Board of Directors Meeting
Thursday, May 21, 2026, 4:00 p.m.
City of Fillmore City Hall Council Chambers
250 Central Avenue, Fillmore, CA 93015

To participate in the Board of Directors meeting via Zoom, please access:
https://us02web.zoom.us/j/85480305580?pwd=ZnFBWGhtVU05dXd3REFkM255c0h6UT09
Meeting ID: **854 8030 5580** Password: **FPBGSA**

To hear just the audio portion of the meeting, phone into:
Toll-free number: **877 853 5247** Meeting ID: **854 8030 5580**

AGENDA

1. CALL TO ORDER

1A Pledge of Allegiance

1B Directors Roll Call

1C Public Comments

Fillmore and Piru Basins Groundwater Sustainability Agency (Agency) will accept public comment concerning agenda items at the time the item is considered and on any non-agenda item within the jurisdiction of the Board during the agendized Public Comment period. No action will be taken by the Board on any non-agenda item. In accordance with Government Code § 54954.3(b)(1), public comment will be limited to three (3) minutes per speaker per issue.

1D Approval of Agenda

Motion

2. UPDATES

2A Director Announcements/Board Communications:

Oral Reports from the Board.

Fillmore Pumpers Association Stakeholder Director Update

Piru Pumpers Association Stakeholder Director Update

Environmental Stakeholder Director Update

City of Fillmore Member Director Update

United Water Conservation District Member Director Update

County of Ventura Member Director Update

2B Executive Director Update
Information Item
The Executive Director will provide an informational update on Agency activities since the previous Board of Directors meeting of March 19, 2026.

2C Legal Counsel Update
Information Item
Legal Counsel will provide an informational update on Agency's legal issues and concerns since the previous Board of Directors meeting of March 19, 2026.

2D GSP Consultant Update
Information Item
Representatives from Daniel B Stephens & Associates will provide an informational update on the Agency's groundwater sustainability planning activities since the previous Board of Directors meeting of March 19, 2026.

3. CONSENT CALENDAR

All matters listed under the Consent Calendar are considered routine by the Board and will be enacted by one motion. There will be no separate discussion of these items unless a Board member pulls an item from the Calendar. Pulled items will be discussed and acted on separately by the Board. Members of the public who want to comment on a Consent Calendar item should do so under Public Comments. (ROLL CALL VOTE REQUIRED)

3A Approval of Minutes
The Board will consider approving the Minutes from the Special Board of Directors meeting of March 19, 2026.

3B Approval of Warrants
The Board will consider approving payment of outstanding vendor invoices

UWCD	$29,456.03
DBS&A	$10,649.00
RAMS	$ 6,615.00
Aleshire & Wynder LLP	$ 148.80

3C Monthly Financial Report
The Board will receive the monthly financial report for the Fillmore and Piru Basins Groundwater Sustainability Agency.

3D Audit Report
The Board will receive the Agency's Biannual Financial Audit for Fiscal Years 2023-2024 and 2024-2025 performed by Rogers, Anderson, Malody & Scott, LLP.

4. MOTION ITEMS

4A Waiver of Late Penalties and Interest from Quality Ag for Richardson Revocable Trust

Motion

The Board will consider waiving penalties and interest charges in the amount of $254.68 for Quality Ag for Richardson Revocable Trust for late payment associated with pumping from State Well Numbers 03N21W12A01S, 03N21W01R01S, AND 04N19W30D01S.

4B Santa Clara River Watershed Committee

Motion

The Board will consider the Santa Clara River Watershed Committee's invitation to join as a member and provide comments and direction.

4C Biological Data Gaps East Grove GDE Status Report and Study Plan

Motion

The Board will receive a presentation from Stillwater Sciences and United Water Conservation District on the East Grove Groundwater Dependent Ecosystem Study status and upcoming work and provide comments and direction.

4D Domestic Wells Vulnerability

Motion

The Board will receive a presentation from Daniel B. Stephens & Associates on the Domestic Wells Investigation and Vulnerability Evaluation and provide comments and direction.

4E Recommended Corrective Actions

Motion

The Board will receive a presentation from Daniel B. Stephens & Associates on the California Department of Water Resources' Recommended Corrective Actions on the Agency's Groundwater Sustainability Plans and provide comments and directions.

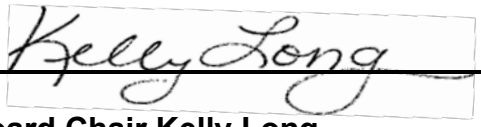
5. FUTURE ITEMS

6. ADJOURNMENT

The Board will adjourn to the next **Regular Board Meeting on Thursday, June 18, 2026,** or call of the Chair.

Materials, which are non-exempt public records and are provided to the Board of Directors to be used in consideration of the above agenda items, including any documents provided subsequent to the publishing of this agenda, are available for inspection at UWCD's offices at 1701 N. Lombard Street in Oxnard during normal business hours

The Americans with Disabilities Act provides that no qualified individual with a disability shall be excluded from participation in, or denied the benefits of, the District's services, programs or activities because of any disability. If you need special assistance to participate in this meeting, or if you require agenda materials in an alternative format, please contact the UWCD Office at (805) 525-4431 or the City of Fillmore at (805) 524- 1500. Notification of at least 48 hours prior to the meeting will enable the District to make appropriate arrangements

Approved: 

Board