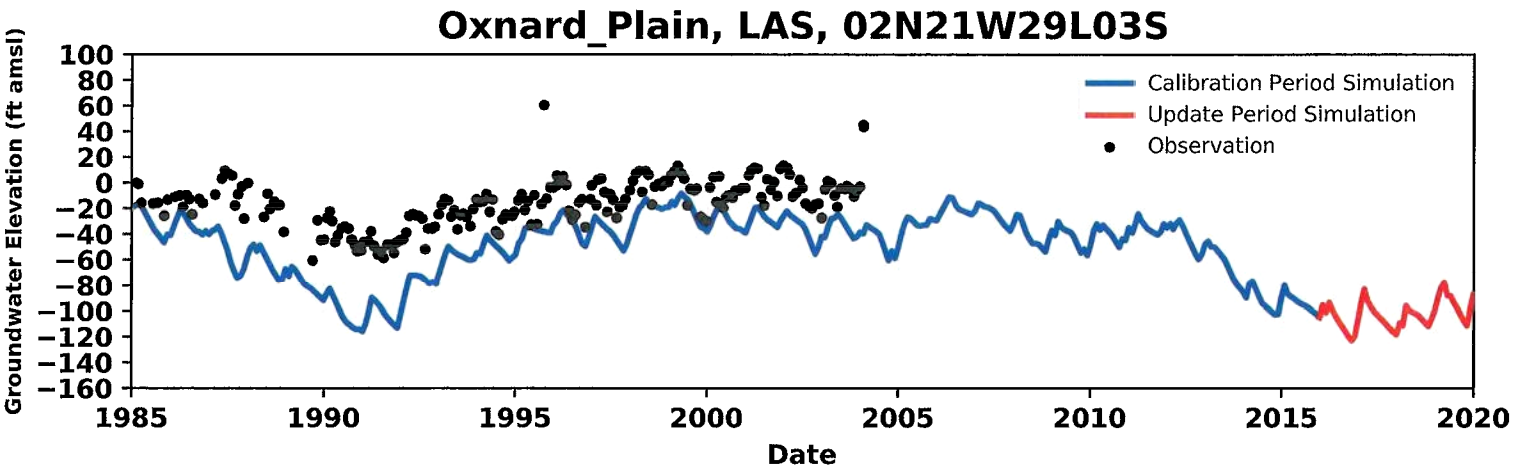
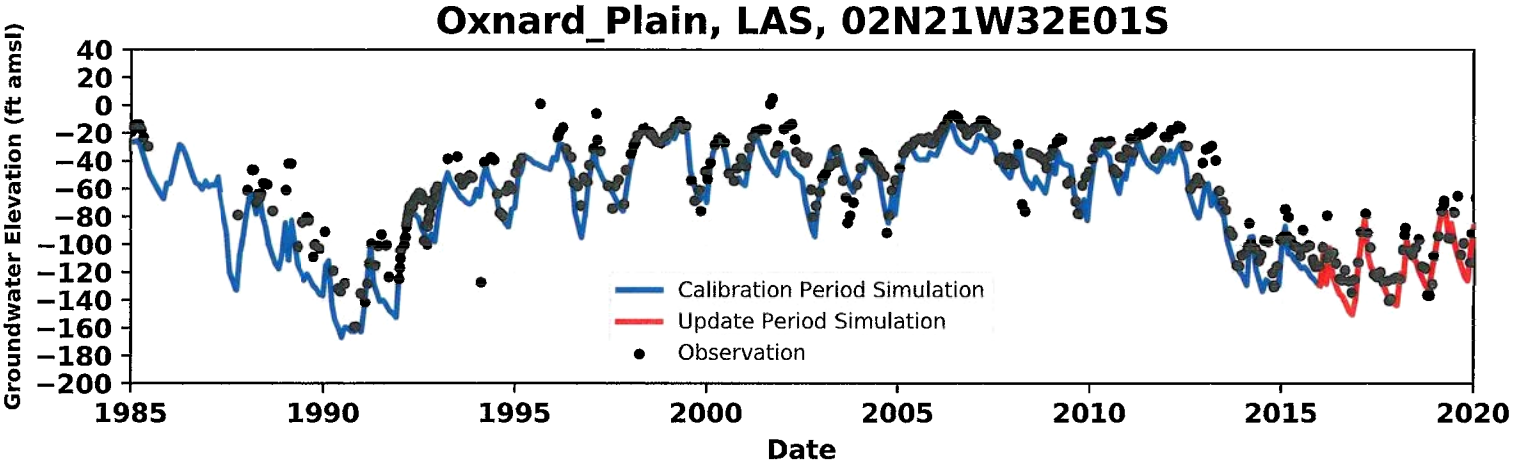
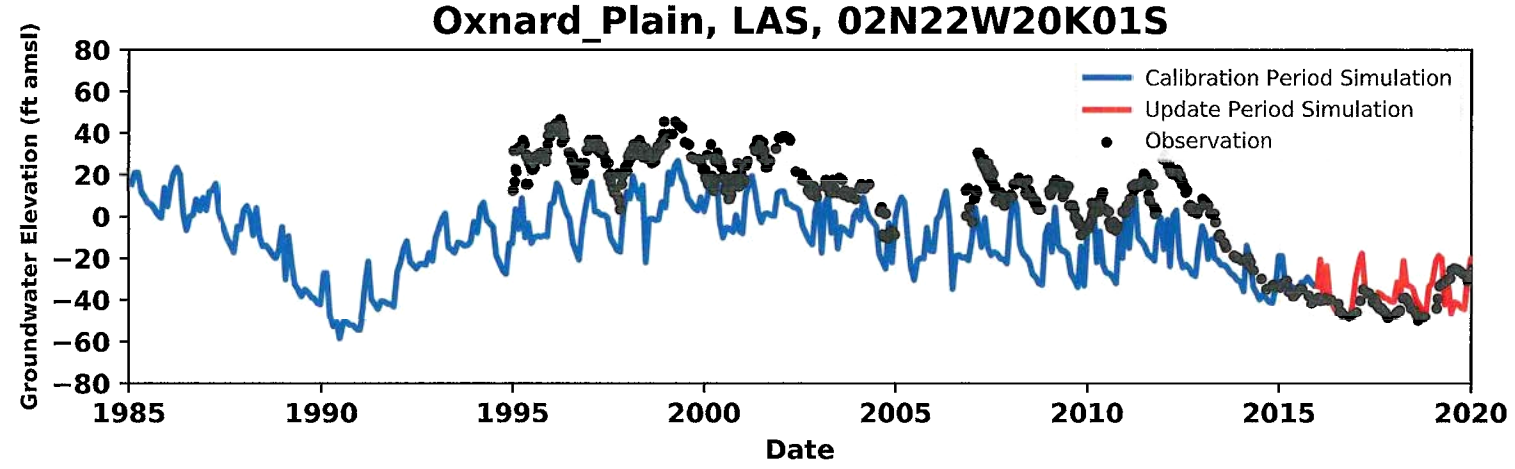
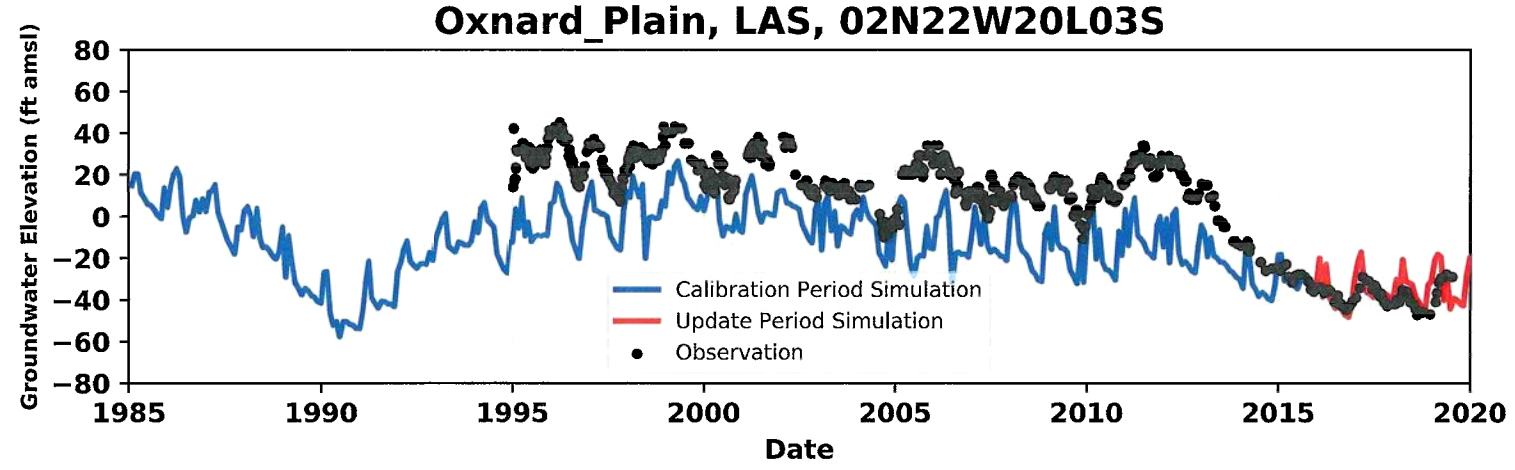
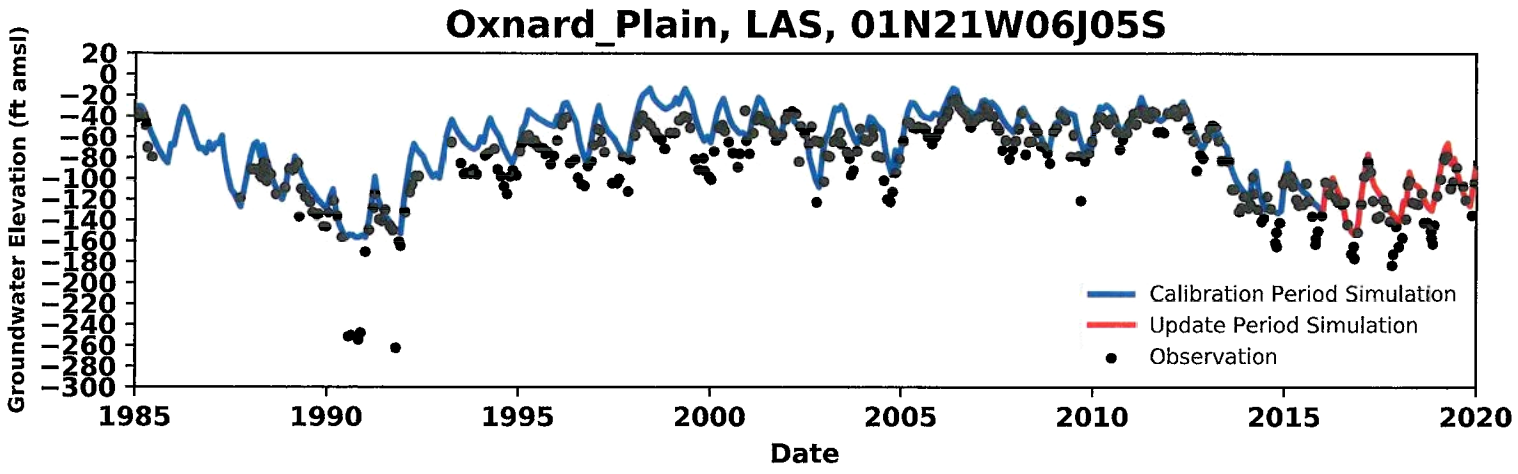
Date
Calibration Period Simulation
Update Period Simulation
Observation

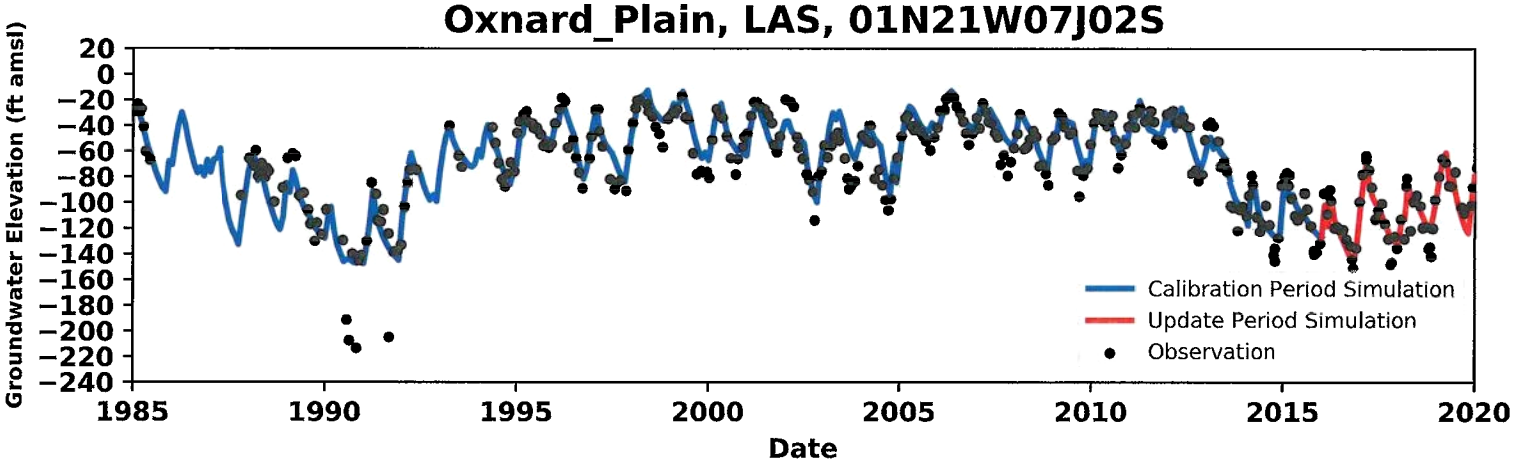

Oxnard_Plain, LAS, 02N21W29L03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

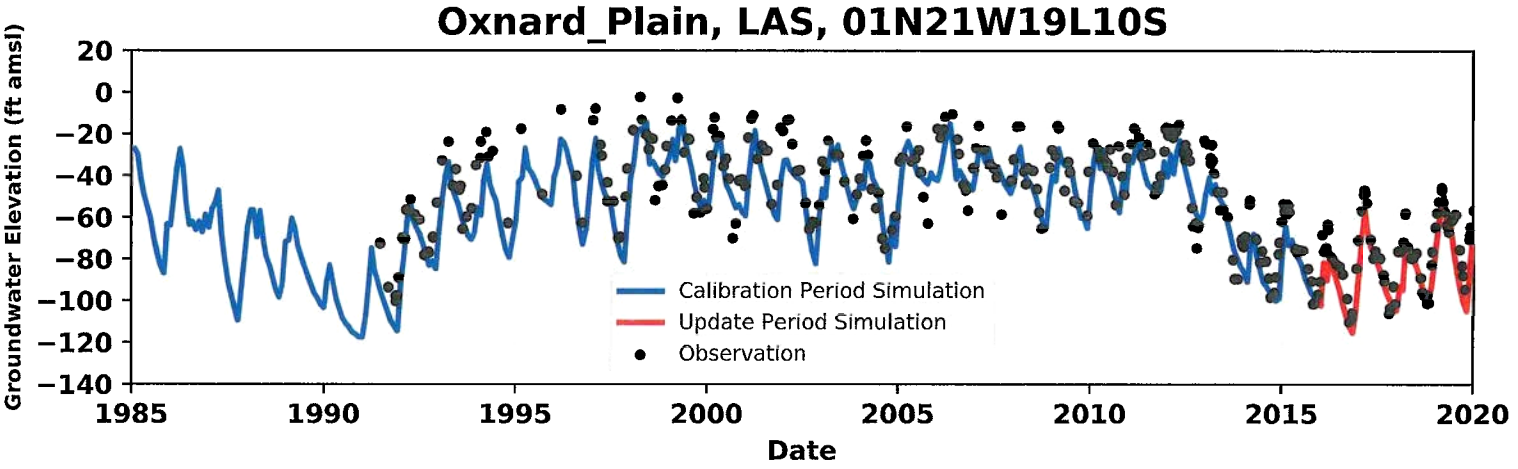

Oxnard_Plain, LAS, 02N21W32E01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

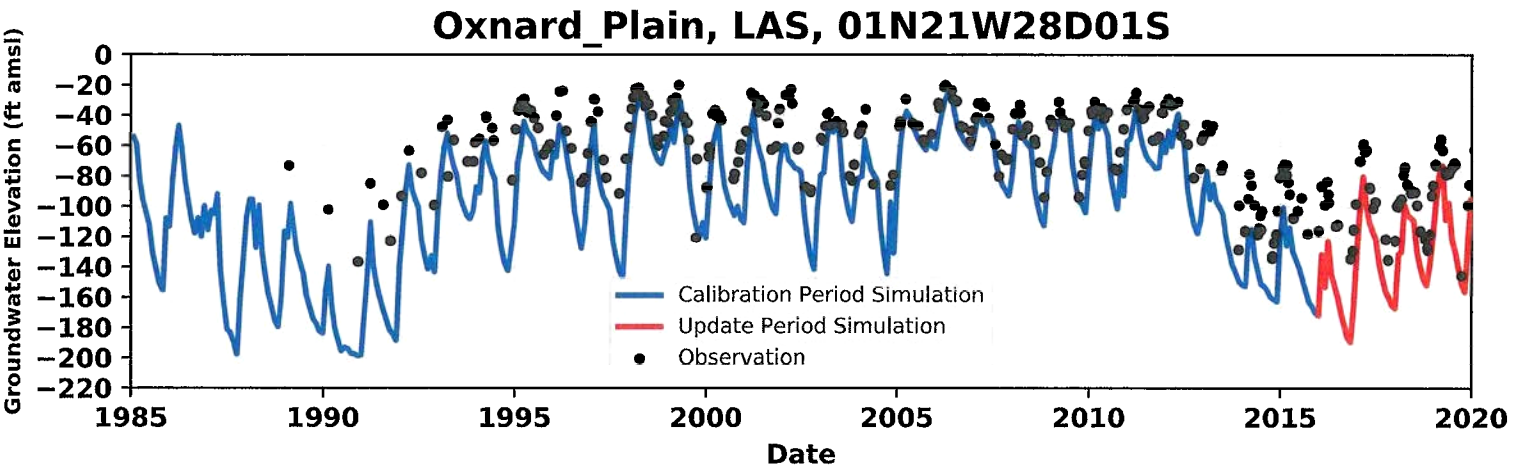

Oxnard_Plain, LAS, 02N22W20K01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

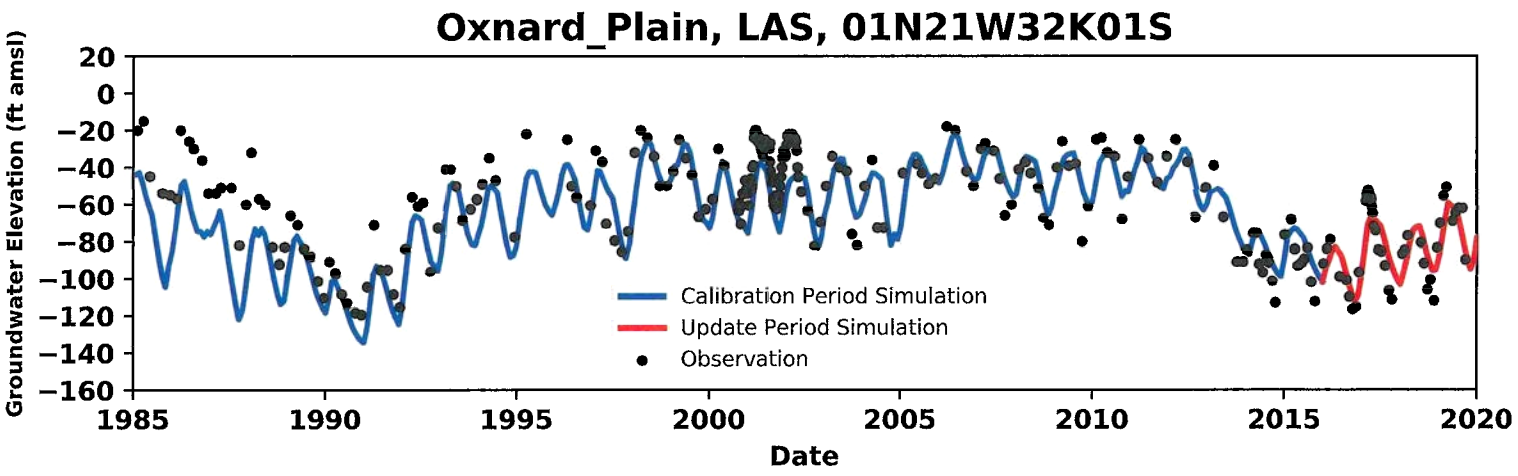

Oxnard_Plain, LAS, 02N22W20L03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W06J05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W07J02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W19L10S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W28D01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W32K01S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
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−160
1985
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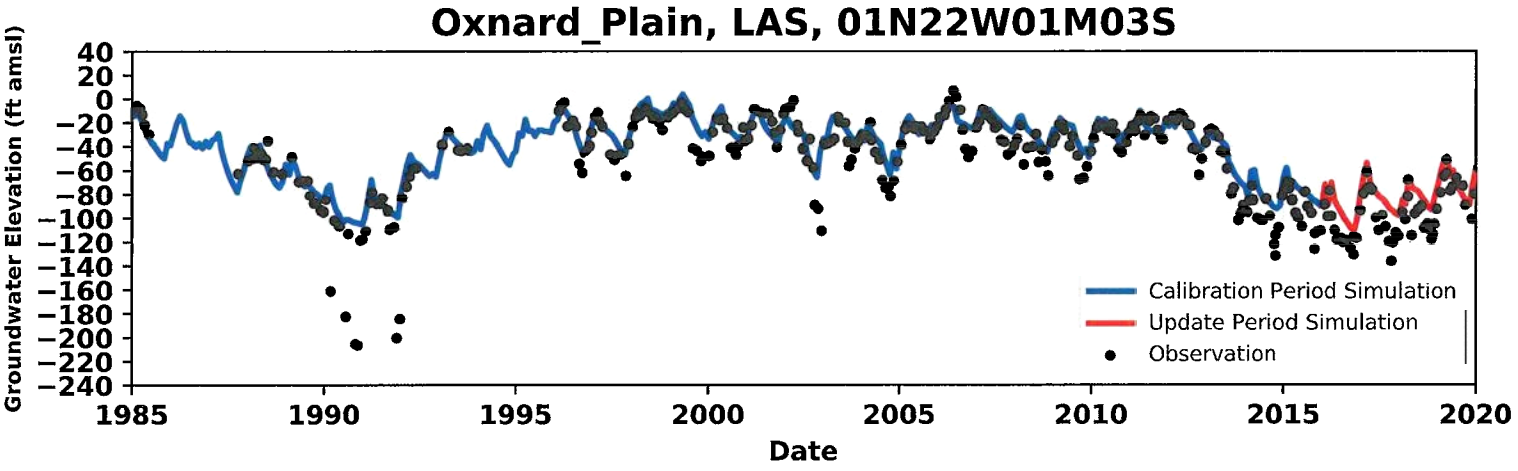
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W01M03S
Groundwater Elevation (ft amsl)
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20
0
−20
−40
−60
−80
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−120
−140
−160
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−240
1985
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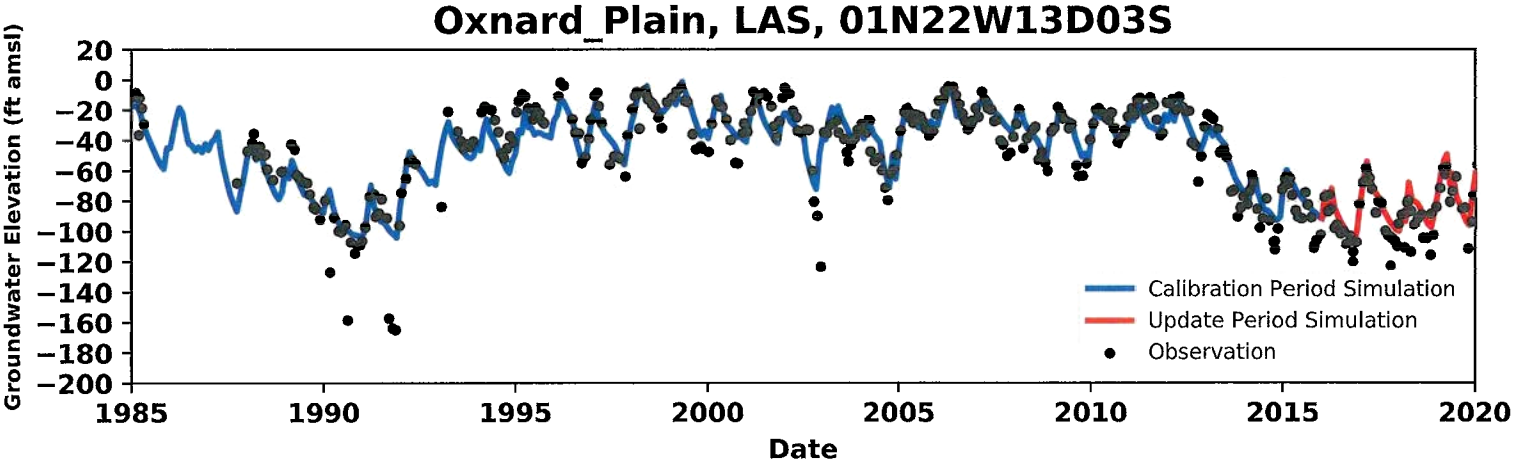
Date
Calibration Period Simulation
Update Period Simulation
Observation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Groundwater Elevation (ft amsl)
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0
−20
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−60
−80
−100
−120
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−200
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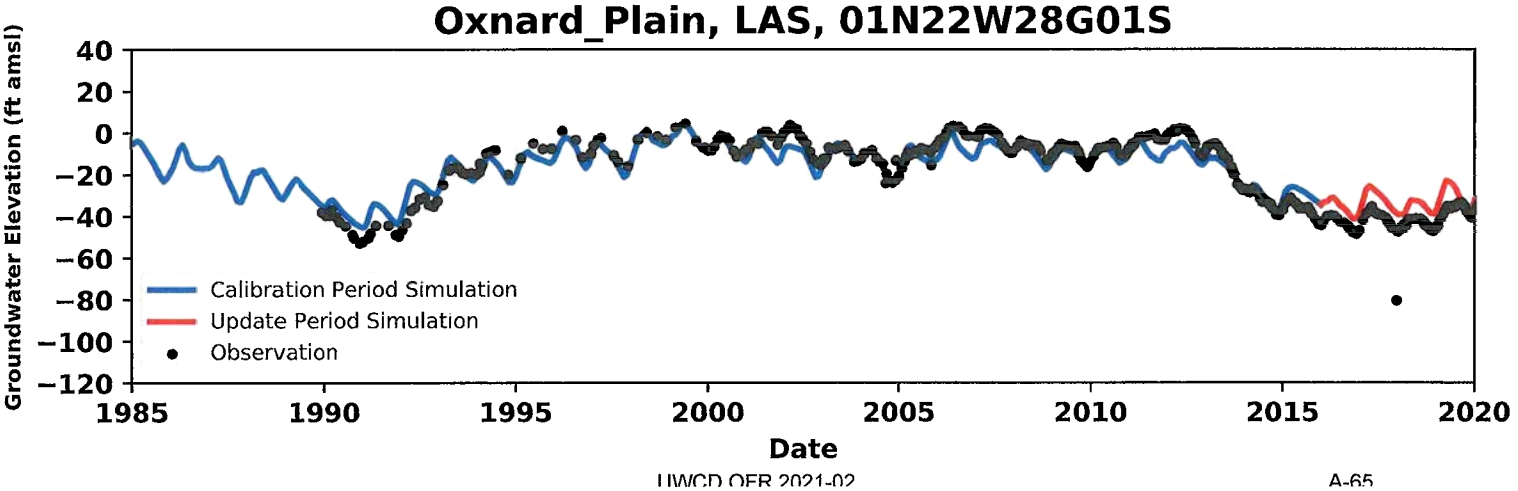
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W28G01S
Groundwater Elevation (ft amsl)
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−120
1985
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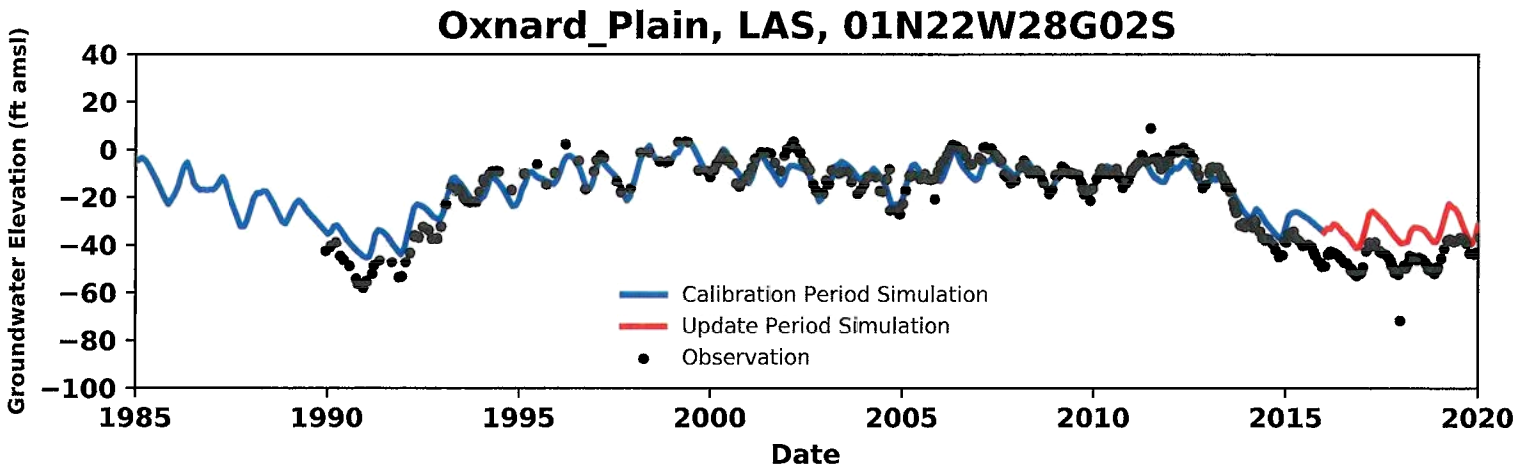
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W28G02S
Groundwater Elevation (ft amsl)
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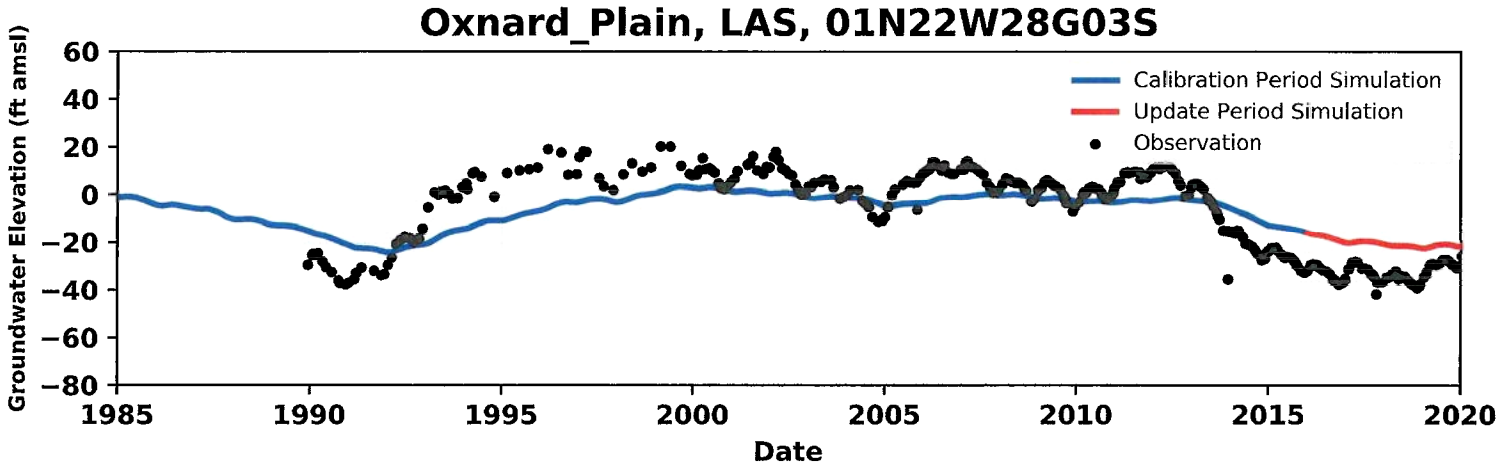
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W28G03S
Groundwater Elevation (ft amsl)
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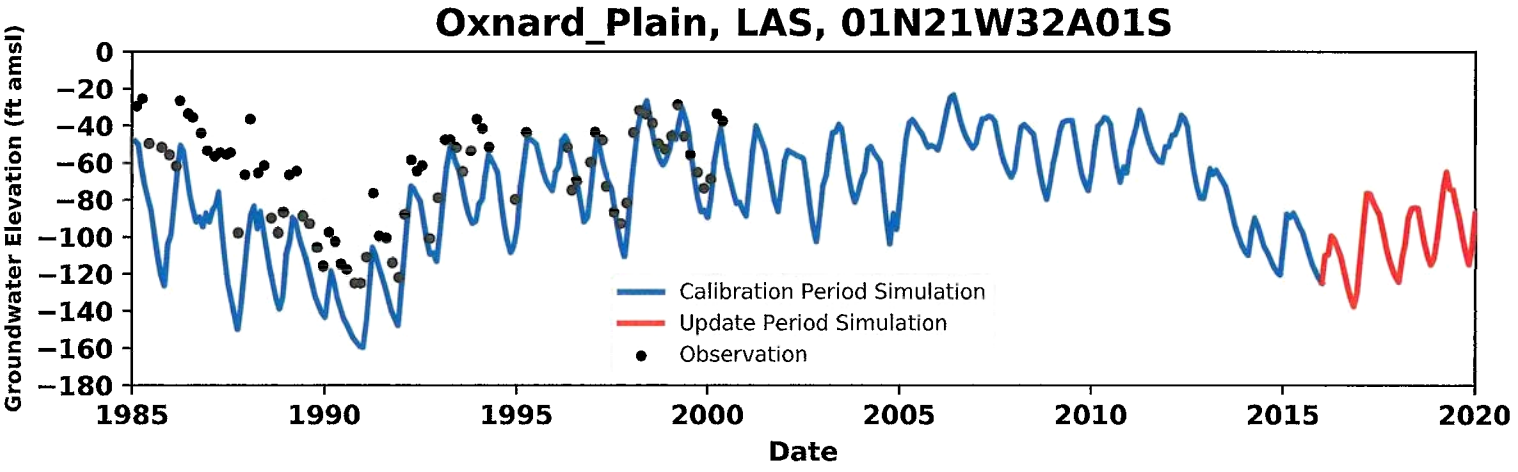
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W32A01S
Groundwater Elevation (ft amsl)
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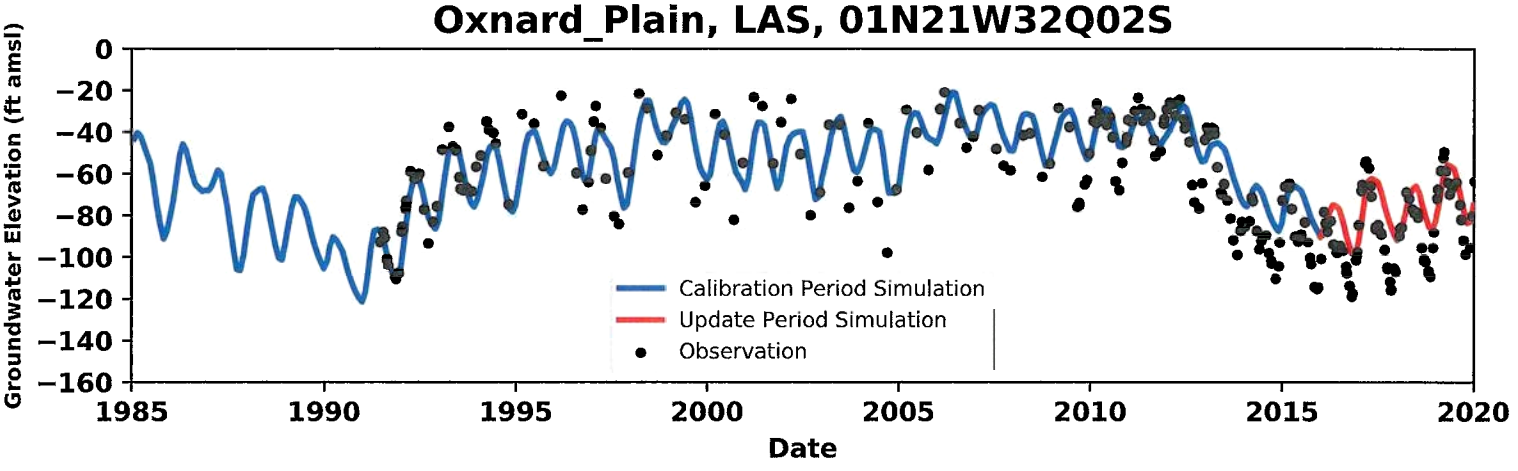
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W32Q02S
Groundwater Elevation (ft amsl)
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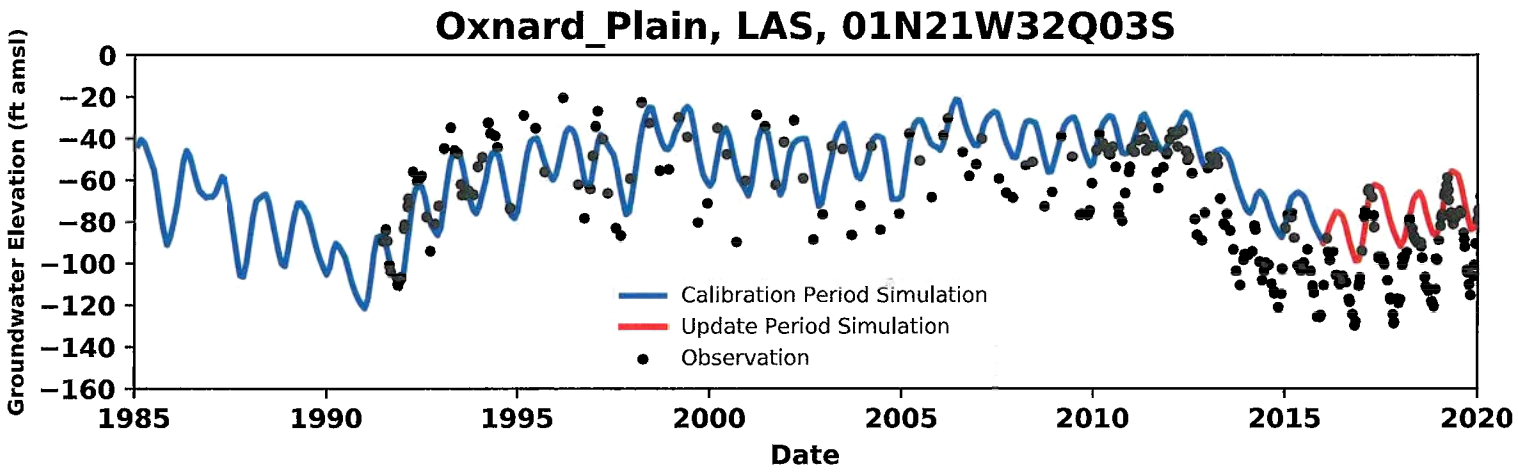
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W32Q03S
Groundwater Elevation (ft amsl)
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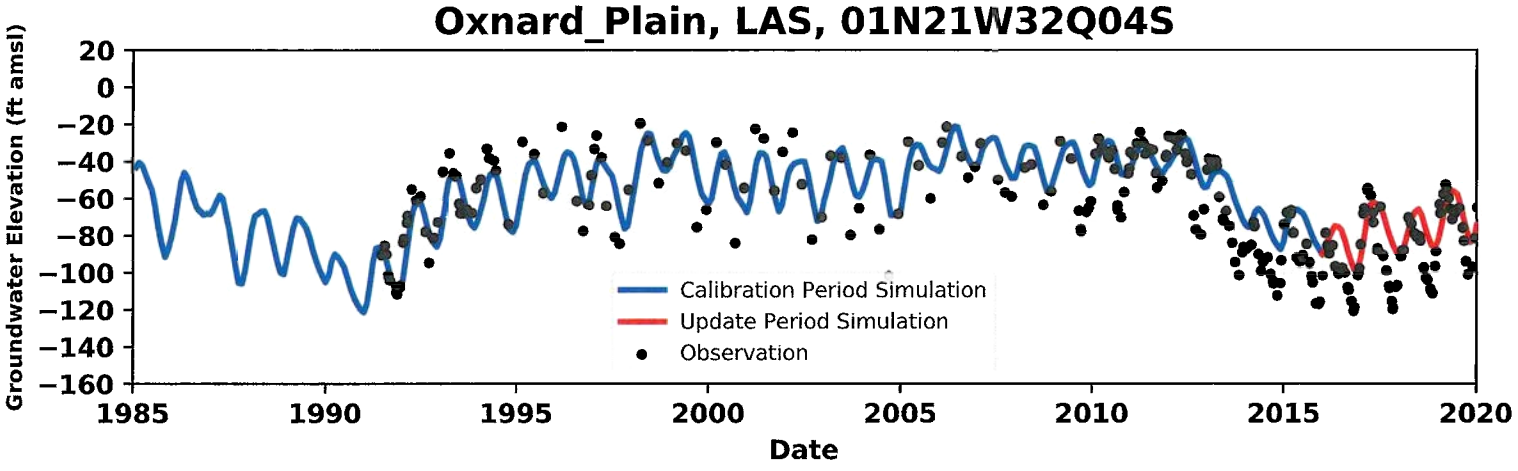
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N21W32Q04S
Groundwater Elevation (ft amsl)
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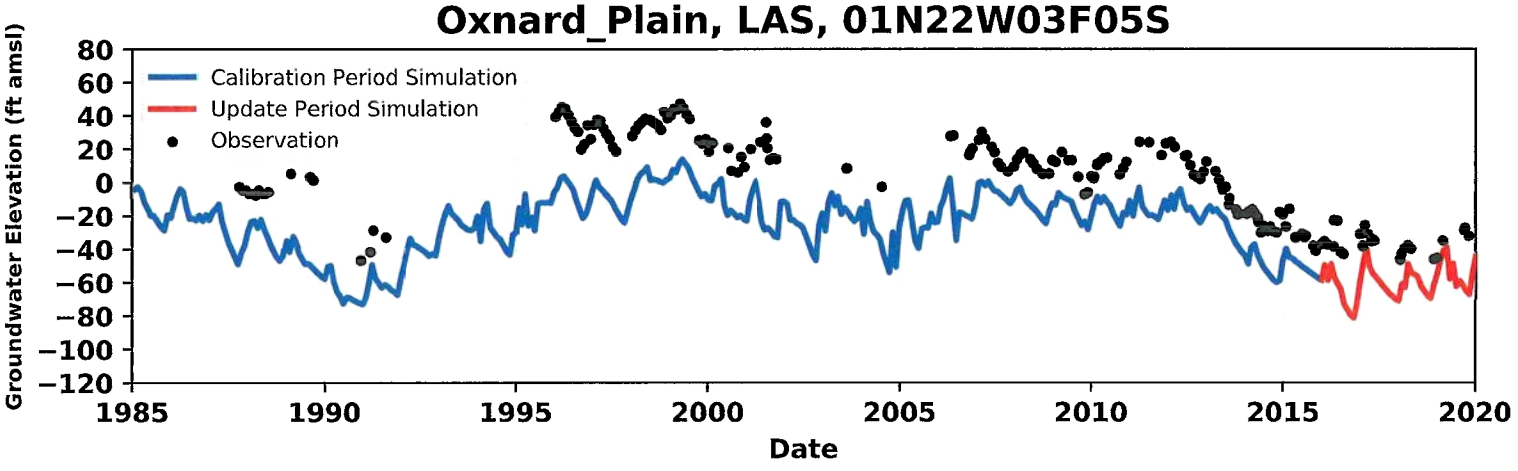
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W03F05S
Groundwater Elevation (ft amsl)
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Date
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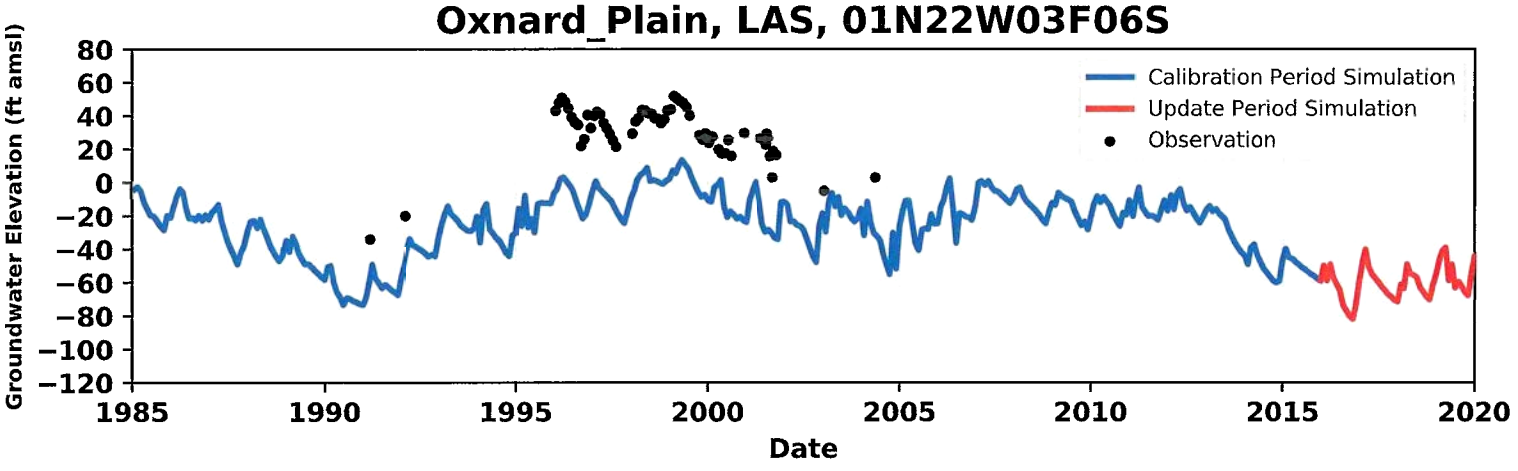
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W03F06S
Groundwater Elevation (ft amsl)
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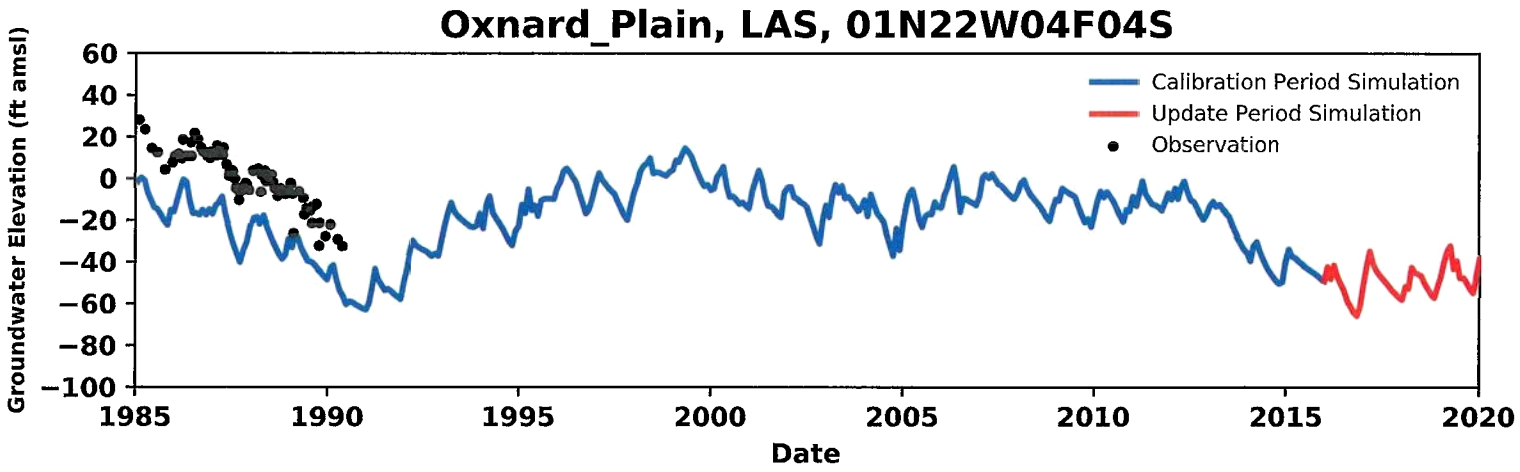
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W04F04S
Groundwater Elevation (ft amsl)
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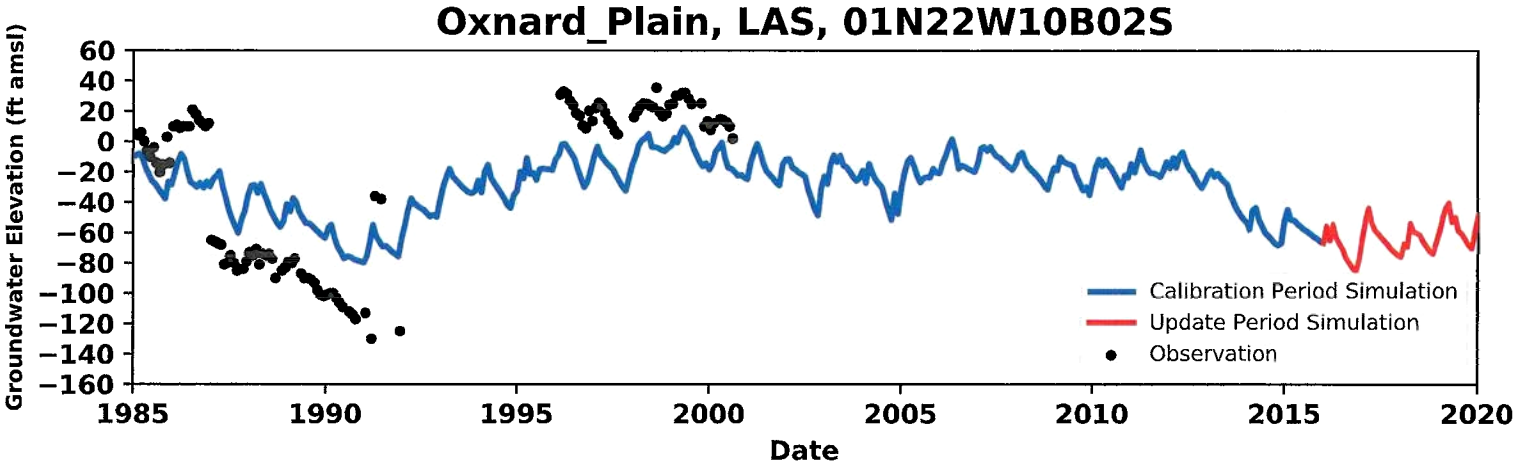
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W10B02S
Groundwater Elevation (ft amsl)
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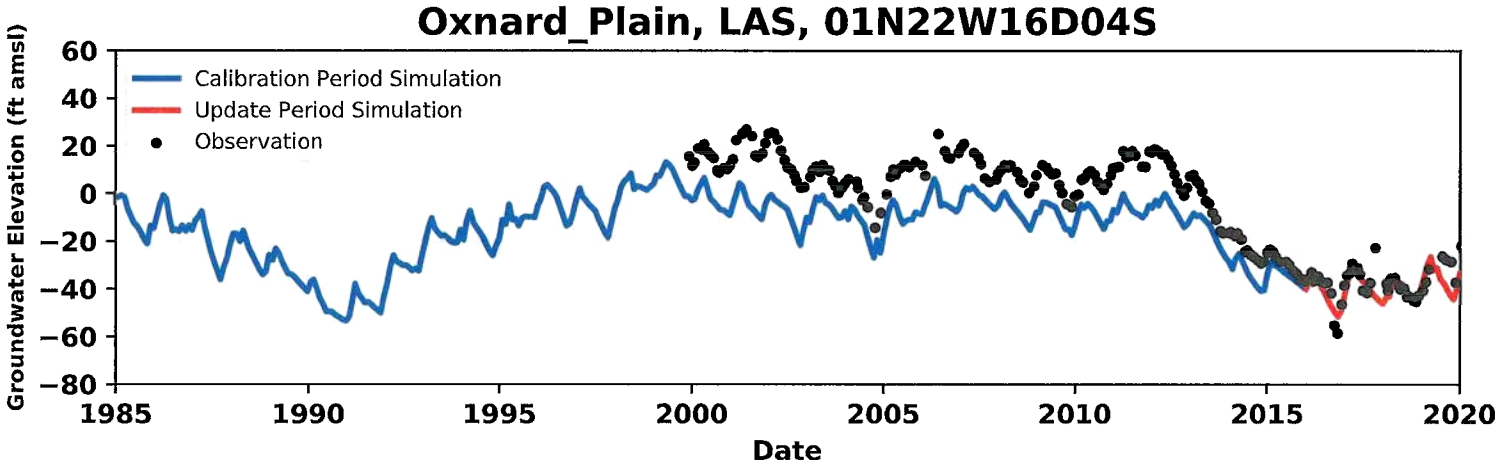
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W16D04S
Groundwater Elevation (ft amsl)
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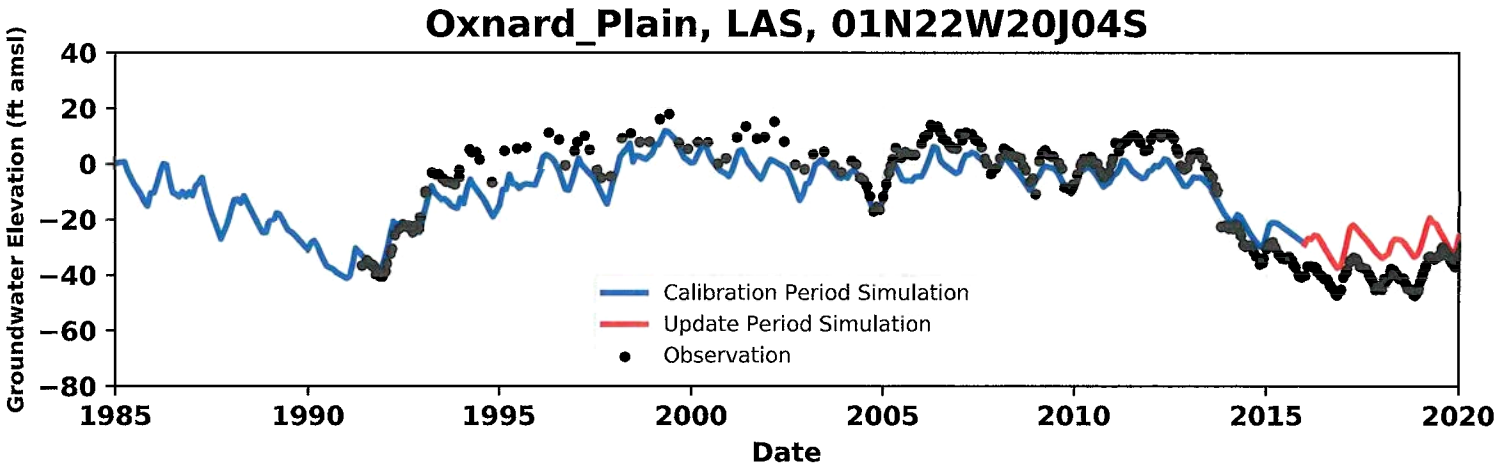
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W20J04S
Groundwater Elevation (ft amsl)
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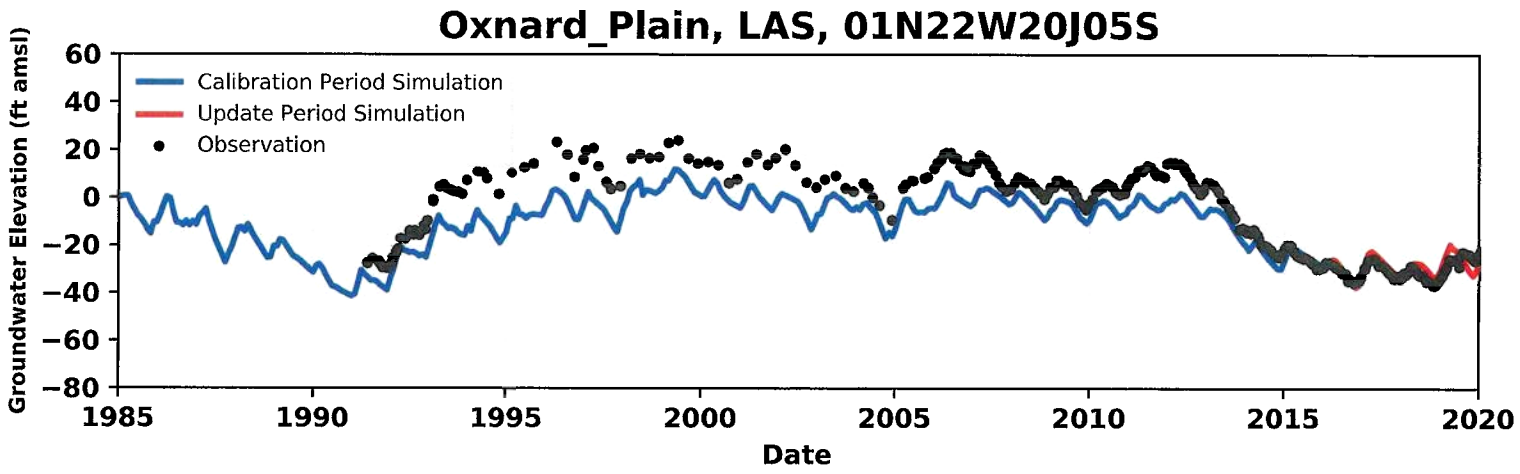
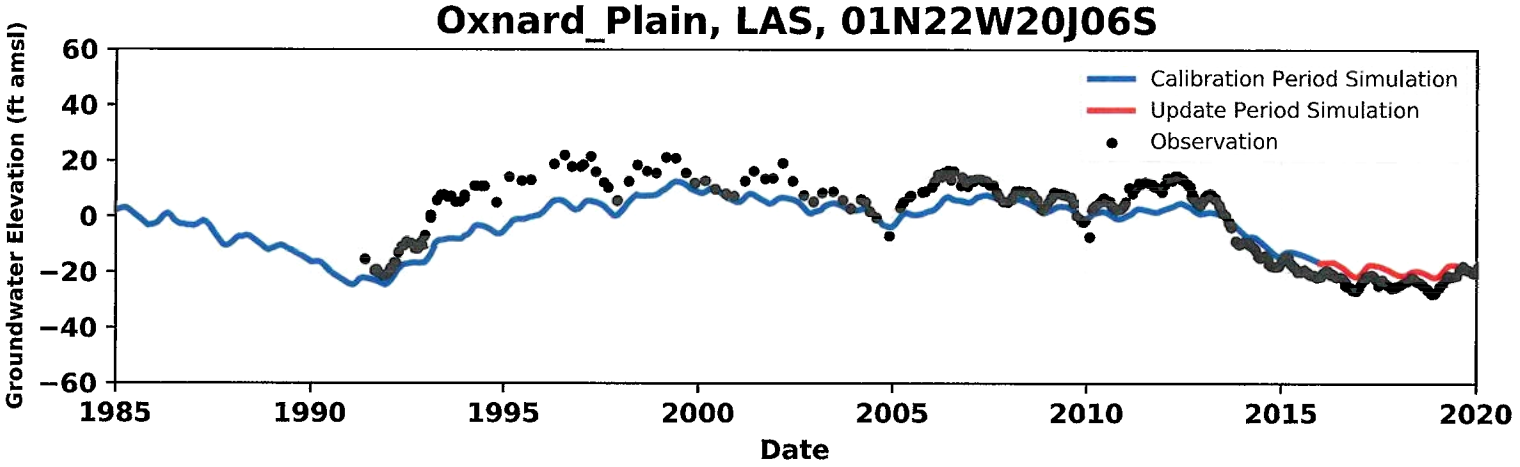
Date
Calibration Period Simulation
Update Period Simulation
Observation


Oxnard_Plain, LAS, 01N22W20J05S
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date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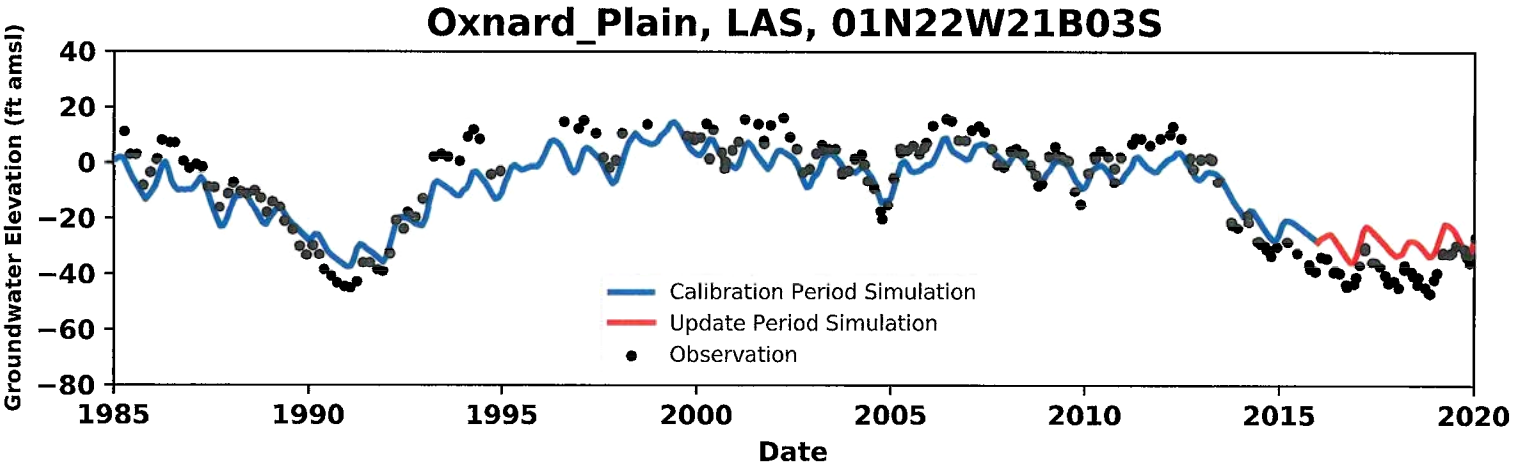
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date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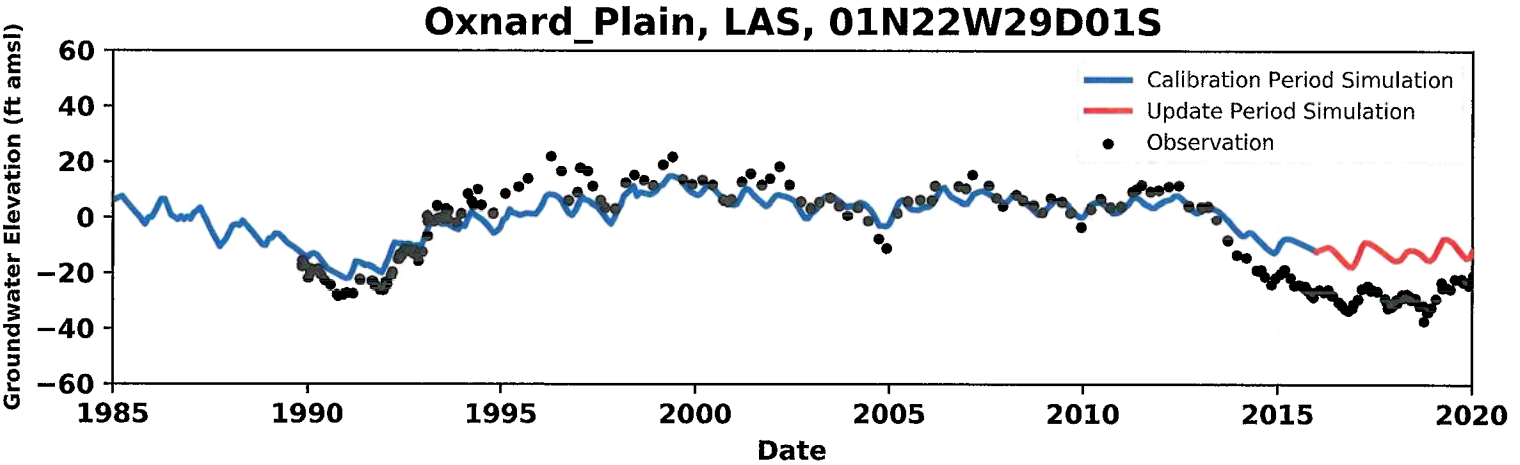
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date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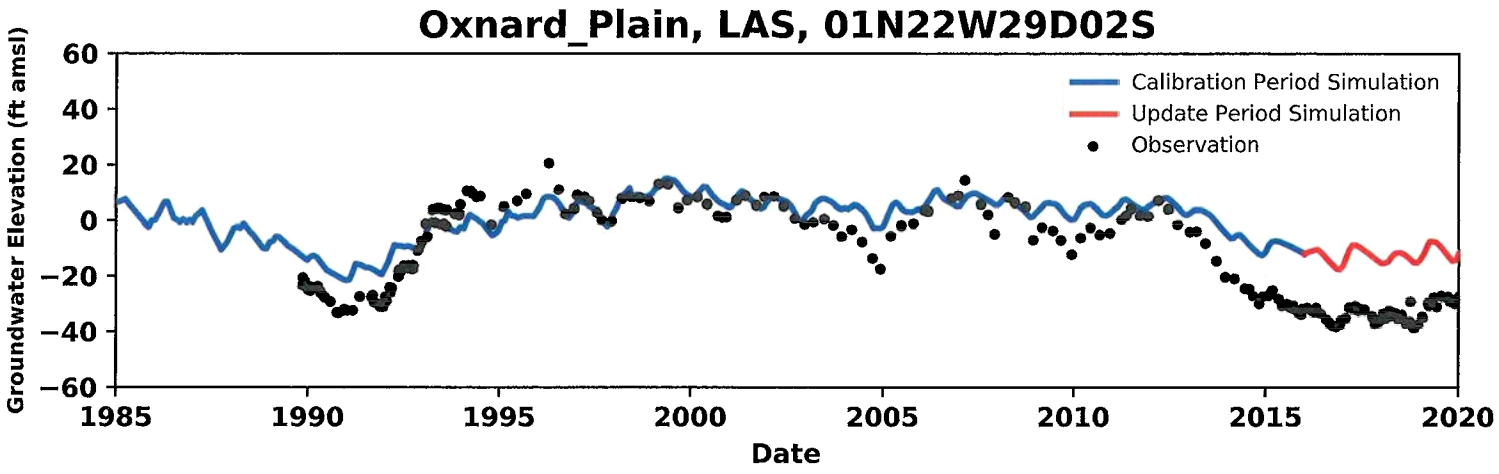
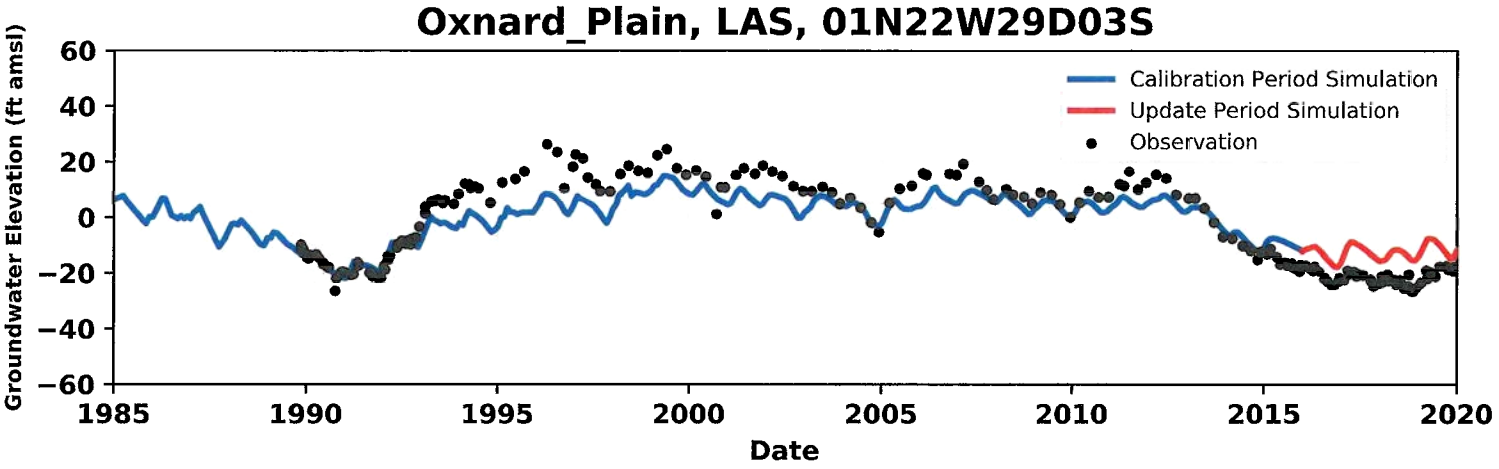
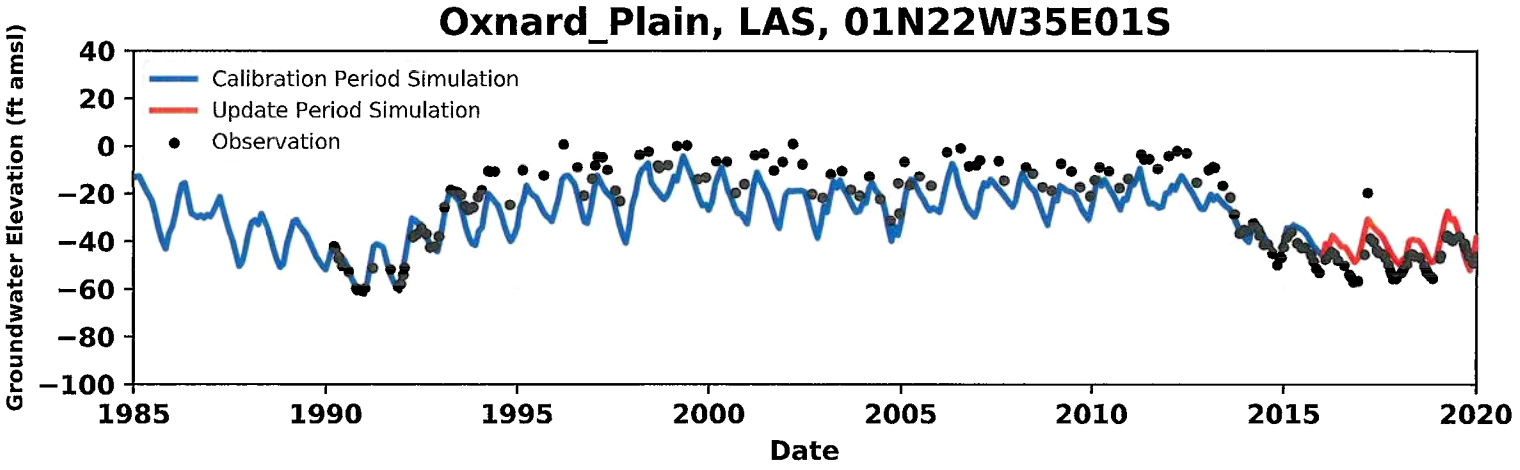
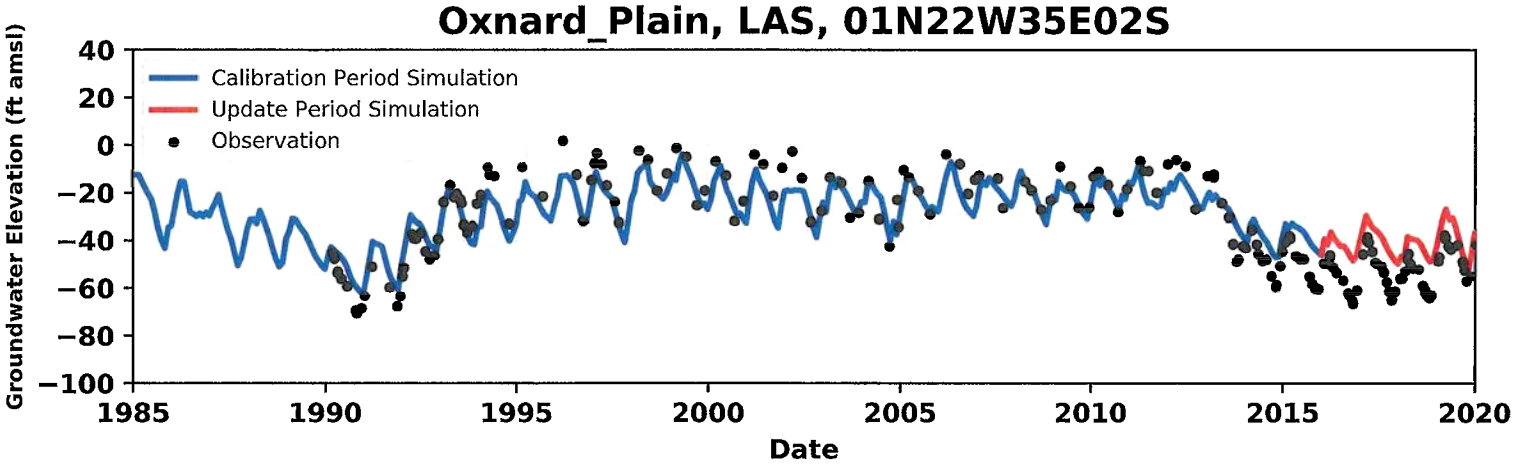
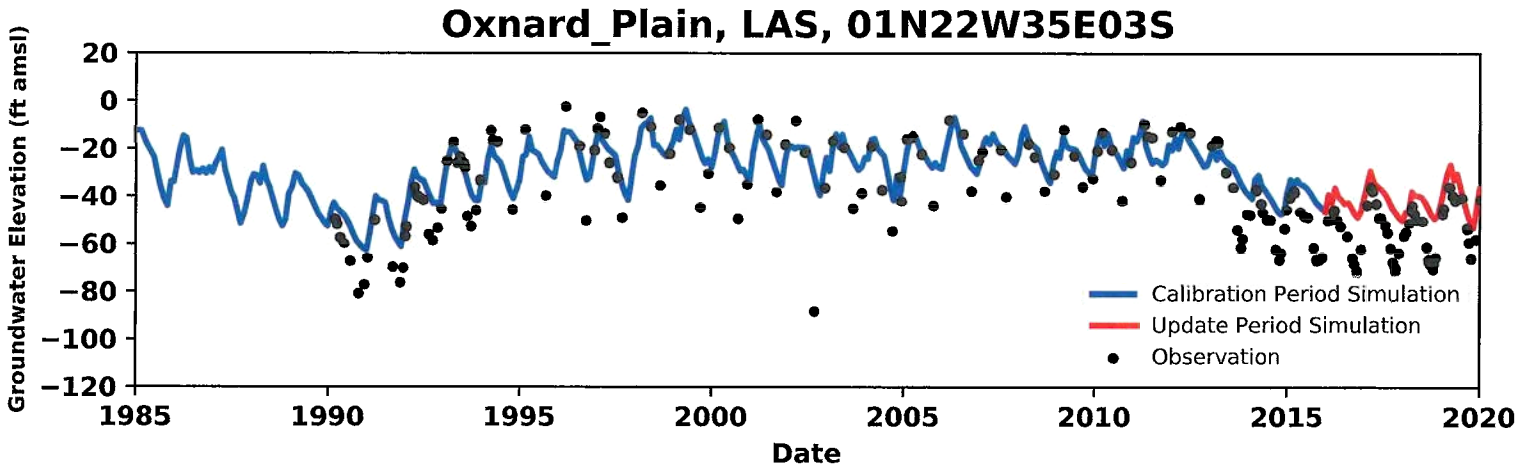
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date

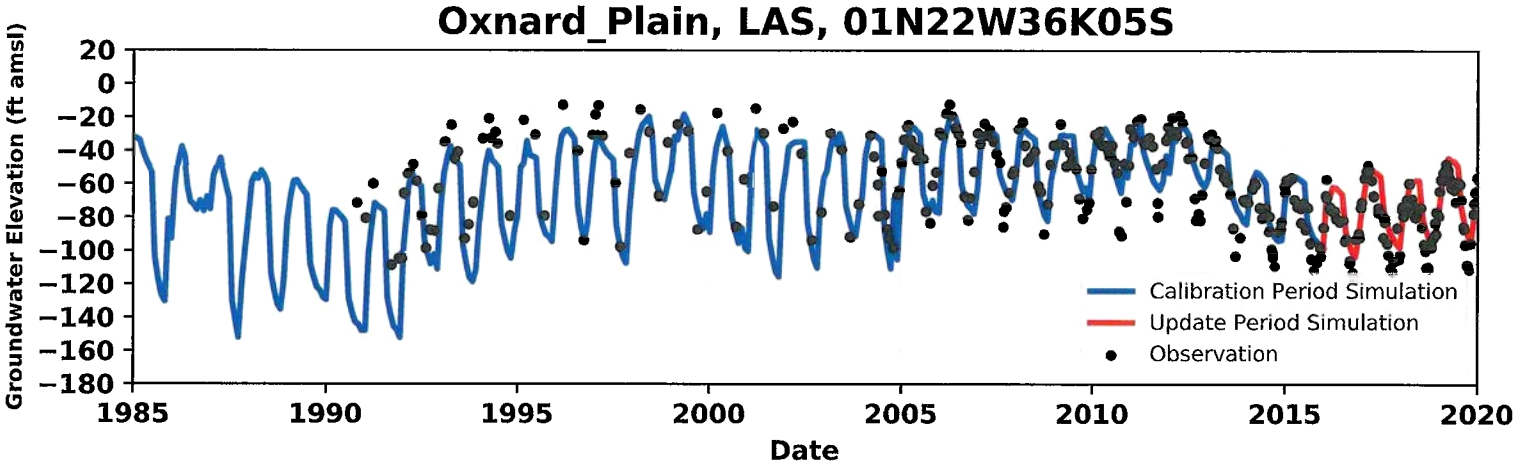

Oxnard_Plain, LAS, 01N22W29D02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

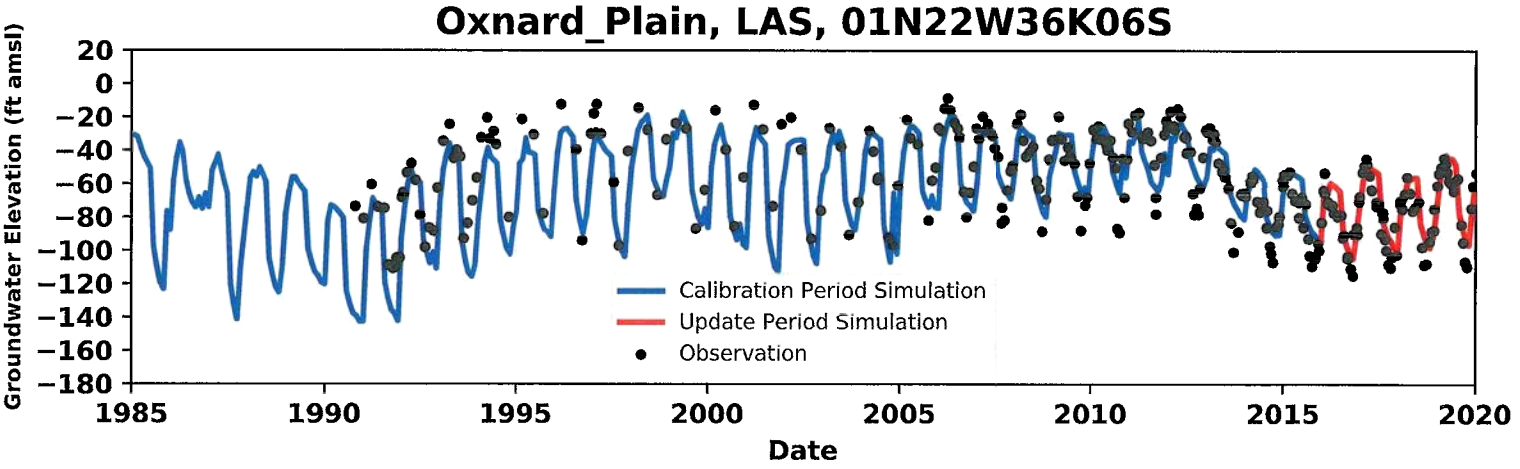

Oxnard_Plain, LAS, 01N22W29D03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

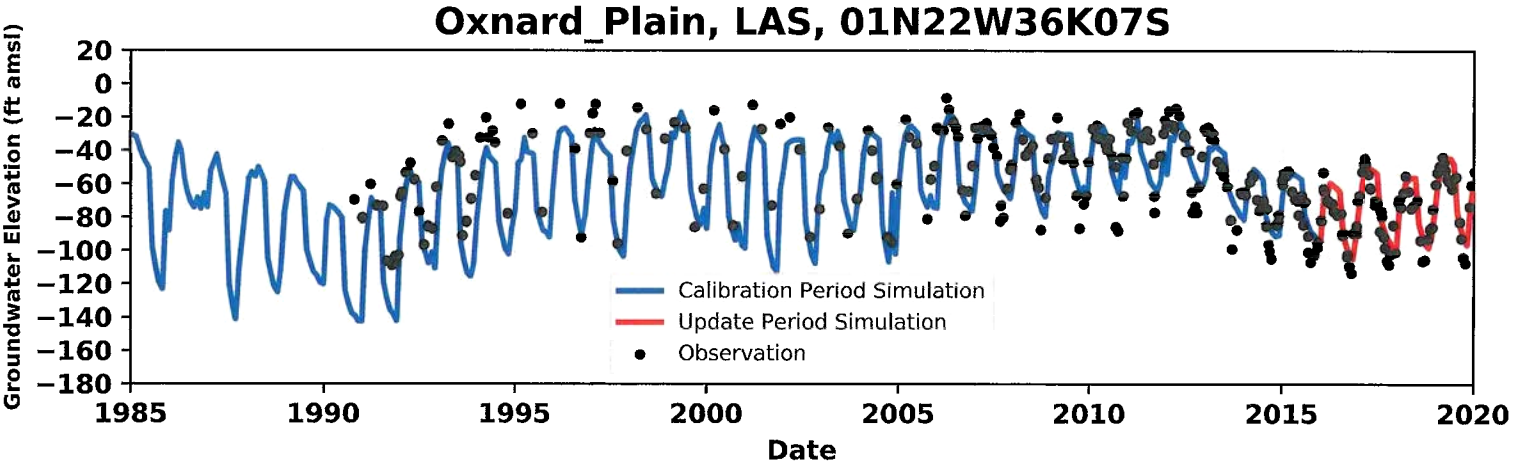

Oxnard_Plain, LAS, 01N22W35E01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

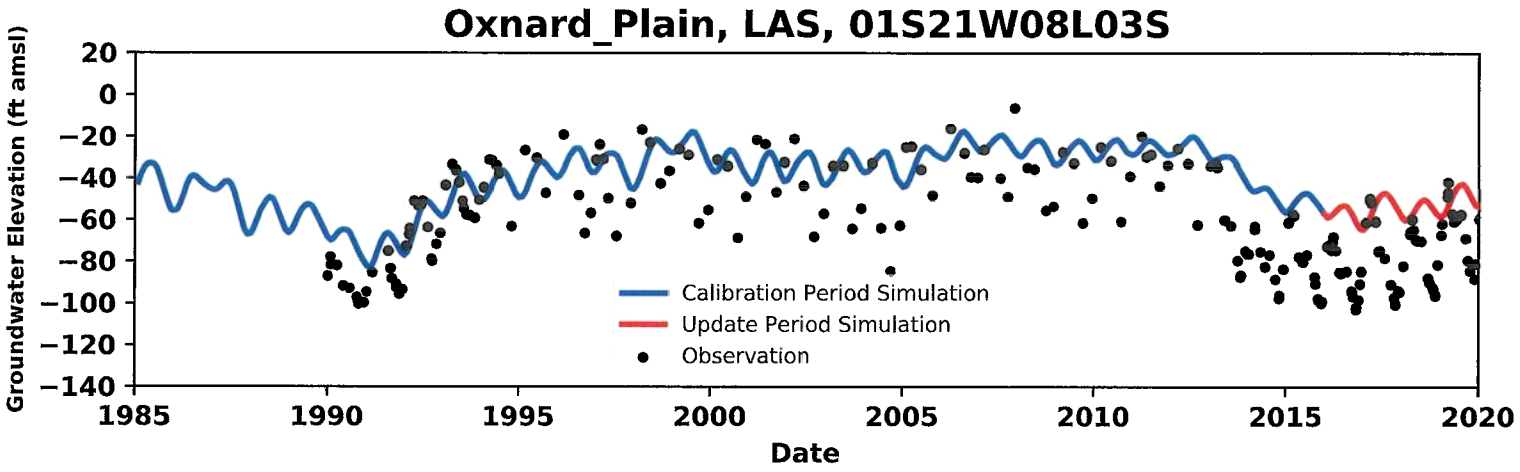

Oxnard_Plain, LAS, 01N22W35E02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

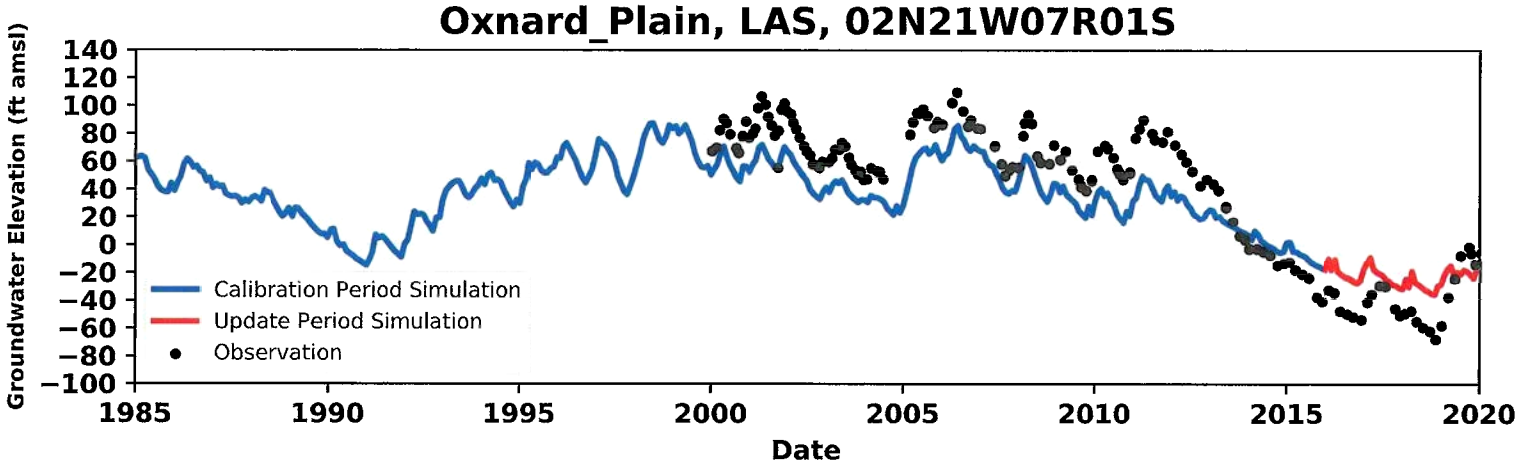

Oxnard_Plain, LAS, 01N22W35E03S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

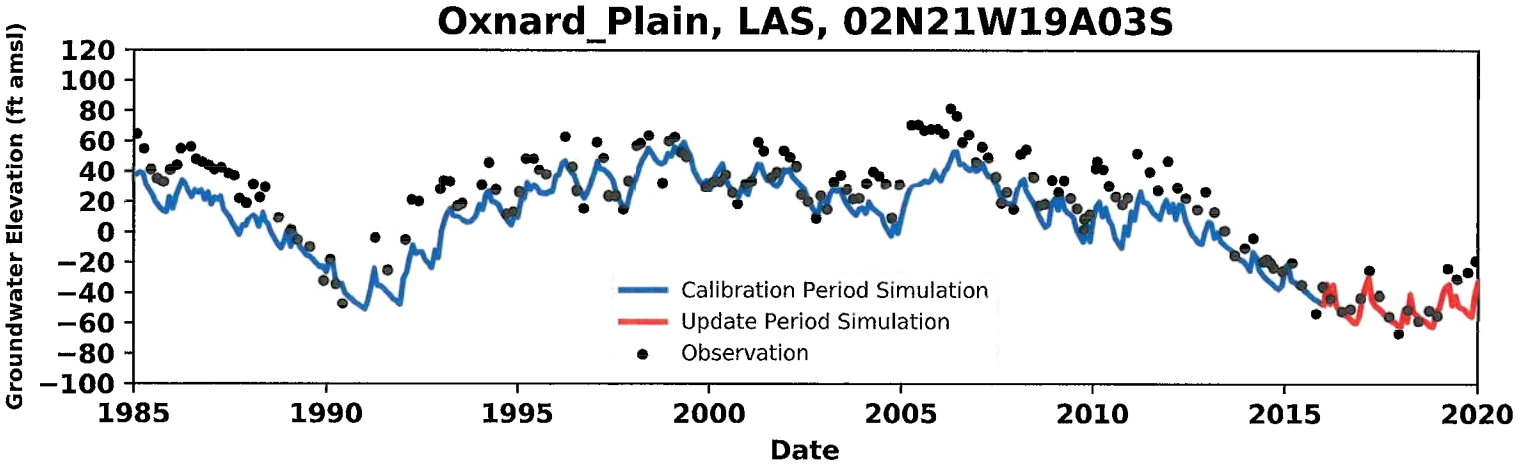

Oxnard_Plain, LAS, 01N22W36K05S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

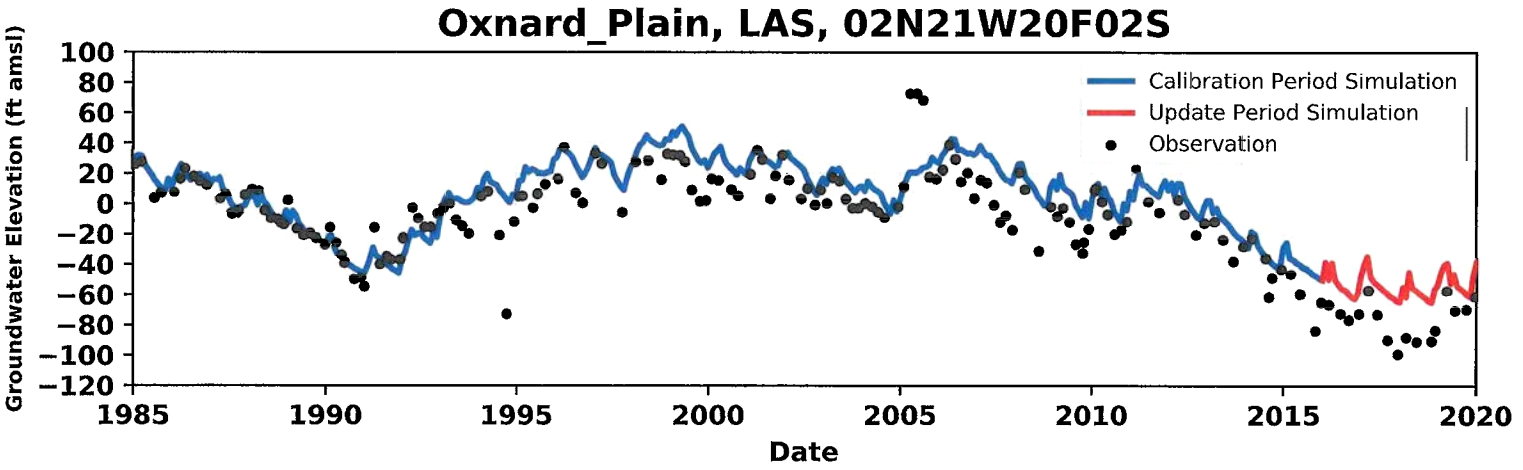

Oxnard_Plain, LAS, 01N22W36K06S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

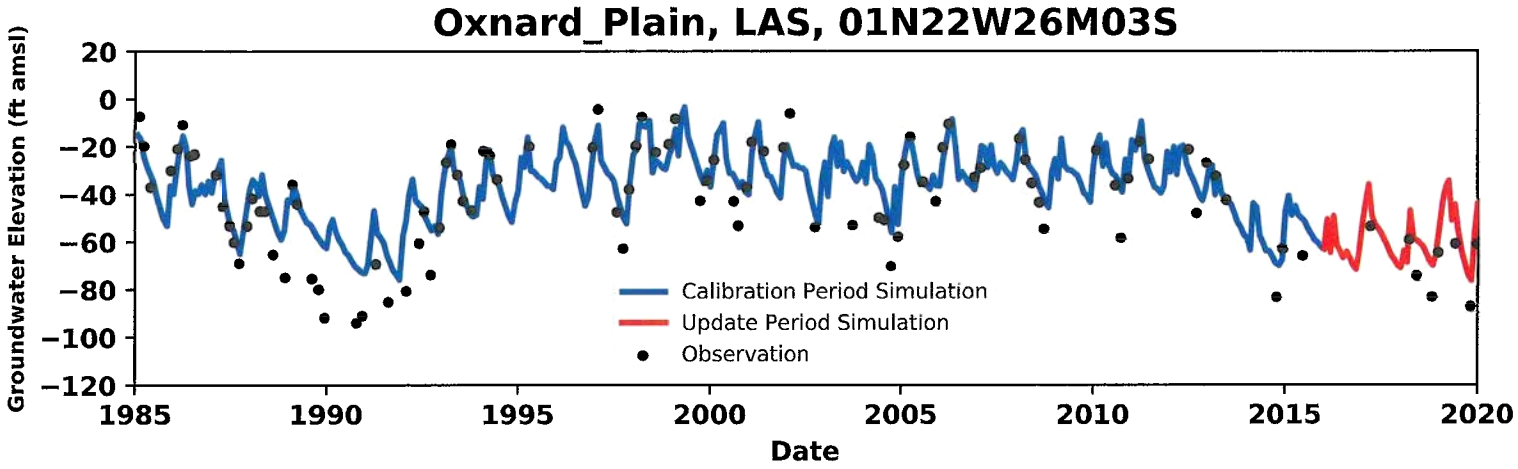

Oxnard_Plain, LAS, 01N22W36K07S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

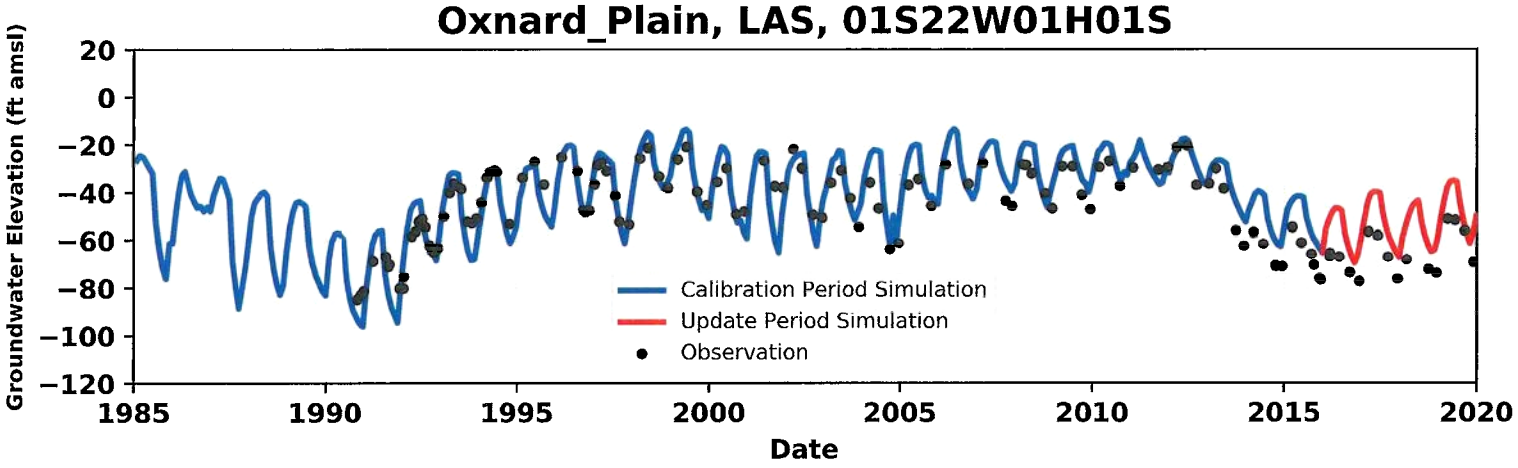

Oxnard_Plain, LAS, 01S21W08L03S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

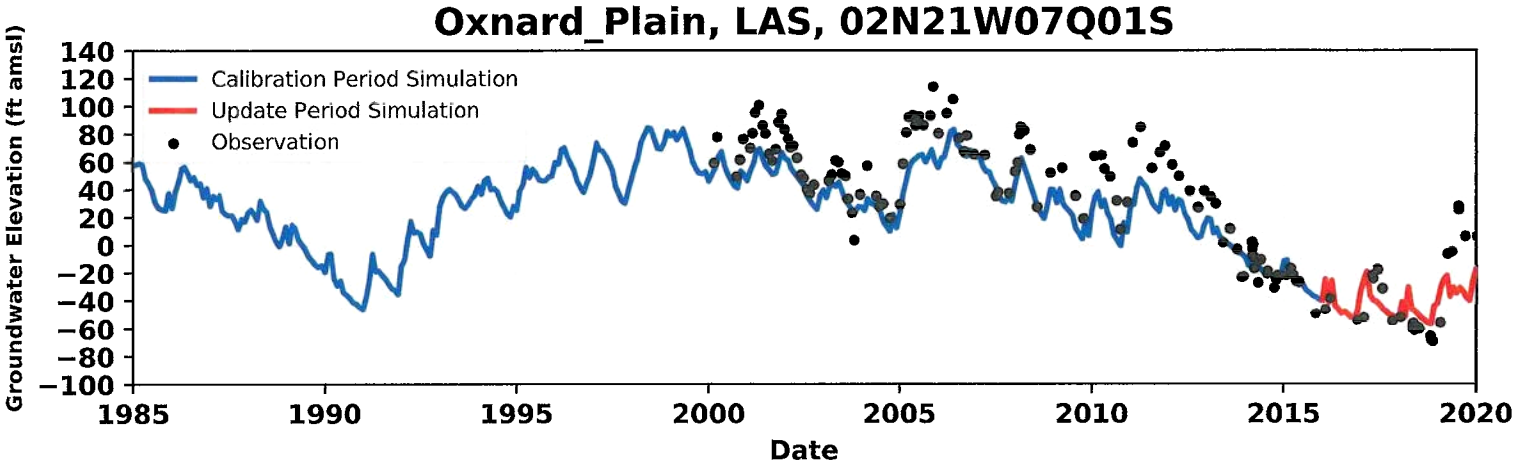

Oxnard_Plain, LAS, 02N21W07R01S
Groundwater Elevation (ft amsl)
140
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

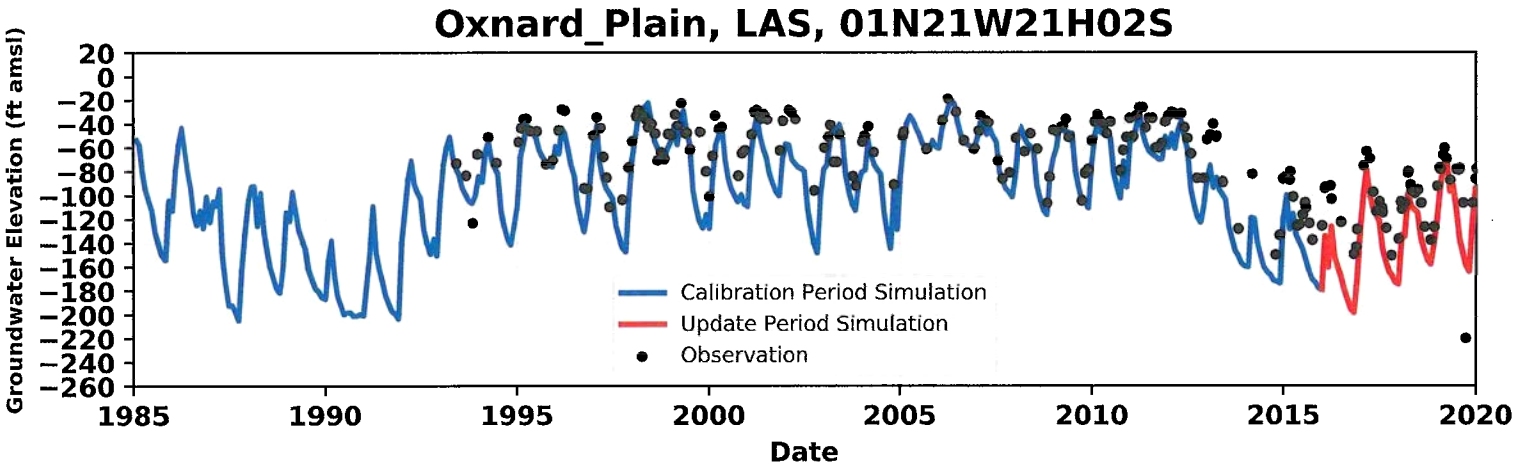

Oxnard_Plain, LAS, 02N21W19A03S
Groundwater Elevation (ft amsl)
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

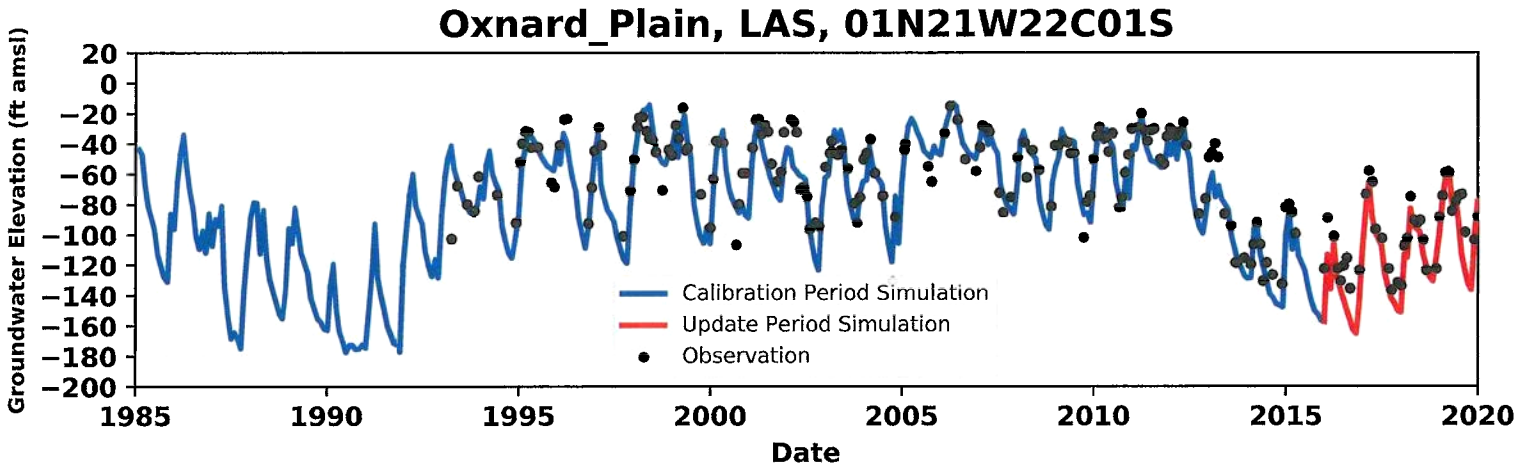

Oxnard_Plain, LAS, 02N21W20F02S
Groundwater Elevation (ft amsl)
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

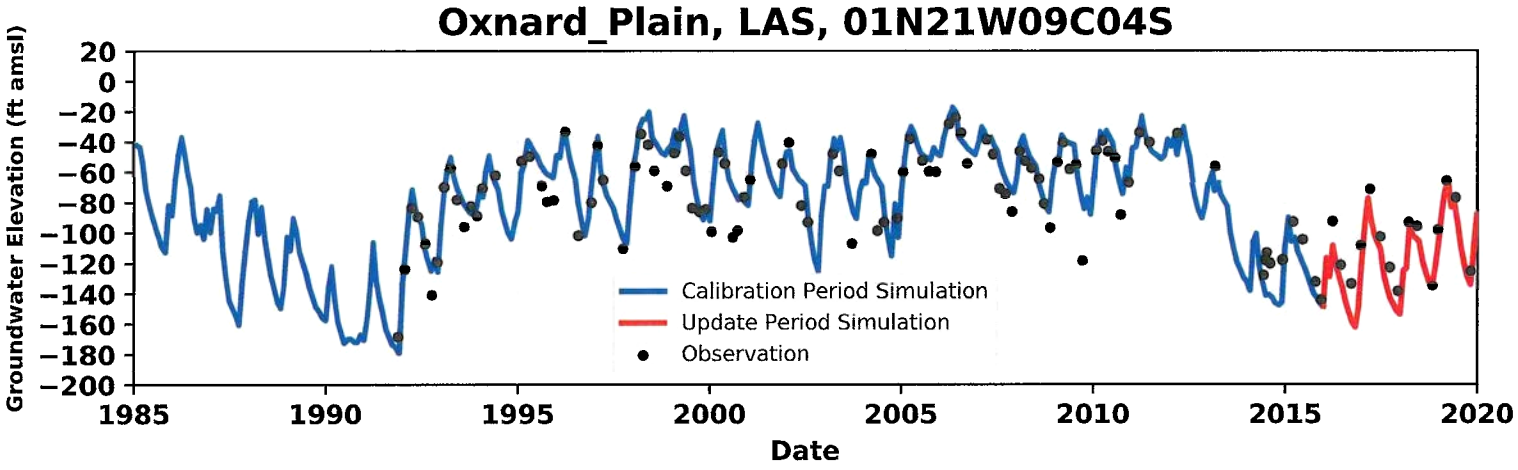

Oxnard_Plain, LAS, 01N22W26M03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

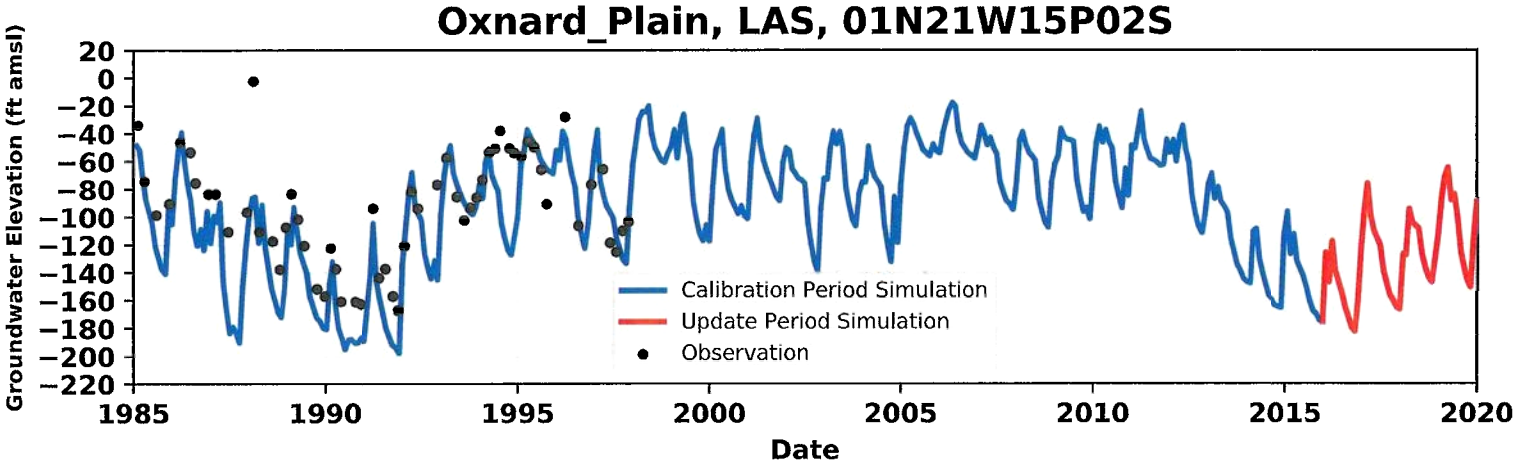

Oxnard_Plain, LAS, 01S22W01H01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

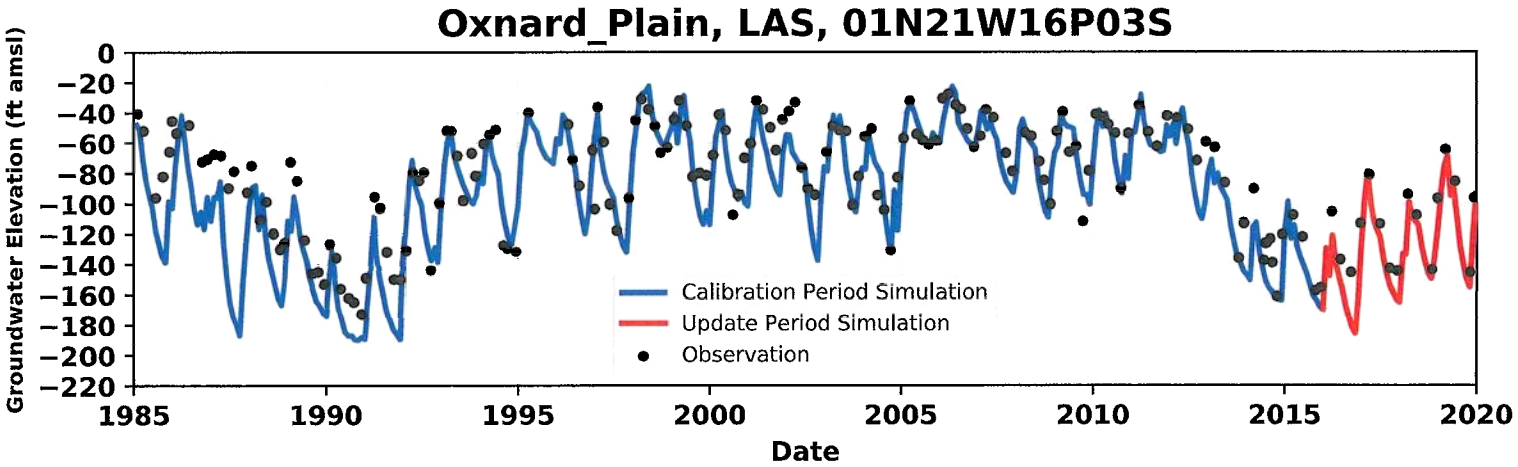

Oxnard_Plain, LAS, 02N21W07Q01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

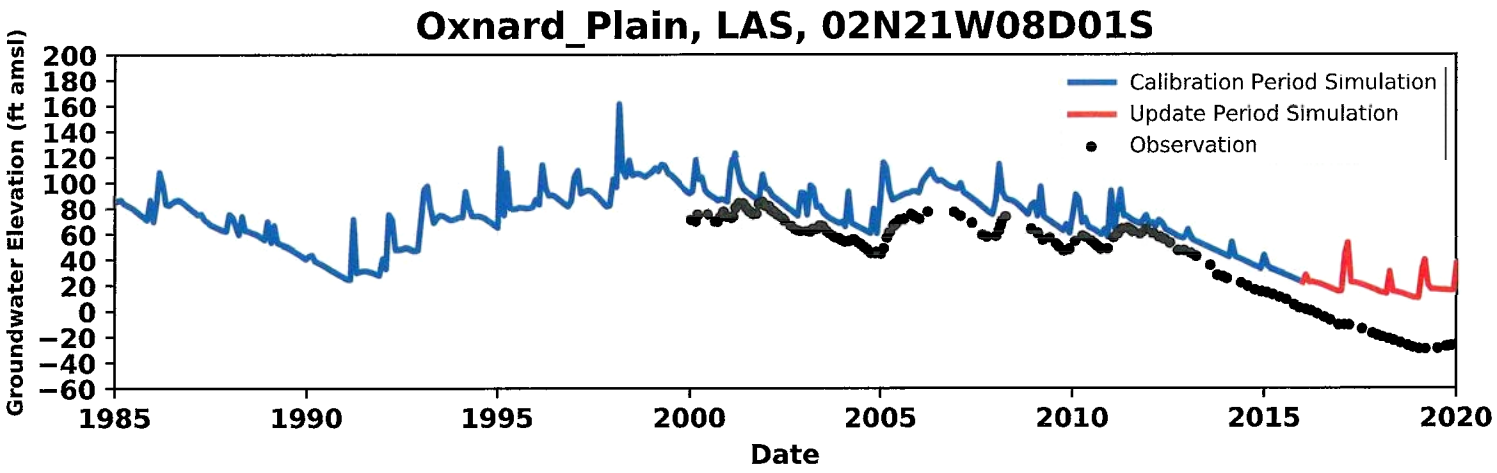

Oxnard_Plain, LAS, 01N21W21H02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

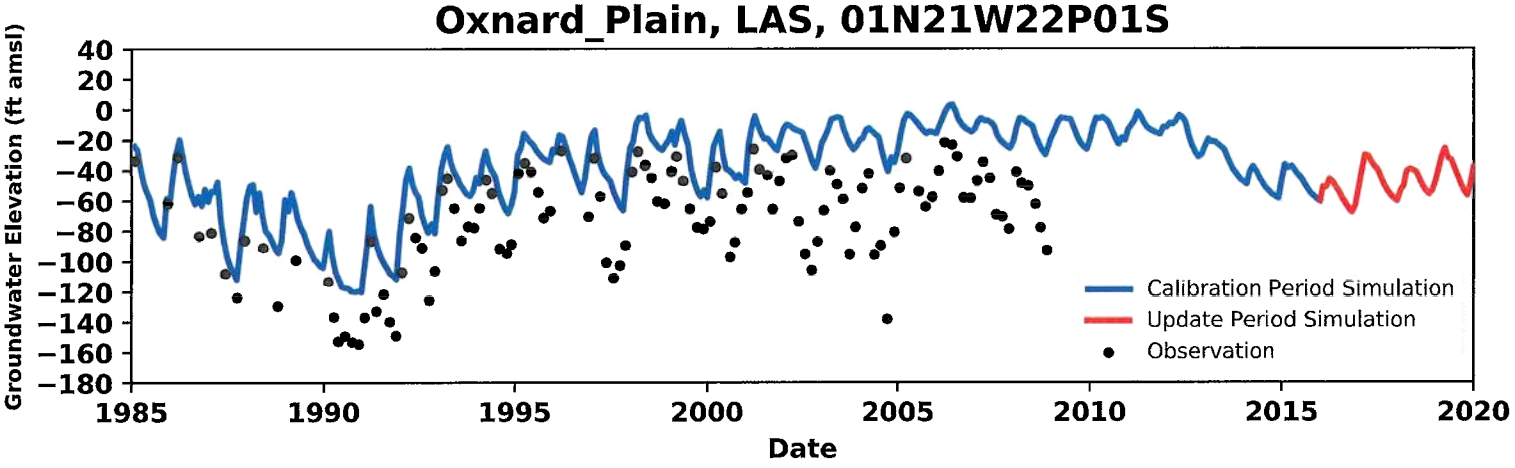

Oxnard_Plain, LAS, 01N21W22C01S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

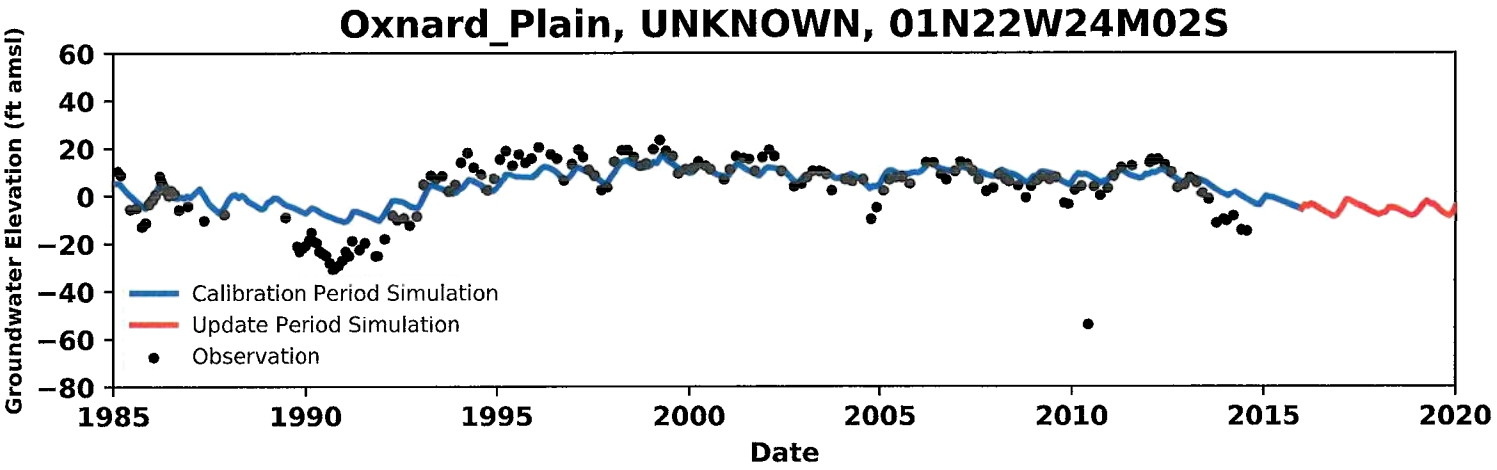

Oxnard_Plain, LAS, 01N21W09C04S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

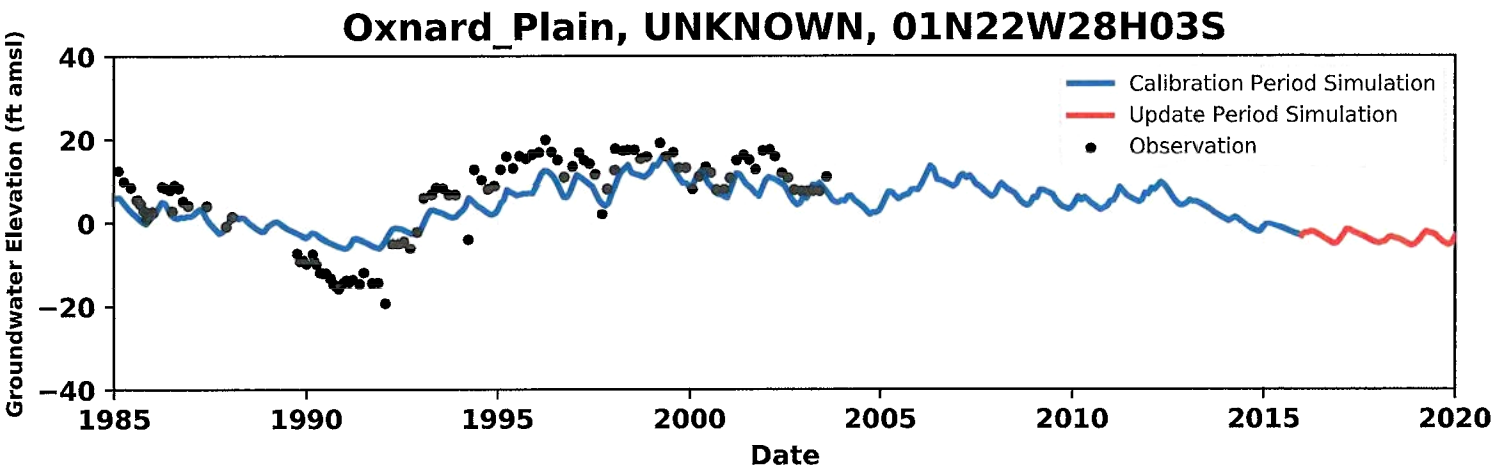

Oxnard_Plain, LAS, 01N21W15P02S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

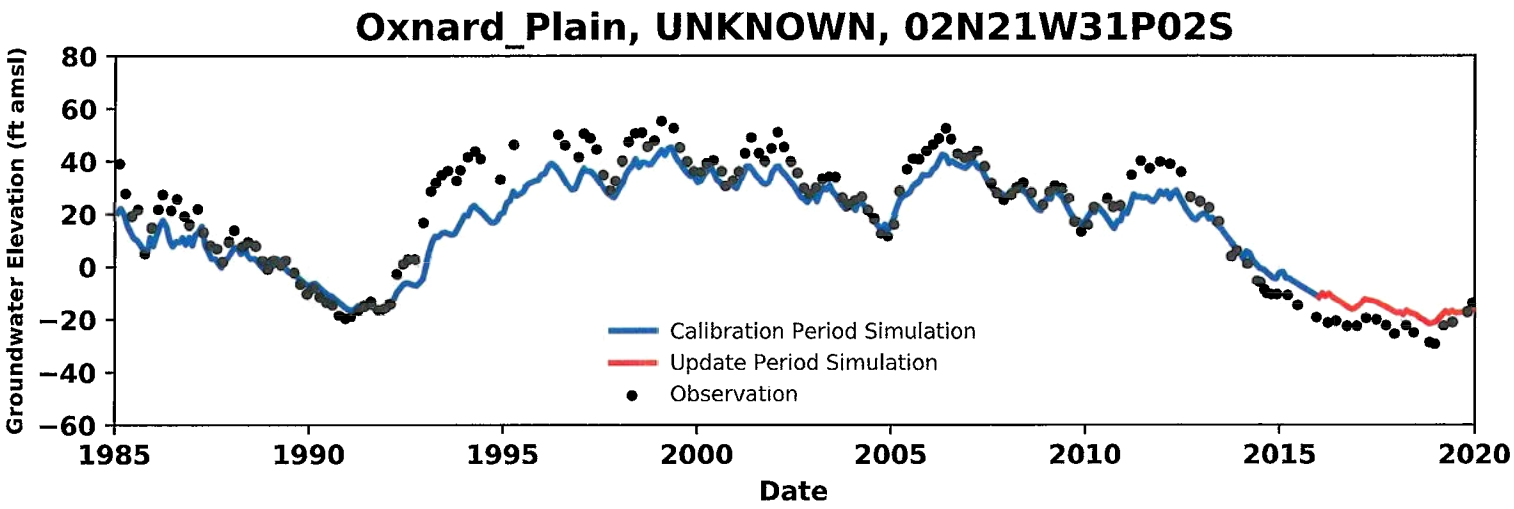

Oxnard_Plain, LAS, 01N21W16P03S
Groundwater Elevation (ft amsl)
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

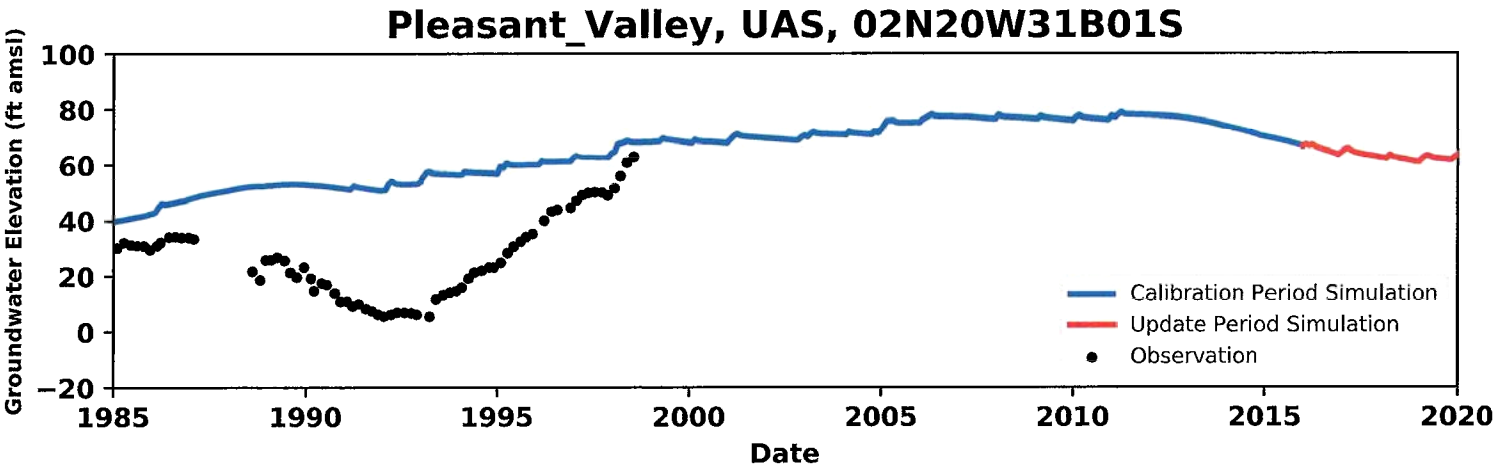

Oxnard_Plain, LAS, 02N21W08D01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

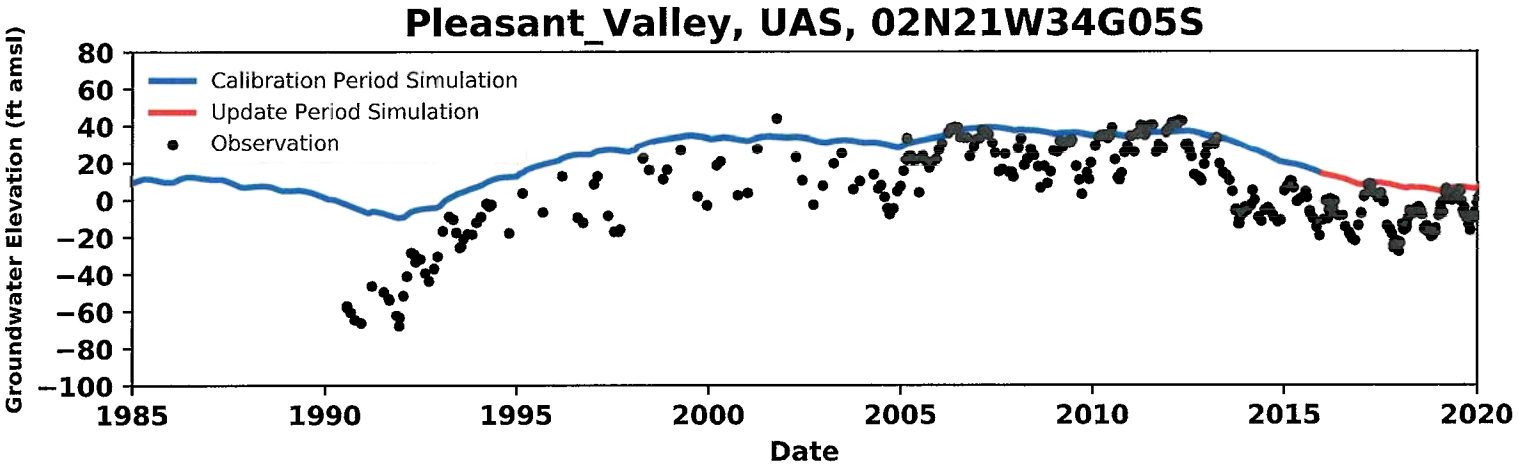

Oxnard_Plain, LAS, 01N21W22P01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

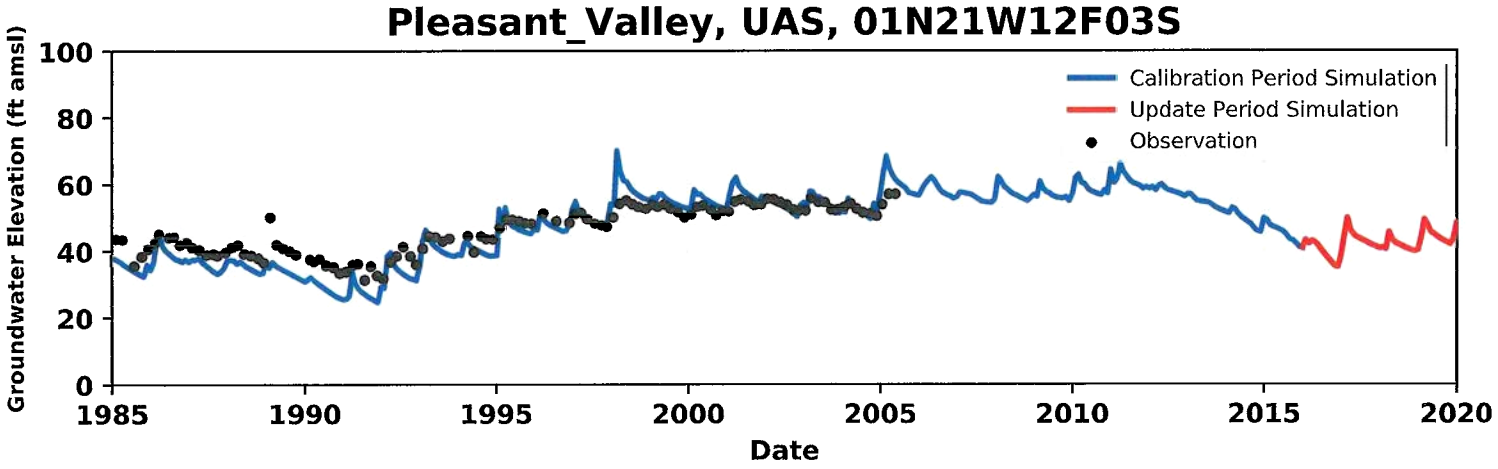

Oxnard_Plain, UNKNOWN, 01N22W24M02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

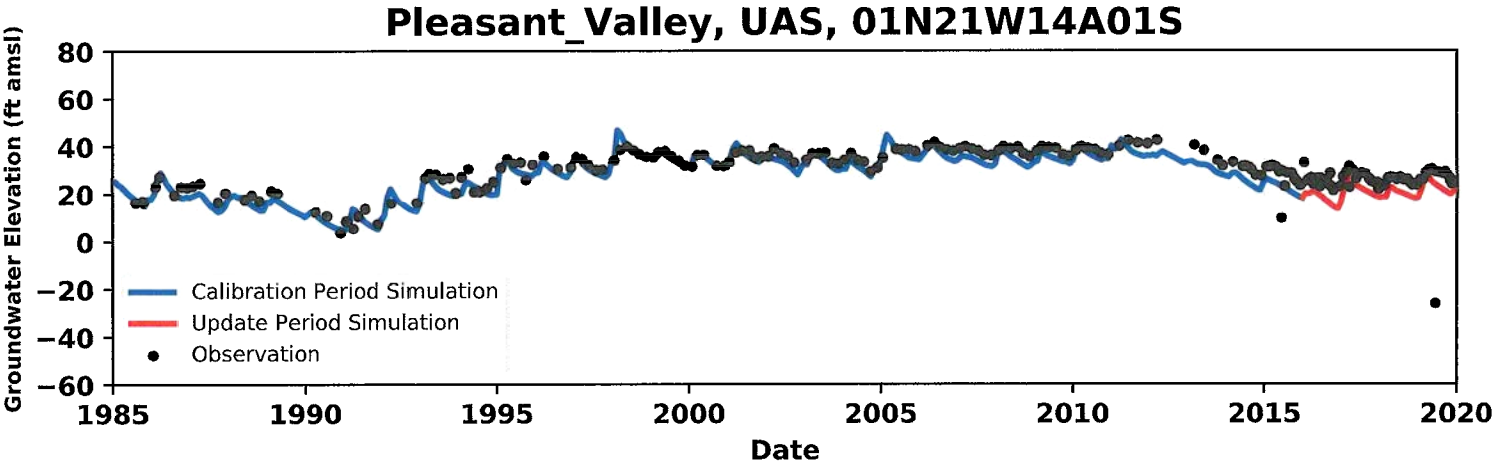

Oxnard_Plain, UNKNOWN, 01N22W28H03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

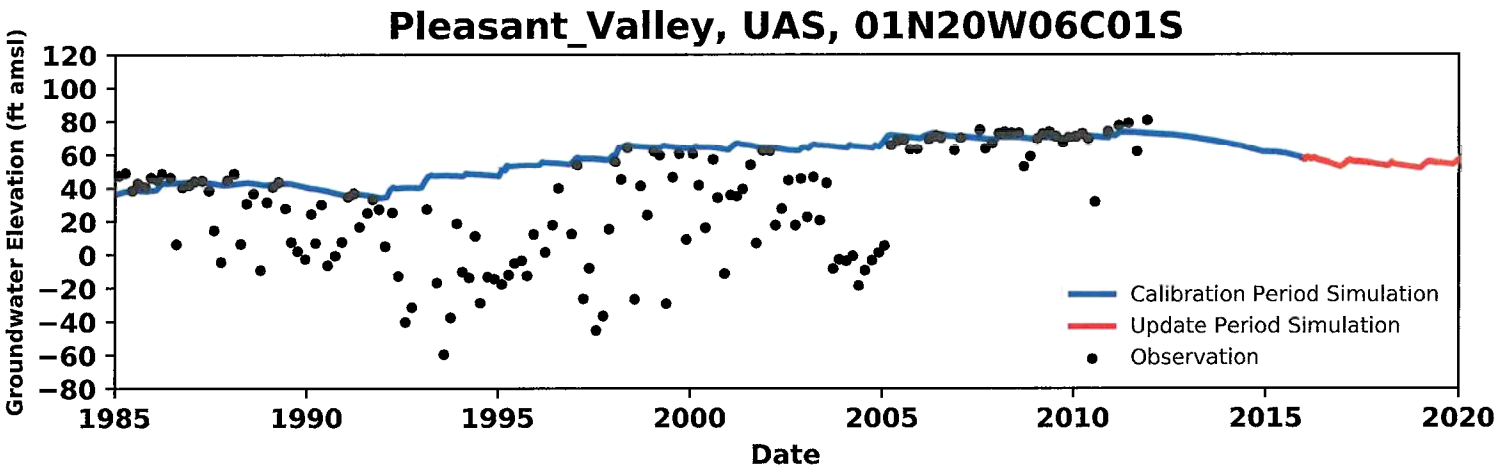

Oxnard_Plain, UNKNOWN, 02N21W31P02S
Groundwater Elevation (ft amsl)
80
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

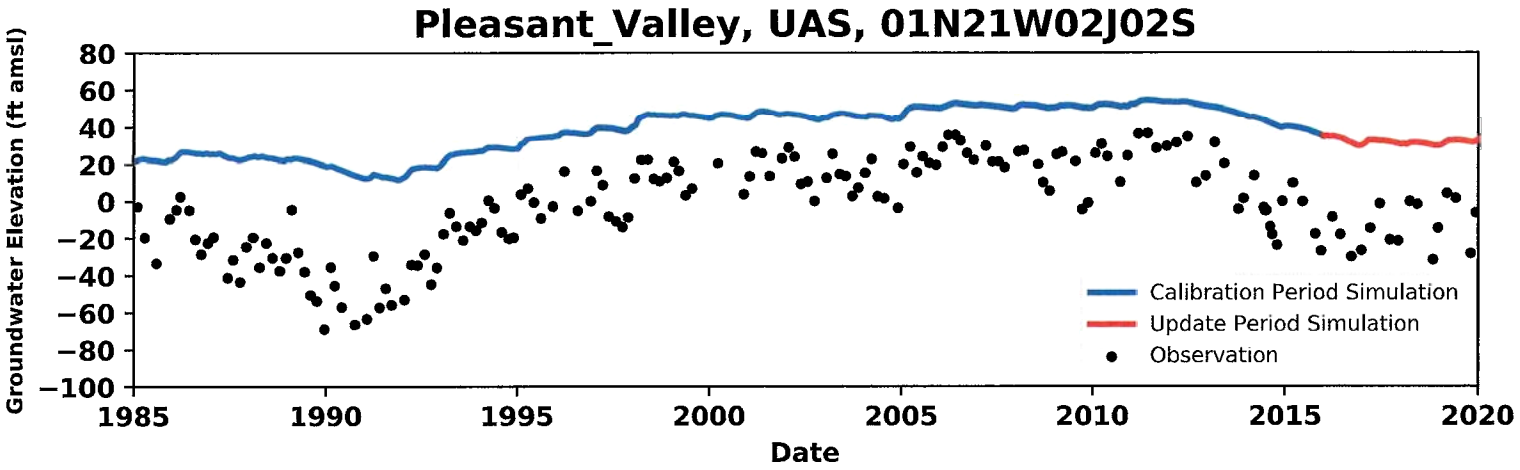

Pleasant_Valley, UAS, 02N20W31B01S
Groundwater Elevation (ft amsl)
100
80
60
40
20
0
−20
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

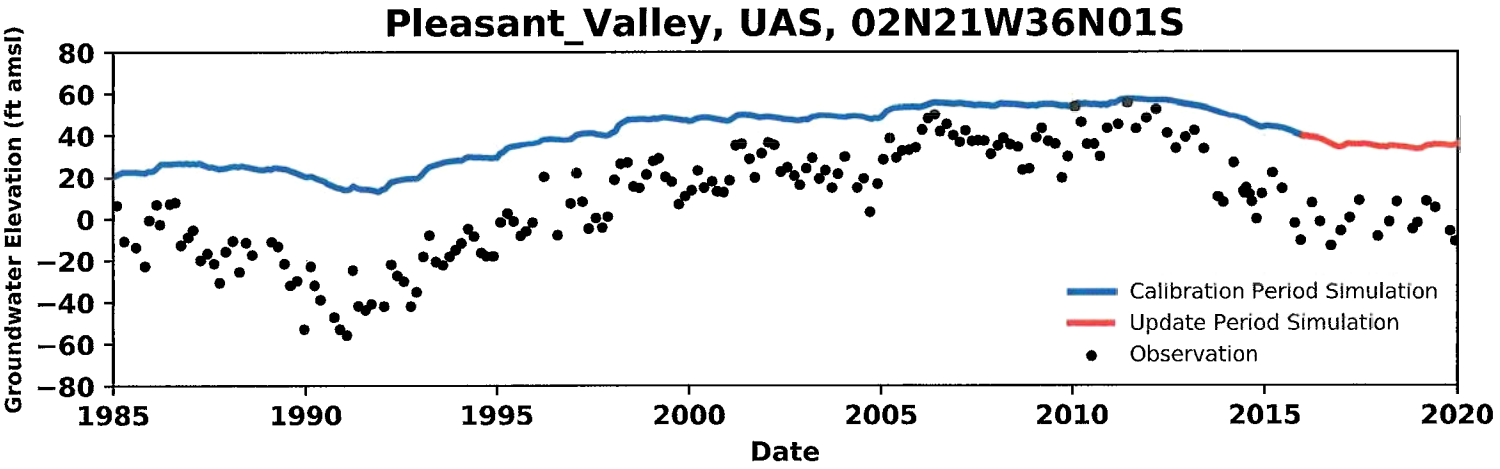

Pleasant_Valley, UAS, 02N21W34G05S
Groundwater Elevation (ft amsl)
80
60
40
20
0
−20
−40
−60
−80
−100
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

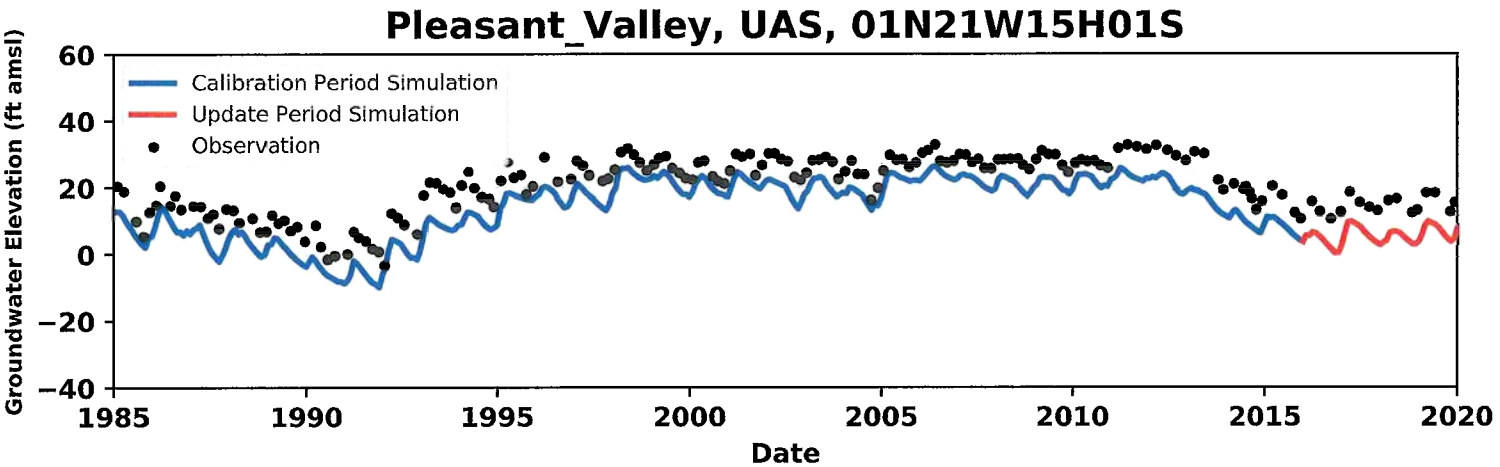

Pleasant_Valley, UAS, 01N21W12F03S
Groundwater Elevation (ft amsl)
100
80
60
40
20
0
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

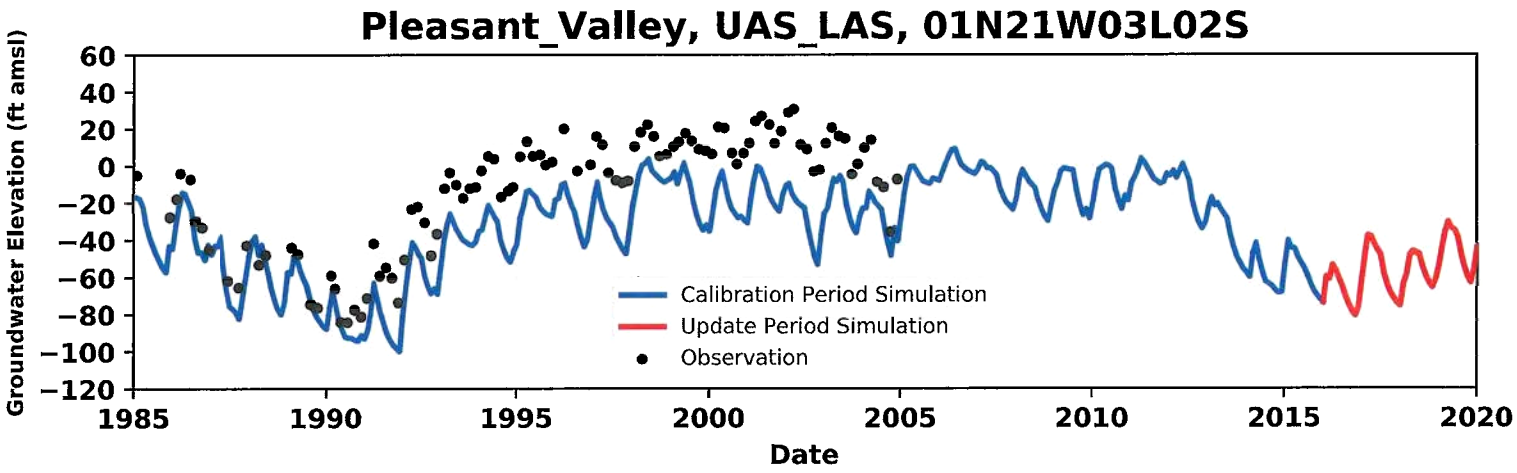

Pleasant_Valley, UAS, 01N21W14A01S
Groundwater Elevation (ft amsl)
80
60
40
20
0
−20
−40
−60
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

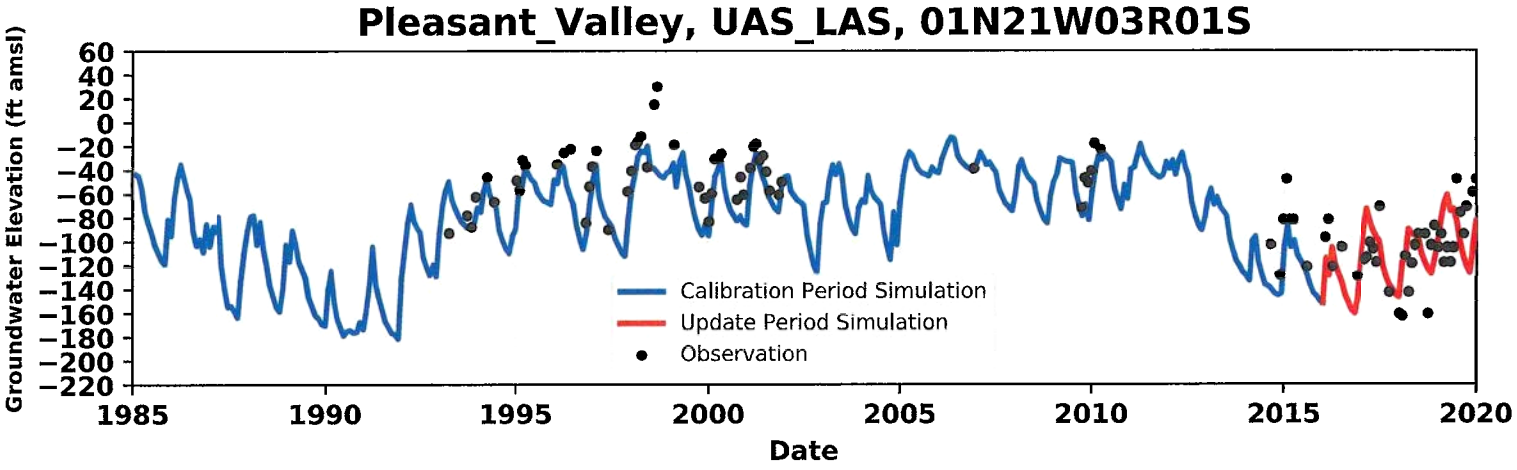

Pleasant_Valley, UAS, 01N20W06C01S
Groundwater Elevation (ft amsl)
120
100
80
60
40
20
0
−20
−40
−60
−80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

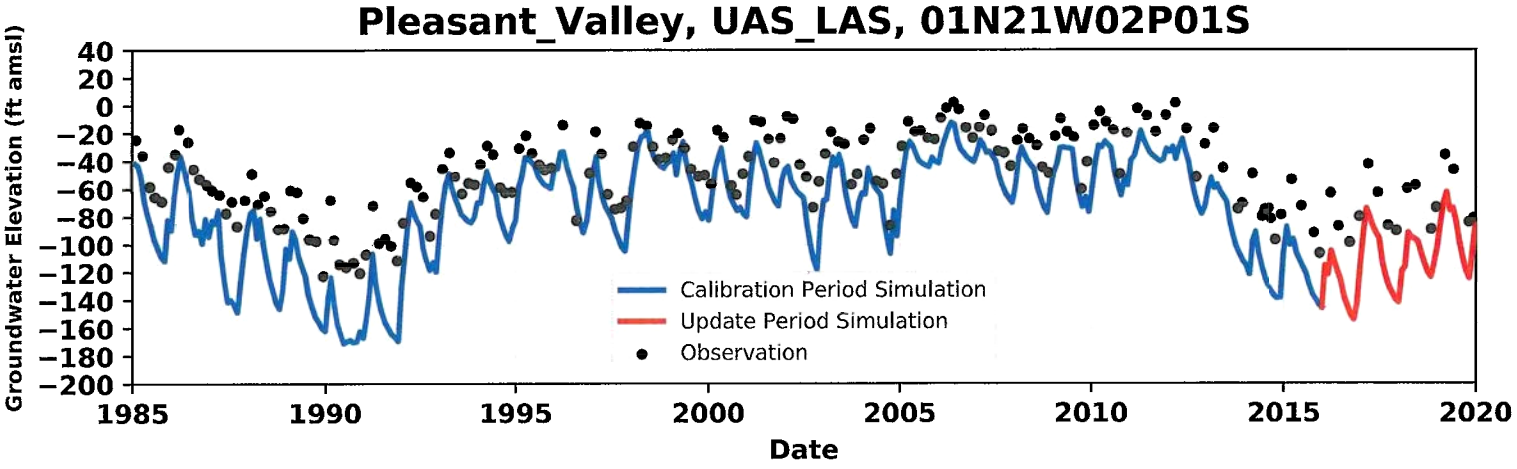

Pleasant_Valley, UAS, 01N21W02J02S
Groundwater Elevation (ft amsl)
80
60
40
20
0
−20
−40
−60
−80
−100
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

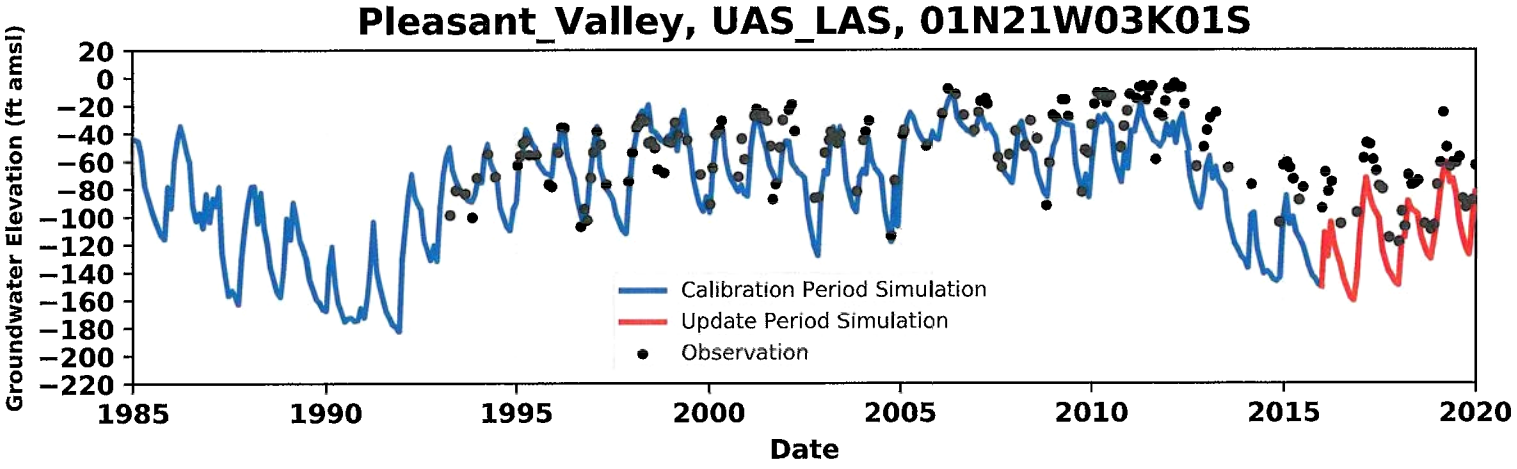

Pleasant_Valley, UAS, 02N21W36N01S
Groundwater Elevation (ft amsl)
80
60
40
20
0
−20
−40
−60
−80
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

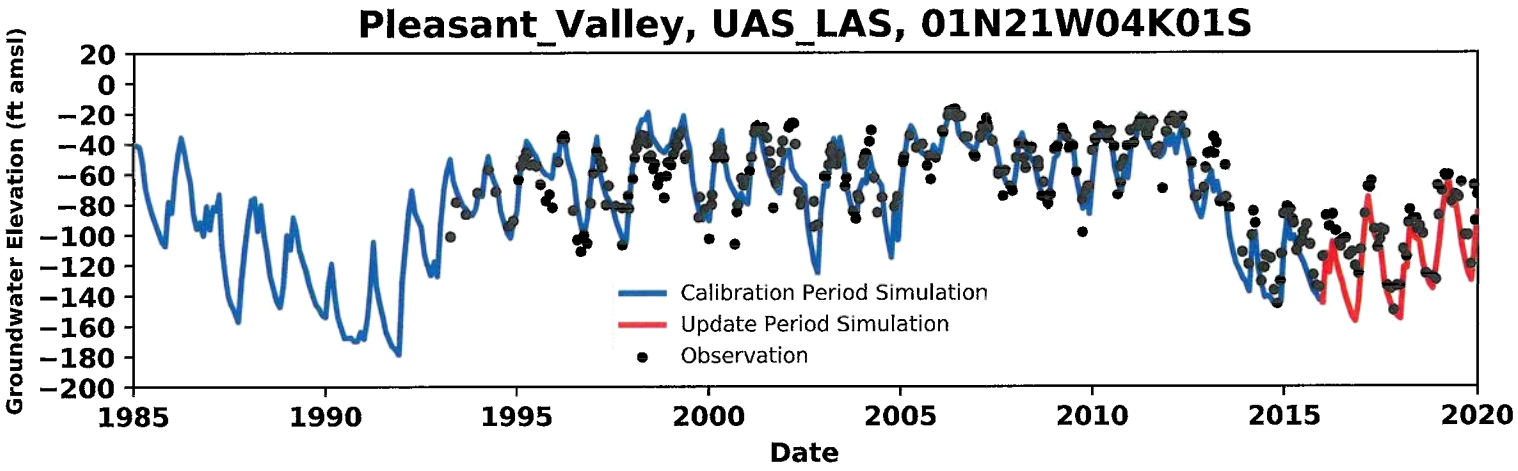

Pleasant_Valley, UAS, 01N21W15H01S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

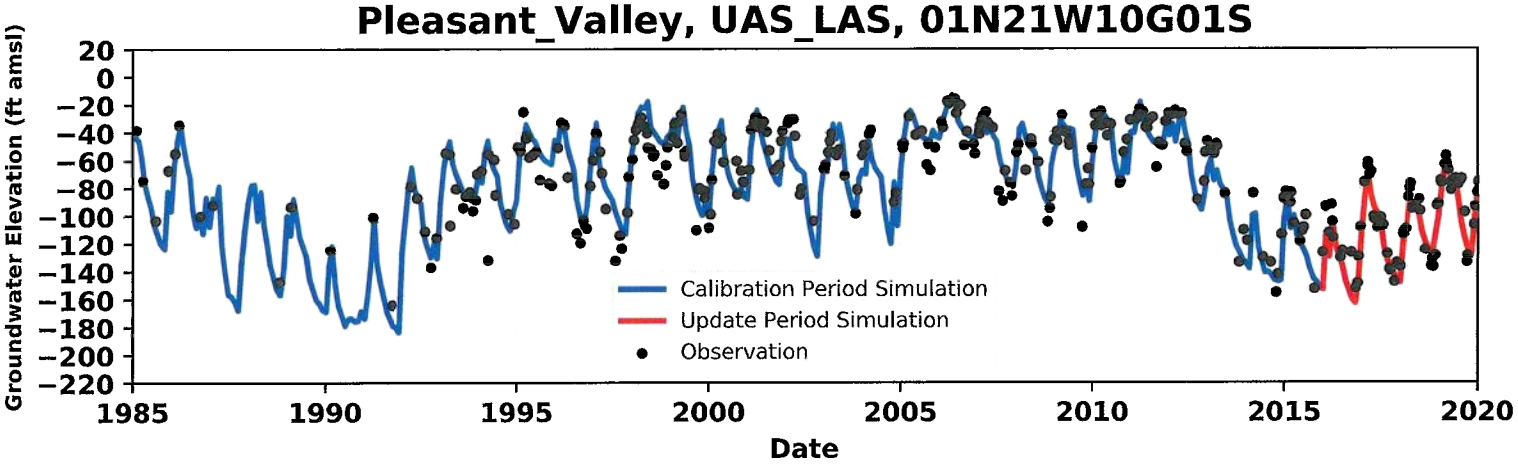

Pleasant_Valley, UAS_LAS, 01N21W03L02S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
−60
−80
−100
−120
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

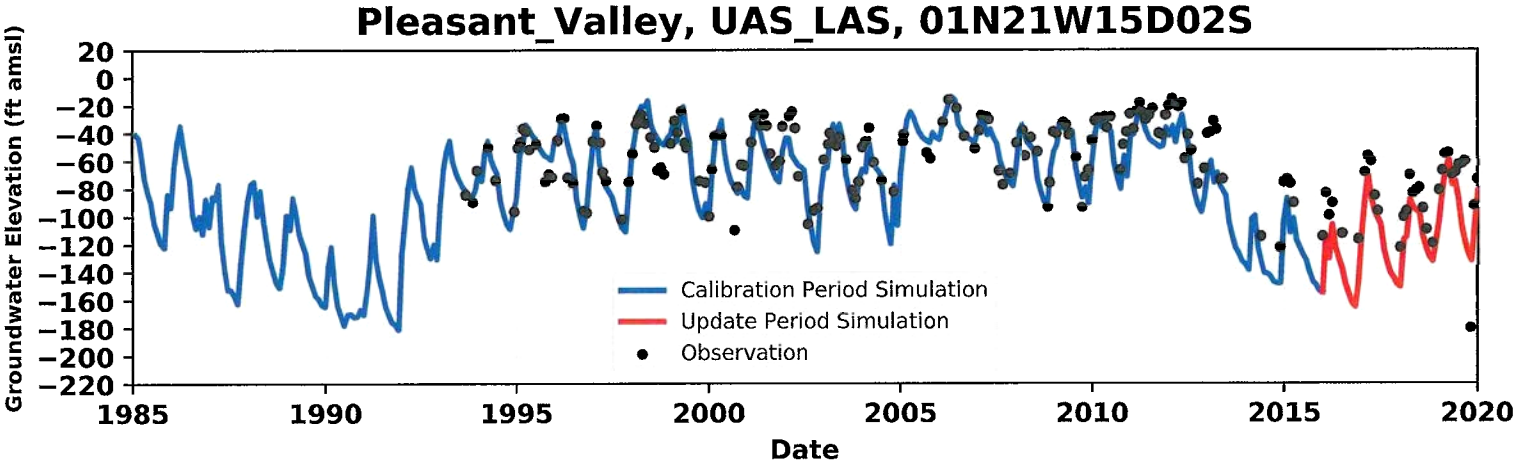

Pleasant_Valley, UAS_LAS, 01N21W03R01S
Groundwater Elevation (ft amsl)
60
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

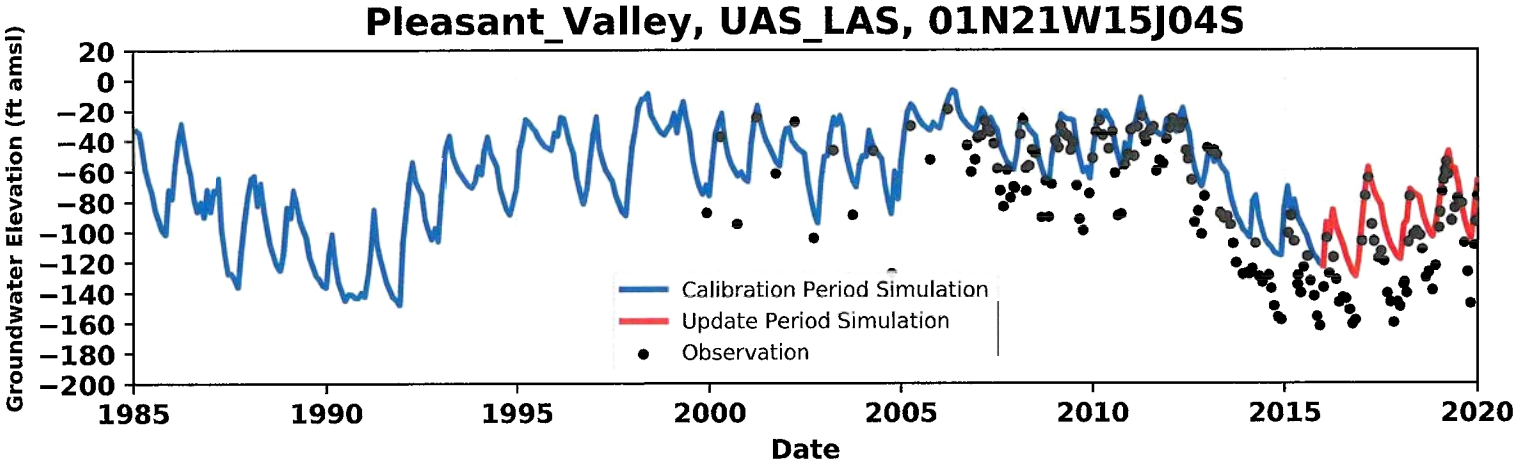

Pleasant_Valley, UAS_LAS, 01N21W02P01S
Groundwater Elevation (ft amsl)
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

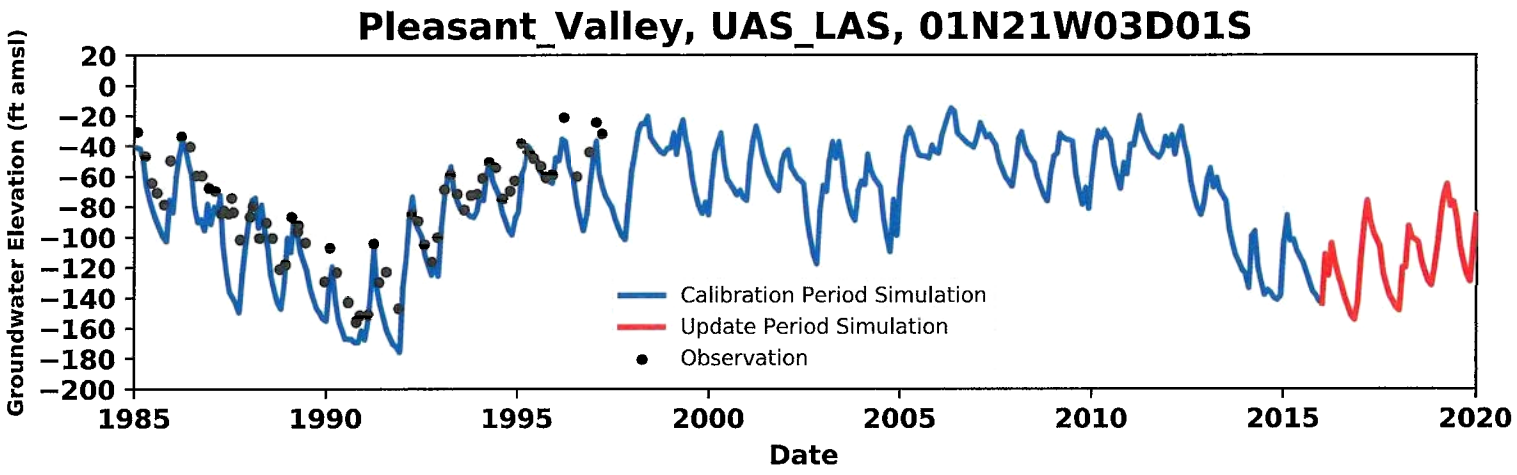

Pleasant_Valley, UAS_LAS, 01N21W03K01S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

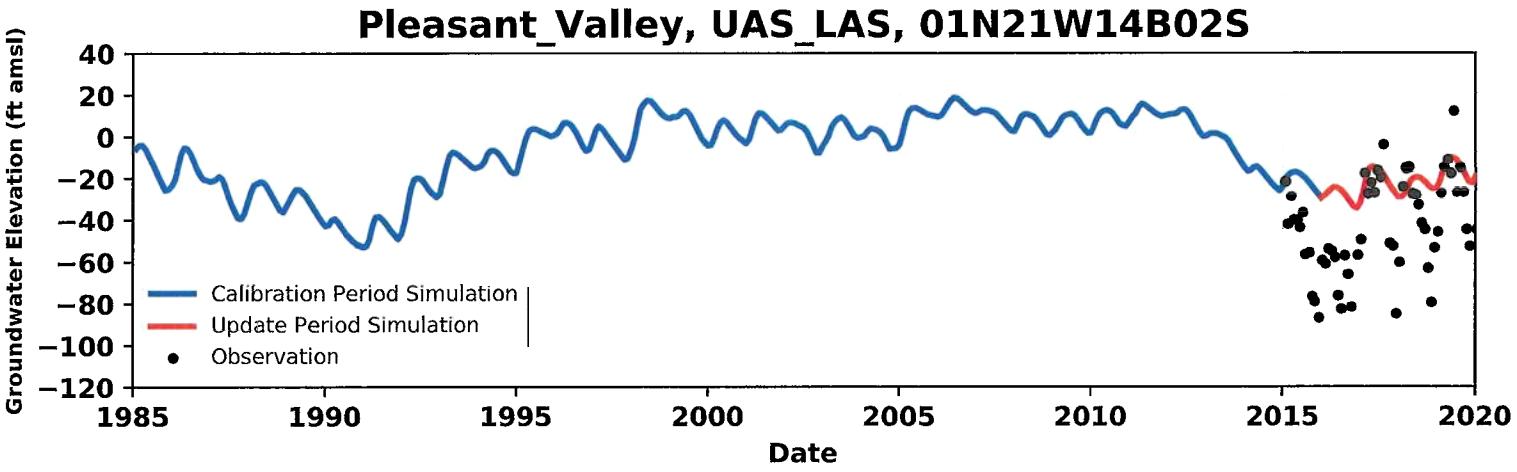

Pleasant_Valley, UAS_LAS, 01N21W04K01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

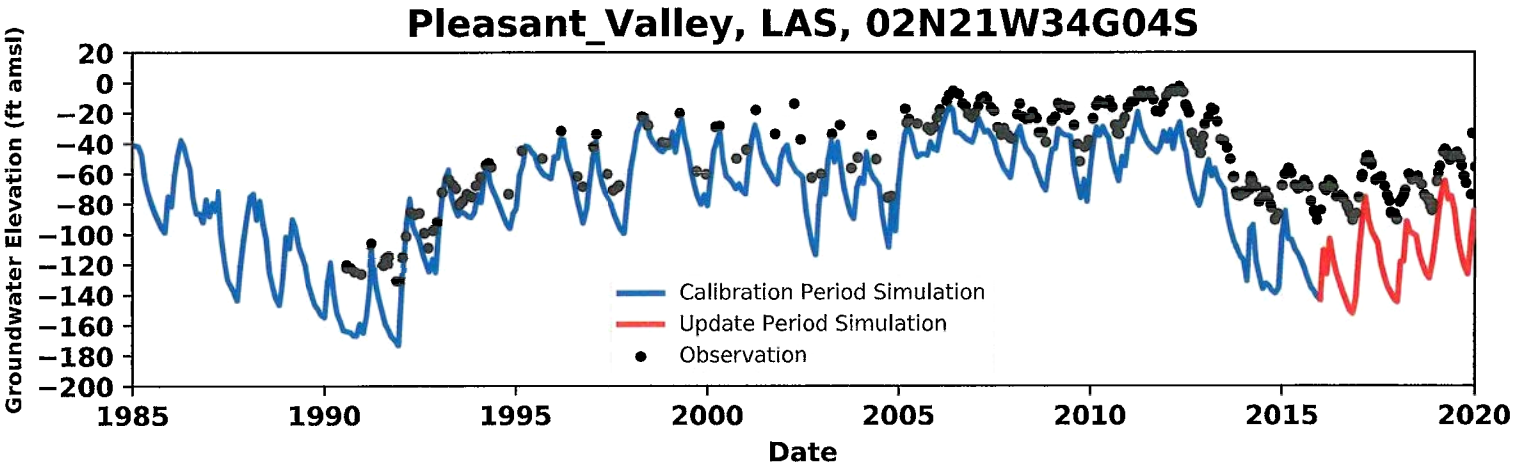

Pleasant_Valley, UAS_LAS, 01N21W10G01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, UAS_LAS, 01N21W15D02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, UAS_LAS, 01N21W15J04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, UAS_LAS, 01N21W03D01S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, UAS_LAS, 01N21W14B02S
Groundwater Elevation (ft amsl)
40
20
0
−20
−40
−60
−80
−100
−120
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 02N21W34G04S
Groundwater Elevation (ft amsl)
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0
−20
−40
−60
−80
−100
−120
−140
−160
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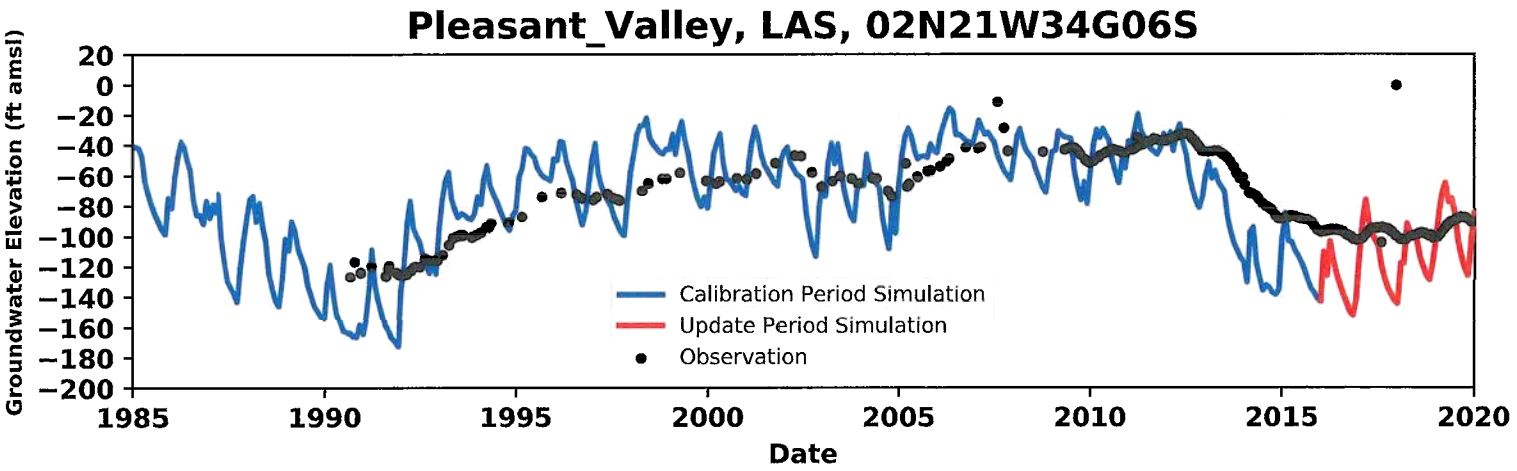
−200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 02N21W34G06S
Groundwater Elevation (ft amsl)
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0
−20
−40
−60
−80
−100
−120
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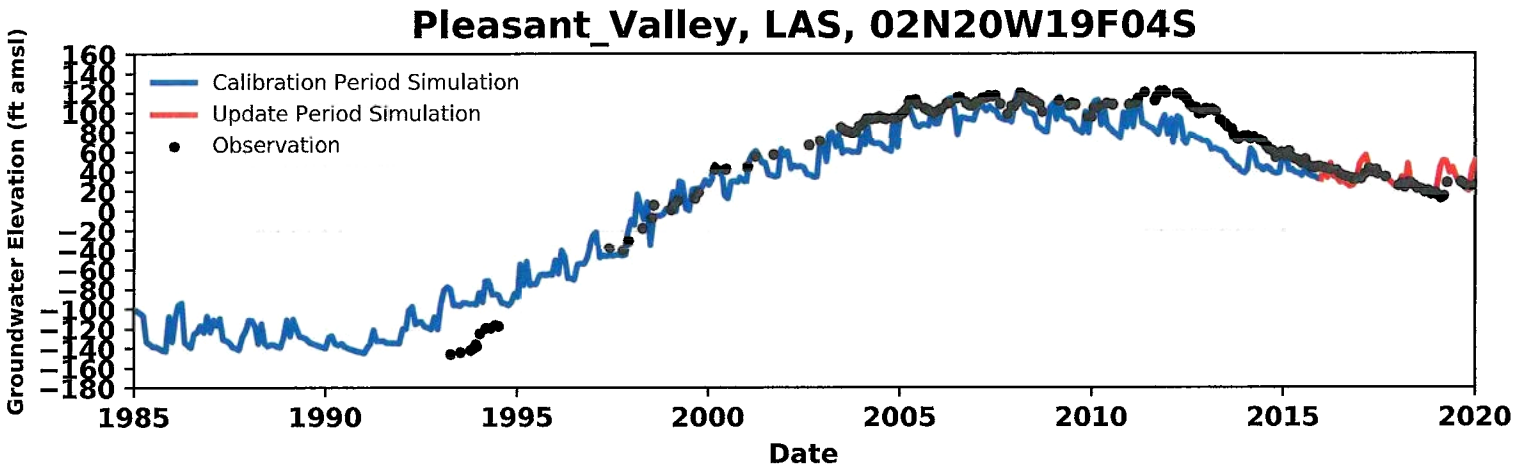
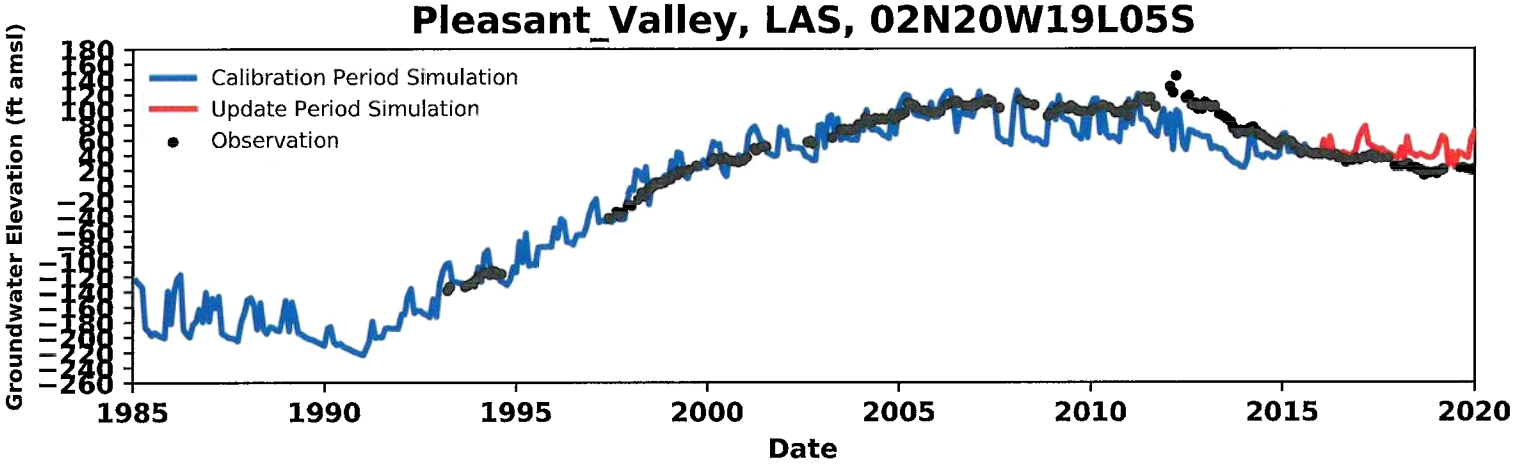
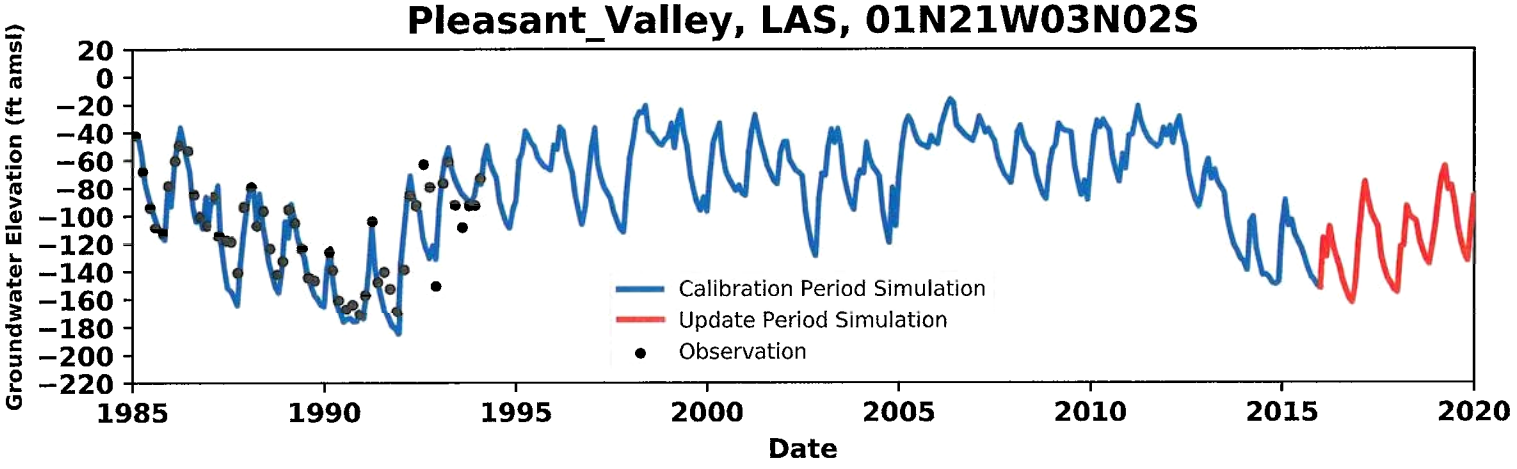
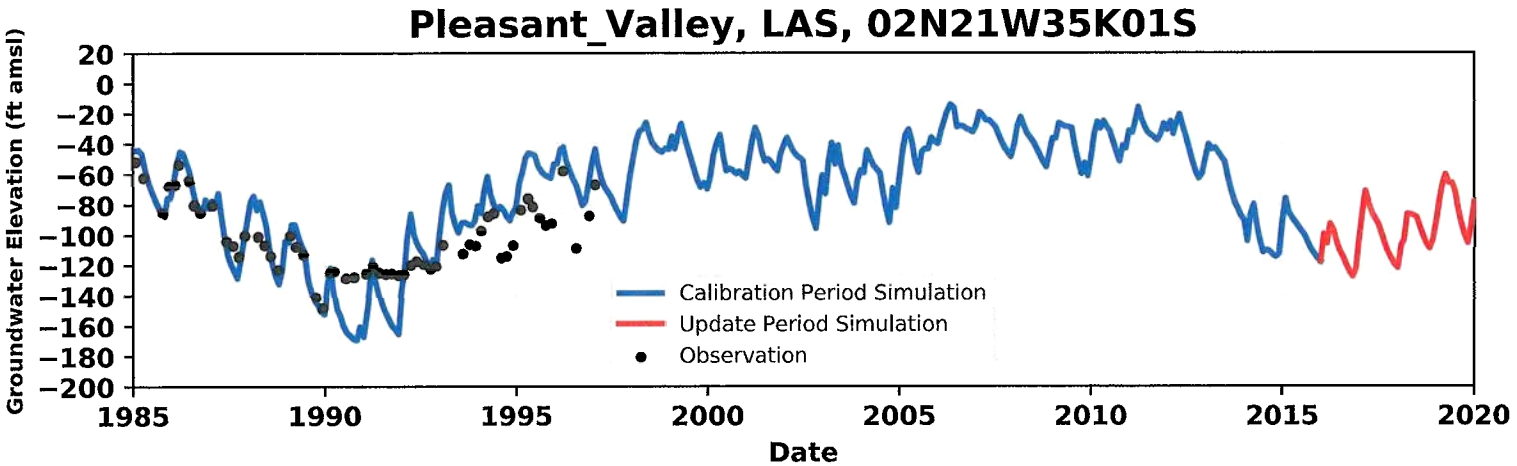
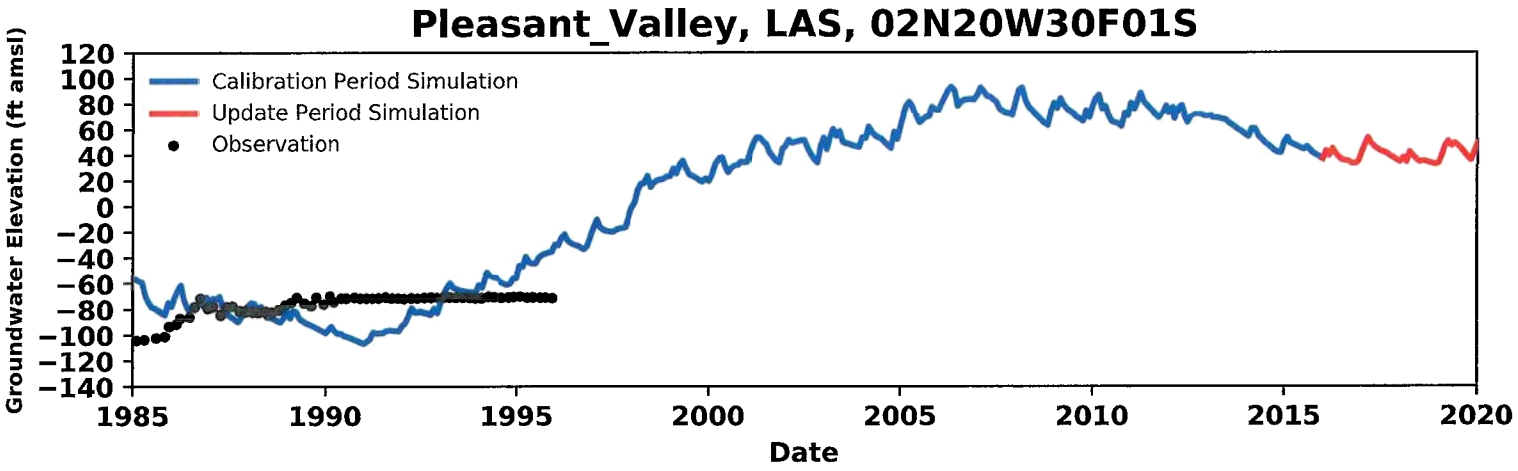
−160
−180
−200
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

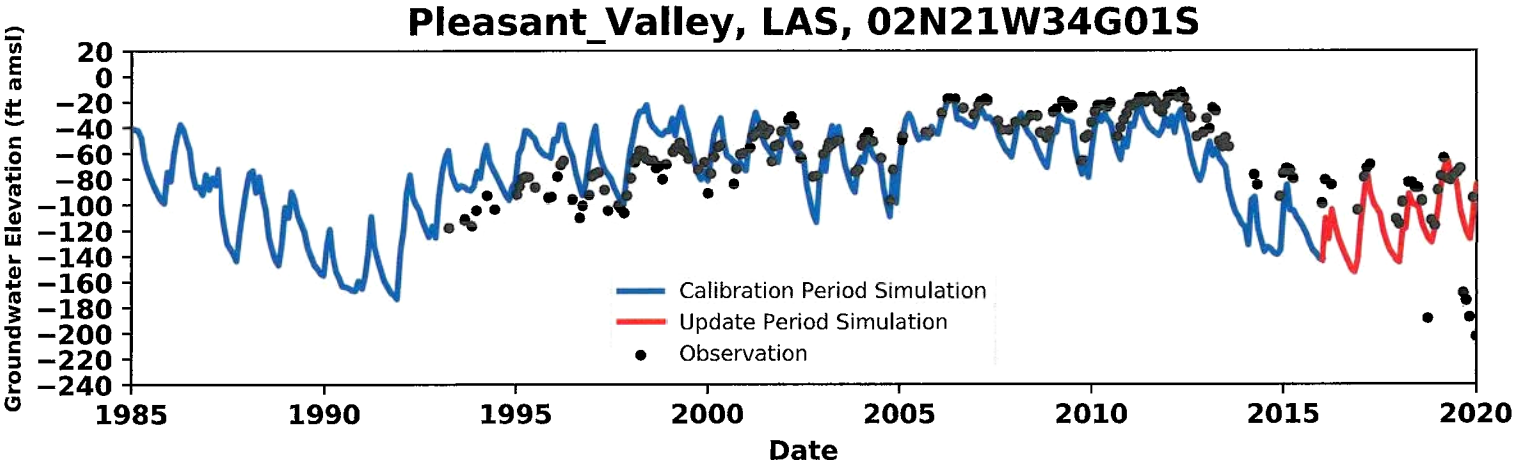

Pleasant_Valley, LAS, 02N20W19F04S
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date

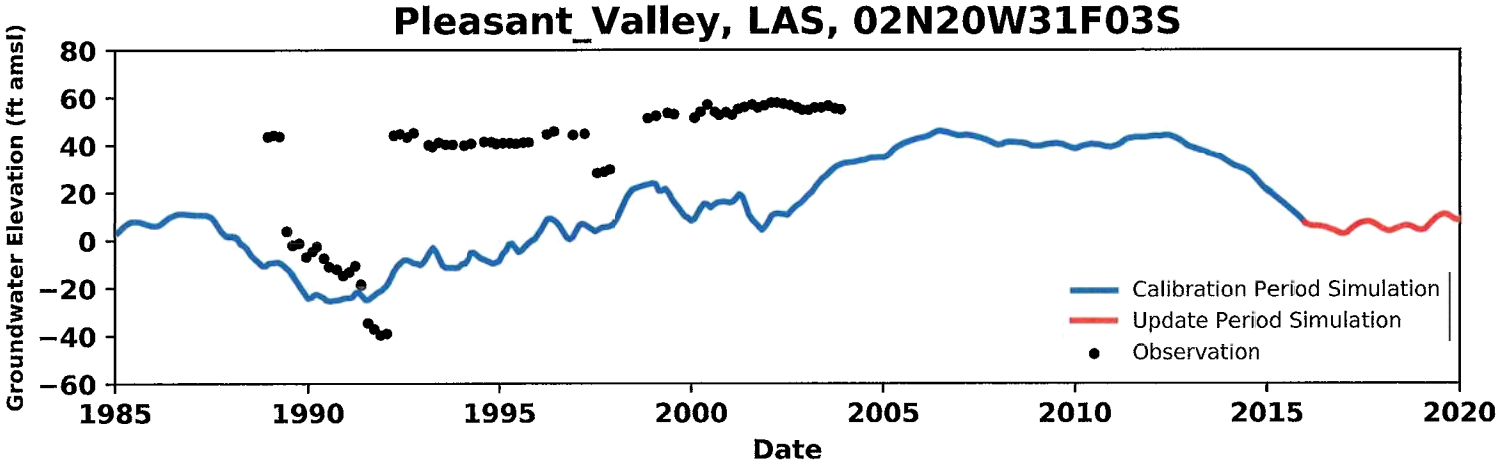

Pleasant_Valley, LAS, 02N20W19L05S
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date

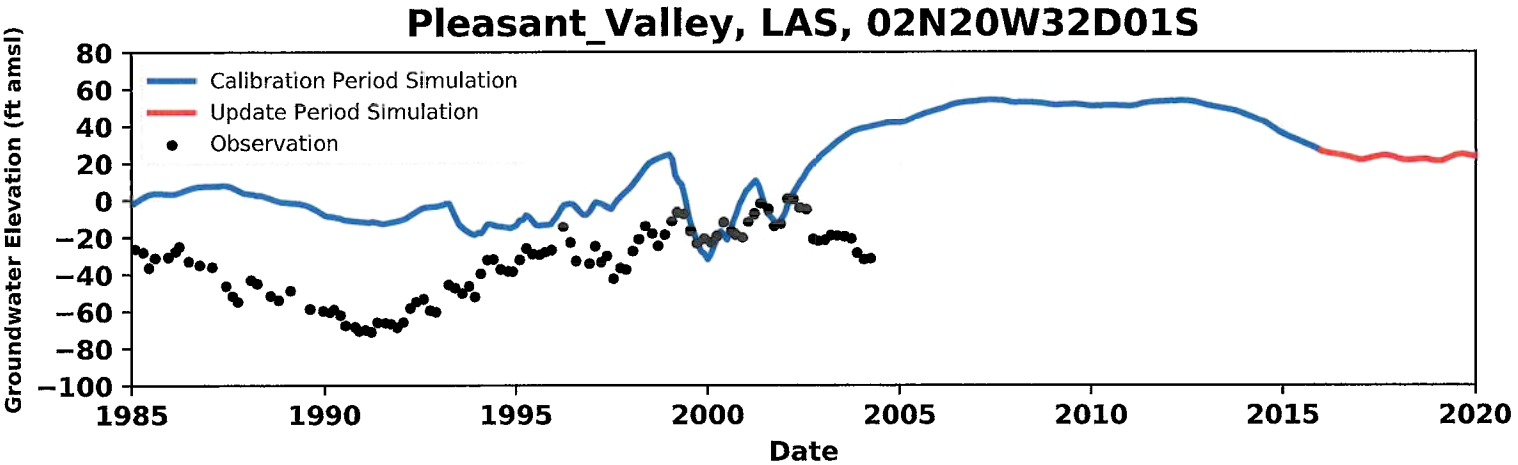

Pleasant_Valley, LAS, 01N21W03N02S
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date

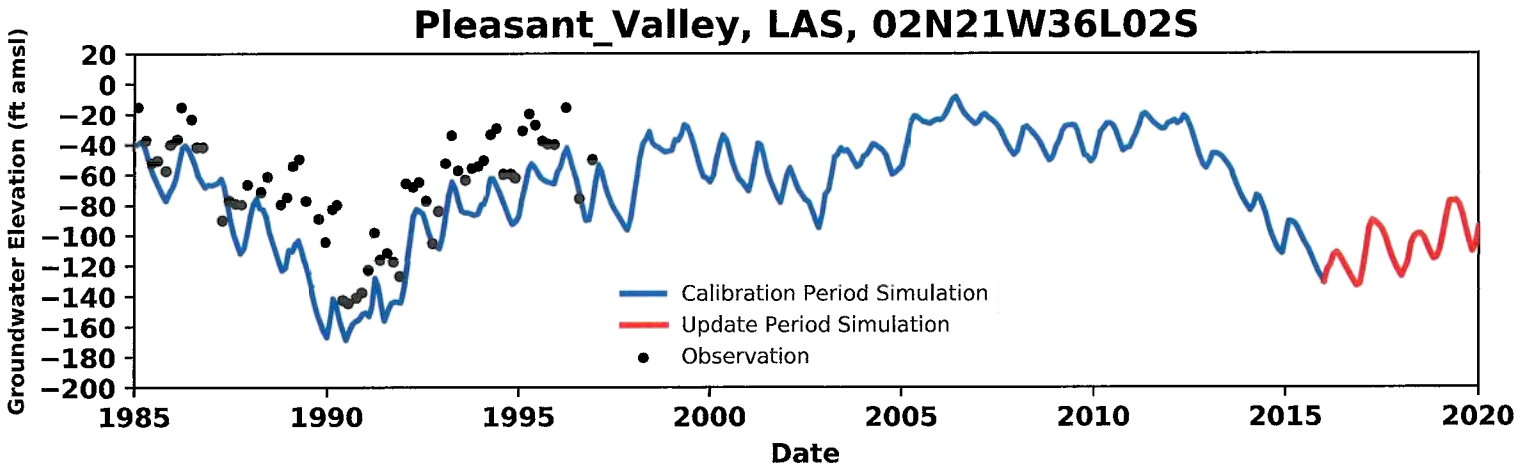

Pleasant_Valley, LAS, 02N21W35K01S
Calibration Period Simulation
Update Period Simulation
Observation
Groundwater Elevation (ft amsl)
Date

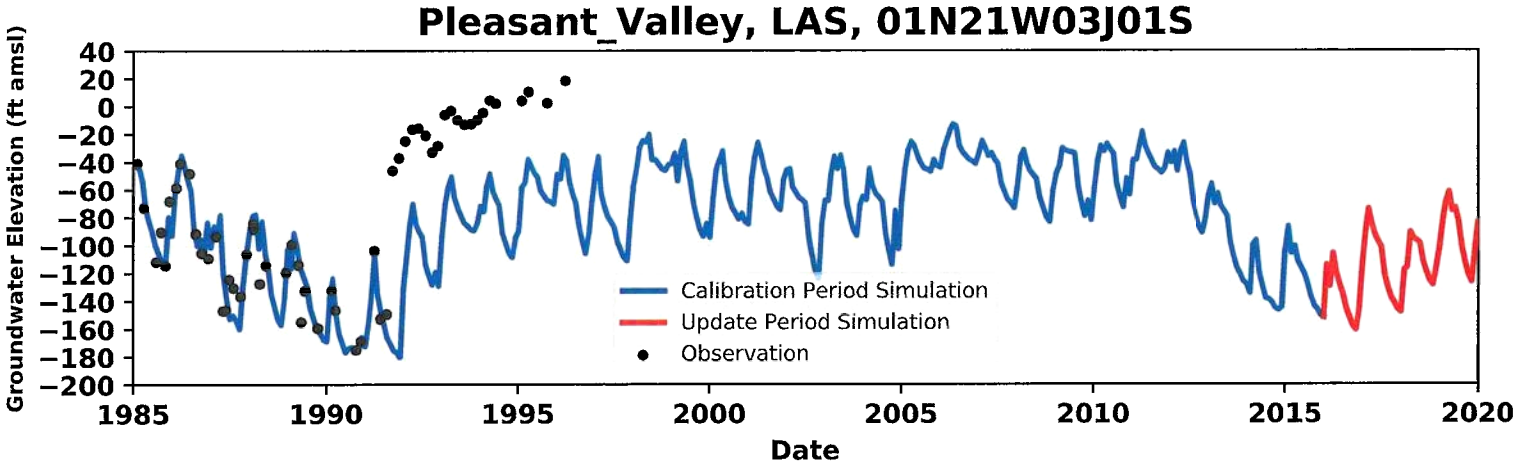

Pleasant_Valley, LAS, 02N20W30F01S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date

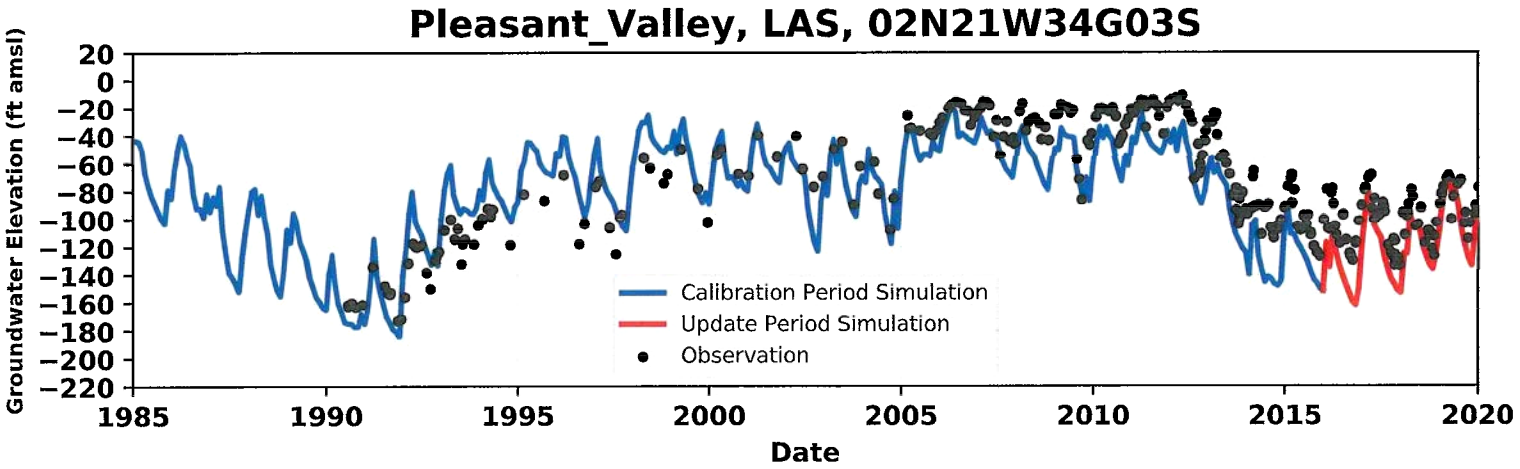

Pleasant_Valley, LAS, 02N21W34G01S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date

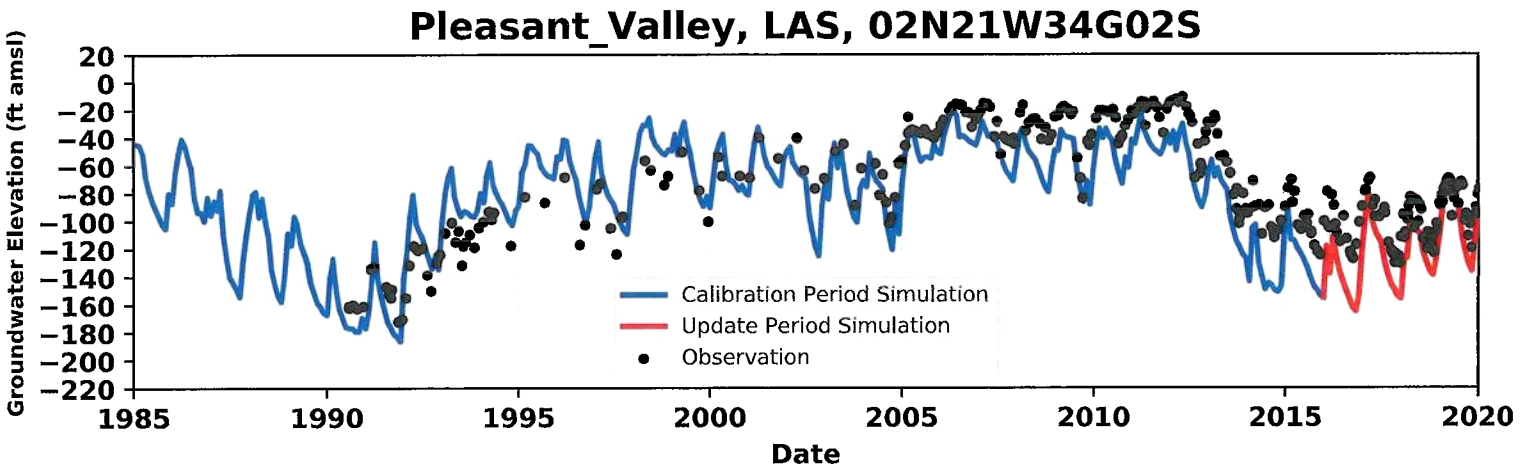

Pleasant_Valley, LAS, 02N20W31F03S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date

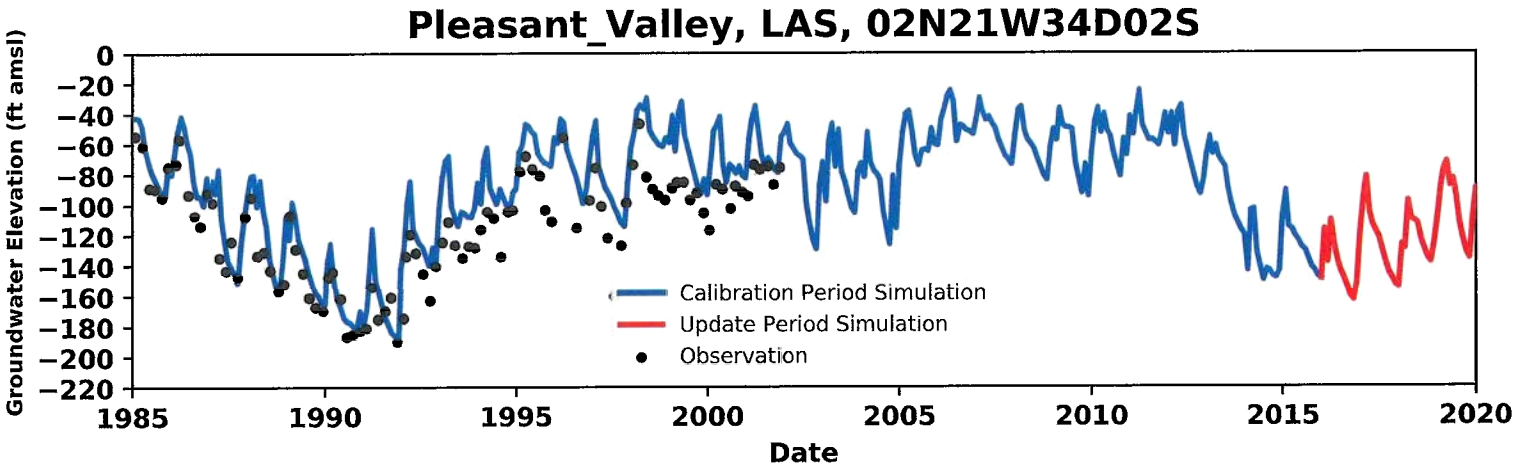

Pleasant_Valley, LAS, 02N20W32D01S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date

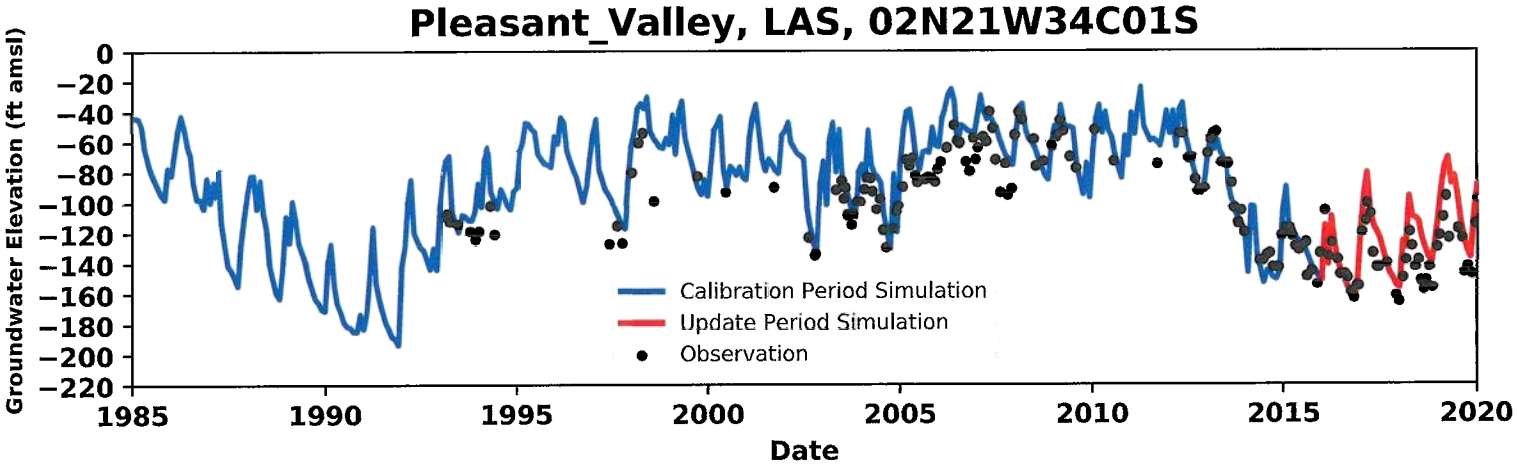

Pleasant_Valley, LAS, 02N21W36L02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 01N21W03J01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 02N21W34G03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 02N21W34G02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 02N21W34D02S
Groundwater Elevation (ft amsl)
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 02N21W34C01S
Groundwater Elevation (ft amsl)
0
−20
−40
−60
−80
−100
−120
−140
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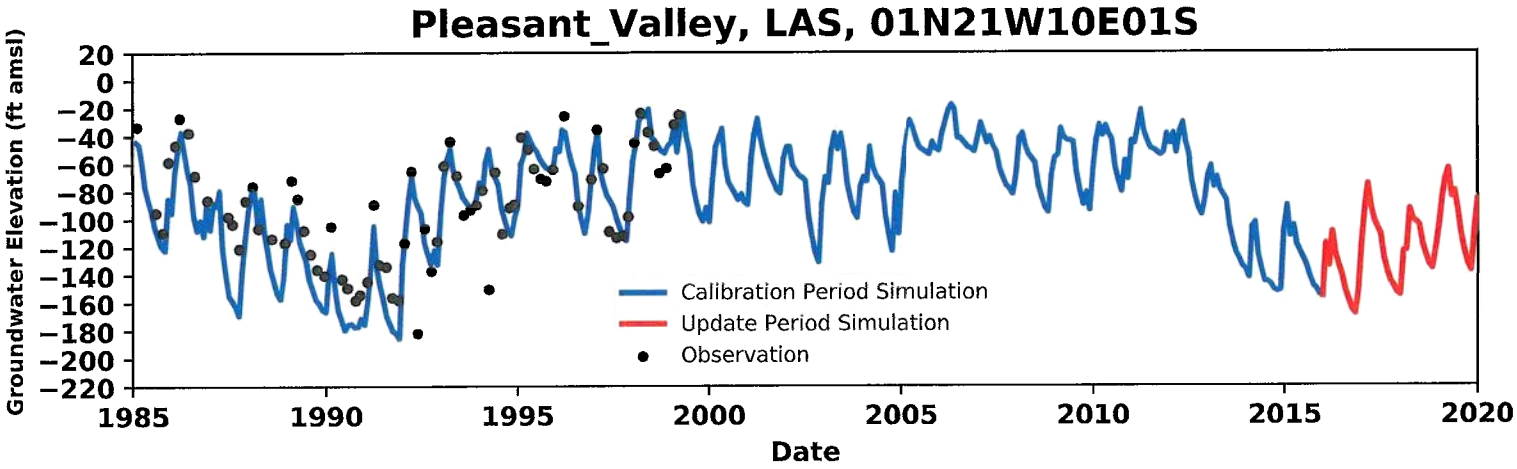
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation


Pleasant_Valley, LAS, 01N21W10E01S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
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−180
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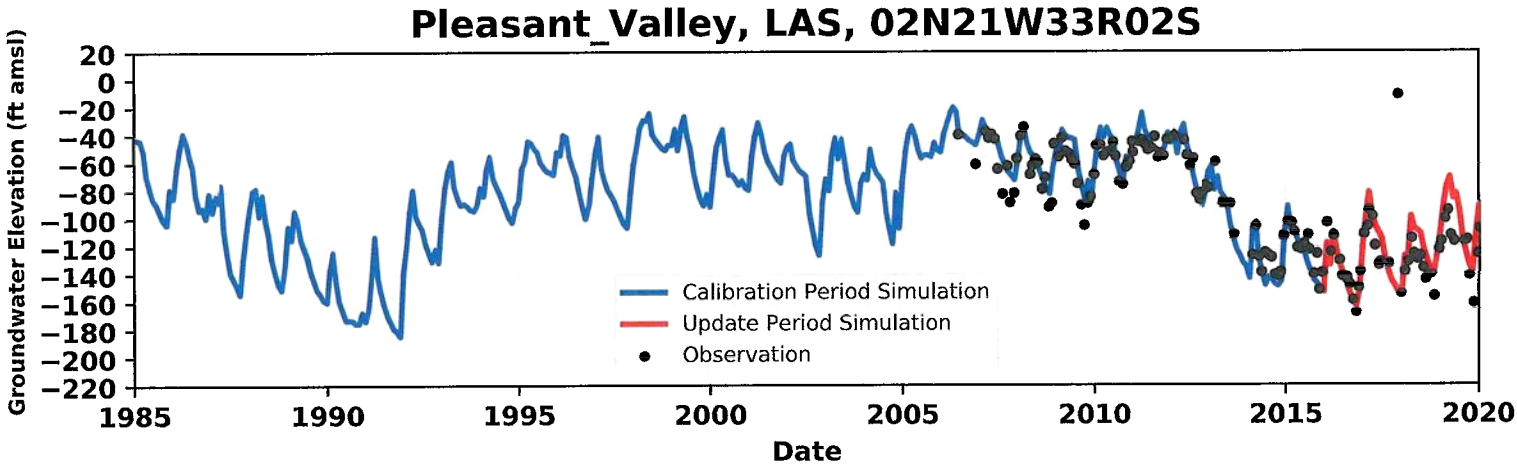
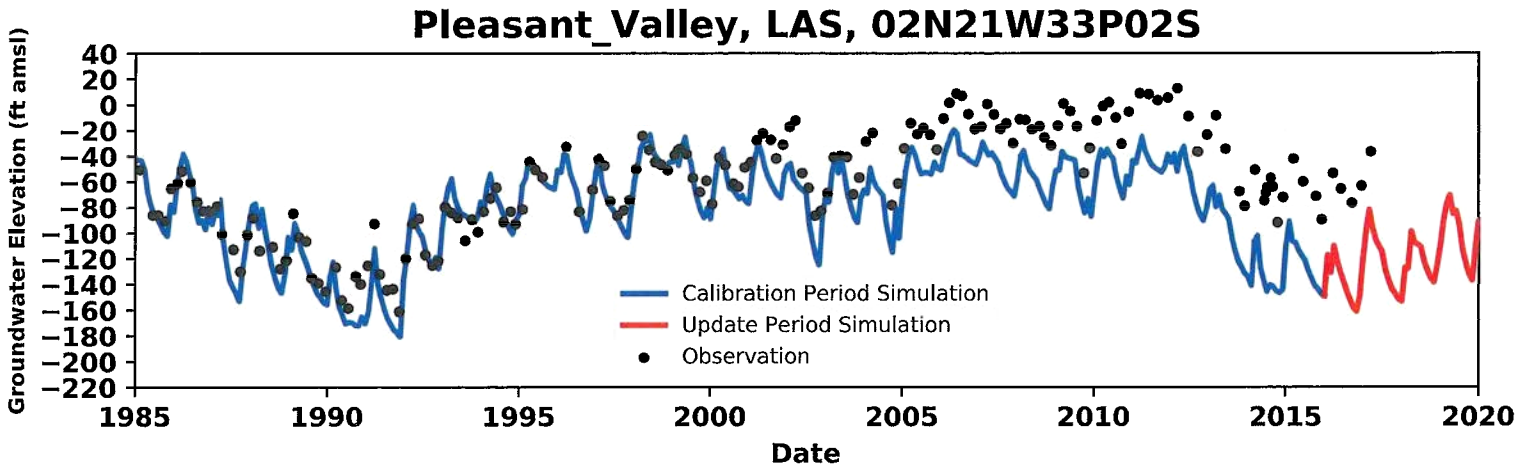
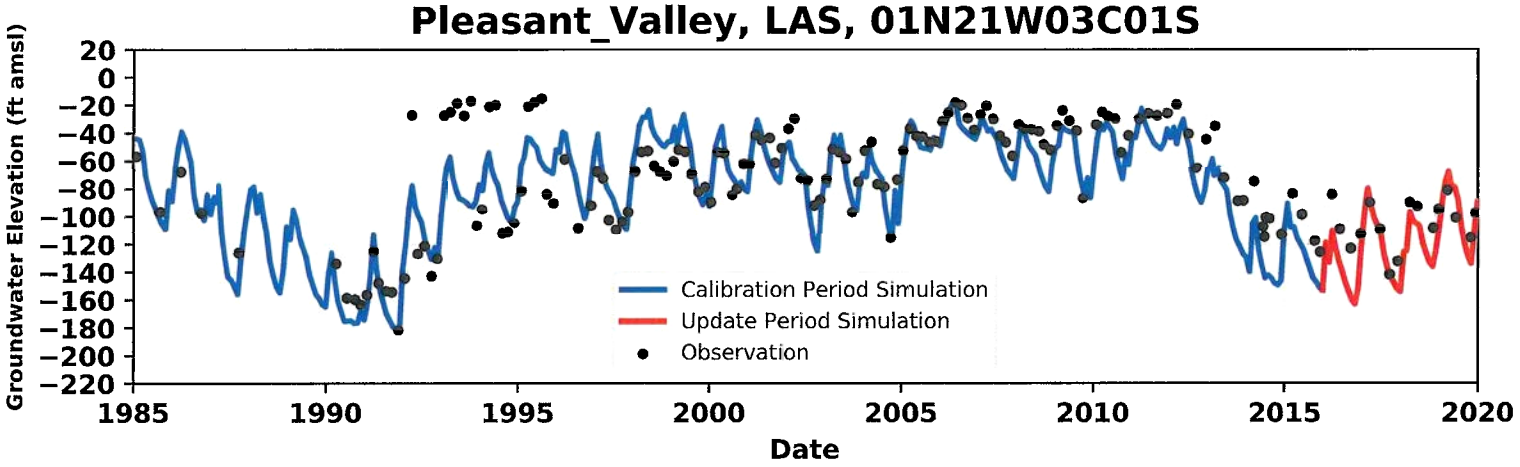
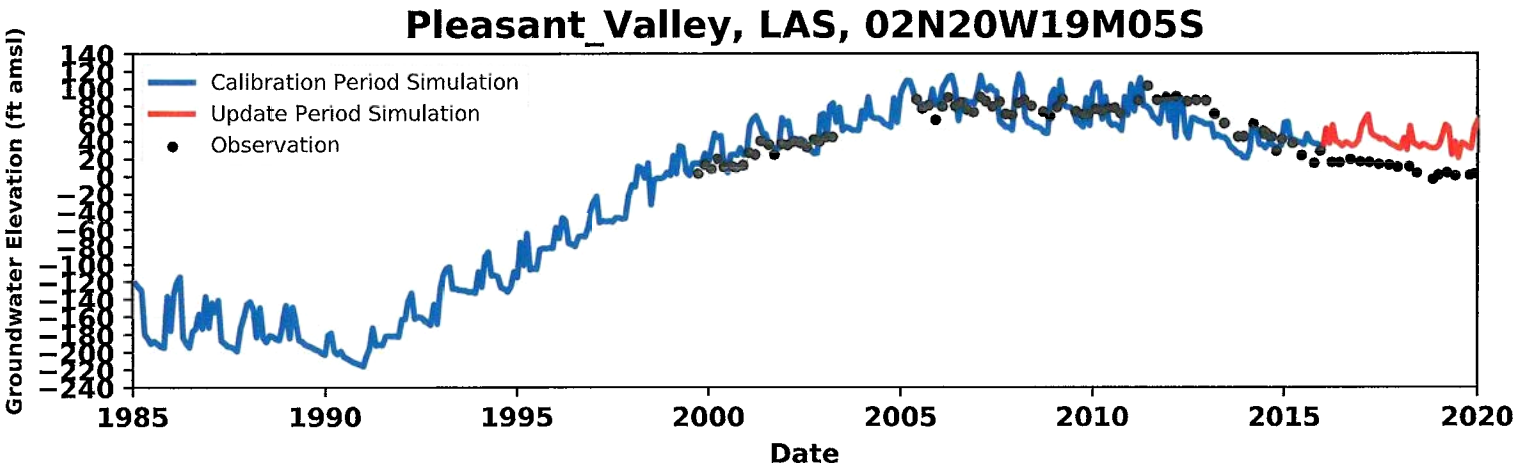
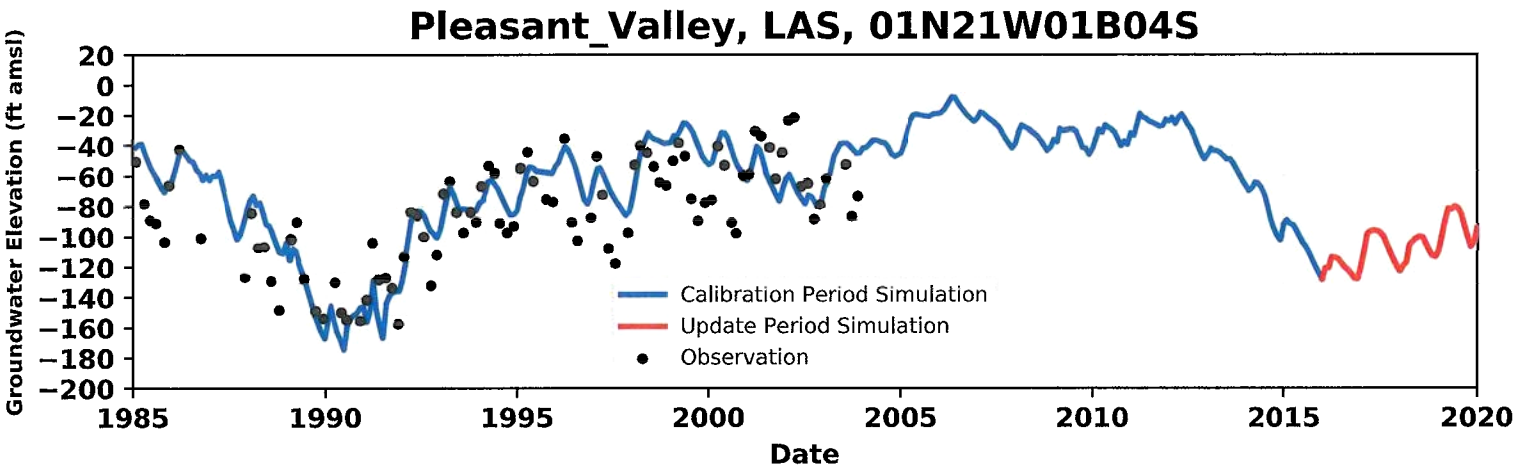
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

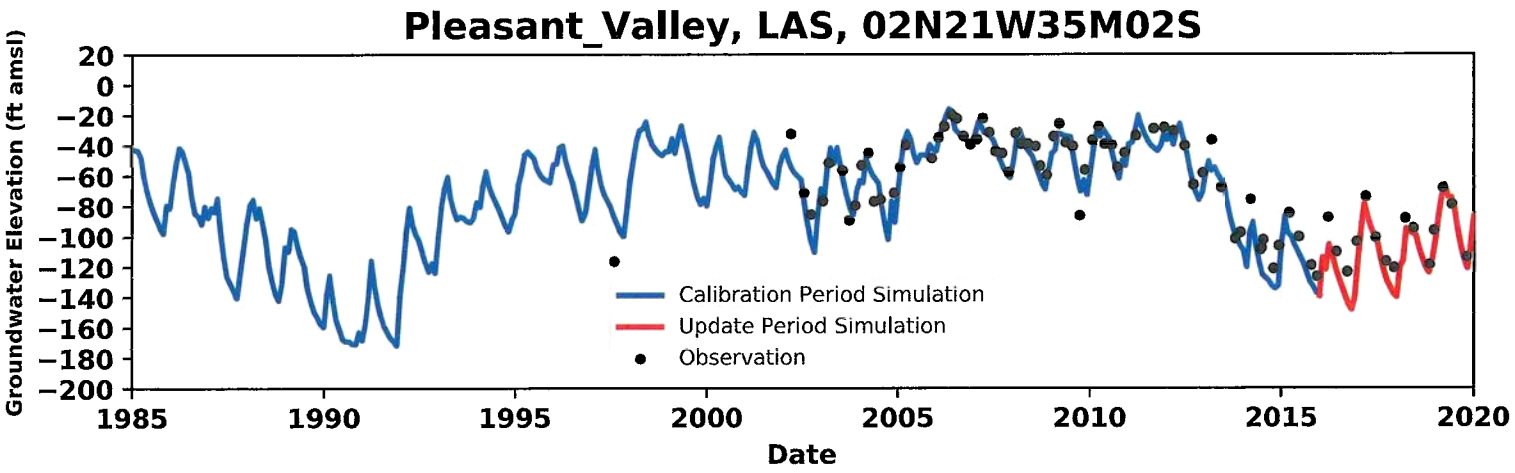

Pleasant_Valley, LAS, 02N21W33R02S
Groundwater Elevation (ft amsl)
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
−220
1985
1990
1995
2000
2005
2010
2015
2020
Date
Calibration Period Simulation
Update Period Simulation
Observation

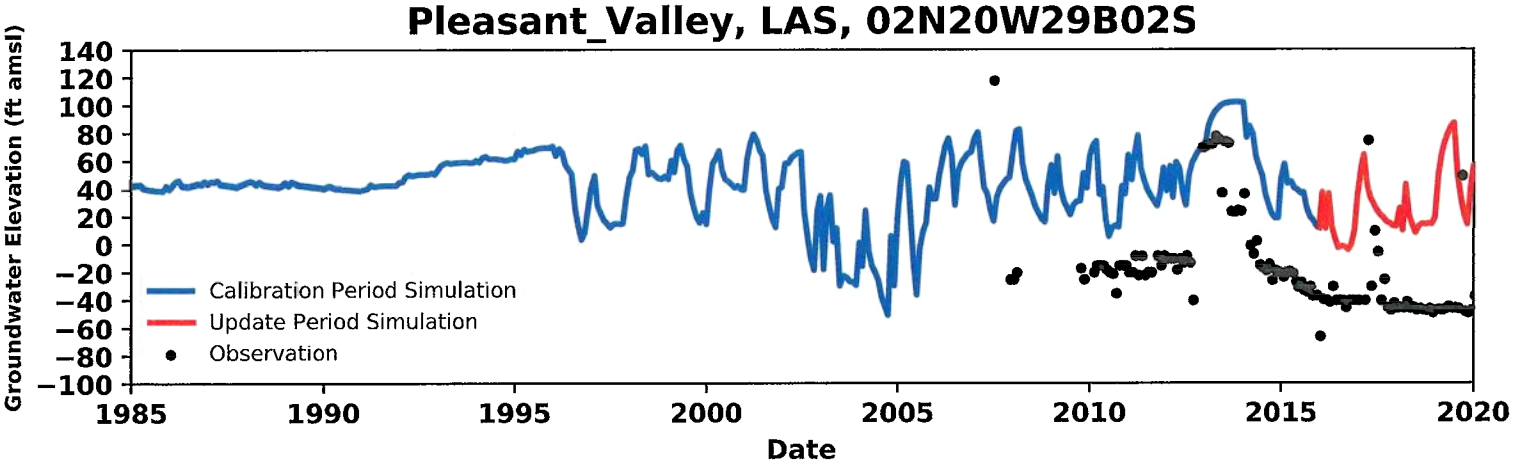

Pleasant_Valley, LAS, 02N21W33P02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

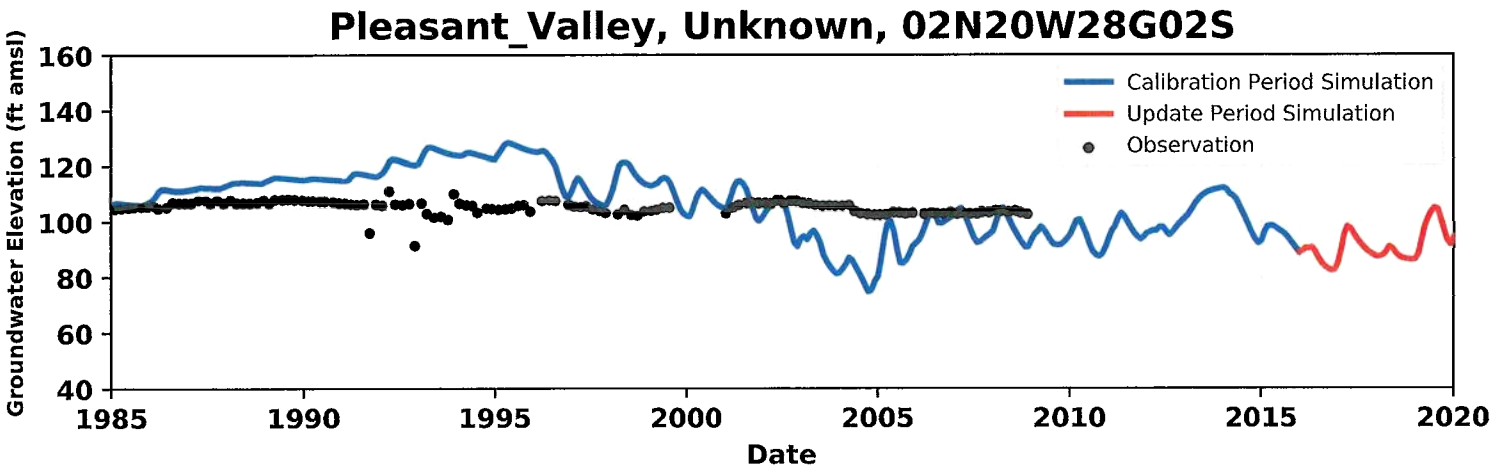

Pleasant_Valley, LAS, 01N21W03C01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

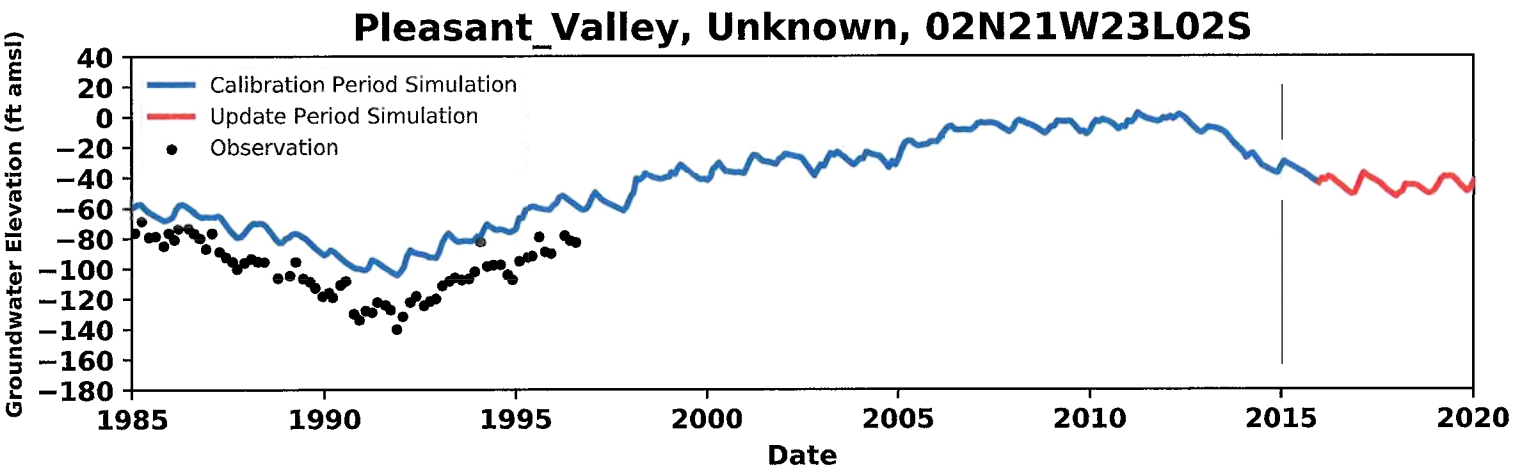

Pleasant_Valley, LAS, 02N20W19M05S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

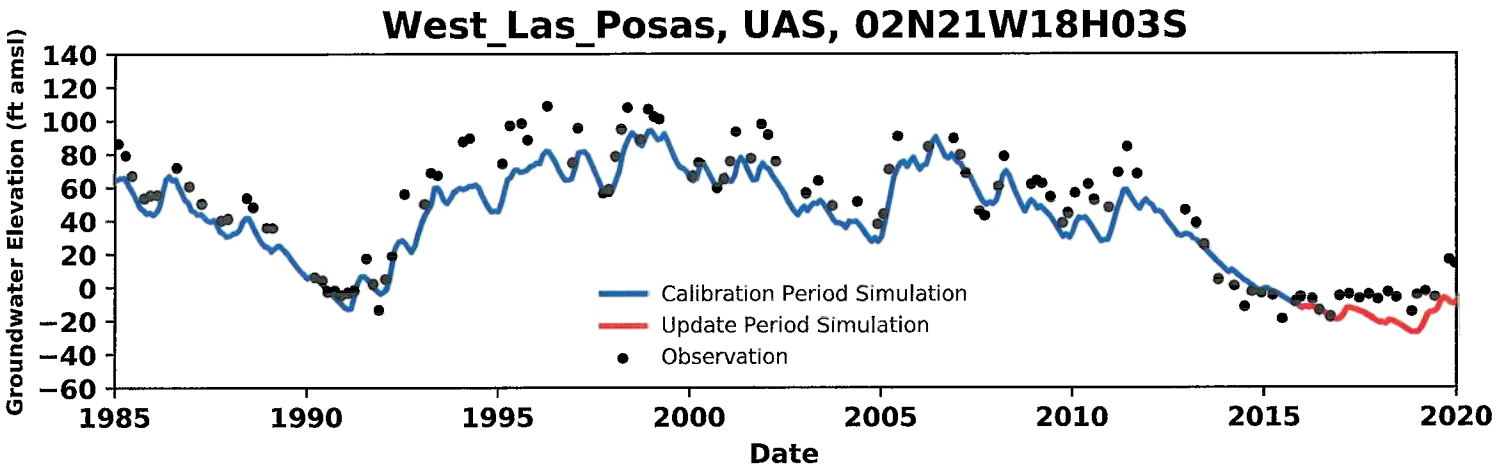

Pleasant_Valley, LAS, 01N21W01B04S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

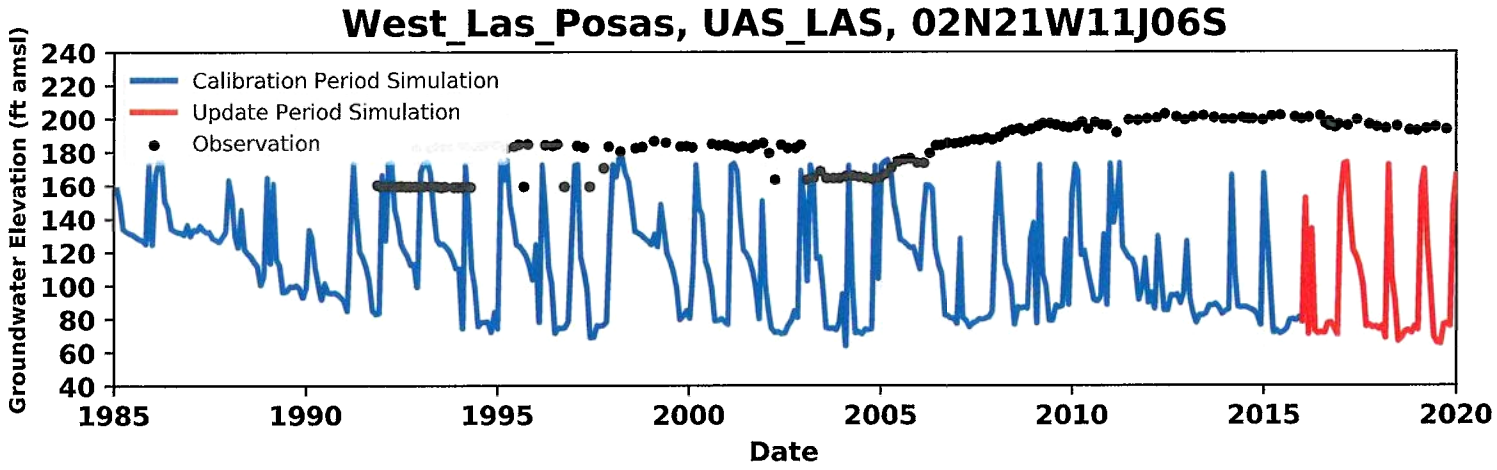

Pleasant_Valley, LAS, 02N21W35M02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

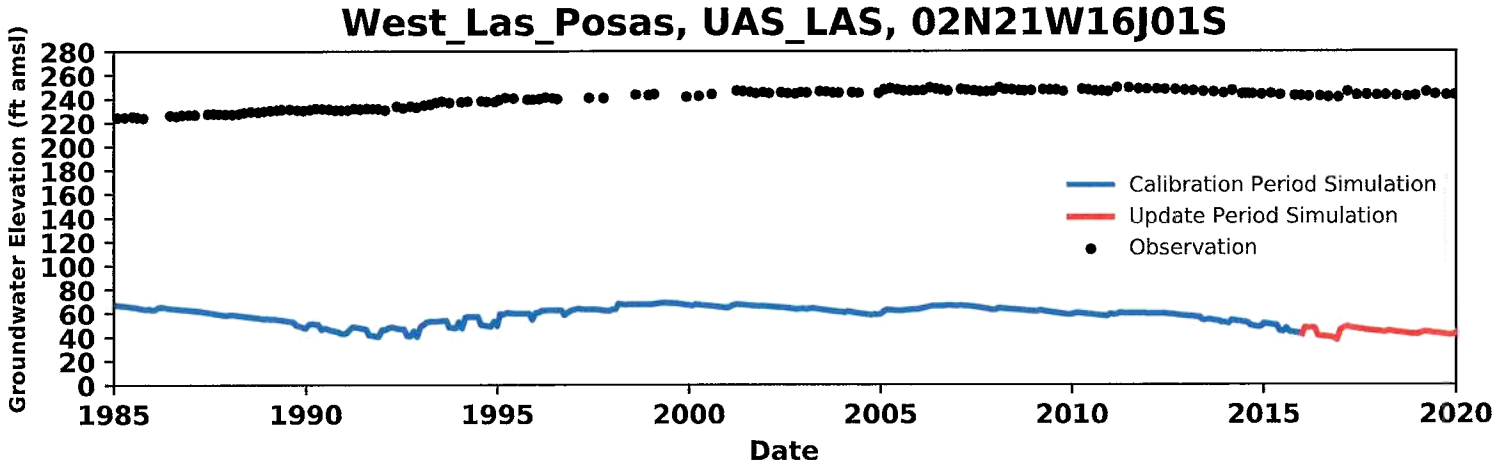

Pleasant_Valley, LAS, 02N20W29B02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

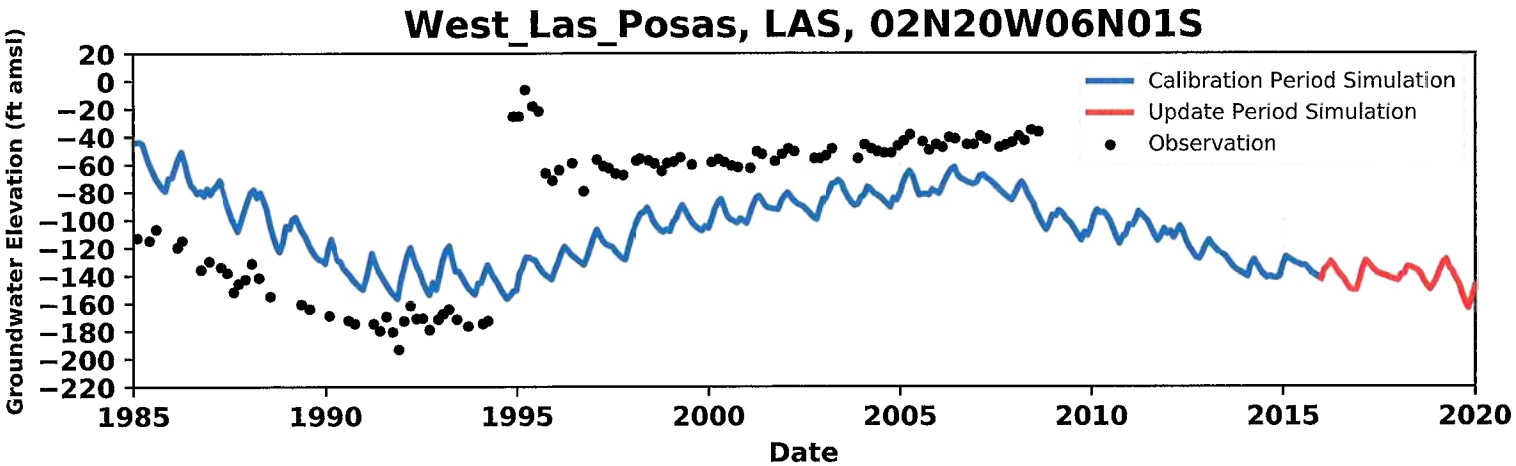

Pleasant_Valley, Unknown, 02N20W28G02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

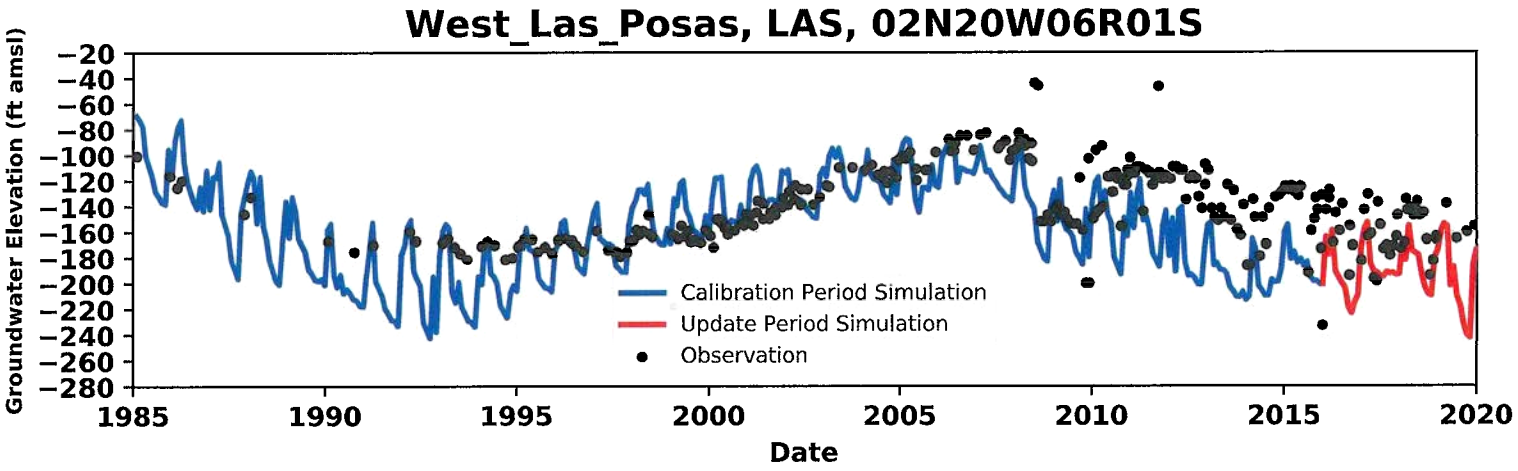

Pleasant_Valley, Unknown, 02N21W23L02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


West_Las_Posas, UAS, 02N21W18H03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


West_Las_Posas, UAS_LAS, 02N21W11J06S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


West_Las_Posas, UAS_LAS, 02N21W16J01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


West_Las_Posas, LAS, 02N20W06N01S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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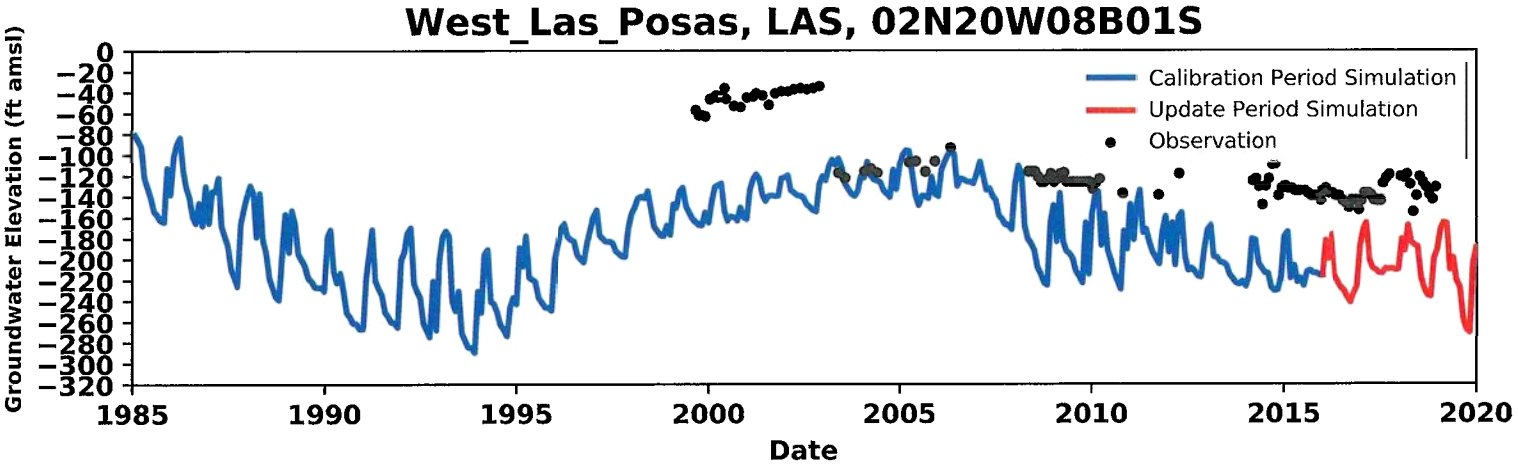
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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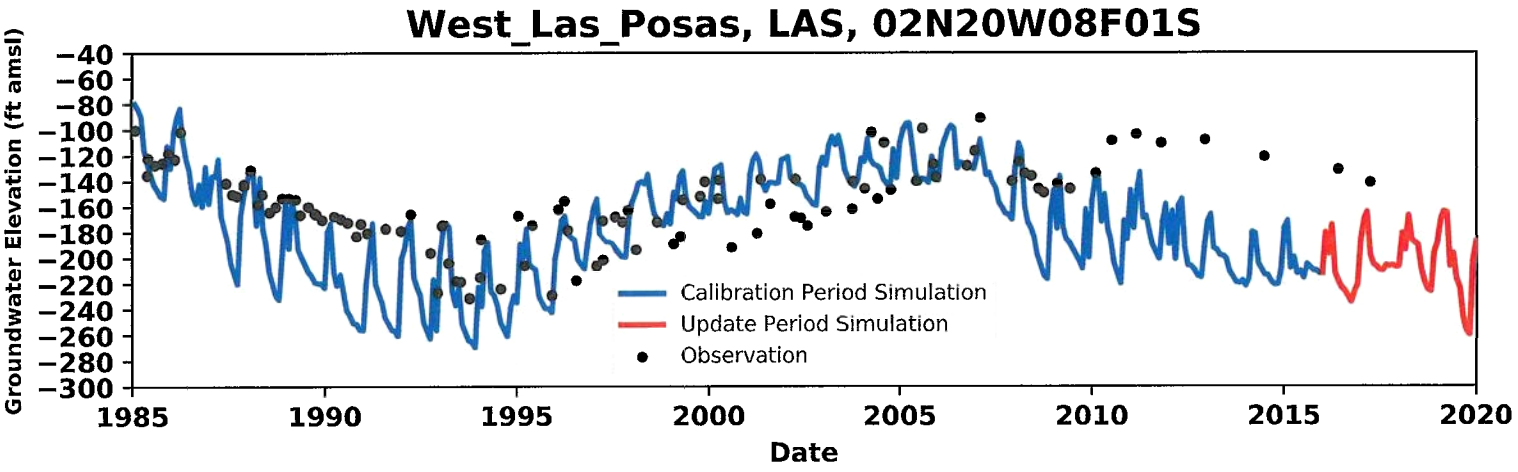
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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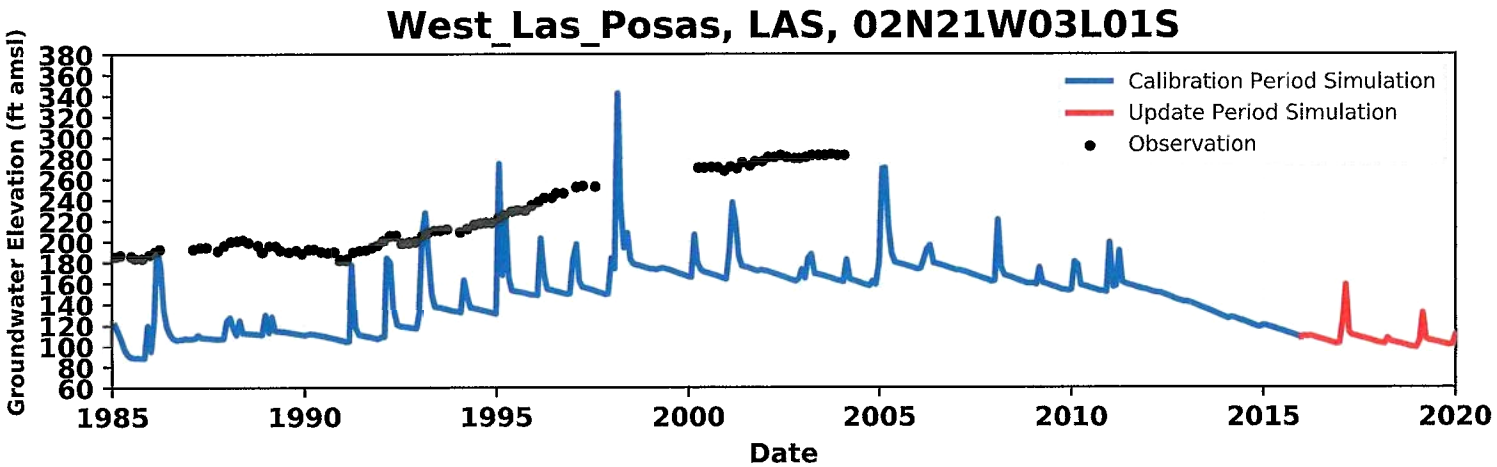
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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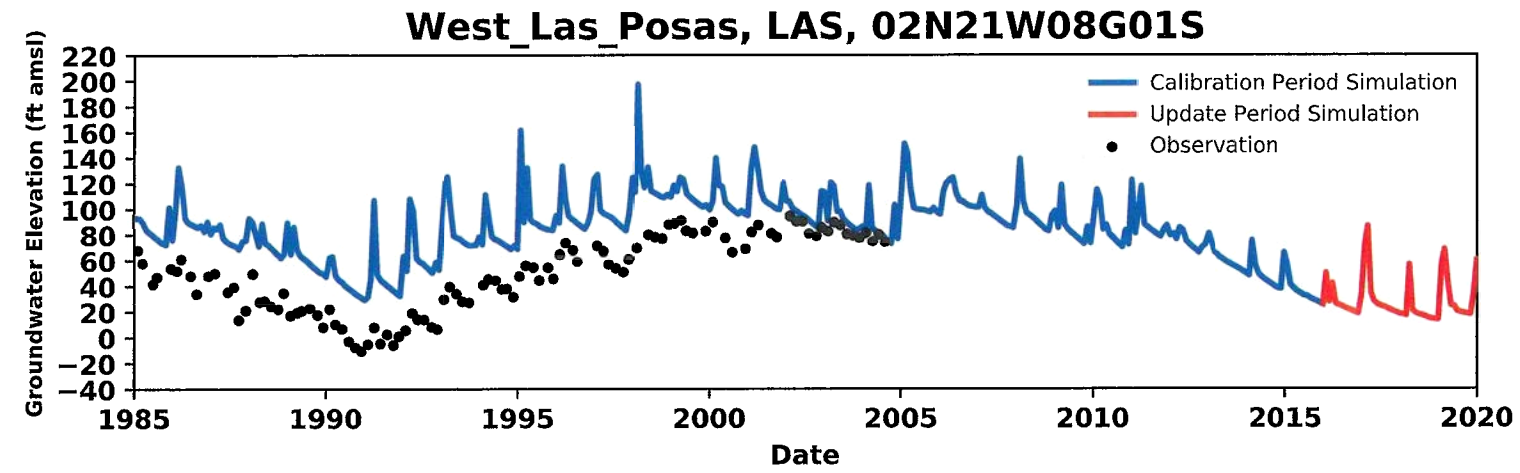
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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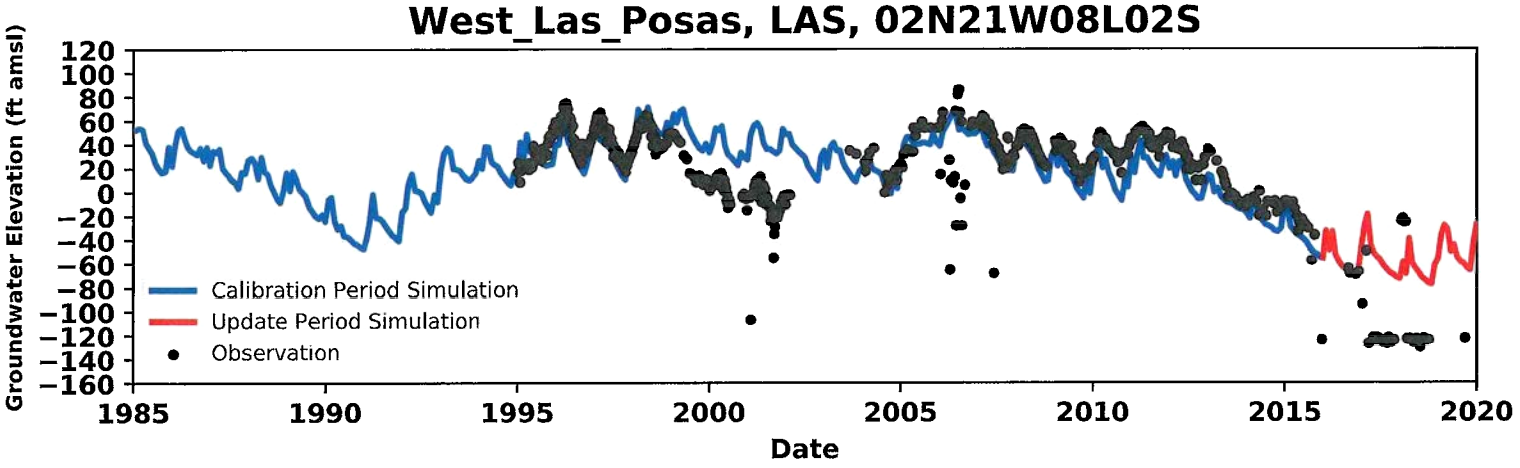
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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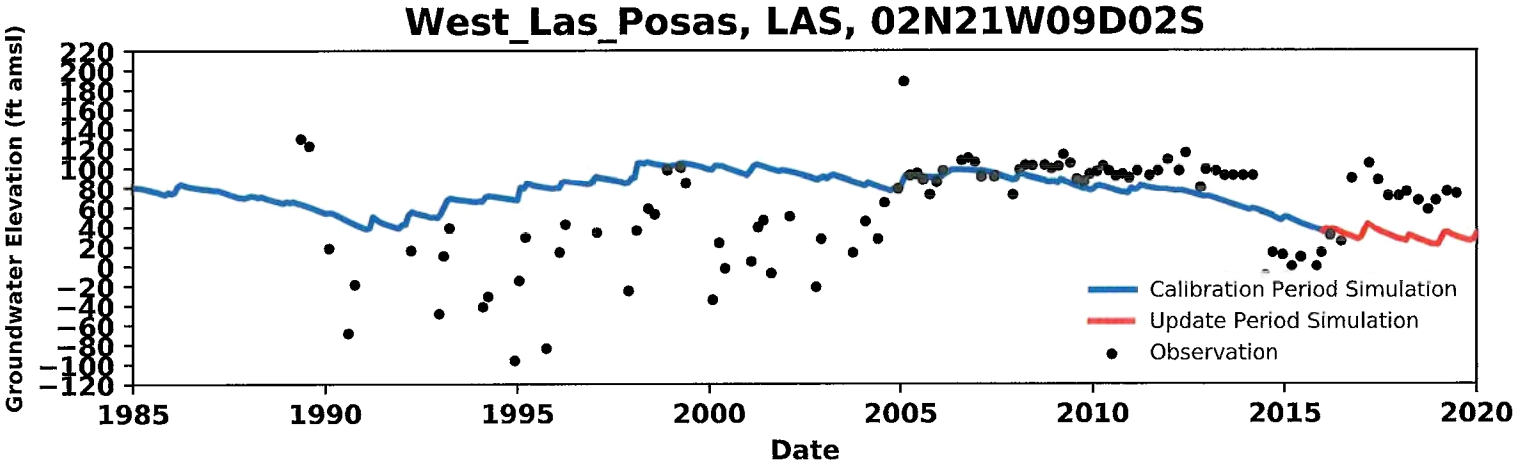
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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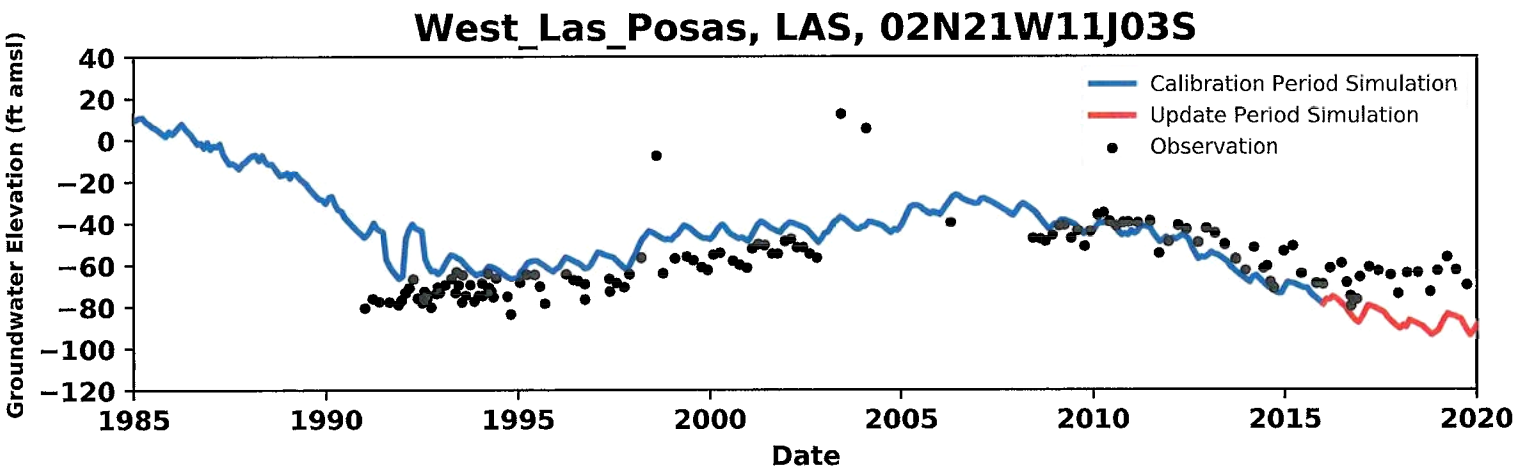
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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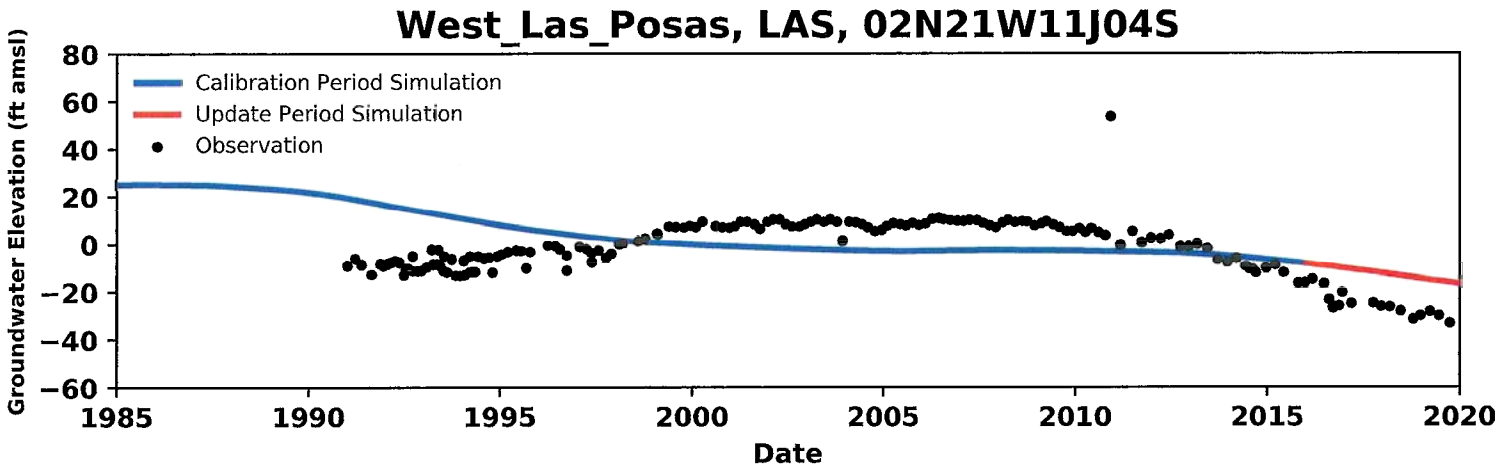
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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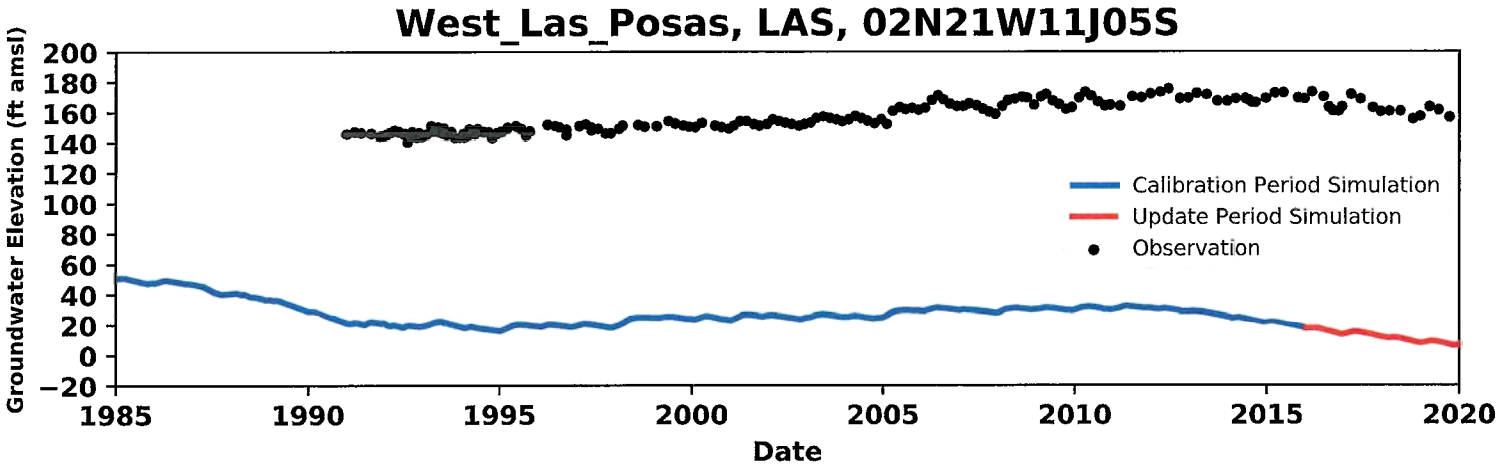
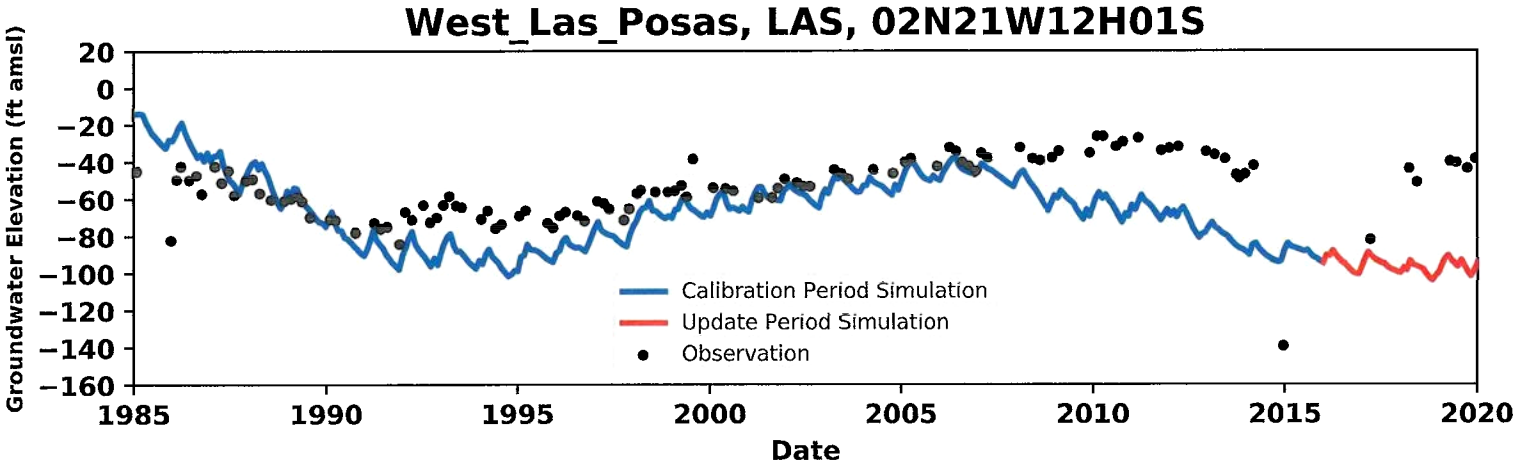
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date


West_Las_Posas, LAS, 02N21W11J05S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date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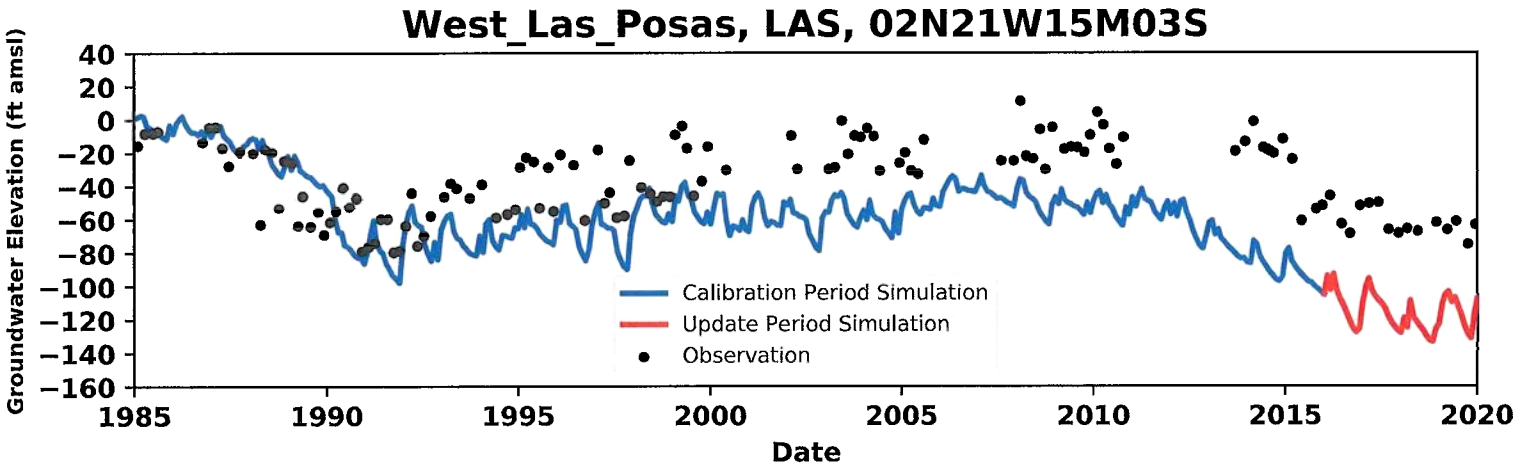
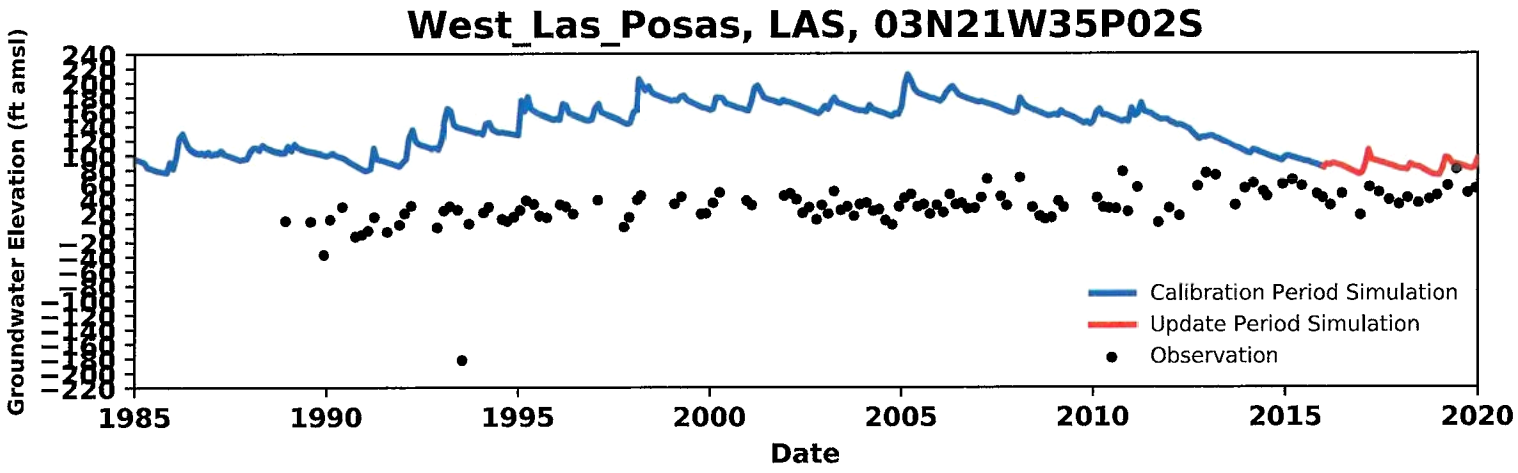
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date


West_Las_Posas, LAS, 02N21W15M03S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
Date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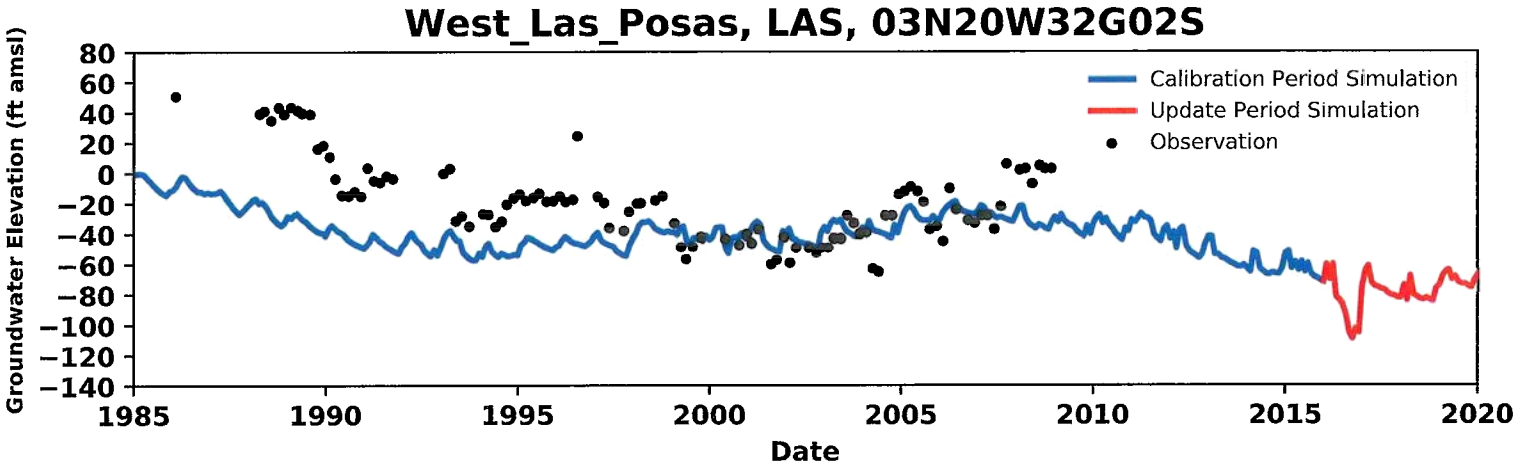
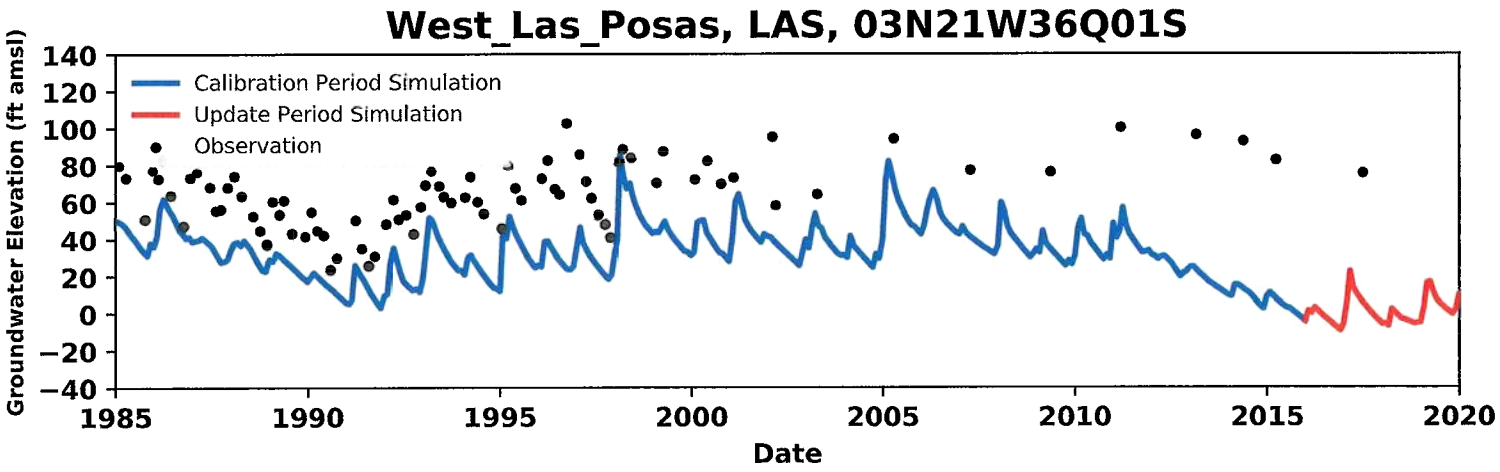
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


West_Las_Posas, LAS, 03N20W32G02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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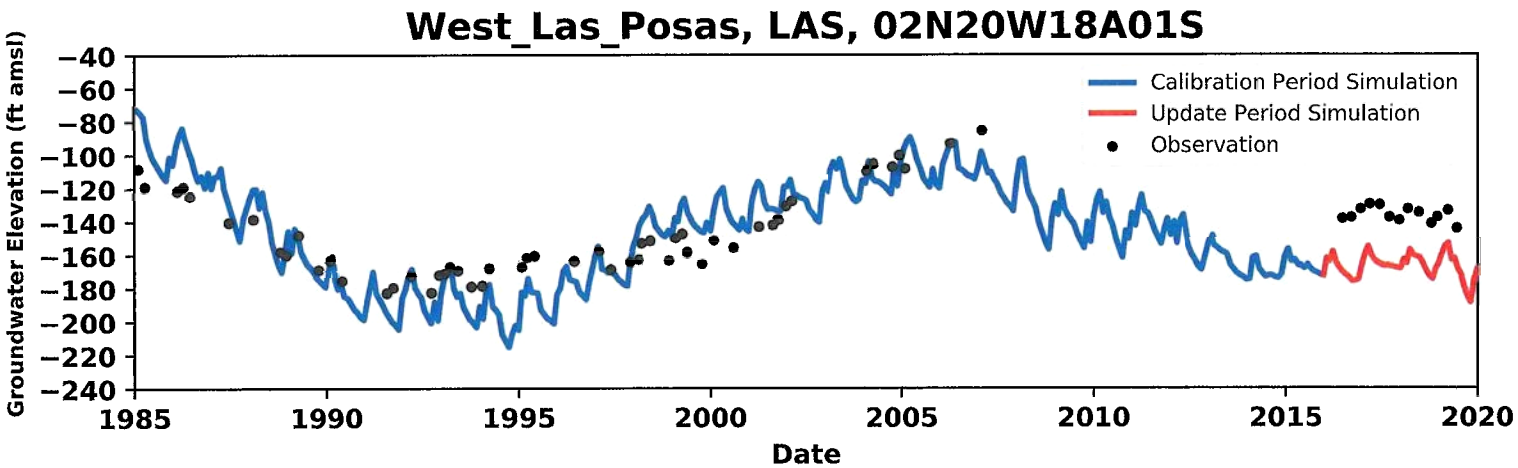
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation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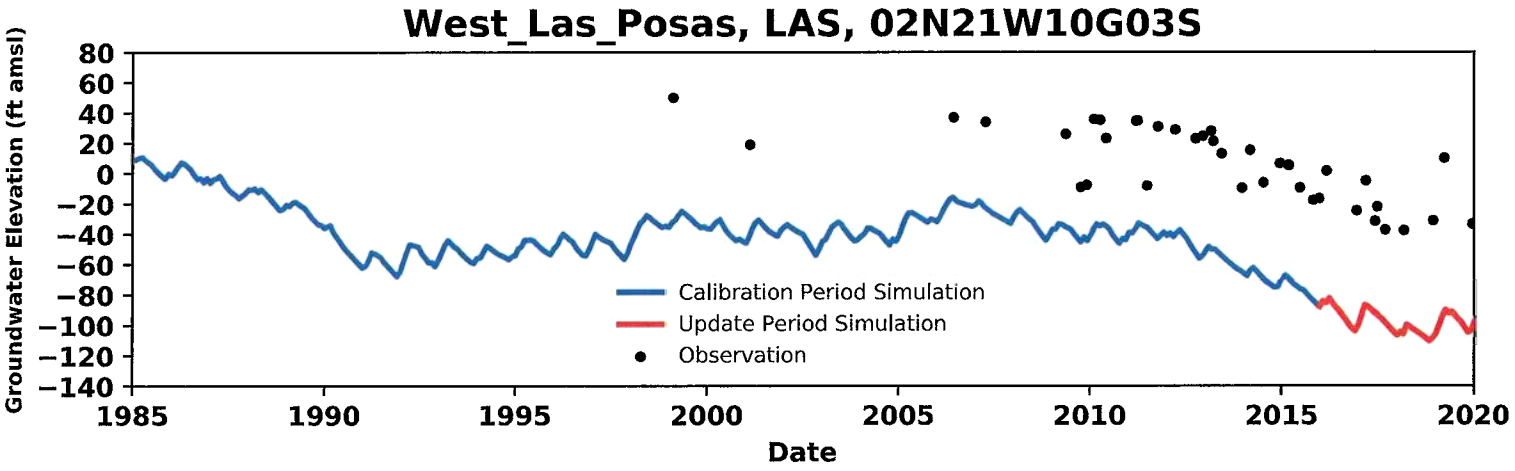
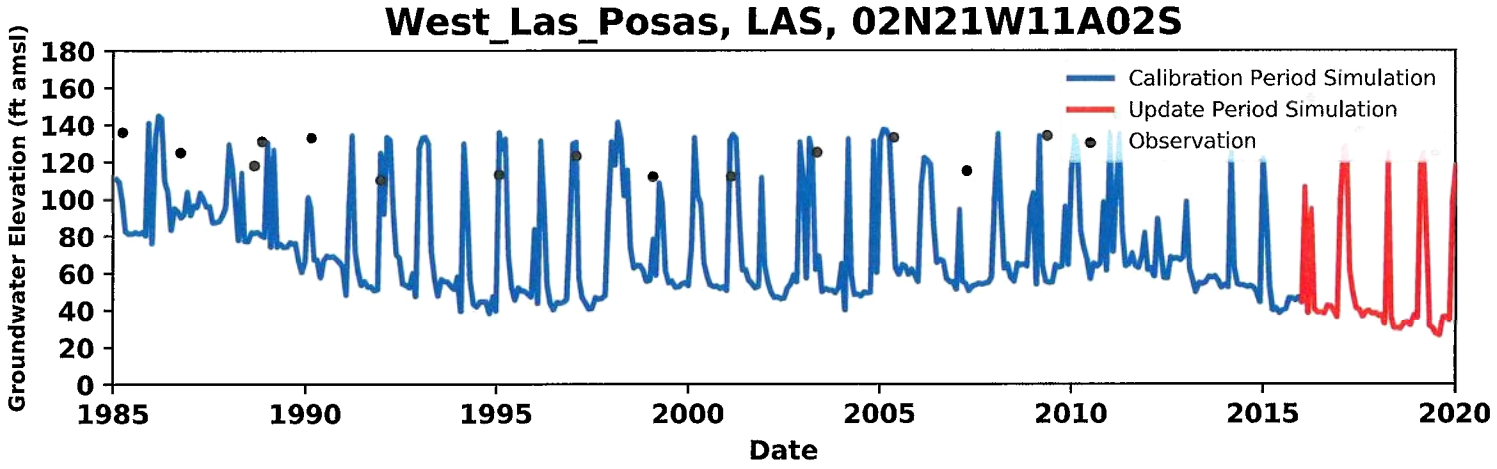
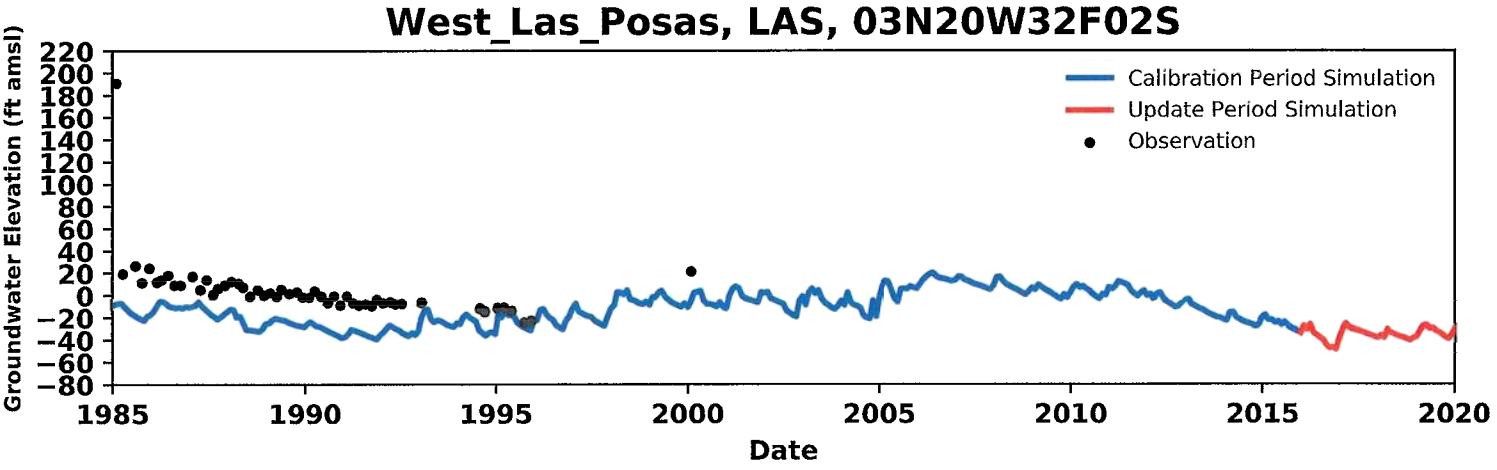
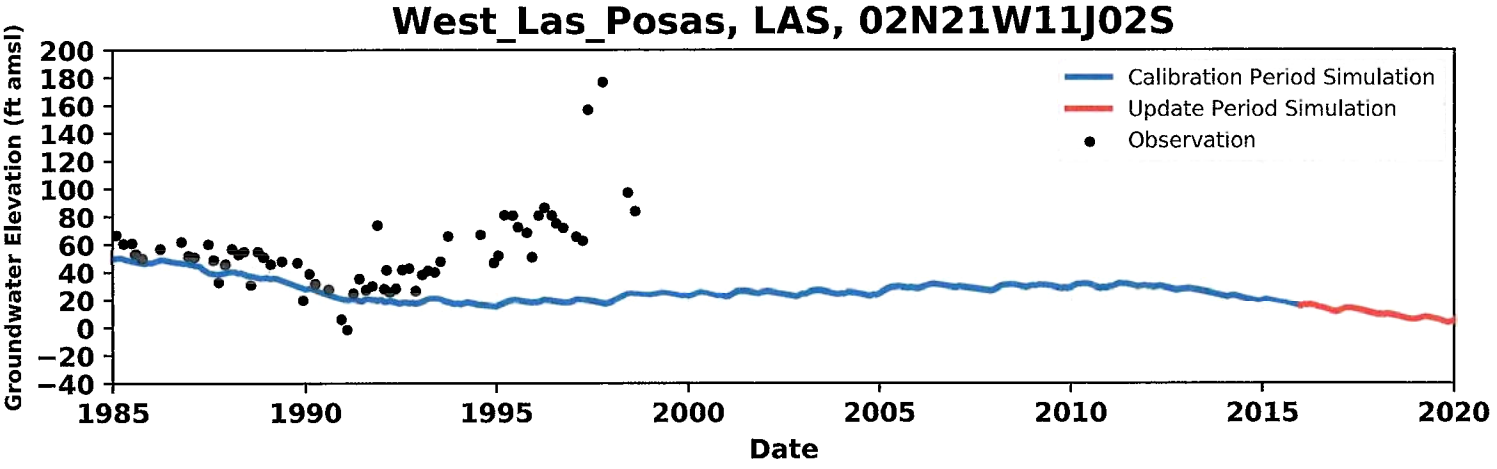
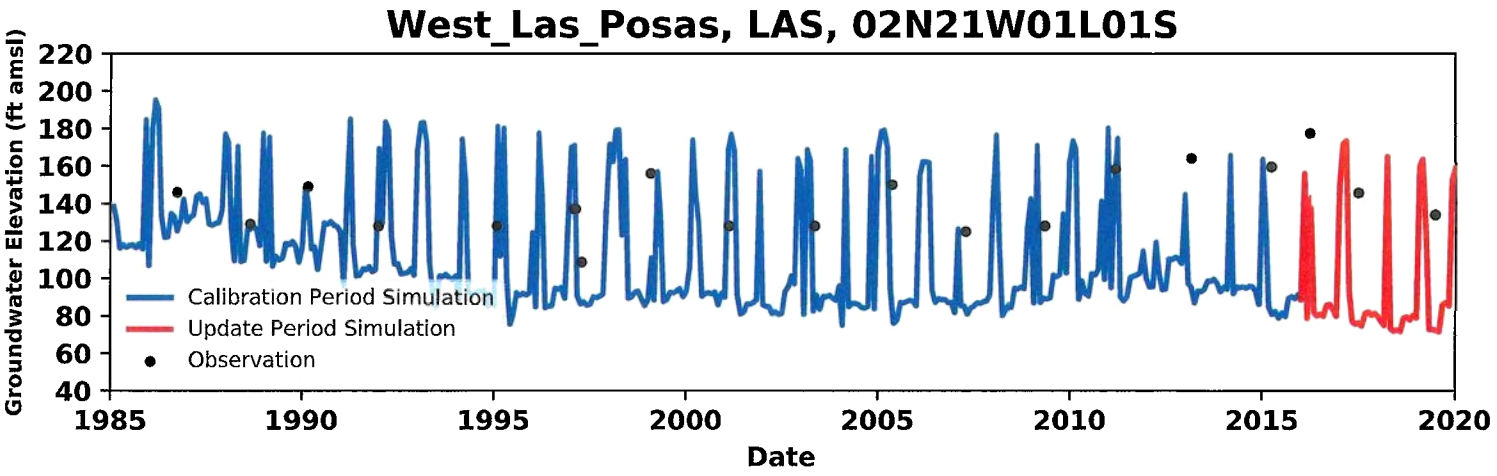
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

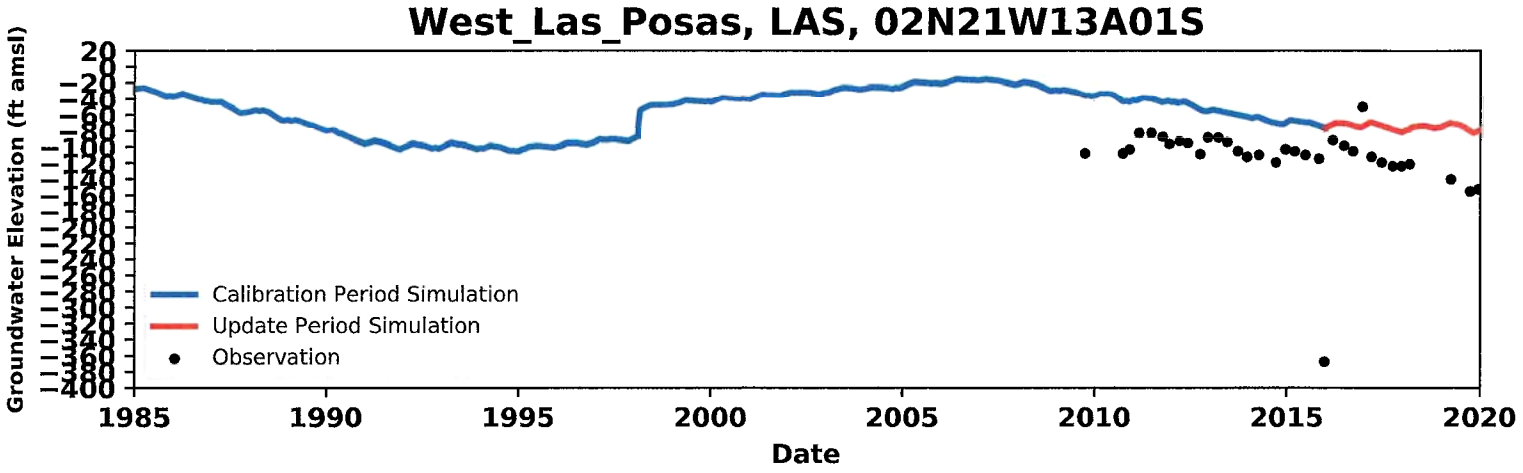

West_Las_Posas, LAS, 02N21W10G03S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

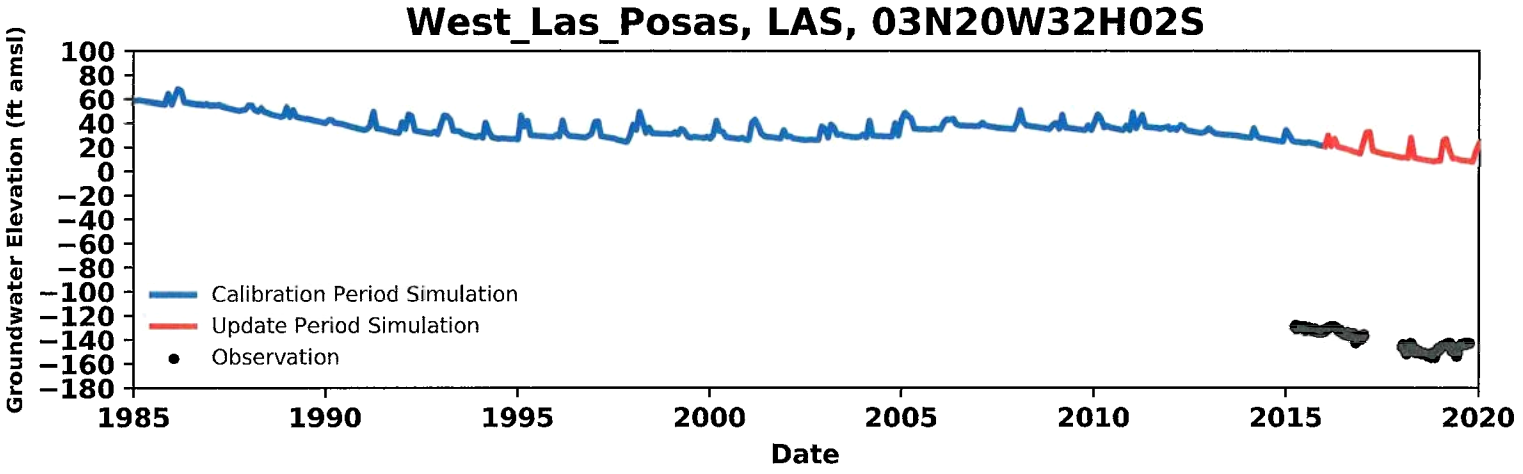

West_Las_Posas, LAS, 02N21W11A02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation

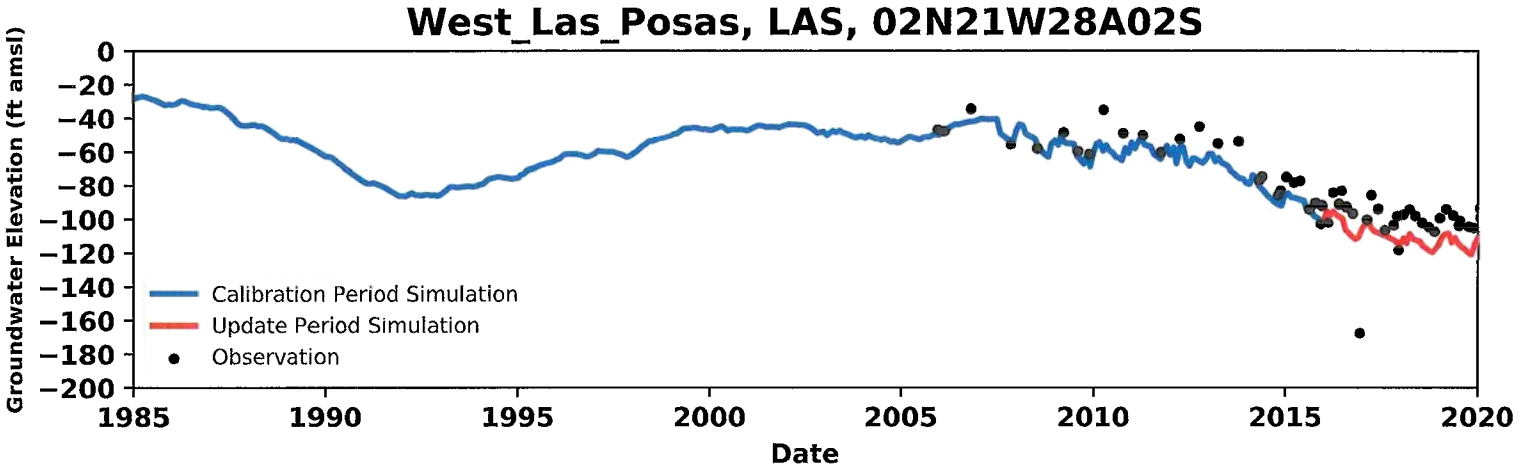

West_Las_Posas, LAS, 03N20W32F02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


West_Las_Posas, LAS, 02N21W11J02S
Groundwater Elevation (ft amsl)
Date
Calibration Period Simulation
Update Period Simulation
Observation


West_Las_Posas, LAS, 02N21W01L01S
Groundwater Elevation (ft amsl)
220
200
180
160
140
120
100
80
60
40
Calibration Period Simulation
Update Period Simulation
Observation
1985
1990
1995
2000
2005
2010
2015
2020
Date


West_Las_Posas, LAS, 02N21W13A01S
Groundwater Elevation (ft amsl)
Calibration Period Simulation
Update Period Simulation
Observation
1985
1990
1995
2000
2005
2010
2015
2020
Date


West_Las_Posas, LAS, 03N20W32H02S
Groundwater Elevation (ft amsl)
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
Calibration Period Simulation
Update Period Simulation
Observation
1985
1990
1995
2000
2005
2010
2015
2020
Date


West_Las_Posas, LAS, 02N21W28A02S
Groundwater Elevation (ft amsl)
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
Calibration Period Simulation
Update Period Simulation
Observation
1985
1990
1995
2000
2005
2010
2015
2020
Date

Appendix B – Monthly Groundwater Budgets

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Table B-1. Monthly Groundwater Budget for Aquifer A in Piru Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet									
			Change in Storage	SCR Underflow	Mountain Front Recharge	ET	Recharge	Pumping from Wells	Outside of Basin	Fillmore A	Piru B	Net Stream Percolation
1/31/2016	11353	31	-1709	424	252	-104	1467	-21	4	-389	-3900	3976
2/29/2016	11382	29	561	397	42	-107	377	-55	1	-356	-2862	2002
3/31/2016	11413	31	-517	424	105	-162	719	-36	2	-383	-3111	2959
4/30/2016	11443	30	1122	411	9	-188	377	-119	0	-349	-2676	1414
5/31/2016	11474	31	981	424	9	-225	390	-117	0	-352	-2306	1195
6/30/2016	11504	30	1232	411	9	-223	398	-114	0	-328	-1897	513
7/31/2016	11535	31	1136	424	9	-219	404	-116	0	-337	-1714	413
8/31/2016	11566	31	746	424	9	-230	409	-115	0	-326	-1503	586
9/30/2016	11596	30	138	411	9	-180	413	-115	0	-298	-1492	1115
10/31/2016	11627	31	350	424	10	-157	347	-71	0	-301	-1628	1026
11/30/2016	11657	30	356	411	9	-111	352	-107	0	-270	-1785	1146
12/31/2016	11688	31	-1388	424	245	-92	1438	-20	4	-287	-3118	2794
1/31/2017	11719	31	-4294	424	515	-121	2759	-11	8	-288	-7320	8329
2/28/2017	11747	28	-2480	383	441	-149	2288	-13	7	-270	-6919	6712
3/31/2017	11778	31	158	424	9	-236	262	-149	0	-301	-5276	5108
4/30/2017	11808	30	219	411	9	-236	271	-157	0	-292	-3500	3276
5/31/2017	11839	31	-1228	424	9	-254	316	-159	0	-317	-3357	4565
6/30/2017	11869	30	-6611	411	9	-331	312	-168	0	-453	-8043	14875
7/31/2017	11900	31	-428	424	9	-331	355	-187	0	-427	-5104	5688
8/31/2017	11931	31	2339	424	9	-232	350	-186	0	-440	-3634	1370
9/30/2017	11961	30	1518	411	9	-180	351	-186	0	-442	-2563	1083
10/31/2017	11992	31	1070	424	9	-157	349	-186	0	-477	-2214	1182
11/30/2017	12022	30	716	411	9	-111	343	-185	0	-469	-2169	1456
12/31/2017	12053	31	734	424	9	-92	348	-179	0	-488	-2270	1513
1/31/2018	12084	31	-480	424	59	-104	473	-55	2	-560	-2406	2647
2/28/2018	12112	28	228	383	9	-103	286	-139	0	-480	-2421	2237
3/31/2018	12143	31	-1864	424	352	-162	1831	-18	5	-563	-3256	3252
4/30/2018	12173	30	696	411	9	-188	287	-147	0	-535	-2939	2407
5/31/2018	12204	31	1345	424	9	-225	316	-145	0	-545	-2458	1278
6/30/2018	12234	30	972	411	9	-223	325	-140	0	-514	-2392	1552
7/31/2018	12265	31	1146	424	9	-237	373	-136	0	-628	-1952	1001
8/31/2018	12296	31	1178	424	9	-231	393	-136	0	-612	-1565	539
9/30/2018	12326	30	775	411	9	-180	390	-136	0	-574	-1501	806
10/31/2018	12357	31	657	424	9	-157	367	-134	0	-574	-1626	1034
11/30/2018	12387	30	-513	411	56	-111	462	-47	1	-545	-1862	2149
12/31/2018	12418	31	-988	424	44	-92	472	-57	2	-551	-3801	4547
1/31/2019	12449	31	-2509	424	394	-104	2018	-16	6	-564	-5234	5585
2/28/2019	12477	28	-5220	383	476	-152	2372	-14	7	-529	-5321	7997
3/31/2019	12508	31	-3526	424	184	-253	1116	-31	4	-616	-4260	6958
4/30/2019	12538	30	-3825	411	9	-311	324	-167	0	-597	-4925	9082
5/31/2019	12569	31	-2412	424	32	-358	380	-76	1	-655	-4781	7444
6/30/2019	12599	30	-5565	411	9	-300	340	-174	0	-800	-7362	13441
7/31/2019	12630	31	-1491	424	9	-239	406	-179	0	-919	-5510	7498
8/31/2019	12661	31	2511	424	9	-231	425	-181	0	-980	-3246	1269
9/30/2019	12691	30	2073	411	9	-181	399	-182	0	-961	-2956	1389
10/31/2019	12722	31	1648	424	9	-161	362	-182	0	-999	-2778	1678
11/30/2019	12752	30	-781	411	89	-116	649	-52	2	-966	-2388	3152
12/31/2019	12783	31	-3184	424	289	-102	1716	-22	5	-996	-2540	4409

Table B-2. Monthly Groundwater Budget for Aquifer B in Piru Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet					
			Change in Storage	Mountain Front Recharge	Pumping from Wells	Piru A	Fillmore B	Piru C
1/31/2016	11353	31	-2583	1383	-255	3900	-1798	-648
2/29/2016	11382	29	-271	182	-590	2862	1677	-505
3/31/2016	11413	31	-924	515	-392	3111	-1776	-535
4/30/2016	11443	30	776	0	-1285	2676	-1700	-467
5/31/2016	11474	31	1228	0	-1297	2306	-1747	-490
6/30/2016	11504	30	1578	0	-1295	1897	-1691	-489
7/31/2016	11535	31	1915	0	-1331	1714	-1841	-456
8/31/2016	11566	31	2108	0	-1327	1503	-1835	-448
9/30/2016	11596	30	2039	0	-1323	1492	-1774	-435
10/31/2016	11627	31	1559	13	-958	1628	-1815	-428
11/30/2016	11657	30	1487	0	-1122	1785	-1739	-411
12/31/2016	11688	31	-1799	1276	-250	3118	-1796	-549
1/31/2017	11719	31	-7640	2839	142	7320	-1762	-614
2/28/2017	11747	28	-6942	2345	160	6919	-1624	-539
3/31/2017	11778	31	-2108	0	-951	5276	-1759	-458
4/30/2017	11808	30	-401	0	-939	3500	-1716	-445
5/31/2017	11839	31	-155	0	-938	3357	-1800	-464
6/30/2017	11869	30	-4663	0	-951	8043	-1876	-553
7/31/2017	11900	31	1433	0	-1069	5104	-2077	-525
8/31/2017	11931	31	28	0	1053	3634	-2112	-497
9/30/2017	11961	30	1040	0	-1040	2563	-2092	-472
10/31/2017	11992	31	1486	0	-1037	2214	-2184	-478
11/30/2017	12022	30	1459	0	-1032	2169	-2140	-457
12/31/2017	12053	31	1441	0	-1040	2270	-2203	-467
1/31/2018	12084	31	245	314	-422	2406	-1988	-555
2/28/2018	12112	28	832	0	-997	2421	-1781	-475
3/31/2018	12143	31	-2370	1960	-200	3256	-1971	-675
4/30/2018	12173	30	462	0	-996	2939	-1888	-517
5/31/2018	12204	31	975	0	-1006	2458	-1928	-499
6/30/2018	12234	30	965	0	-1007	2392	-1858	-491
7/31/2018	12265	31	1541	0	-1165	1952	-1846	-482
8/31/2018	12296	31	1900	0	-1160	1565	-1833	-472
9/30/2018	12326	30	1871	0	-1155	1501	-1760	-456
10/31/2018	12357	31	1799	0	-1159	1626	-1799	-467
11/30/2018	12387	30	519	285	-462	1862	-1735	-469
12/31/2018	12418	31	-1286	229	-507	3801	-1768	-469
1/31/2019	12449	31	-4791	2080	-191	5234	-1743	-589
2/28/2019	12477	28	-5519	2510	-179	5321	-1586	-547
3/31/2019	12508	31	-2685	995	-304	4260	-1761	-504
4/30/2019	12538	30	-1547	0	-1216	4925	-1698	-464
5/31/2019	12569	31	-2001	164	-631	4781	-1797	-515
6/30/2019	12599	30	-3669	0	-1228	7362	-1887	-578
7/31/2019	12630	31	-1436	0	1269	5510	-2148	-656
8/31/2019	12661	31	826	0	-1258	3246	-2189	-626
9/30/2019	12691	30	987	0	-1243	2956	-2129	-571
10/31/2019	12722	31	1225	0	-1240	2778	-2195	-568
11/30/2019	12752	30	294	451	-409	2388	-2130	-595
12/31/2019	12783	31	-999	1544	-225	2540	-2195	-665

Table B-3. Monthly Groundwater Budget for Aquifer C in Piru Basin

Date	Stress Period	days in month	influx(+) outflux(-); units in Acre-feet			
			Change in Storage	Pumping from Wells	Piru B	Fillmore C
1/31/2016	11353	31	-214	82	648	-516
2/29/2016	11382	29	-48	25	505	-483
3/31/2016	11413	31	-82	59	535	-512
4/30/2016	11443	30	94	-62	467	-499
5/31/2016	11474	31	80	-51	490	-519
6/30/2016	11504	30	72	-56	489	-505
7/31/2016	11535	31	45	-45	456	-456
8/31/2016	11566	31	54	-50	448	-452
9/30/2016	11596	30	54	-55	435	-434
10/31/2016	11627	31	27	12	428	-442
11/30/2016	11657	30	44	-33	411	-423
12/31/2016	11688	31	185	62	549	-426
1/31/2017	11719	31	-228	80	614	-467
2/28/2017	11747	28	-203	86	539	-421
3/31/2017	11778	31	3	18	458	-478
4/30/2017	11808	30	28	14	445	-487
5/31/2017	11839	31	35	16	464	-515
6/30/2017	11869	30	-66	37	553	-525
7/31/2017	11900	31	-68	35	525	-492
8/31/2017	11931	31	-19	18	497	-497
9/30/2017	11961	30	9	6	472	-487
10/31/2017	11992	31	26	3	478	-508
11/30/2017	12022	30	39	-3	457	-493
12/31/2017	12053	31	43	-1	467	-509
1/31/2018	12084	31	-42	60	555	-573
2/28/2018	12112	28	69	-23	475	-521
3/31/2018	12143	31	-203	92	675	-565
4/30/2018	12173	30	42	-16	517	-543
5/31/2018	12204	31	71	-8	499	-562
6/30/2018	12234	30	67	-12	491	-546
7/31/2018	12265	31	49	-34	482	-497
8/31/2018	12296	31	58	-39	472	-492
9/30/2018	12326	30	60	-44	456	-473
10/31/2018	12357	31	60	-43	467	-485
11/30/2018	12387	30	-41	34	469	-462
12/31/2018	12418	31	-35	36	469	-470
1/31/2019	12449	31	-206	78	589	-461
2/28/2019	12477	28	-223	81	547	-405
3/31/2019	12508	31	-129	78	504	-453
4/30/2019	12538	30	22	-34	464	-452
5/31/2019	12569	31	-91	62	515	-486
6/30/2019	12599	30	-67	-16	578	-495
7/31/2019	12630	31	-71	-40	656	-545
8/31/2019	12661	31	-20	-50	626	-556
9/30/2019	12691	30	34	-64	571	-540
10/31/2019	12722	31	56	-67	568	-557
11/30/2019	12752	30	114	55	595	-537
12/31/2019	12783	31	-202	85	665	-548

Table B-4. Monthly Groundwater Budget for Aquifer A in Fillmore Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet									
			Change in Storage	Mountain Front Recharge	ET	Recharge	Pumping from Wells	Outside of Basin	Piru A	Santa Paula	Fillmore B	Net Stream Percolation
1/31/2016	11353	31	-2468	237	-109	2428	-48	-12	389	-251	-558	252
2/29/2016	11382	29	-238	58	-126	1085	-253	-10	356	-248	-870	185
3/31/2016	11413	31	-1482	134	-199	1635	-110	-10	383	-271	-418	261
4/30/2016	11443	30	1528	23	-224	1185	-576	-9	349	-242	-2181	89
5/31/2016	11474	31	1688	23	-241	1191	-574	-9	352	-236	-2211	-41
6/30/2016	11504	30	1808	23	-220	1184	-569	-8	328	-225	-2207	-170
7/31/2016	11535	31	1932	23	-216	1269	-573	-7	337	-253	-2330	-240
8/31/2016	11566	31	1854	23	-195	1270	-569	-6	326	-266	-2312	-182
9/30/2016	11596	30	1816	23	-143	1265	-563	-5	298	-259	-2397	-89
10/31/2016	11627	31	827	25	-122	1130	-384	-6	301	-272	-1537	-20
11/30/2016	11657	30	1655	23	-83	1243	-535	-5	270	-263	-2391	33
12/31/2016	11688	31	-1988	230	-75	2221	-70	-11	287	-278	-696	265
1/31/2017	11719	31	-4968	540	-114	4427	2	-35	288	-282	-1558	1384
2/28/2017	11747	28	-5561	451	-151	3962	-7	-44	270	-259	-1687	2731
3/31/2017	11778	31	843	23	-234	1160	-475	-13	301	-245	-2233	797
4/30/2017	11808	30	990	23	-240	1156	-475	7	292	-211	-2074	463
5/31/2017	11839	31	797	23	-266	1162	-472	6	317	-212	-1986	559
6/30/2017	11869	30	-972	23	-265	1157	-469	-2	453	-200	-2108	2318
7/31/2017	11900	31	1460	23	-265	1278	-583	-6	427	-189	-2247	34
8/31/2017	11931	31	1445	23	-233	1278	-578	-7	440	-179	-2102	-154
9/30/2017	11961	30	1374	23	-170	1273	-573	-8	442	-169	-2021	-235
10/31/2017	11992	31	1211	23	-141	1277	-568	-9	477	-176	-1924	-235
11/30/2017	12022	30	1178	23	-94	1272	-565	-10	469	-169	-1964	-201
12/31/2017	12053	31	1098	23	-75	1276	-561	-11	488	-176	-1943	-183
1/31/2018	12084	31	-1370	68	-91	1075	-152	-13	560	-219	-269	342
2/28/2018	12112	28	753	21	-92	1009	-501	-13	480	-193	-1735	215
3/31/2018	12143	31	-4384	438	-166	3338	-11	-30	563	-244	-809	1034
4/30/2018	12173	30	687	23	-207	1022	-504	-19	535	-219	-1763	377
5/31/2018	12204	31	573	23	-225	1027	-502	-11	545	-207	-1681	393
6/30/2018	12234	30	832	23	-208	1022	-502	-12	514	-196	-1695	158
7/31/2018	12265	31	1256	23	-205	982	-583	-13	628	-208	-2000	56
8/31/2018	12296	31	1282	23	-184	982	-578	-13	612	-213	-1917	-58
9/30/2018	12326	30	1296	23	-134	977	-573	-12	574	-207	-1962	-42
10/31/2018	12357	31	1248	23	-111	979	-569	-12	574	-215	-1961	-18
11/30/2018	12387	30	-1131	98	-84	1099	-147	-12	545	-233	-271	69
12/31/2018	12418	31	-981	53	-82	898	-212	-12	551	-253	-478	449
1/31/2019	12449	31	-4899	426	-116	3344	-10	-25	564	-266	-771	1488
2/28/2019	12477	28	-6093	477	-152	3514	-13	-43	529	-249	-1214	2955
3/31/2019	12508	31	-3156	169	-261	1509	-90	-30	616	-269	-475	1875
4/30/2019	12538	30	850	23	-286	850	-537	-3	597	-212	-1898	544
5/31/2019	12569	31	-1057	45	-328	792	-213	1	655	-225	-388	641
6/30/2019	12599	30	-2374	23	-342	852	-532	-3	800	-197	-1847	3551
7/31/2019	12630	31	-716	23	-391	1059	-602	-13	919	-183	-2130	1966
8/31/2019	12661	31	953	23	-311	1064	-598	-18	980	-179	-1970	-12
9/30/2019	12691	30	801	23	-219	1059	-597	-18	961	-172	-1961	59
10/31/2019	12722	31	767	23	-183	1085	-595	-20	999	-179	-1915	-49
11/30/2019	12752	30	-1675	86	-136	1124	-140	-21	966	-210	-24	-38
12/31/2019	12783	31	-4151	271	-147	2688	-16	-30	996	-254	21	463

Table B-5. Monthly Groundwater Budget for Aquifer B in Fillmore Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet								
			Change in Storage	Mountain Front Recharge	Recharge	Pumping from Wells	Outside of Basin	Fillmore A	Piru B	Santa Paula B	Fillmore C
1/31/2016	11353	31	1003	596	227	-742	30	558	1798	-904	-454
2/29/2016	11382	29	29	178	40	-1784	24	870	1677	-857	-139
3/31/2016	11413	31	-397	299	103	-1050	20	418	1776	-912	-207
4/30/2016	11443	30	523	156	7	-3660	25	2181	1700	-864	-30
5/31/2016	11474	31	487	161	7	-3674	30	2211	1747	-883	-47
6/30/2016	11504	30	531	156	7	-3684	30	2207	1691	-852	-49
7/31/2016	11535	31	617	161	6	-4053	34	2330	1841	-940	41
8/31/2016	11566	31	635	161	6	-4053	36	2312	1835	-949	55
9/30/2016	11596	30	607	156	6	-4063	36	2397	1774	-924	47
10/31/2016	11627	31	267	170	9	-2896	36	1537	1815	-960	60
11/30/2016	11657	30	549	156	6	-3964	35	2391	1739	-935	59
12/31/2016	11688	31	-743	471	175	-1107	28	696	1796	-931	-298
1/31/2017	11719	31	-2375	1186	465	-632	34	1558	1762	-907	-866
2/28/2017	11747	28	-2338	1085	430	-665	42	1687	1624	-813	-844
3/31/2017	11778	31	381	161	3	-3432	59	2233	1759	-832	-279
4/30/2017	11808	30	447	156	3	-3447	62	2074	1716	780	-182
5/31/2017	11839	31	397	161	3	-3447	60	1986	1800	-800	-111
6/30/2017	11869	30	160	156	3	-3451	42	2108	1876	-762	-85
7/31/2017	11900	31	365	161	3	-4131	39	2247	2077	-762	48
8/31/2017	11931	31	417	161	3	-4128	36	2102	2112	-758	100
9/30/2017	11961	30	487	156	3	-4135	34	2021	2092	730	116
10/31/2017	11992	31	495	161	3	-4133	33	1924	2184	-759	136
11/30/2017	12022	30	485	156	3	-4139	31	1964	2140	-733	135
12/31/2017	12053	31	457	161	3	-4138	32	1943	2203	763	143
1/31/2018	12084	31	-402	203	57	-1195	23	269	1988	-851	-49
2/28/2018	12112	28	253	145	3	-3187	22	1735	1781	-733	17
3/31/2018	12143	31	-1994	972	383	-419	23	809	1971	-863	-690
4/30/2018	12173	30	316	156	3	-3171	32	1763	1888	791	-150
5/31/2018	12204	31	286	161	3	-3178	35	1681	1928	-807	-64
6/30/2018	12234	30	293	156	3	-3183	30	1695	1858	776	-33
7/31/2018	12265	31	378	161	4	-3620	28	2000	1846	-847	94
8/31/2018	12296	31	448	161	4	-3619	29	1917	1833	-855	125
9/30/2018	12326	30	467	156	4	-3628	29	1962	1760	-831	123
10/31/2018	12357	31	450	161	4	-3629	31	1961	1799	-864	129
11/30/2018	12387	30	-341	226	69	1078	21	271	1735	-859	0
12/31/2018	12418	31	-197	197	43	-1460	26	478	1768	-895	82
1/31/2019	12449	31	-2051	996	388	-233	32	771	1743	-884	-573
2/28/2019	12477	28	-2379	1038	410	-222	35	1214	1586	798	-679
3/31/2019	12508	31	-880	358	124	-674	45	475	1761	-874	-253
4/30/2019	12538	30	324	156	3	-3332	50	1898	1698	763	17
5/31/2019	12569	31	128	191	36	1468	52	388	1797	-836	19
6/30/2019	12599	30	116	156	3	-3337	41	1847	1887	744	79
7/31/2019	12630	31	137	161	3	-3896	30	2130	2148	-727	62
8/31/2019	12661	31	228	161	3	-3896	25	1970	2189	-724	91
9/30/2019	12691	30	263	156	3	-3899	23	1961	2129	701	108
10/31/2019	12722	31	247	161	3	-3894	23	1915	2195	-732	127
11/30/2019	12752	30	-416	220	63	-1234	14	24	2130	792	35
12/31/2019	12783	31	-1347	691	266	-523	13	-21	2195	-852	-302

Table B-6. Monthly Groundwater Budget for Aquifer C in Fillmore Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet							
			Change in Storage	Mountain Front Recharge	Recharge	Pumping from Wells	Outside of Basin	Fillmore B	Piru C	Santa Paula C
1/31/2016	11353	31	-621	348	22	-372	78	454	516	-390
2/29/2016	11382	29	5	123	9	-446	73	139	483	-362
3/31/2016	11413	31	-142	153	13	-399	77	207	512	-394
4/30/2016	11443	30	240	125	0	-589	77	30	499	-362
5/31/2016	11474	31	191	129	0	-578	80	47	519	-369
6/30/2016	11504	30	191	125	0	-572	78	49	505	-355
7/31/2016	11535	31	165	129	0	-400	79	-41	456	-367
8/31/2016	11566	31	186	129	0	-404	79	-55	452	-367
9/30/2016	11596	30	184	125	0	-400	77	-47	434	-353
10/31/2016	11627	31	111	129	0	-307	78	-60	442	-373
11/30/2016	11657	30	200	125	0	-391	76	-59	423	-355
12/31/2016	11688	31	-503	266	18	-163	75	298	426	-389
1/31/2017	11719	31	-1365	754	47	-352	77	866	467	-403
2/28/2017	11747	28	1275	696	44	-341	69	844	421	-372
3/31/2017	11778	31	4	129	0	-555	80	279	478	-392
4/30/2017	11808	30	59	125	0	-541	79	182	487	-371
5/31/2017	11839	31	110	129	0	-544	82	111	515	-382
6/30/2017	11869	30	118	125	0	-542	78	85	525	-368
7/31/2017	11900	31	110	129	0	-358	77	-48	492	-382
8/31/2017	11931	31	165	129	0	-365	77	-100	497	-382
9/30/2017	11961	30	181	125	0	-364	74	116	487	-368
10/31/2017	11992	31	192	129	0	-371	76	-136	508	-379
11/30/2017	12022	30	196	125	0	-368	74	-135	493	-365
12/31/2017	12053	31	199	129	0	-373	76	-143	509	-377
1/31/2018	12084	31	6	133	10	-429	76	49	573	-393
2/28/2018	12112	28	215	116	0	-544	70	-17	521	-342
3/31/2018	12143	31	-1158	643	40	-375	75	690	565	-403
4/30/2018	12173	30	65	125	0	-558	75	150	543	-377
5/31/2018	12204	31	124	129	0	-553	78	64	562	-384
6/30/2018	12234	30	157	125	0	-547	76	33	546	-370
7/31/2018	12265	31	151	129	0	-357	76	-94	497	-381
8/31/2018	12296	31	194	129	0	-363	76	-125	492	-382
9/30/2018	12326	30	198	125	0	-359	74	-123	473	-368
10/31/2018	12357	31	201	129	0	-362	76	-129	485	-379
11/30/2018	12387	30	-67	129	13	-200	72	0	462	-384
12/31/2018	12418	31	56	132	8	-235	74	-82	470	-399
1/31/2019	12449	31	-1130	633	40	-162	73	573	461	-412
2/28/2019	12477	28	-1251	675	42	-149	66	679	405	-382
3/31/2019	12508	31	-347	197	15	-189	73	253	453	-425
4/30/2019	12538	30	90	125	0	-307	73	-17	452	-394
5/31/2019	12569	31	-22	131	8	-218	75	-19	486	-416
6/30/2019	12599	30	108	125	0	-308	73	79	495	-392
7/31/2019	12630	31	124	129	0	-390	75	-62	545	-400
8/31/2019	12661	31	146	129	0	-394	74	-91	556	-400
9/30/2019	12691	30	168	125	0	-392	71	-108	540	-385
10/31/2019	12722	31	183	129	0	-399	74	-127	557	-398
11/30/2019	12752	30	-42	129	8	-240	69	-35	537	-402
12/31/2019	12783	31	-644	380	24	-211	70	302	548	-430

Table B-7. Monthly Groundwater Budget for Aquifer A in Santa Paula Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet										
			Change in Storage	ET	Recharge	Pumping from Wells	Outside of Basin	Fillmore A	Mound L1	Santa Paula B	Mound L2 L3	Oxnard UAS	Net Stream Percolation
1/31/2016	11353	31	-1440	-38	1662	-8	-3	251	0	-37	-1	-350	-53
2/29/2016	11382	29	-268	-39	768	-73	-6	248	0	-236	-1	-326	-89
3/31/2016	11413	31	-1018	-59	1081	-25	-5	271	0	163	-2	-346	-80
4/30/2016	11443	30	579	-68	750	-154	-19	242	0	-918	1	-331	-100
5/31/2016	11474	31	698	-82	754	-154	-26	236	0	-1018	4	-336	-91
6/30/2016	11504	30	710	-80	764	-155	-26	225	0	-1054	4	-322	-82
7/31/2016	11535	31	738	-81	802	-196	-27	253	0	-1101	5	-332	-78
8/31/2016	11566	31	719	-76	787	-195	-26	266	0	-1092	5	-332	-73
9/30/2016	11596	30	727	-59	774	-195	-24	259	0	-1114	5	-323	-66
10/31/2016	11627	31	537	-51	753	-165	-23	272	0	-942	5	-335	-67
11/30/2016	11657	30	540	-36	746	-184	-23	263	0	-935	4	-326	-64
12/31/2016	11688	31	-1119	-33	1318	-27	-7	278	0	-27	-1	-343	-55
1/31/2017	11719	31	-2437	-38	2604	5	2	282	0	-53	-4	-357	-37
2/28/2017	11747	28	-2533	-38	2589	7	6	259	0	23	-5	-326	-9
3/31/2017	11778	31	-177	-59	734	-82	-1	245	0	-284	-5	-348	-46
4/30/2017	11808	30	100	-68	758	-85	-19	211	0	-502	-2	-331	-83
5/31/2017	11839	31	154	-82	775	-87	-24	212	0	-572	-1	-340	-57
6/30/2017	11869	30	10	-81	741	-87	-38	200	0	-657	0	-335	227
7/31/2017	11900	31	464	-86	831	-116	-30	189	0	-878	0	-349	-42
8/31/2017	11931	31	532	-84	828	-116	-27	179	0	-883	1	-342	-106
9/30/2017	11961	30	531	-65	802	-115	-26	169	0	-897	1	-328	-89
10/31/2017	11992	31	499	-57	804	-115	-26	176	0	-876	1	-340	-84
11/30/2017	12022	30	492	-40	802	-115	-24	169	0	-892	1	-331	-77
12/31/2017	12053	31	456	-33	824	-115	-23	176	0	-880	1	-344	-77
1/31/2018	12084	31	-467	-38	792	-44	-15	219	0	-55	-1	-348	-62
2/28/2018	12112	28	408	-38	739	-126	-17	193	0	-789	0	-315	-70
3/31/2018	12143	31	-1877	-59	2145	-2	-2	244	0	-92	-2	-352	-31
4/30/2018	12173	30	223	-68	785	-124	-11	219	0	-637	-2	-338	-67
5/31/2018	12204	31	382	-81	801	-125	-22	207	0	-758	1	-343	-80
6/30/2018	12234	30	447	-77	786	-126	-23	196	0	-810	2	-331	-82
7/31/2018	12265	31	691	-78	850	-178	-26	208	0	-1067	2	-341	-78
8/31/2018	12296	31	711	-73	830	-177	-26	213	0	-1082	3	-341	-73
9/30/2018	12326	30	729	-56	805	-176	-24	207	0	-1101	3	-332	-67
10/31/2018	12357	31	685	-48	827	-176	-24	215	0	-1087	3	-344	-65
11/30/2018	12387	30	-478	-36	821	-51	-13	233	0	-96	-1	-337	-61
12/31/2018	12418	31	-444	-33	770	-70	-10	253	0	-95	-3	-360	-27
1/31/2019	12449	31	-2081	-38	2298	3	1	266	0	-73	-5	-369	-32
2/28/2019	12477	28	-2166	-38	2185	4	3	249	0	44	-6	-333	22
3/31/2019	12508	31	-1326	-59	1087	-14	0	269	0	355	-7	-358	29
4/30/2019	12538	30	290	-68	814	-99	-20	212	0	-763	-3	-334	-47
5/31/2019	12569	31	-293	-82	777	-50	-22	225	0	-187	-1	-342	-47
6/30/2019	12599	30	72	-81	841	-102	-45	197	0	-943	0	-324	365
7/31/2019	12630	31	265	-86	866	-133	-67	183	0	-1046	1	-311	309
8/31/2019	12661	31	599	-84	882	-133	-45	179	0	-1026	1	-289	-105
9/30/2019	12691	30	596	-65	854	-133	-31	172	0	-1035	1	-282	-95
10/31/2019	12722	31	572	-57	858	-133	-27	179	0	-1022	1	-300	-90
11/30/2019	12752	30	-667	-40	941	-33	-12	210	0	-37	-2	-304	-75
12/31/2019	12783	31	-1790	-33	1880	-4	2	254	0	87	-5	-332	-78

Table B-8. Monthly Groundwater Budget for Aquifer B in Santa Paula Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet												
			Change in Storage	Mountain Front Recharge	Recharge	Pumping from Wells	Outside of Basin	Santa Paula A	Fillmore B	Mound L2-4	Oxnard UAS	Santa Paula C	Mound L5	Oxnard LAS	Mound L6 L7
1/31/2016	11353	31	-1152	371	677	-275	28	37	904	0	0	-328	-38	-1	-221
2/29/2016	11382	29	246	42	135	-1377	40	236	857	0	0	61	-28	-1	-204
3/31/2016	11413	31	-453	183	317	-507	19	-163	912	0	0	-36	-37	-1	-228
4/30/2016	11443	30	524	16	111	-2457	92	918	864	0	0	181	-26	-1	-216
5/31/2016	11474	31	417	16	111	-2455	79	1018	883	0	0	189	-24	-1	-227
6/30/2016	11504	30	411	16	111	-2457	77	1054	852	0	0	186	-23	-1	-220
7/31/2016	11535	31	384	16	114	-2570	83	1101	940	0	0	191	-24	-1	-227
8/31/2016	11566	31	387	16	114	-2572	82	1092	949	0	0	191	-24	-1	-227
9/30/2016	11596	30	390	16	114	-2575	82	1114	924	0	0	186	-22	-1	-221
10/31/2016	11627	31	345	16	101	-2356	56	942	960	0	0	197	-24	-1	-229
11/30/2016	11657	30	283	16	104	-2280	73	935	935	0	0	190	-26	-1	-222
12/31/2016	11688	31	-759	241	454	-450	0	27	931	0	0	-169	-38	-1	-231
1/31/2017	11719	31	-1930	696	1161	-75	86	53	907	0	0	-616	-43	-1	-223
2/28/2017	11747	28	-1907	728	1215	-82	135	-23	813	0	0	-632	-40	-1	-194
3/31/2017	11778	31	743	16	80	-1744	109	284	832	0	0	-67	-34	-1	-211
4/30/2017	11808	30	492	16	80	-1741	67	502	780	0	0	53	-30	-1	-212
5/31/2017	11839	31	384	16	80	-1735	49	572	800	0	0	96	-31	-1	-222
6/30/2017	11869	30	319	16	80	-1736	40	657	762	0	0	116	-29	-1	-217
7/31/2017	11900	31	293	16	113	-2011	66	878	762	0	0	142	-29	-1	-225
8/31/2017	11931	31	270	16	113	-2013	67	883	758	0	0	166	-28	-1	-225
9/30/2017	11961	30	271	16	113	-2016	67	897	730	0	0	172	-27	-1	-218
10/31/2017	11992	31	261	16	113	-2013	65	876	759	0	0	182	-27	-1	-226
11/30/2017	12022	30	270	16	113	-2016	66	892	733	0	0	175	-26	-1	-219
12/31/2017	12053	31	255	16	113	-2013	64	880	763	0	0	182	-27	-1	-226
1/31/2018	12084	31	-211	80	182	-761	1	55	851	0	0	70	-32	-1	-226
2/28/2018	12112	28	367	15	99	-2004	61	789	733	0	0	167	-23	-1	-199
3/31/2018	12143	31	-1618	568	940	-133	65	92	863	0	0	-508	-36	-1	-220
4/30/2018	12173	30	556	16	99	-2003	92	637	791	0	0	48	-27	-1	-201
5/31/2018	12204	31	363	16	99	-1999	67	758	807	0	0	136	-25	-1	-216
6/30/2018	12234	30	310	16	99	-2000	61	810	776	0	0	167	-23	-1	-210
7/31/2018	12265	31	360	16	119	-2425	89	1067	847	0	0	177	-23	-1	-221
8/31/2018	12296	31	343	16	119	-2428	84	1082	855	0	0	181	-23	-1	-224
9/30/2018	12326	30	347	16	119	-2430	84	1101	831	0	0	178	-22	-1	-218
10/31/2018	12357	31	331	16	119	-2428	81	1087	864	0	0	186	-23	-1	-227
11/30/2018	12387	30	-284	86	182	-757	7	96	859	0	0	71	-32	-1	-222
12/31/2018	12418	31	-47	56	141	-1014	22	95	895	0	0	123	-34	-1	-227
1/31/2019	12449	31	-1684	592	999	-133	75	73	884	0	0	-531	-39	-1	-222
2/28/2019	12477	28	-1514	596	993	-153	107	-44	798	0	0	-538	-36	-1	-193
3/31/2019	12508	31	-169	184	324	-487	72	-355	874	0	0	-185	-38	-1	-215
4/30/2019	12538	30	648	16	96	-2193	100	763	763	0	0	53	-26	-1	-215
5/31/2019	12569	31	91	43	122	-1102	27	187	836	0	0	68	-31	-1	-232
6/30/2019	12599	30	448	16	96	-2188	72	943	744	0	0	122	-24	-1	-224
7/31/2019	12630	31	274	16	110	-2121	64	1046	727	0	0	146	-25	-1	-233
8/31/2019	12661	31	264	16	110	-2121	81	1026	724	0	0	163	-25	-1	-232
9/30/2019	12691	30	272	16	110	-2122	83	1035	701	0	0	161	-24	-1	-225
10/31/2019	12722	31	256	16	110	-2120	79	1022	732	0	0	170	-25	-1	-233
11/30/2019	12752	30	-408	116	211	-549	23	37	792	0	0	44	-33	-1	-226
12/31/2019	12783	31	-1269	470	788	-174	81	-87	852	0	0	-391	-38	-1	-226

Table B-9. Monthly Groundwater Budget for Aquifer C in Santa Paula Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet								
			Change in Storage	Mountain Front Recharge	Recharge	Pumping from Wells	Outside of Basin	Santa Paula B	Fillmore C	Oxnard	Mound L8 L11
1/31/2016	11353	31	-469	1	123	-78	-7	328	390	-2	-273
2/29/2016	11382	29	12	0	32	-80	-5	-61	362	-2	-245
3/31/2016	11413	31	-122	1	54	-81	-6	36	394	-2	-260
4/30/2016	11443	30	182	0	0	-89	-4	181	362	-2	-257
5/31/2016	11474	31	199	0	0	-90	-5	-189	369	-2	-275
6/30/2016	11504	30	204	0	0	-88	-4	-186	355	-2	-272
7/31/2016	11535	31	219	0	0	-98	-5	-191	367	-2	-285
8/31/2016	11566	31	220	0	0	-96	-5	-191	367	-2	-288
9/30/2016	11596	30	219	0	0	-94	-5	-186	353	-2	-282
10/31/2016	11627	31	223	0	0	-94	-5	-197	373	-2	-294
11/30/2016	11657	30	221	0	0	-92	-5	-190	355	-2	-284
12/31/2016	11688	31	-255	1	76	-81	-7	169	389	-2	-282
1/31/2017	11719	31	-901	3	232	-77	-6	616	403	-2	-254
2/28/2017	11747	28	-946	3	227	-66	-5	632	372	-2	198
3/31/2017	11778	31	-146	0	0	-82	-4	67	392	-2	-210
4/30/2017	11808	30	3	0	0	-81	-4	-53	371	-2	-221
5/31/2017	11839	31	61	0	0	-85	-5	-96	382	-2	-242
6/30/2017	11869	30	94	0	0	-83	-5	-116	368	-2	-246
7/31/2017	11900	31	140	0	0	-99	-5	-142	382	-2	-264
8/31/2017	11931	31	169	0	0	-97	-5	-166	382	-2	-271
9/30/2017	11961	30	181	0	0	-94	-5	-172	368	-2	-267
10/31/2017	11992	31	194	0	0	-96	-5	-182	379	-2	-280
11/30/2017	12022	30	189	0	0	-93	-5	-175	365	-2	-274
12/31/2017	12053	31	197	0	0	-95	-5	-182	377	-2	-285
1/31/2018	12084	31	20	0	37	-81	-6	-70	393	-2	-282
2/28/2018	12112	28	171	0	0	-81	-4	-167	342	-2	-253
3/31/2018	12143	31	-761	3	213	-78	-6	508	403	-2	-265
4/30/2018	12173	30	19	0	0	-86	-4	-48	377	-2	-243
5/31/2018	12204	31	114	0	0	-89	-5	-136	384	-2	-256
6/30/2018	12234	30	157	0	0	-86	-5	-167	370	-2	-257
7/31/2018	12265	31	186	0	0	-101	-5	177	381	-2	-275
8/31/2018	12296	31	192	0	0	-99	-5	-181	382	-2	-282
9/30/2018	12326	30	194	0	0	-96	-5	-178	368	-2	-278
10/31/2018	12357	31	204	0	0	-98	-5	-186	379	-2	-290
11/30/2018	12387	30	17	0	45	-81	-6	-71	384	-2	-277
12/31/2018	12418	31	86	0	22	-89	-5	-123	399	-2	-281
1/31/2019	12449	31	-788	2	204	-77	-6	531	412	-2	-263
2/28/2019	12477	28	-820	3	203	-68	-5	538	382	-2	-212
3/31/2019	12508	31	-358	1	67	-75	-5	185	425	-2	-218
4/30/2019	12538	30	-15	0	0	-82	-4	-53	394	-2	-224
5/31/2019	12569	31	-30	0	27	-80	-5	-68	416	-2	-244
6/30/2019	12599	30	84	0	0	-84	-4	-122	392	-2	-249
7/31/2019	12630	31	126	0	0	-92	-5	-146	400	-2	-268
8/31/2019	12661	31	147	0	0	-91	-5	-163	400	-2	-274
9/30/2019	12691	30	152	0	0	-87	-5	-161	385	-2	-271
10/31/2019	12722	31	164	0	0	-89	-5	-170	398	-2	-284
11/30/2019	12752	30	-15	0	30	-82	-6	-44	402	-2	-272
12/31/2019	12783	31	-587	2	134	-81	-6	391	430	-2	-265

Table B-10. Monthly Groundwater Budget for Layer 1 in Mound Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet								
			Change in Storage	Tile Drains	ET	Recharge	Santa Paula A	Oxnard L1	Coastal Flux	Mound L2-L4	Stream Perc
1/31/2016	11353	31	-203	0	12	419	0	39	-28	190	-22
2/29/2016	11382	29	94	0	-14	109	0	36	13	-97	-116
3/31/2016	11413	31	4	0	19	219	0	42	14	-135	-96
4/30/2016	11443	30	70	0	-20	130	0	43	-9	-97	-117
5/31/2016	11474	31	65	0	-21	131	0	48	-8	-98	-116
6/30/2016	11504	30	57	0	-19	130	0	47	-7	-95	-113
7/31/2016	11535	31	27	0	-19	160	0	48	-7	-97	-112
8/31/2016	11566	31	24	0	-17	160	0	48	7	-97	-110
9/30/2016	11596	30	14	0	-13	158	0	45	-8	-96	-101
10/31/2016	11627	31	22	0	-11	156	0	44	-8	-97	-106
11/30/2016	11657	30	18	0	-8	167	0	40	-8	-109	-101
12/31/2016	11688	31	-118	0	-7	342	0	36	15	-162	76
1/31/2017	11719	31	-437	0	-11	721	0	25	-39	-266	18
2/28/2017	11747	28	-494	-2	-20	747	0	12	-59	-266	92
3/31/2017	11778	31	129	-4	-38	116	0	20	-43	-133	-47
4/30/2017	11808	30	143	1	-38	115	0	37	-18	-114	-124
5/31/2017	11839	31	121	0	-36	116	0	41	-16	-112	-114
6/30/2017	11869	30	45	0	-33	115	0	33	-31	-105	-24
7/31/2017	11900	31	30	0	-35	161	0	26	-34	-111	-36
8/31/2017	11931	31	108	0	-30	161	0	32	-14	-110	-146
9/30/2017	11961	30	63	0	-20	160	0	37	-11	-106	-123
10/31/2017	11992	31	54	0	-15	161	0	39	-12	-108	-118
11/30/2017	12022	30	40	0	-10	160	0	36	-13	-105	-108
12/31/2017	12053	31	42	0	-8	161	0	36	13	-109	-109
1/31/2018	12084	31	52	0	-9	148	0	32	16	-119	-87
2/28/2018	12112	28	56	0	-8	124	0	28	-12	-93	-94
3/31/2018	12143	31	-284	0	-15	549	0	27	-29	-230	12
4/30/2018	12173	30	115	0	-19	127	0	25	18	-113	-117
5/31/2018	12204	31	100	0	-19	128	0	32	-12	-110	-118
6/30/2018	12234	30	81	0	-16	127	0	32	10	-104	-110
7/31/2018	12265	31	42	0	-15	170	0	34	-10	-110	-110
8/31/2018	12296	31	38	0	-13	170	0	34	-11	-111	-107
9/30/2018	12326	30	28	0	-10	168	0	32	-11	-109	-99
10/31/2018	12357	31	32	0	-8	170	0	31	-11	-113	-101
11/30/2018	12387	30	20	0	-5	185	0	26	-13	-130	-82
12/31/2018	12418	31	-12	0	-5	169	0	18	-27	-123	-20
1/31/2019	12449	31	-397	0	-8	696	0	7	-42	-266	18
2/28/2019	12477	28	-381	1	-17	576	0	-9	-71	-239	150
3/31/2019	12508	31	-62	-5	-36	253	0	-12	71	-172	105
4/30/2019	12538	30	86	-4	-40	145	0	1	-46	-129	-13
5/31/2019	12569	31	79	-2	-43	153	0	9	-38	-133	-25
6/30/2019	12599	30	113	0	-37	145	0	18	-22	-119	-97
7/31/2019	12630	31	88	0	-30	166	0	27	-16	-115	-121
8/31/2019	12661	31	76	0	-23	166	0	32	14	-113	-124
9/30/2019	12691	30	53	0	-16	165	0	33	14	-109	-112
10/31/2019	12722	31	40	0	-13	166	0	43	-15	-112	-109
11/30/2019	12752	30	-45	0	-11	226	0	36	-21	-139	-46
12/31/2019	12783	31	-260	0	-11	506	0	21	-42	-211	2

Table B-11. Monthly Groundwater Budget for Layers 2 through 4 in Mound Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet								
			Change in Storage	Recharge	Pumping from Wells	Santa Paula A	Mound L1	Santa Paula B	Oxnard UAS	Coastal Flux	Mound L5
1/31/2016	11353	31	-35	36	-1	1	190	0	-27	7	-171
2/29/2016	11382	29	62	6	-1	1	97	0	-56	10	-118
3/31/2016	11413	31	-6	21	0	2	135	0	-32	8	-127
4/30/2016	11443	30	71	5	-1	1	97	0	-55	10	-127
5/31/2016	11474	31	93	6	0	-4	98	0	-58	11	-145
6/30/2016	11504	30	99	5	0	-4	95	0	-59	11	-146
7/31/2016	11535	31	161	6	-1	-5	97	0	-59	13	-212
8/31/2016	11566	31	148	6	-1	-5	97	0	-55	13	-204
9/30/2016	11596	30	142	6	1	-5	96	0	-52	13	-198
10/31/2016	11627	31	138	6	-1	-5	97	0	-52	14	-197
11/30/2016	11657	30	73	11	0	-4	109	0	-38	12	-162
12/31/2016	11688	31	-33	25	0	1	162	0	-23	9	-141
1/31/2017	11719	31	-121	54	0	4	266	0	-14	8	-199
2/28/2017	11747	28	-170	57	0	5	266	0	0	7	-199
3/31/2017	11778	31	-30	6	-1	5	133	0	-20	12	-104
4/30/2017	11808	30	33	5	-1	2	114	0	-35	12	-131
5/31/2017	11839	31	60	6	-1	1	112	0	-42	13	-149
6/30/2017	11869	30	77	5	-1	0	105	0	-46	13	-153
7/31/2017	11900	31	93	6	-4	0	111	0	-52	13	-168
8/31/2017	11931	31	94	6	-2	-1	110	0	-52	14	-169
9/30/2017	11961	30	98	5	-2	-1	106	0	-52	14	-169
10/31/2017	11992	31	100	6	1	-1	108	0	-53	14	-172
11/30/2017	12022	30	97	5	-2	-1	105	0	-54	14	-164
12/31/2017	12053	31	97	6	1	-1	109	0	-56	14	-167
1/31/2018	12084	31	16	13	1	1	119	0	-41	12	-122
2/28/2018	12112	28	74	5	-2	0	93	0	-49	12	-133
3/31/2018	12143	31	79	42	1	2	230	0	-23	9	-185
4/30/2018	12173	30	46	5	-2	2	113	0	-47	12	-129
5/31/2018	12204	31	68	6	-1	1	110	0	-50	13	-145
6/30/2018	12234	30	80	5	-1	-2	104	0	-51	13	-148
7/31/2018	12265	31	142	6	-4	-2	110	0	-59	15	-207
8/31/2018	12296	31	126	6	-2	-3	111	0	-57	15	-196
9/30/2018	12326	30	122	5	-2	-3	109	0	-57	15	-191
10/31/2018	12357	31	123	6	-2	-3	113	0	-59	16	-193
11/30/2018	12387	30	-2	15	1	1	130	0	-33	12	-124
12/31/2018	12418	31	12	13	-1	3	123	0	-37	13	-126
1/31/2019	12449	31	124	52	2	5	266	0	-18	10	-195
2/28/2019	12477	28	154	44	0	6	239	0	-1	8	-144
3/31/2019	12508	31	-153	21	-1	7	172	0	28	9	-83
4/30/2019	12538	30	2	5	-2	3	129	0	2	11	-151
5/31/2019	12569	31	-22	12	0	1	133	0	-8	10	-126
6/30/2019	12599	30	63	5	-2	0	119	0	-31	12	-167
7/31/2019	12630	31	51	5	-4	1	115	0	-37	16	-145
8/31/2019	12661	31	4	5	-2	1	113	0	7	16	-129
9/30/2019	12691	30	58	5	-2	1	109	0	-23	16	-161
10/31/2019	12722	31	89	5	-2	1	112	0	-36	16	-184
11/30/2019	12752	30	-46	18	2	2	139	0	7	10	-118
12/31/2019	12783	31	-115	36	0	5	211	0	1	8	-151

Table B-12. Monthly Groundwater Budget for Layer 5 in Mound Basin									
Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet						
			Change in Storage	Pumping from Wells	Santa Paula B	Mound L2-L4	Oxnard UAS	Coastal Flux	Mound L6-L7
1/31/2016	11353	31	14	-13	38	171	-214	69	-65
2/29/2016	11382	29	89	79	28	118	-226	94	-24
3/31/2016	11413	31	28	-27	37	127	-199	76	-42
4/30/2016	11443	30	67	-86	26	127	-208	99	-25
5/31/2016	11474	31	77	-87	24	145	-234	106	-32
6/30/2016	11504	30	89	-88	23	146	-241	106	-35
7/31/2016	11535	31	168	-277	24	212	-235	142	-34
8/31/2016	11566	31	167	-277	24	204	-230	147	-34
9/30/2016	11596	30	166	-277	22	198	-223	148	-35
10/31/2016	11627	31	168	-277	24	197	-229	154	-37
11/30/2016	11657	30	118	-182	26	162	-209	129	-44
12/31/2016	11688	31	29	-59	38	141	-187	100	-62
1/31/2017	11719	31	-81	14	43	199	-141	86	-92
2/28/2017	11747	28	180	13	40	199	-24	74	-96
3/31/2017	11778	31	-43	-178	34	104	10	121	-48
4/30/2017	11808	30	-8	-180	30	131	-70	121	-25
5/31/2017	11839	31	27	-180	31	149	-130	125	-21
6/30/2017	11869	30	54	-180	29	153	-161	124	19
7/31/2017	11900	31	71	-208	29	168	-186	147	-20
8/31/2017	11931	31	79	-210	28	169	-194	149	-21
9/30/2017	11961	30	90	-209	27	169	-203	148	-21
10/31/2017	11992	31	99	-210	27	172	-219	153	-22
11/30/2017	12022	30	112	-209	26	164	-223	152	-22
12/31/2017	12053	31	118	-210	27	167	-237	157	-23
1/31/2018	12084	31	61	-85	32	122	-224	123	-29
2/28/2018	12112	28	93	-146	23	133	-215	129	-17
3/31/2018	12143	31	-44	-18	36	185	-191	98	-65
4/30/2018	12173	30	56	-145	27	129	-182	133	17
5/31/2018	12204	31	53	-146	25	145	-203	141	-15
6/30/2018	12234	30	71	-146	23	148	-222	140	14
7/31/2018	12265	31	138	-289	23	207	-241	174	-13
8/31/2018	12296	31	146	-291	23	196	-239	180	-16
9/30/2018	12326	30	150	-291	22	191	-233	180	-18
10/31/2018	12357	31	153	-292	23	193	-242	186	-21
11/30/2018	12387	30	67	-118	32	124	-216	141	-31
12/31/2018	12418	31	66	-149	34	126	-204	148	-21
1/31/2019	12449	31	-101	-24	39	195	-145	110	73
2/28/2019	12477	28	194	-27	36	144	6	95	-61
3/31/2019	12508	31	-302	-66	38	83	172	108	-33
4/30/2019	12538	30	158	-244	26	151	102	138	-14
5/31/2019	12569	31	-88	-152	31	126	-16	123	-24
6/30/2019	12599	30	0	-246	24	167	-66	141	-18
7/31/2019	12630	31	-31	-309	25	145	9	180	-19
8/31/2019	12661	31	-81	-311	25	129	79	179	-20
9/30/2019	12691	30	-3	-311	24	161	-25	174	-21
10/31/2019	12722	31	39	-312	25	184	-92	179	-23
11/30/2019	12752	30	-40	-95	33	118	-95	116	-37
12/31/2019	12783	31	-105	-41	38	151	-82	99	-60

Table B-13. Monthly Groundwater Budget for Layers 6 and 7 in Mound Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet								
			Change in Storage	Mountain Front Recharge	Recharge	Pumping from Wells	Santa Paula B	Mound L5	Oxnard LAS	Coastal Flux	Mound L8-L11
1/31/2016	11353	31	-276	448	150	-71	221	65	-229	28	-337
2/29/2016	11382	29	235	31	25	-427	204	24	-312	47	172
3/31/2016	11413	31	-125	150	74	137	228	42	-244	37	-24
4/30/2016	11443	30	213	0	8	-483	216	25	-310	54	277
5/31/2016	11474	31	217	0	8	-484	227	32	-326	68	258
6/30/2016	11504	30	217	0	8	-483	220	35	-323	72	253
7/31/2016	11535	31	206	0	9	-553	227	34	-290	83	284
8/31/2016	11566	31	207	0	9	-553	227	34	-296	84	288
9/30/2016	11596	30	215	0	9	-553	221	35	-294	83	285
10/31/2016	11627	31	208	0	9	-553	229	37	-306	86	290
11/30/2016	11657	30	45	0	11	-360	222	44	-270	68	239
12/31/2016	11688	31	-215	255	96	111	231	62	-231	42	-129
1/31/2017	11719	31	-683	737	238	16	223	92	-204	21	-414
2/28/2017	11747	28	-749	786	253	-17	194	96	-169	12	-381
3/31/2017	11778	31	244	0	7	-212	211	48	-315	36	19
4/30/2017	11808	30	114	0	7	-212	212	25	-326	49	132
5/31/2017	11839	31	36	0	7	-212	222	21	-341	54	213
6/30/2017	11869	30	33	0	7	-212	217	19	-341	54	224
7/31/2017	11900	31	78	0	9	-415	225	20	-281	66	298
8/31/2017	11931	31	80	0	9	-415	225	21	-286	65	300
9/30/2017	11961	30	94	0	9	-415	218	21	-284	64	292
10/31/2017	11992	31	94	0	9	-415	226	22	-296	66	294
11/30/2017	12022	30	107	0	9	-415	219	22	-292	65	286
12/31/2017	12053	31	104	0	9	-415	226	23	-303	66	289
1/31/2018	12084	31	-109	77	43	-143	226	29	-270	41	108
2/28/2018	12112	28	54	0	9	-298	199	17	-267	41	245
3/31/2018	12143	31	-471	573	184	-32	220	65	-222	25	-348
4/30/2018	12173	30	116	0	9	-297	201	17	-259	34	179
5/31/2018	12204	31	57	0	9	-298	216	15	-273	44	230
6/30/2018	12234	30	34	0	9	-298	210	14	-267	46	251
7/31/2018	12265	31	227	0	10	-587	221	13	-282	68	330
8/31/2018	12296	31	220	0	10	-587	224	16	-279	76	320
9/30/2018	12326	30	222	0	10	-587	218	18	-274	78	314
10/31/2018	12357	31	209	0	10	-586	227	21	-282	82	319
11/30/2018	12387	30	102	64	48	-215	222	31	-230	55	127
12/31/2018	12418	31	71	43	37	-280	227	21	-228	48	202
1/31/2019	12449	31	-559	631	224	-54	222	73	-193	27	-377
2/28/2019	12477	28	-555	618	197	-65	193	61	-166	17	-305
3/31/2019	12508	31	-68	187	78	-180	215	33	192	22	-95
4/30/2019	12538	30	354	0	9	-619	215	14	-285	56	256
5/31/2019	12569	31	44	33	32	-391	232	24	-239	58	209
6/30/2019	12599	30	244	0	9	-618	224	18	-291	71	342
7/31/2019	12630	31	146	0	11	-582	233	19	-249	83	339
8/31/2019	12661	31	132	0	11	-581	232	20	-249	80	355
9/30/2019	12691	30	145	0	11	-582	225	21	-250	78	351
10/31/2019	12722	31	142	0	11	-581	233	23	-263	80	354
11/30/2019	12752	30	-192	81	56	-168	226	37	-207	47	120
12/31/2019	12783	31	-443	457	155	-74	226	60	-184	26	-224

Table B-14. Monthly Groundwater Budget for Layers 8 through 11 in Mound Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet						
			Change in Storage	Mountain Front Recharge	Pumping from Wells	Santa Paula C	Oxnard LAS	Mouond L6-L7	Coastal Flux
1/31/2016	11353	31	-904	448	-7	273	146	337	0
2/29/2016	11382	29	129	31	-26	245	-212	-172	4
3/31/2016	11413	31	-267	150	-11	260	-160	24	3
4/30/2016	11443	30	257	0	-30	257	-213	-277	6
5/31/2016	11474	31	229	0	-29	275	-227	-258	10
6/30/2016	11504	30	224	0	-29	272	-226	-253	11
7/31/2016	11535	31	222	0	-27	285	-208	-284	13
8/31/2016	11566	31	225	0	-28	288	-210	-288	12
9/30/2016	11596	30	228	0	-27	282	-209	-285	12
10/31/2016	11627	31	228	0	-27	294	-216	-290	12
11/30/2016	11657	30	153	0	-20	284	-187	-239	9
12/31/2016	11688	31	-506	255	-9	282	-153	129	2
1/31/2017	11719	31	-1266	737	-3	254	-132	414	-3
2/28/2017	11747	28	-1248	786	-3	198	-110	381	-5
3/31/2017	11778	31	-5	0	10	210	-215	19	0
4/30/2017	11808	30	140	0	-9	221	-225	132	5
5/31/2017	11839	31	208	0	-9	242	-235	-213	7
6/30/2017	11869	30	215	0	-9	246	-234	-224	7
7/31/2017	11900	31	232	0	-22	264	-185	-298	8
8/31/2017	11931	31	230	0	-22	271	-187	-300	8
9/30/2017	11961	30	224	0	-22	267	-185	-292	8
10/31/2017	11992	31	220	0	-22	280	-192	-294	8
11/30/2017	12022	30	216	0	-22	274	-189	-286	7
12/31/2017	12053	31	213	0	-22	285	-195	-289	7
1/31/2018	12084	31	-66	77	-13	282	-173	108	2
2/28/2018	12112	28	188	0	-28	253	-171	-245	2
3/31/2018	12143	31	-1038	573	-5	265	-142	348	1
4/30/2018	12173	30	128	0	-28	243	-165	-179	0
5/31/2018	12204	31	175	0	-28	256	-177	-230	4
6/30/2018	12234	30	191	0	-28	257	-174	-251	5
7/31/2018	12265	31	261	0	-28	275	-188	-330	9
8/31/2018	12296	31	241	0	-28	282	-187	-320	11
9/30/2018	12326	30	237	0	-28	278	-184	-314	12
10/31/2018	12357	31	235	0	-28	290	-190	-319	12
11/30/2018	12387	30	-57	64	-11	277	-151	127	7
12/31/2018	12418	31	37	43	-14	281	-148	-202	4
1/31/2019	12449	31	1141	631	-7	263	-123	377	-1
2/28/2019	12477	28	1019	618	-8	212	-105	305	-3
3/31/2019	12508	31	-360	187	-14	218	-125	95	-2
4/30/2019	12538	30	250	0	-35	224	-189	-256	7
5/31/2019	12569	31	112	33	-22	244	-167	-209	9
6/30/2019	12599	30	315	0	-34	249	-199	-342	11
7/31/2019	12630	31	248	0	-16	268	-174	-339	13
8/31/2019	12661	31	258	0	-17	274	-171	-355	12
9/30/2019	12691	30	257	0	-17	271	-170	-351	11
10/31/2019	12722	31	254	0	-17	284	-178	-354	11
11/30/2019	12752	30	-91	81	-8	272	-138	120	4
12/31/2019	12783	31	-818	457	-7	265	-119	224	-2

Table B-15. Monthly Groundwater Budget for the Semi-Perched Aquifer in Oxnard Basin																	
			influx(+) outflux(-); units in Acre-feet														
Date	Stress Period	Days in Month	Change in Storage	Tile Drains	ET	Recharge	Pumping from Wells	Mound	Pleasant Valley	West Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin UAS	Partial Santa Clara River Net Percolation	Calleguas Creek Net Percolation
1/31/2016	11353	31	-471	-331	-335	2087	0	-39	195	0	-58	-44	11	50	-1653	13	574
2/29/2016	11382	29	727	-338	-368	1282	0	-36	187	0	-52	-38	11	47	-1433	12	0
3/31/2016	11413	31	463	-349	-551	1407	0	-42	194	0	-55	-41	14	56	-1494	12	386
4/30/2016	11443	30	907	-311	-585	1292	0	-43	194	0	-51	-37	16	61	-1443	0	0
5/31/2016	11474	31	952	-272	-589	1298	0	-48	193	0	-51	-37	17	71	-1535	0	0
6/30/2016	11504	30	865	-228	-517	1266	0	-47	177	0	-47	-35	17	70	-1521	0	0
7/31/2016	11535	31	790	-212	-509	1412	0	-48	173	0	-47	-35	17	72	-1612	0	0
8/31/2016	11566	31	806	-195	-471	1397	0	-48	164	0	-47	-35	17	71	-1658	0	0
9/30/2016	11596	30	698	-182	-368	1397	0	-45	150	0	-45	-34	14	65	-1652	0	0
10/31/2016	11627	31	749	-185	-329	1401	0	-44	146	0	-46	-34	13	64	-1735	0	0
11/30/2016	11657	30	749	-174	-245	1226	0	-40	133	0	-43	-33	11	56	-1639	0	0
12/31/2016	11688	31	-799	-243	-259	2515	0	-36	137	0	-44	-33	9	48	-1740	14	430
1/31/2017	11719	31	-3689	-515	-472	5385	0	-25	164	0	-44	-33	8	33	-2052	25	1216
2/28/2017	11747	28	-3499	-846	-638	5434	0	-12	184	0	-42	-31	6	12	-1793	92	1132
3/31/2017	11778	31	1621	-891	-996	1174	0	-20	216	0	-46	-29	12	32	-1501	172	258
4/30/2017	11808	30	1395	-611	-908	1152	0	-37	203	0	-46	-26	15	55	-1458	45	221
5/31/2017	11839	31	1323	-470	-862	1109	0	-41	208	0	-48	-27	17	69	-1495	0	216
6/30/2017	11869	30	1042	-364	-711	1127	0	-33	201	0	-43	-25	17	70	-1463	1	182
7/31/2017	11900	31	847	-332	-670	1330	0	-26	206	0	-40	-25	17	72	-1559	0	180
8/31/2017	11931	31	822	-306	-600	1313	0	-32	204	0	-40	-25	17	71	-1590	0	168
9/30/2017	11961	30	674	-285	-459	1318	0	-37	195	0	-40	-24	14	64	-1579	0	159
10/31/2017	11992	31	694	-293	-410	1307	0	-39	199	0	-41	-24	13	62	-1651	0	182
11/30/2017	12022	30	555	-290	-306	1336	0	-36	190	0	-39	-23	11	55	-1632	0	180
12/31/2017	12053	31	600	-312	-272	1346	0	-36	193	0	-40	-23	10	52	-1703	0	186
1/31/2018	12084	31	983	-285	-304	1019	0	-32	191	0	-38	-23	10	51	-1603	18	13
2/28/2018	12112	28	571	-236	-299	1067	0	-28	171	0	-31	-18	10	49	-1463	0	209
3/31/2018	12143	31	-2016	-391	-599	3871	0	-27	198	0	-34	-21	11	49	-1879	82	757
4/30/2018	12173	30	1121	-411	-706	1076	0	-25	201	0	-30	-17	13	54	-1486	0	209
5/31/2018	12204	31	1059	-328	-688	1077	0	-32	203	0	-30	-16	16	67	-1523	0	195
6/30/2018	12234	30	920	-260	-576	1049	0	-32	194	0	-28	-15	16	69	-1476	0	138
7/31/2018	12265	31	700	-237	-547	1306	0	-34	198	0	-27	-15	16	71	-1568	0	136
8/31/2018	12296	31	685	-222	-502	1302	0	-34	196	0	-27	-15	16	70	-1610	0	141
9/30/2018	12326	30	557	-212	-392	1317	0	-32	186	0	-25	-15	13	64	-1603	0	141
10/31/2018	12357	31	575	-223	-355	1325	0	-31	189	0	-25	-15	12	63	-1681	0	167
11/30/2018	12387	30	714	-207	-257	1117	0	-26	177	0	-24	-14	10	55	-1556	11	0
12/31/2018	12418	31	251	-228	-250	1203	0	-18	177	0	-21	-13	9	50	-1551	3	387
1/31/2019	12449	31	-2401	-372	-400	4054	0	-7	188	0	-20	-13	9	39	-1890	26	788
2/28/2019	12477	28	-2614	-569	-536	4056	0	9	191	0	-16	-11	8	24	-1700	125	1031
3/31/2019	12508	31	119	-693	-887	1984	0	12	229	0	-16	-10	12	35	-1503	183	537
4/30/2019	12538	30	886	-542	-872	1335	0	-1	219	0	-17	-7	15	52	-1413	104	241
5/31/2019	12569	31	901	-430	-841	1166	0	-9	222	0	-19	-8	16	65	-1420	105	252
6/30/2019	12599	30	569	-346	-705	1386	0	-18	212	0	-19	-7	16	68	-1436	80	199
7/31/2019	12630	31	481	-324	-653	1667	-40	-27	215	0	-22	-8	16	71	-1567	19	172
8/31/2019	12661	31	559	-300	-574	1551	-40	-32	211	0	-24	-9	15	71	-1602	0	174
9/30/2019	12691	30	370	-279	-442	1496	-40	-33	200	0	-24	-9	13	64	-1592	60	216
10/31/2019	12722	31	361	-288	-398	1497	-40	-43	203	0	-25	-10	12	62	-1684	143	210
11/30/2019	12752	30	-340	-329	-344	1775	-11	-36	200	0	-23	-10	9	50	-1598	113	544
12/31/2019	12783	31	-2638	-564	-425	4022	-5	-21	227	0	-22	-10	7	32	-1777	28	1146

Table B-16. Monthly Groundwater Budget for the UAS in Oxnard Basin

			influx(+) outflux(-); units in Acre-feet															
Date	Stress Period	Days in Month	Change in Storage	Volcanic Outcrop Recharge	Tile Drains	ET	Recharge	Pumping from Wells	Oxnard Basin Semi-Perched Aquifer	Santa Paula	Mound	Pleasant Valley	Las Posas	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Coastal Flux from South of Port Hueneme to Arnold Road	Coastal Flux from Arnold Road to Point Mugu	Oxnard Basin LAS	Partial Santa Clara River Net Percolation
1/31/2016	11353	31	-1086	2	0	0	322	-920	1653	350	242	363	-37	280	214	130	279	-1841	49
2/29/2016	11382	29	1235	0	0	0	770	-3641	1433	326	282	315	-38	332	203	120	247	-1717	135
3/31/2016	11413	31	-1632	1	0	0	1285	-1270	1494	347	232	351	-61	295	212	124	260	-1760	123
4/30/2016	11443	30	1750	0	0	0	435	-3771	1443	331	263	316	-67	345	208	120	243	-1746	129
5/31/2016	11474	31	1882	0	0	0	305	-3796	1535	336	292	322	-63	377	232	135	268	-1955	124
6/30/2016	11504	30	2041	0	0	0	164	-3799	1521	322	300	311	-56	378	233	136	270	-1989	167
7/31/2016	11535	31	2133	0	0	0	152	-3940	1612	332	293	317	-63	426	254	147	293	-2135	177
8/31/2016	11566	31	2159	0	0	0	144	-3947	1658	332	285	318	-63	438	265	154	310	-2227	173
9/30/2016	11596	30	2224	0	0	0	144	-3946	1652	323	275	306	-66	437	266	155	313	-2241	158
10/31/2016	11627	31	2200	0	0	0	142	-3958	1735	335	281	316	-76	456	282	165	335	-2378	165
11/30/2016	11657	30	923	0	0	0	128	-2583	1639	327	247	316	-76	402	266	153	318	-2218	158
12/31/2016	11688	31	-1170	3	0	0	383	-989	1740	344	210	355	-74	341	248	138	297	-1972	146
1/31/2017	11719	31	-6060	6	0	0	4339	-447	2052	357	155	379	-71	294	218	117	255	-1645	49
2/28/2017	11747	28	-6572	8	0	0	5018	-420	1793	326	24	344	-109	243	177	91	197	-1272	153
3/31/2017	11778	31	1877	0	0	0	176	-3812	1501	349	11	329	-159	355	207	109	212	-1418	263
4/30/2017	11808	30	1332	0	0	0	870	-3825	1458	331	104	301	-131	367	219	119	223	-1517	149
5/31/2017	11839	31	1674	0	0	0	537	-3841	1495	340	171	314	-117	384	233	128	241	-1661	101
6/30/2017	11869	30	1288	0	0	0	1005	-3839	1463	335	207	308	-101	383	232	128	241	-1670	21
7/31/2017	11900	31	2016	0	0	0	195	-3823	1559	349	239	292	-89	424	246	136	261	-1832	28
8/31/2017	11931	31	2002	0	0	0	143	-3833	1590	342	246	287	-79	431	253	143	279	-1935	131
9/30/2017	11961	30	2048	0	0	0	144	-3833	1579	328	255	278	-69	429	252	144	285	-1957	117
10/31/2017	11992	31	2015	0	0	0	137	-3847	1651	340	273	292	-67	447	267	154	306	-2082	114
11/30/2017	12022	30	2035	0	0	0	139	-3843	1632	331	277	286	-64	443	264	153	306	-2066	106
12/31/2017	12053	31	1977	0	0	0	141	-3854	1703	344	293	301	-67	462	278	161	324	-2171	108
1/31/2018	12084	31	223	1	0	0	493	-2462	1603	348	264	345	-76	402	268	149	311	-1989	120
2/28/2018	12112	28	2200	0	0	0	156	-4072	1463	315	264	320	-62	385	240	131	267	-1714	99
3/31/2018	12143	31	-4034	6	0	0	2408	-621	1879	352	214	387	-75	341	246	129	273	-1669	164
4/30/2018	12173	30	1288	0	0	0	868	-4052	1486	339	229	356	-88	389	234	121	243	-1521	109
5/31/2018	12204	31	1926	0	0	0	169	-4068	1523	344	252	360	-78	419	254	133	260	-1610	117
6/30/2018	12234	30	1968	0	0	0	133	-4065	1476	331	273	351	-56	414	250	131	255	-1571	111
7/31/2018	12265	31	2173	0	0	0	151	-4398	1568	341	300	344	-66	479	270	141	274	-1703	110
8/31/2018	12296	31	2194	0	0	0	148	-4406	1610	342	295	346	-67	493	281	148	291	-1803	108
9/30/2018	12326	30	2247	0	0	0	148	-4406	1603	332	289	340	-65	490	281	150	296	-1829	97
10/31/2018	12357	31	2200	0	0	0	145	-4418	1681	344	302	359	-68	510	297	159	317	-1952	98
11/30/2018	12387	30	22	0	0	0	165	-2132	1556	338	249	365	-69	435	279	150	305	-1759	98
12/31/2018	12418	31	-770	1	0	0	706	-1928	1551	360	240	382	-77	434	272	141	294	-1631	22
1/31/2019	12449	31	-6112	4	0	0	4397	-666	1890	369	163	406	-90	358	247	123	262	-1404	51
2/28/2019	12477	28	-8737	6	0	0	7241	-688	1700	333	-5	380	-125	303	204	97	206	-1113	198
3/31/2019	12508	31	-6219	2	0	0	5844	-1454	1503	358	-200	389	-223	328	214	99	205	-1133	287
4/30/2019	12538	30	3178	0	0	0	358	-5146	1413	334	-103	345	-229	390	224	109	206	-1239	160
5/31/2019	12569	31	989	0	0	0	139	-2893	1420	342	25	358	-175	367	238	119	227	-1316	159
6/30/2019	12599	30	-5131	0	0	0	8582	-5198	1436	324	97	345	-155	402	237	121	227	-1450	164
7/31/2019	12630	31	-7572	0	0	0	11266	-5240	1567	312	28	353	-281	492	268	141	264	-1786	153
8/31/2019	12661	31	3586	0	0	0	397	-5232	1602	289	-72	348	-357	489	277	151	290	-1920	133
9/30/2019	12691	30	3361	0	0	0	350	-5217	1592	282	48	335	-250	474	274	153	298	-1906	180
10/31/2019	12722	31	3274	0	0	0	156	-5227	1684	300	128	347	-173	491	289	164	322	-2028	250
11/30/2019	12752	30	-315	2	0	0	193	-1568	1598	304	102	353	-131	363	258	143	297	-1771	172
12/31/2019	12783	31	-5457	5	0	0	4349	-759	1777	332	80	379	-136	308	229	120	261	-1532	43

Table B-17. Monthly Groundwater Budget for the LAS in Oxnard Basin

Date	Stress Period	Days in Month	influx(+) outflux(-); units in Acre-feet												
			Change in Storage	Mountain Front Recharge	Recharge	Pumping from Wells	Oxnard Basin UAS	Santa Paula	Pleasant Valley	Las Posas	Mound	Coastal Flux north to Channel Islands Horbor	Coastal flux from Channel Islands Harbor to South of Port Hueneme	Costal Flux from South of Port Hueneme to Arnold Road	Costal Flux from Arnold Road to Point Mugu
1/31/2016	11353	31	-2268	0	7	-912	1841	3	97	109	375	308	215	103	123
2/29/2016	11382	29	1183	0	1	-4456	1717	2	135	217	523	284	194	101	98
3/31/2016	11413	31	-1767	0	4	-1357	1760	3	118	129	404	304	208	98	95
4/30/2016	11443	30	1227	0	1	-4561	1746	2	158	228	523	292	196	101	87
5/31/2016	11474	31	828	0	1	-4535	1955	2	183	259	552	332	216	115	91
6/30/2016	11504	30	774	0	1	-4533	1989	2	184	265	548	341	220	117	92
7/31/2016	11535	31	981	0	1	-4931	2135	2	204	275	498	373	238	117	107
8/31/2016	11566	31	816	0	1	-4924	2227	2	216	275	506	389	247	119	125
9/30/2016	11596	30	795	0	1	-4925	2241	2	219	276	503	388	248	120	131
10/31/2016	11627	31	546	0	1	-4908	2378	3	231	283	523	411	264	127	142
11/30/2016	11657	30	-1065	0	1	-2905	2218	2	181	224	456	386	253	114	135
12/31/2016	11688	31	-2533	0	5	-877	1972	3	125	109	384	350	240	100	122
1/31/2017	11719	31	-2621	0	13	-177	1645	3	76	47	336	288	209	82	99
2/28/2017	11747	28	-1913	0	12	-225	1272	2	39	21	279	217	163	62	71
3/31/2017	11778	31	1081	0	1	-3885	1418	2	133	151	530	244	171	83	69
4/30/2017	11808	30	812	0	1	-3872	1517	2	185	188	552	272	179	94	68
5/31/2017	11839	31	524	0	1	-3857	1661	2	211	203	576	303	197	103	74
6/30/2017	11869	30	494	0	1	-3858	1670	2	218	210	576	307	199	104	76
7/31/2017	11900	31	872	0	1	-4221	1832	3	84	217	465	331	213	110	92
8/31/2017	11931	31	734	0	1	-4210	1935	3	58	216	473	341	221	117	112
9/30/2017	11961	30	707	0	1	-4209	1957	2	53	218	469	339	220	118	120
10/31/2017	11992	31	489	0	1	-4196	2082	3	57	225	488	359	234	124	132
11/30/2017	12022	30	523	0	1	-4199	2066	2	55	225	481	354	231	123	132
12/31/2017	12053	31	339	0	1	-4188	2171	3	58	230	499	372	244	128	140
1/31/2018	12084	31	-1788	0	1	-1757	1989	3	127	138	443	353	241	120	130
2/28/2018	12112	28	-5	0	1	-3181	1714	2	131	176	439	304	210	108	100
3/31/2018	12143	31	-2665	0	10	-238	1669	3	91	46	364	307	219	98	97
4/30/2018	12173	30	370	0	1	-3201	1521	2	100	136	423	276	195	94	82
5/31/2018	12204	31	148	0	1	-3185	1610	3	124	153	451	301	206	106	82
6/30/2018	12234	30	199	0	1	-3188	1571	2	130	155	441	300	204	106	79
7/31/2018	12265	31	959	0	1	-4148	1703	3	97	160	470	326	217	113	94
8/31/2018	12296	31	781	0	1	-4140	1803	3	105	168	466	346	225	120	114
9/30/2018	12326	30	735	0	1	-4140	1829	2	109	173	458	349	226	121	122
10/31/2018	12357	31	515	0	1	-4128	1952	3	120	180	473	371	241	129	134
11/30/2018	12387	30	-977	0	2	-2191	1759	3	109	89	381	343	232	120	130
12/31/2018	12418	31	-1358	0	2	-1581	1631	3	87	67	376	321	223	107	122
1/31/2019	12449	31	-2127	0	10	-346	1404	3	66	6	316	281	201	86	101
2/28/2019	12477	28	-1556	0	10	-375	1113	2	36	-18	272	219	160	65	71
3/31/2019	12508	31	-1038	0	3	-934	1133	3	32	-32	316	224	162	66	65
4/30/2019	12538	30	1764	0	1	-4228	1239	2	107	81	475	252	164	84	59
5/31/2019	12569	31	-372	0	1	-2150	1316	2	127	41	406	288	185	91	65
6/30/2019	12599	30	1328	0	1	-4187	1450	2	163	104	491	297	187	98	67
7/31/2019	12630	31	1079	0	1	-4354	1786	2	229	76	423	332	210	120	87
8/31/2019	12661	31	910	0	1	-4362	1920	2	231	59	420	340	221	133	111
9/30/2019	12691	30	902	0	1	-4377	1906	2	230	75	420	341	224	136	122
10/31/2019	12722	31	668	0	1	-4367	2028	2	238	91	441	363	240	144	136
11/30/2019	12752	30	-2036	0	4	-1029	1771	2	148	0	345	327	225	117	126
12/31/2019	12783	31	-2180	0	8	-385	1532	2	84	-44	303	280	203	90	106

Table B-18. Monthly Groundwater Budget for the Semi-Perched Aquifer in Pleasant Valley												
			influx(+) outflux(-); units in Acre-feet									
Date	Stress Period	Days in Month	Change in Storage	Tile Drains	ET	Recharge	Pumping from Wells	Oxnard Basin	Pleasant Valley UAS	Arroya Las Posas Net Percolation	Conejo Creek Net Percolation	Calleguas Creek Net Percolation
1/31/2016	11353	31	-530	-24	0	511	-24	-195	-1119	269	545	566
2/29/2016	11382	29	548	-22	0	243	-21	-187	-910	0	306	43
3/31/2016	11413	31	-209	-23	0	358	-22	-194	-1081	259	451	463
4/30/2016	11443	30	249	-23	0	225	-21	-194	-904	0	350	318
5/31/2016	11474	31	669	-23	0	241	-23	-193	-964	0	293	0
6/30/2016	11504	30	693	-22	0	217	-23	-177	-948	0	259	0
7/31/2016	11535	31	750	-22	0	268	-24	-173	-1072	0	273	0
8/31/2016	11566	31	778	-21	0	255	-25	-164	-1076	0	253	0
9/30/2016	11596	30	773	-20	0	256	-25	-150	-1058	0	224	0
10/31/2016	11627	31	780	-19	0	258	-27	-146	-1089	0	242	0
11/30/2016	11657	30	528	-18	0	263	-25	-133	-980	0	317	48
12/31/2016	11688	31	-756	-19	0	780	-24	-137	-1067	284	453	487
1/31/2017	11719	31	-2258	-22	0	1430	-22	-164	-1107	387	825	930
2/28/2017	11747	28	-2351	-25	-4	1307	-18	-184	-833	317	865	926
3/31/2017	11778	31	137	-27	-1	220	-19	-216	-888	0	401	394
4/30/2017	11808	30	204	-25	0	204	-20	-203	-912	0	376	374
5/31/2017	11839	31	256	-25	0	171	-21	-208	-942	0	386	384
6/30/2017	11869	30	254	-24	0	184	-21	-201	-932	0	371	368
7/31/2017	11900	31	256	-25	0	258	-23	-206	-1022	0	383	379
8/31/2017	11931	31	302	-25	0	247	-24	-204	-1055	0	381	378
9/30/2017	11961	30	309	-24	0	251	-24	-195	-1050	0	369	365
10/31/2017	11992	31	337	-24	0	244	-26	-199	-1094	0	383	379
11/30/2017	12022	30	318	-23	0	266	-26	-190	-1083	0	371	368
12/31/2017	12053	31	329	-23	0	272	-27	-193	-1121	0	383	380
1/31/2018	12084	31	234	-23	0	241	-26	-191	-953	0	365	354
2/28/2018	12112	28	227	-21	0	176	-22	-171	-892	0	352	351
3/31/2018	12143	31	-1344	-25	0	1094	-23	-198	-1098	342	584	668
4/30/2018	12173	30	201	-25	0	181	-21	-201	-880	0	374	371
5/31/2018	12204	31	233	-25	0	182	-22	-203	-929	0	384	381
6/30/2018	12234	30	251	-24	0	161	-21	-194	-902	0	367	362
7/31/2018	12265	31	270	-24	0	206	-23	-198	-982	0	378	373
8/31/2018	12296	31	289	-24	0	206	-24	-196	-1004	0	379	374
9/30/2018	12326	30	287	-23	0	217	-24	-186	-1000	0	367	363
10/31/2018	12357	31	301	-23	0	223	-26	-189	-1046	0	381	378
11/30/2018	12387	30	495	-22	0	202	-24	-177	-978	38	329	136
12/31/2018	12418	31	-36	-22	0	257	-24	-177	-928	10	456	464
1/31/2019	12449	31	-1180	-24	0	828	-22	-188	-1045	342	604	685
2/28/2019	12477	28	-1884	-24	-1	1091	-19	-191	-843	314	748	811
3/31/2019	12508	31	-547	-29	-1	455	-19	-229	-978	264	532	550
4/30/2019	12538	30	158	-27	0	206	-19	-219	-864	0	383	383
5/31/2019	12569	31	113	-28	0	237	-20	-222	-872	0	396	396
6/30/2019	12599	30	208	-27	0	203	-20	-212	-894	0	373	370
7/31/2019	12630	31	223	-28	0	286	-22	-215	-1004	0	382	378
8/31/2019	12661	31	311	-27	0	232	-24	-211	-1041	0	382	378
9/30/2019	12691	30	311	-26	0	227	-24	-200	-1035	0	375	373
10/31/2019	12722	31	337	-26	0	227	-26	-203	-1077	0	385	383
11/30/2019	12752	30	-404	-25	0	477	-25	-200	-1149	279	506	541
12/31/2019	12783	31	-1676	-29	-2	981	-24	-227	-1063	284	863	892

Table B-19. Monthly Groundwater Budget for the UAS in Pleasant Valley															
			influx(+) outflux(-); units in Acre-feet												
Date	Stress Period	Days in Month	Change in Storage	Mountain Front Recharge	GW Flux from East Las Posas	ET	Recharge	Pumping from Wells	Pleasant Valley Semi-Perched Aquifer	Oxnard Basin	Las Posas	Pleasant Valley LAS	Arroyo Las Posas Percolation	Conejo Creek Net Percolation	Calleguas Creek Net Percolation
1/31/2016	11353	31	-758	282	109	-95	106	-468	1119	-363	-14	-832	705	211	0
2/29/2016	11382	29	229	1	121	-97	16	-581	910	-315	-29	-784	345	184	0
3/31/2016	11413	31	-584	169	124	-144	72	-444	1081	-351	-50	-793	691	230	0
4/30/2016	11443	30	578	0	128	-160	17	-561	904	-316	-42	-782	0	234	0
5/31/2016	11474	31	628	0	121	-181	17	-607	964	-322	-24	-839	0	242	0
6/30/2016	11504	30	626	0	117	-170	17	-614	948	-311	-16	-832	0	236	0
7/31/2016	11535	31	676	0	105	-177	17	-752	1072	-317	-13	-858	0	247	0
8/31/2016	11566	31	696	0	96	-169	19	-762	1076	-318	-11	-874	0	247	0
9/30/2016	11596	30	676	0	96	-136	19	-763	1058	-306	-9	-865	0	231	0
10/31/2016	11627	31	430	0	95	-125	17	-789	1089	-316	-12	-904	281	235	0
11/30/2016	11657	30	282	36	95	-96	32	-641	980	-316	-20	-871	297	222	0
12/31/2016	11688	31	-890	459	95	-84	148	-458	1067	-355	-37	-867	729	192	0
1/31/2017	11719	31	-1765	903	112	-95	323	-334	1107	-379	-65	-855	922	127	0
2/28/2017	11747	28	-1500	936	129	-94	270	-256	833	-344	-82	-721	770	59	0
3/31/2017	11778	31	539	0	136	-147	15	-470	888	-329	-73	-683	0	124	0
4/30/2017	11808	30	446	0	139	-171	15	-489	912	-301	-41	-685	0	176	0
5/31/2017	11839	31	464	0	129	-188	15	-518	942	-314	-26	-723	0	219	0
6/30/2017	11869	30	442	0	122	-173	15	-520	932	-308	-18	-718	0	226	0
7/31/2017	11900	31	504	0	114	-180	15	-665	1022	-292	-14	-749	0	244	0
8/31/2017	11931	31	543	0	102	-174	18	-698	1055	-287	-11	-792	0	245	0
9/30/2017	11961	30	537	0	95	-140	18	-704	1050	-278	-9	-799	0	230	0
10/31/2017	11992	31	565	0	95	-128	18	-733	1094	-292	-8	-842	0	232	0
11/30/2017	12022	30	547	0	95	-96	18	-727	1083	-286	-7	-835	0	208	0
12/31/2017	12053	31	575	0	95	-83	18	-750	1121	-301	-7	-872	0	203	0
1/31/2018	12084	31	-129	77	95	-94	36	-496	953	-345	-11	-808	513	208	0
2/28/2018	12112	28	447	0	95	-92	12	-487	892	-320	-12	-725	0	190	0
3/31/2018	12143	31	-1445	708	95	-147	234	-350	1098	-387	-22	-815	834	198	0
4/30/2018	12173	30	490	0	95	-163	12	-443	880	-356	-24	-694	0	203	0
5/31/2018	12204	31	461	0	96	-181	12	-461	929	-360	-15	-719	0	239	0
6/30/2018	12234	30	449	0	96	-170	12	-456	902	-351	-12	-706	0	236	0
7/31/2018	12265	31	495	0	96	-177	13	-578	982	-344	-10	-725	0	248	0
8/31/2018	12296	31	512	0	95	-171	14	-602	1004	-346	-9	-746	0	249	0
9/30/2018	12326	30	493	0	95	-138	14	-608	1000	-340	-8	-743	0	234	0
10/31/2018	12357	31	511	0	95	-125	14	-633	1046	-359	-8	-779	0	238	0
11/30/2018	12387	30	-175	28	95	-96	23	-504	978	-365	-11	-786	594	219	0
12/31/2018	12418	31	-223	97	95	-84	39	-451	928	-382	-20	-826	609	219	0
1/31/2019	12449	31	-1291	640	95	-95	171	-313	1045	-406	-40	-807	834	166	0
2/28/2019	12477	28	-1530	926	118	-94	269	-235	843	-380	-61	-711	763	90	0
3/31/2019	12508	31	-805	275	131	-147	95	-255	978	-389	-85	-633	699	137	0
4/30/2019	12538	30	389	0	138	-171	12	-374	864	-345	-64	-622	0	172	0
5/31/2019	12569	31	-61	40	133	-198	28	-336	872	-358	-58	-624	344	219	0
6/30/2019	12599	30	339	0	136	-176	13	-406	894	-345	-48	-632	0	224	0
7/31/2019	12630	31	361	0	125	-181	15	-505	1004	-353	-28	-682	0	243	0
8/31/2019	12661	31	415	0	116	-174	17	-570	1041	-348	-18	-724	0	245	0
9/30/2019	12691	30	429	0	103	-141	17	-585	1035	-335	-12	-743	0	233	0
10/31/2019	12722	31	479	0	95	-129	17	-616	1077	-347	-10	-798	0	232	0
11/30/2019	12752	30	-877	240	95	-100	93	-411	1149	-353	-16	-745	713	213	0
12/31/2019	12783	31	-1339	682	95	-84	208	-327	1063	-379	-38	-767	729	157	0

Table B-20. Monthly Groundwater Budget for the LAS in Pleasant Valley								
			influx(+) outflux(-); units in Acre-feet					
Date	Stress Period	Days in Month	Change in Storage	Recharge	Pumping from Wells	Pleasant Valley UAS	Oxnard Basin	Las Posas
1/31/2016	11353	31	-866	47	105	832	-97	-21
2/29/2016	11382	29	331	10	-946	784	-135	-43
3/31/2016	11413	31	-603	29	-48	793	118	-53
4/30/2016	11443	30	335	9	-905	782	-158	-62
5/31/2016	11474	31	322	9	-947	839	-183	-40
6/30/2016	11504	30	304	9	-940	832	184	-21
7/31/2016	11535	31	317	9	-970	858	-204	10
8/31/2016	11566	31	284	10	-953	874	-216	1
9/30/2016	11596	30	287	10	-952	865	-219	8
10/31/2016	11627	31	193	9	-886	904	-231	10
11/30/2016	11657	30	-210	11	-483	871	-181	-8
12/31/2016	11688	31	-901	53	150	867	125	-44
1/31/2017	11719	31	1070	125	260	855	76	-94
2/28/2017	11747	28	-818	100	157	721	-39	-121
3/31/2017	11778	31	271	7	-693	683	133	134
4/30/2017	11808	30	259	7	-673	685	-185	-92
5/31/2017	11839	31	200	7	-644	723	-211	75
6/30/2017	11869	30	194	7	-641	718	-218	-60
7/31/2017	11900	31	433	7	1060	749	-84	-46
8/31/2017	11931	31	358	8	-1073	792	-58	-30
9/30/2017	11961	30	325	8	1067	799	-53	18
10/31/2017	11992	31	251	8	1036	842	-57	11
11/30/2017	12022	30	254	8	-1042	835	-55	7
12/31/2017	12053	31	196	8	1018	872	-58	-4
1/31/2018	12084	31	-602	15	71	808	127	-23
2/28/2018	12112	28	45	6	-599	725	131	-46
3/31/2018	12143	31	-979	91	243	815	-91	78
4/30/2018	12173	30	148	6	-644	694	-100	103
5/31/2018	12204	31	109	6	-624	719	-124	-86
6/30/2018	12234	30	122	6	-630	706	130	74
7/31/2018	12265	31	299	7	-874	725	-97	-60
8/31/2018	12296	31	257	7	-857	746	-105	-48
9/30/2018	12326	30	248	7	-852	743	-109	-37
10/31/2018	12357	31	191	7	-825	779	-120	-32
11/30/2018	12387	30	-168	11	-479	786	109	-42
12/31/2018	12418	31	-344	14	-328	826	-87	-81
1/31/2019	12449	31	-819	62	134	807	-66	117
2/28/2019	12477	28	757	99	119	711	-36	136
3/31/2019	12508	31	-434	36	-30	633	-32	-173
4/30/2019	12538	30	304	7	-671	622	107	155
5/31/2019	12569	31	-77	12	-294	624	-127	-138
6/30/2019	12599	30	283	7	-639	632	163	-122
7/31/2019	12630	31	542	8	-917	682	-229	-85
8/31/2019	12661	31	459	9	-900	724	-231	-60
9/30/2019	12691	30	405	9	-885	743	-230	-43
10/31/2019	12722	31	318	9	-852	798	-238	-34
11/30/2019	12752	30	-620	32	40	745	-148	-48
12/31/2019	12783	31	-803	74	145	767	-84	-99

Table B-21. Flow Budget for the Shallow Aquifer in West Las Posas Valley Basin								
			influx(+) outflux(-); units in Acre-feet					
Date	Stress Period	Days in Month	Change in Storage	Recharge	Pumping from Wells	Oxnard Basin	Pleasant Valley	Las Posas LAS
1/31/2016	11353	31	-21	862	12	37	14	-880
2/29/2016	11382	29	88	213	-55	38	29	-313
3/31/2016	11413	31	-49	623	-17	61	50	-667
4/30/2016	11443	30	48	236	-62	67	42	-331
5/31/2016	11474	31	100	235	-63	63	24	-359
6/30/2016	11504	30	122	236	-63	56	16	-367
7/31/2016	11535	31	140	252	-79	63	13	-389
8/31/2016	11566	31	144	276	79	63	11	-415
9/30/2016	11596	30	140	274	-79	66	9	-410
10/31/2016	11627	31	126	255	-79	76	12	-390
11/30/2016	11657	30	86	212	-58	76	20	-335
12/31/2016	11688	31	-82	841	-18	74	37	-853
1/31/2017	11719	31	-395	1973	-6	71	65	-1708
2/28/2017	11747	28	-395	1758	-6	109	82	-1548
3/31/2017	11778	31	42	219	-66	159	73	-427
4/30/2017	11808	30	50	220	-67	131	41	-374
5/31/2017	11839	31	78	222	-68	117	26	-376
6/30/2017	11869	30	100	222	-68	101	18	-373
7/31/2017	11900	31	94	249	-43	89	14	-403
8/31/2017	11931	31	109	263	-43	79	11	-418
9/30/2017	11961	30	119	262	-43	69	9	-415
10/31/2017	11992	31	131	262	-44	67	8	-424
11/30/2017	12022	30	132	260	-43	64	7	-419
12/31/2017	12053	31	136	259	-44	67	7	-426
1/31/2018	12084	31	68	254	-14	76	11	-395
2/28/2018	12112	28	66	215	-25	62	12	-330
3/31/2018	12143	31	-204	1494	-4	75	22	-1383
4/30/2018	12173	30	62	217	-24	88	24	-366
5/31/2018	12204	31	61	219	-25	78	15	-348
6/30/2018	12234	30	80	219	-25	56	12	-343
7/31/2018	12265	31	117	248	-65	66	10	-376
8/31/2018	12296	31	128	277	-65	67	9	-416
9/30/2018	12326	30	133	276	-65	65	8	-417
10/31/2018	12357	31	138	276	-65	68	8	-424
11/30/2018	12387	30	72	292	-28	69	11	-417
12/31/2018	12418	31	29	292	-27	77	20	-391
1/31/2019	12449	31	-218	1341	-3	90	40	-1250
2/28/2019	12477	28	-304	1386	-3	125	61	-1264
3/31/2019	12508	31	-254	568	-6	223	85	-615
4/30/2019	12538	30	-172	246	-21	229	64	-346
5/31/2019	12569	31	-105	236	13	175	58	-351
6/30/2019	12599	30	-61	248	-22	155	48	-368
7/31/2019	12630	31	-136	283	-29	281	28	-427
8/31/2019	12661	31	-165	336	-30	357	18	-516
9/30/2019	12691	30	-29	335	-30	250	12	-538
10/31/2019	12722	31	75	334	-30	173	10	-562
11/30/2019	12752	30	-8	783	-10	131	16	-912
12/31/2019	12783	31	-170	1177	-6	136	38	-1175

Table B-22. Monthly Groundwater Budget for the LAS in West Las Posas Valley Basin										
			influx(+) outflux(-); units in Acre-feet							
Date	Stress Period	Days in Month	Change in Storage	San Pedro Outcrop Recharge	Recharge	Pumping from Wells	Outside Area	Las Posas UAS	Oxnard Basin	Pleasant Valley
1/31/2016	11353	31	1366	452	376	-261	6	880	-109	21
2/29/2016	11382	29	784	13	71	-1014	7	313	-217	43
3/31/2016	11413	31	-816	280	253	-316	9	667	129	53
4/30/2016	11443	30	1121	0	53	1347	8	331	-228	62
5/31/2016	11474	31	1151	0	53	1352	8	359	-259	40
6/30/2016	11504	30	1168	0	54	-1352	7	367	-265	21
7/31/2016	11535	31	1288	0	60	-1479	6	389	-275	10
8/31/2016	11566	31	1390	0	66	-1600	6	415	-275	1
9/30/2016	11596	30	1404	0	65	-1600	5	410	-276	-8
10/31/2016	11627	31	1298	0	59	-1458	5	390	-283	10
11/30/2016	11657	30	1060	0	52	-1235	4	335	-224	8
12/31/2016	11688	31	1122	313	324	-309	6	853	109	44
1/31/2017	11719	31	-3422	885	864	-95	12	1708	-47	94
2/28/2017	11747	28	-3280	910	815	111	19	1548	-21	121
3/31/2017	11778	31	728	0	77	-1236	21	427	-151	134
4/30/2017	11808	30	858	0	81	-1234	17	374	-188	92
5/31/2017	11839	31	877	0	93	-1233	15	376	-203	75
6/30/2017	11869	30	904	0	93	-1233	12	373	-210	60
7/31/2017	11900	31	1009	0	100	-1353	11	403	-217	46
8/31/2017	11931	31	1052	0	105	-1399	10	418	-216	30
9/30/2017	11961	30	1076	0	99	-1399	9	415	-218	18
10/31/2017	11992	31	1082	0	98	1399	8	424	-225	11
11/30/2017	12022	30	1101	0	89	-1399	7	419	-225	7
12/31/2017	12053	31	1109	0	82	-1399	7	426	-230	4
1/31/2018	12084	31	72	70	124	-553	7	395	-138	23
2/28/2018	12112	28	899	0	70	1175	6	330	-176	46
3/31/2018	12143	31	-2690	710	676	-122	10	1383	-46	78
4/30/2018	12173	30	751	0	81	1177	12	366	-136	103
5/31/2018	12204	31	790	0	93	-1175	10	348	-153	86
6/30/2018	12234	30	811	0	93	1174	9	343	-155	74
7/31/2018	12265	31	1029	0	106	1419	8	376	-160	60
8/31/2018	12296	31	1178	0	112	1593	8	416	-168	48
9/30/2018	12326	30	1200	0	106	-1593	7	417	-173	37
10/31/2018	12357	31	1206	0	105	-1593	6	424	-180	32
11/30/2018	12387	30	125	90	147	-738	6	417	-89	42
12/31/2018	12418	31	107	80	140	-738	7	391	-67	81
1/31/2019	12449	31	-2551	754	601	-176	11	1250	-6	117
2/28/2019	12477	28	-2603	718	616	-165	16	1264	18	136
3/31/2019	12508	31	-970	245	261	-377	20	615	32	173
4/30/2019	12538	30	970	0	89	-1495	17	346	-81	155
5/31/2019	12569	31	331	33	128	-956	16	351	-41	138
6/30/2019	12599	30	994	0	100	-1494	13	368	-104	122
7/31/2019	12630	31	1175	0	111	-1735	12	427	-76	85
8/31/2019	12661	31	1420	0	120	-2068	11	516	-59	60
9/30/2019	12691	30	1439	0	115	-2068	9	538	75	43
10/31/2019	12722	31	1440	0	114	-2068	9	562	-91	34
11/30/2019	12752	30	-1164	293	324	-422	9	912	0	48
12/31/2019	12783	31	-2249	639	571	-293	14	1175	44	99

Table B-23. Monthly Streamflow Budget
units in Acre-feet

Year	Month	Days in Month	Rising Groundwater									Stream Percolation								
			System A			System B			System C			System A			System B			System C		
			Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula	Piru	Fillmore	Santa Paula
2016	1	31	-2324	-503	-69	0	-106	-40	0	-41	-14	6300	896	33	0	0	37	0	5	0
2016	2	29	-1713	-584	-163	0	-38	-12	0	-31	-14	3715	830	95	0	0	5	0	7	0
2016	3	31	-1861	-651	-151	0	-50	-24	0	-33	-14	4820	988	90	0	0	19	0	7	0
2016	4	30	-1536	-540	-168	0	-38	-11	0	-30	-13	2950	686	86	0	0	5	0	10	0
2016	5	31	-1513	-457	-161	0	-38	-11	0	-31	-10	2708	474	85	0	0	5	0	11	0
2016	6	30	-1314	-394	-153	0	-37	-11	0	-30	-9	1826	279	86	0	0	5	0	11	0
2016	7	31	-1163	-356	-150	0	-38	-10	0	-31	-9	1576	173	89	0	0	4	0	11	0
2016	8	31	-1277	-308	-145	0	-38	-10	0	-31	-9	1863	184	88	0	0	4	0	12	0
2016	9	30	-1388	-254	-129	0	-36	-10	0	-30	-9	2502	220	78	0	0	3	0	11	0
2016	10	31	-1482	-266	-134	0	-37	-10	0	-31	-9	2508	303	84	0	0	2	0	12	0
2016	11	30	-1463	-231	-127	0	-36	-10	0	-30	-9	2608	318	78	0	0	3	0	11	0
2016	12	31	-2178	-393	-117	0	-87	-29	0	-34	-13	4972	772	78	0	0	25	0	7	0
2017	1	31	-4091	-512	-72	0	-224	-67	0	-91	-16	12420	2211	67	0	0	51	0	1	0
2017	2	28	-3344	-627	-119	0	-208	-72	0	-87	-17	10056	3652	138	0	0	61	0	0	0
2017	3	31	-2791	-752	-168	0	-53	-10	0	-31	-16	7899	1625	146	0	0	3	0	8	0
2017	4	30	-2258	-561	-164	0	-50	-10	0	-30	-14	5534	1094	102	0	0	3	0	10	0
2017	5	31	-2257	-556	-147	0	-50	-10	0	-31	-14	6822	1186	111	0	0	3	0	11	0
2017	6	30	-2525	-625	-69	0	-47	-10	0	-30	-13	17400	3009	317	0	0	3	0	10	0
2017	7	31	-1870	-348	-48	0	-47	-11	0	-31	-14	7559	450	25	0	0	6	0	11	0
2017	8	31	-1512	-412	-170	0	-46	-11	0	-31	-13	2882	325	82	0	0	6	0	11	0
2017	9	30	-1430	-356	-154	0	-44	-11	0	-30	-13	2513	184	82	0	0	6	0	11	0
2017	10	31	-1498	-336	-150	0	-44	-11	0	-31	-12	2681	165	83	0	0	6	0	11	0
2017	11	30	-1496	-297	-139	0	-42	-11	0	-30	-10	2952	158	75	0	0	6	0	11	0
2017	12	31	-1546	-285	-141	0	-43	-11	0	-31	-10	3060	164	79	0	0	6	0	11	0
2018	1	31	-1722	-348	-129	0	-44	-16	0	-33	-12	4368	758	86	0	0	8	0	8	0
2018	2	28	-1479	-298	-123	0	-37	-10	0	-28	-9	3717	570	67	0	0	5	0	10	0
2018	3	31	-2614	-509	-131	0	-193	-55	0	-78	-16	5866	1813	128	0	0	43	0	2	0
2018	4	30	-1794	-497	-148	0	-46	-10	0	-30	-15	4201	942	101	0	0	5	0	8	0
2018	5	31	-1538	-393	-157	0	-46	-11	0	-31	-14	2817	852	96	0	0	5	0	11	0
2018	6	30	-1443	-344	-146	0	-44	-10	0	-30	-13	2996	565	83	0	0	5	0	11	0
2018	7	31	-1458	-304	-146	0	-44	-11	0	-31	-12	2458	424	84	0	0	7	0	11	0
2018	8	31	-1337	-264	-141	0	-43	-11	0	-31	-10	1876	269	83	0	0	6	0	11	0
2018	9	30	-1404	-221	-130	0	-41	-11	0	-30	-10	2210	239	76	0	0	7	0	11	0
2018	10	31	-1470	-203	-130	0	-42	-11	0	-31	-10	2504	247	79	0	0	6	0	11	0
2018	11	30	-1542	-292	-119	0	-42	-15	0	-32	-13	3691	428	77	0	0	8	0	7	0
2018	12	31	-1906	-275	-38	0	-42	-13	0	-32	-12	6453	790	30	0	0	5	0	8	0
2019	1	31	-2895	-483	-66	0	-190	-56	0	-76	-16	8480	2235	63	0	0	43	0	1	0
2019	2	28	-3940	-616	-96	0	-205	-58	0	-84	-19	11937	3859	152	0	0	43	0	0	0
2019	3	31	-3313	-813	-129	0	-81	-23	0	-34	-19	10271	2800	182	0	0	18	0	4	0
2019	4	30	-2551	-661	-108	0	-51	-10	0	-30	-15	11633	1276	80	0	0	5	0	9	0
2019	5	31	-2016	-623	-114	0	-53	-12	0	-32	-15	9460	1341	90	0	0	4	0	8	0
2019	6	30	-1699	-994	-177	0	-48	-10	0	-30	-14	15140	4613	562	0	0	5	0	10	0
2019	7	31	-1786	-819	-192	0	-48	-11	0	-31	-14	9284	2854	520	0	0	6	0	11	0
2019	8	31	-1621	-538	-172	0	-47	-11	0	-31	-14	2890	594	86	0	0	6	0	11	0
2019	9	30	-1468	-502	-161	0	-45	-11	0	-30	-13	2857	626	84	0	0	6	0	10	0
2019	10	31	-1533	-495	-158	0	-45	-11	0	-31	-14	3211	511	87	0	0	6	0	11	0
2019	11	30	-1721	-566	-126	0	-45	-15	0	-31	-14	4874	596	71	0	0	8	0	8	0
2019	12	31	-2528	-734	-92	0	-119	-43	0	-43	-16	6937	1356	35	0	0	38	0	4	0

Fillmore and Piru Basins
Groundwater Sustainability Agency

Appendix E-4

Expert Panel Review of the Expansion and Update to the Ventura Regional Groundwater Flow Model (Ventura County, California) (Porcello et al., 2021)

Memorandum

To: Jason Sun / United Water Conservation District (UWCD)

Copy: Dan Detmer / UWCD

From: John Porcello / GSI Water Solutions, Inc.
Jim Rumbaugh / Environmental Simulations, Inc.
Sorab Panday, Ph.D. / GSI Environmental, Inc.

Date: August 19, 2021

Re: Expert Panel Review of the Expansion and Update to the Ventura Regional Groundwater Flow Model (Ventura County, California)

Introduction

The United Water Conservation District (UWCD) has developed a numerical groundwater flow model of a series of interconnected groundwater basins in the southern portion of Ventura County, California where UWCD is charged with managing, protecting, conserving, and enhancing the region's water resources. This regional model initially was constructed for the four westernmost groundwater basins along the coast in southern Ventura County (the Oxnard, Pleasant Valley, West Las Posas, and Mound groundwater basins) and is referred to as the "Coastal Plain Model" in this memorandum and in a June 2021 report (UWCD, 2021a). The development and calibration of the Coastal Plain Model is documented and referred to as the VRGWFM in a report that also presented the underlying hydrogeologic conceptual model for those four groundwater basins (UWCD, 2018). The newest version of the numerical groundwater flow model (herein referred to as the Regional Model) expanded the Coastal Plain Model by adding three other groundwater basins (Piru, Fillmore, and Santa Paula) that occupy the alluvial valley of the Santa Clara River in the eastern portion of the county. The effort to expand and calibrate the model in the Piru, Fillmore, and Santa Paula groundwater basins was completed in August 2020 and documented in a June 2021 report (UWCD, 2021a). The report focuses on conceptual and numerical models for these three added groundwater basins but also discusses pertinent aspects of model development for the entire area simulated in the new Regional Model. The model's simulation period (originally calendar years 1985 through 2015) was later updated to include four more years of recent hydrologic and water use data (2016 through 2019) and is described in an August 2021 report (UWCD, 2021b).

The Regional Model has been developed to provide a new management tool to guide future policy decisions regarding groundwater management at wellfield to basin scales and potentially in various aquifers or groups of aquifers. The model initially has been used to support the development and implementation of Groundwater Sustainability Plans (GSPs) in several of these basins under the State of California's Sustainable Groundwater Management Act (SGMA). Aspects of GSP development and implementation that have made use of the model include (1) establishing sustainability goals and criteria in critical regions of the local groundwater basins, (2) developing numerical thresholds for evaluating compliance with the sustainability goals and criteria during the ensuing 20-year period for implementing each GSP, and (3) analyzing the hydrogeological impact of various projects and management actions intended to provide and/or maintain sustainability in a given groundwater basin.

UWCD has retained the services of an expert review panel consisting of the three groundwater modeling consultants who are the co-authors of this memorandum. Working individually and collectively, this panel has conducted a review of the Regional Model's construction, calibration, and simulation performance, with a focus on evaluating (1) the suitability of the overall modeling approach and model design to meet GSP objectives, (2) the conceptualization, construction, and simulation techniques by which the geologic and hydrologic attributes of the multi-aquifer groundwater system are represented in the model, and (3) the quality of the model's calibration. The panel also has considered the model's suitability for a variety of anticipated future uses, as well as potential limitations on its use. The panel conducted this work for the Coastal Plain Model from 2016 through 2018, and then resumed its efforts in 2020 once an initial version of the newly expanded Regional Model became available for review. UWCD has implemented many of the expert panel's suggestions and recommendations during the past five years and plans to further refine the model as needed to support future specific applications of the tool. Accordingly, this memorandum provides a summary of the panel's evaluation of the Regional Model as documented in UWCD's June 2021 model development report (UWCD, 2021a), with the recognition that the model is likely to evolve through a series of refinements as it is applied to specific projects and planning efforts in the region.

In summary, the expert review panel finds the model to be a well-designed and well-calibrated tool that is a substantial enhancement and upgrade over previously available models. The Regional Model provides a newer and more detailed representation of groundwater flow in the hydrostratigraphic units in these basins than was previously available. Accordingly, the Regional Model provides a sound platform for evaluating how the multiple aquifers in the region behave and how they might respond to the design and implementation of regional management programs in the seven groundwater basins that the model simulates in southern Ventura County. A detailed sensitivity analysis has been conducted on the model with regards to water levels in the various basins, the basin water budgets, and the inter-basin flows. The sensitivities are categorized as per ASTM guidelines (ASTM, 2016) which provide an overview of the significance of various parameters to model results. Use of the model for decision making can additionally use the sensitivity coefficients to evaluate impacts of parameter uncertainty to decision results. A future upgrade to an

unstructured-grid version of MODFLOW will allow this model to become a robust platform for evaluating projects and management actions in localized areas (i.e., at the land-parcel and wellfield scales).

Groundwater models commonly contain a very large amount of data and can be extremely complex. This model is no exception, and in some respects is more complicated and detailed than other regional-scale or locally-focused groundwater models. While the review team has spent considerable time working with the model and discussing its underlying assumptions with UWCD, future reviews of the model's applications may turn up further recommendations and suggested changes to the model.

The expert review panel focused its review work during 2020 and 2021 on the model's expansion into the three eastern basins along the Santa Clara River (Piru, Fillmore, and Santa Paula) and the update of the model time period to include the years 2016 through 2019. The remainder of this memorandum discusses the following topics:

- The expert review panel's evaluation methods and activities
- A summary-level description of the model
- The panel's assessment of the model's calibration quality and representativeness of the hydrogeological conditions of the basins
- The model's uses and potential enhancements
- A list of the references cited in this memorandum

Expert Panel Evaluation Methods and Activities

The review process for the model expansion began with an online technical meeting hosted by UWCD in March 2020. UWCD staff presented details on the conceptual model of land uses, surface water hydrology (including water storage and releases into streams), the subsurface geology and hydrostratigraphy, and previous hydrogeologic investigations and water budget estimates for the Piru, Fillmore, and Santa Paula basins. UWCD's lead modeler then presented the construction and calibration status of the model in the expansion area. The numerical model and a write-up of the conceptual model for these three basins were then provided to the expert review panel for detailed review in March and April 2020, from which the panel provided an initial set of comments in June 2020. Later, newer versions of the model were provided to the panel for review in July 2020 (another draft version of the model) and in August 2020 (the final model that is described in the June 2021 documentation report). In April 2021, the panel also reviewed and provided comments on a draft version of the report. In July 2021, the panel reviewed a draft version of a second report issued in August 2021 that discusses the update of the model for the time period of calendar years 2016 through 2019 (UWCD, 2021b).

Model Summary

The original Coastal Plain Model developed by UWCD in 2018 was expanded during 2020 to include the Piru, Fillmore, and Santa Paula basins (from east to west), which are present in the

lowland valley containing the reach of the Santa Clara River that extends from the Ventura/Los Angeles County Line downstream to the Mound basin and the Pacific Ocean. The expanded model used the same cell spacing for the model grid (2,000 feet) as was used in the Coastal Plain Model and simulates the same original time period (calendar years 1985 through 2015) for calibration purposes. The model update simulates four additional years (2016 through 2019) to serve as a further calibration check on the expanded model. The expanded model uses a daily stress period to capture the impacts of highly variable flows within the Santa Clara River and its tributaries; flow is otherwise more stable in the other streams that are located in the original model domain. (The Coastal Plain Model had used monthly stress periods.) In addition, the model domain for the expansion area (the Piru, Fillmore, and Santa Paula basins) has different hydrogeologic characteristics which are represented by 10 active model layers. (The portion of the model domain covering the four basins in the Ventura coastal plan has 13 active model layers). The expanded model domain interfaces with the original 2018 model domain across the Country Club fault, which distinctly divides the hydrogeology of the extended domain from the geological units further downstream in the Oxnard and Mound basins.

Boundary conditions for the expanded model domain represent similar features as in the original model, including similar conceptual representations for areal recharge, mountain front recharge, subsurface underflow, consumptive water use pumping, and streamflows entering the model (at the eastern end of the domain within the Santa Clara River and at model boundaries to various tributaries of the Santa Clara River). Riparian evapotranspiration is also included along the Santa Clara River corridor.

The expanded numerical model compares well with the descriptions of geology and hydrogeology that were developed from the data, in the conceptual model section of the model development report (UWCD, 2021a). Descriptions of soil material types or of semi-confined conditions, along with data from field tests and measurements, generally conform with values of hydraulic conductivities and water levels simulated by the numerical model. The expansion of the model domain into the Piru, Fillmore, and Santa Paula basins and the increased temporal resolution of the model's stress periods (from monthly to daily) did not affect the model results within the original model domain.

Assessment of Calibration Quality

During the process of reviewing and commenting on the expanded Regional Model, the expert review panel observed that the model's calibration quality was improved by several incremental changes made by UWCD during the spring and summer of 2020 within the expanded area. The incremental improvements arose from internal consultations among the members of the panel, panel member discussions with UWCD's lead groundwater modeler, and the internal review processes at UWCD (which included review of the simulated rates of surface water/groundwater exchanges and streamflows by UWCD's surface water hydrology team members). The incremental improvements and refinements within the expansion area included the following:

1. Splitting the San Pedro Formation aquifer system into three layers (rather than its original single layer) to obtain enhanced resolution of the hydrostratigraphic sequence within that model layer as shown in Table 2-10 of the model development report (UWCD, 2021a; Upper Saugus – Aquitard – Lower Saugus).

2. Incorporating ET processes from riparian plant communities into the model.

3. Resolving issues with dry cells and reduced pumping from certain wells, which were problems that occurred primarily along the model's edges.

4. Simulating storm flow components separately and discretely from conservation releases of water occurring from the Santa Felicia Dam.

5. Incorporating LIDAR elevation data sets into the definitions of the riverbed profiles and bed elevations.

6. Increasing the model's time resolution to daily, so that daily variations in stream flows could be simulated (which is critical to UWCD's groundwater resource management programs and water supply operations).

7. Coordinating the representation of hydraulic conductivity values and subsurface inflow at the east end of the Piru basin (at the Ventura/Los Angeles County Line) with the representations of these conditions in western Los Angeles County as contained in a numerical groundwater model that was concurrently being developed for the East Subbasin by the Santa Clarita Valley Water Agency (GSI Water Solutions, 2021). This coordination effort not only improved conditions at and near the county line, but also resolved the Regional Model's initial inability to simulate the dry gap that is present in the Santa Clara River upstream of the mouth of Piru Creek.

During the course of its review, the expert review panel observed that the process of calibrating the Regional Model was complicated by a number of factors. Specifically:

1. The multi-layered and faulted aquifer system is complex in structure, and the wells that penetrate these units commonly penetrate more than one aquifer system. Some wells penetrate 1, 2, or 3 layers in the model, while other wells penetrate as many as 7 or 8 model layers. Accordingly, the water level measured in a well is the result of not only its use at the time the water level is measured, but also the large ambient (natural) differences in groundwater elevations that are commonly present in the three primary aquifer systems that are present in the expansion area (identified by UWCD as Aquifer Systems A, B, and C which are represented in model layers 1 through 3, 4 through 7, and 8 through 10, respectively).

2. As discussed in Section 2.2 of the June 2021 model development report (UWCD, 2021a), the majority of the available groundwater elevation data are from production wells. The production wells are simulated as pumping wells in the model, in order to simulate this

important discharge term in the groundwater budget for each individual aquifer. Yet the water level data from these same wells consist almost exclusively of measurements that are made once a well has been off for a period of time that can range from (a) a few hours in the case of municipal wells (year-round) and agricultural wells (during the peak-pumping season) to (b) several days or weeks (primarily in the case of agricultural wells during the winter months). The use of these measurements in evaluating calibration quality is quite complicated and difficult to interpret because (a) the hourly and daily operations of each well are unknown, and (b) the duration of time a well has been off before a water level measurement is collected is unknown (and likely varies from well to well and over time at any individual well). Both factors affect the water level measurement and may be the cause of slight over-predictions in groundwater elevations at several well locations in the model (due to incomplete water level recovery and/or interference from nearby wells).

3. Large fluctuations in water levels occur in these wells because of changes in recharge and pumping. The magnitudes of both terms (recharge and pumping) can only be estimated from the available data sources, and therefore may contain large errors or may not be well represented by average conditions simulated by the model.

Even with these complexities, the expert review panel concludes that the model is generally well developed and well calibrated in the model expansion area, based on qualitative analyses (consisting of visual inspection of hydrographs) and quantitative statistical evaluations (consisting of tables, maps and scatter plots showing residual statistics for groundwater elevations, and groundwater elevation changes arising from pumping, changes in recharge, and controlled releases to streams). The expert review panel's specific observations regarding calibration quality are as follows:

1. The numerical model is well developed and consistent with the data and the conceptual model. Flow rates for model inputs were provided using the best information / estimates available for precipitation recharge; agricultural, domestic, and M&I return flows; recharge from WWTP discharges to streams or at recharge ponds; mountain-front recharge; inflow at streams; and groundwater pumping. Model parameters were estimated from various aquifer tests conducted in the region. The 2,000-foot grid-block size is appropriate for regional-scale simulations; monthly variations in pumping and recharge stresses are appropriate for seasonal planning purposes; and daily variation of streamflows in the Santa Clara River are appropriate for capturing groundwater responses to the flashy flow behavior of the river.

2. Some slight biases in the calibration are evident. For example, the residuals maps contained in the June 2021 model development report (UWCD, 2021a) show predominantly positive residuals (under-simulated) in the east and negative (over-simulated) residuals in the west for water levels in Aquifer System A (see report Figure 4-1), and predominantly negative residuals (over-simulated) in the west for Aquifer

System B (see report Figure 4-3). Scatter plots show that there is a tendency to overpredict water levels in the Santa Paula basin, primarily in Aquifer System B (see report Figure 4-61), whereas there is a tendency to underpredict water levels in Fillmore (see report Figure 4-60). Section 4.2.6 of the model development report mentions that natural baseflows are underpredicted in the Fillmore basin, which fits with our observation that heads have a tendency to be underpredicted in that basin as well.

3. However, in our opinion, none of these issues are critical enough to require revisions to the model because individual wells in these areas and certain aquifer systems show very robust calibration. For example, most of the simulated hydrographs in Aquifer Systems A and B in the Piru basin show an excellent fit to historical data, including good simulation of declining groundwater levels during drought periods. In the Fillmore basin where the statistics indicate a tendency to underpredict water levels, there are certain wells in the A and B aquifers that have only small to moderate underpredictions of groundwater elevations (see for example well 03N21W01P02S in Aquifer System A) while showing simulated fluctuations that are similar to historically observed fluctuations through multiple wet/dry hydrologic cycles (see wells 03N20W01C04S, 03N20W08A01S, and 04N19W30D01S, which are all screened within both the A and B aquifer systems, and wells 03N19W06D02S and 04N20W26C02S in Aquifer System B). In the Santa Paula basin, certain wells are quite well simulated – in particular, wells 03N21W32C01S and 03N21W29K02S in Aquifer System A and wells 03N21W11J02S and 03N21W02R02S in Aquifer System B. However, there are fewer wells in the Santa Paula basin that show as strong a match to groundwater elevations and elevation changes as are seen in Piru and Fillmore; in particular, the model has a tendency to predict too little seasonal fluctuation in Santa Paula groundwater levels and in some cases not enough of a decline in water levels during the two drought periods that are simulated (from 1988 through 1992, and from 2012 through 2016). This is a more frequent observation for wells in Aquifer System B than for wells in Aquifer System A. These observations are useful for evaluating prediction results within these basins when the model is being used for various analyses.

4. In our experience, scaled statistics less than 0.1 (i.e., 10 percent) are indicative of good calibration on an area-wide basis. Scaled statistics are defined as the statistic of interest divided by the range in values in the measured data set. The scaled groundwater elevation statistics for the absolute residual mean and the residual standard deviation are well below 10 percent, ranging between 2.5 and 6.0 percent during the calibration period (1985-2015) for the group of three basins along the Santa Clara River (Piru, Fillmore, and Santa Paula) and between 3.9 and 8.5 percent during the update period for these same three basins. When excluding outlier wells and wells with fewer than 10 water level records, these statistics range from 3.9 to 6.4 percent during the calibration period and 3.9 to 8.4 percent during the update period.

5. A detailed sensitivity analysis was conducted on every variable and stress within each of the modeled basins. The sensitivity analysis produced reasonable results in that the model's relative sensitivity or insensitivity to each type of parameter was consistent with what a modeler would expect to be the case in this type of setting. Specifically, the model showed sensitivity to horizontal hydraulic conductivity values, areal recharge rates, evapotranspiration rates, streambed conductance values in losing stream reaches, and certain other parameters in localized areas. The model was generally less sensitive to the vertical hydraulic conductivity, fault conductance terms, the dimensionless storage coefficient, and the specific yield – though there are localized areas where the choices of these terms are influential (for example, the fault conductance for the County Club fault, which controls the subsurface lateral flux term from the Santa Paula basin into the Mound basin).

6. In future model updates, we recommend comparing zone water budgets from the model (as presented in Section 4.3 of the June 2021 model development report) with estimates of groundwater inflow and outflow components from the conceptual model discussion that is presented in Section 2.6 of the model development report. Generally, the model compares well; however, some modeled water budget terms are beyond the conceptualized minimum or maximum values, so a discussion may help in this regard.

7. Inclusion of zone budget analyses for the Piru, Fillmore, and Santa Paula basins would be useful to conduct in future updates of the model, especially considering the hydrogeology of how one basin spills into the other. For example, we note that Figures 4-77A and 4-78A in the model development report indicate that groundwater elevation at the index wells underpredict flow across the basin boundary for high flows, while Figure 4-79 indicates that high flow rates in the stream are underpredicted at the Freeman Diversion. Therefore, it would be helpful in future model updates to see how total water budgets perform across basin boundaries in terms of cumulative volumes of water (against time) to see if total water budgets are as observed/conceptualized for measured or estimated components of the water budget.

8. The model was evaluated by comparing the original 1985-2015 calibration period to the extended model period 2016-2019. This update period exhibits the same type of calibration quality to the original calibration with just a few minor exceptions. In Piru basin, water levels over 600 ft in the 2016-2019 period were higher than in the original calibration. Water levels in the UAS/LAS of Oxnard Forebay were underestimated in the 2016-2019 period. The update period shows that the model calibration remains of good quality without having to change the conceptual model or aquifer properties even when simulating a different time period from the original calibration.

While there are uncertainties in this and any other groundwater model due to spatial variability or errors in data, model conceptualization, subsurface parameterization, and numerical representation, the expert review panel believes that the current model is a well-designed and

well-calibrated tool that is a substantial enhancement and upgrade over previously available models and hence will be useful for understanding and managing the groundwater resources in southern Ventura County currently and in the future. This includes the influence of controlled surface water releases on groundwater levels, streamflow-derived groundwater recharge, and monthly streamflow volumes. However, UWCD has noted that the model currently does not have good calibration to daily streamflows and therefore should be used with caution for making daily streamflow predictions. Otherwise, the expert review panel sees no major problems with model development and calibration, and we understand that UWCD intends to continue evaluating whether improvements can be made to the simulation of streamflows arriving at the Freeman Diversion (which the groundwater model could not capture well, resulting in the use of a surface-water model to provide flows to the diversion and beyond in the Santa Clara River). Regardless of the refinements (if any) that arise from that effort, the three of us believe that the model replicates the historically observed conditions quite well during the calibration period. The model also shows similar behavior during the update period, providing consistent results to those of the calibration period. This is a very complicated and detailed modeling effort that has resulted in a model that will be useful for making regional management decisions within the UWCD jurisdiction. Accordingly, the UWCD team should feel proud of the current model.

Model Uses and Potential Enhancements

The Regional Model – the groundwater flow model that UWCD has developed for the Piru, Fillmore, Santa Paula, Mound, Oxnard (Forebay and Plain), Pleasant Valley, and (West) Las Posas Valley groundwater basins – is viewed by the expert review panel as an appropriate tool for meeting UWCD's stated objective of improving the understanding of key factors that affect the availability and usability of groundwater resources in the seven southern Ventura County basins that are simulated by this model. The spatial extent of the model, the use of monthly stress periods to simulate temporal variations in groundwater conditions, the use of daily stress periods to simulate streamflows, and the use of a calibration and update period spanning 35 years of fluctuating weather conditions (and changing land and water uses) together make the model suitable for assisting with long-term sustainable management of the groundwater resources in these seven groundwater basins. The Regional Model is viewed by the expert panel as being ready for use in regional and local planning efforts and is of sufficient quality to support the development and implementation of GSPs under SGMA. The model can facilitate GSP planning and implementation by simulating future potential changes in groundwater pumping, natural and artificial recharge, and future land and water uses.

The expert review panel has identified four potential enhancements to the model that warrant consideration in the future.

1. Local refinements to the representation of groundwater withdrawals by phreatophytes (riparian plant communities) may be warranted if projects are being considered in and near riparian habitats. Refinements to consider are (1) developing ET zones for

geographic areas to distinguish the types/mixtures of habitats/plant communities and their corresponding differences in ET rates and extinction depths; and (2) adding monthly/seasonal variations to the ET rates in each of these zones/geographics areas.

2. Local refinements in the magnitudes of irrigation recharge rates may be warranted for agricultural lands, based on differences in irrigation practices, crop types, and soil types.

3. The availability of tools such as MODFLOW-USG (Panday et al., 2013; Panday, 2021) allows for local-scale grid refinements to be made to the Regional Model, which can efficiently provide a representation of local-scale features and projects while also accounting for regional (basin-scale) processes and conditions. As recommended by the review panel, UWCD has stated that it is beginning to use the MODFLOW-USG software as it conducts applications with the model. MODFLOW-USG allows nested grids to be inserted into localized areas in the model which can be turned on and off as needed, according to the needs of future studies requiring predictive simulations with the model. This allows refined grids to be developed only where needed, which avoids creating finer grid spacing throughout the model and thereby reduces run-times and file sizes. Also, only one model needs to be maintained instead of separate models that have fine and coarse grid sizes. Additionally, the use of MODFLOW-USG allows multi-layer wells to be represented fully implicitly (as connected linear networks [CLNs]), allows lateral pinch-outs of hydrostratigraphic units to be explicitly modeled (to better honor the geology and provide more robustness to the simulation), and includes additional capabilities that may be of future use such as evaluations of seawater intrusion or agricultural return flow. Initial testing of the Regional Model by the panel indicates that model run times and file sizes may be improved by moving the model into the MODFLOW-USG environment in the future. UWCD can readily transfer the modeling software to MODFLOW-USG when refined simulations are required, because MODFLOW-USG uses similar numerical routines as the currently used software MODFLOW-NWT (Niswonger et al., 2011), and results should be similar.

4. The Regional Model is a complex model covering multiple basins and aquifers. The Regional Model simulates various stresses, parameters, and flows in the subsurface and in streams at a temporal resolution as fine as 1 day covering the hydrogeologic system for 35 years. This complexity does not affect the overall utility of the model if UWCD will be the sole user of the model (i.e., conducting all future predictive analyses). However, if this model were to be transferred outside UWCD, a user's guide would definitely be necessary. We also suggest providing users outside UWCD with a version of the model that uses a graphical user interface such as Groundwater Vistas (ESI, 2020) to promote usability and visualization. This would also allow the user to imbed local grids as desired, and it would provide the opportunity for other users of the model to make use of MODFLOW-USG as well. Providing outside users with a version of the MODFLOW-NWT model that is in Groundwater Vistas would allow UWCD to know that outside users have a version of the model that was correctly imported to (and

represented in) Groundwater Vistas. Furthermore, Groundwater Vistas keeps track of any changes made to a "final distributed" model, which helps maintain quality assurance and quality control of the model once other entities start modifying stresses or parameters and get different results.

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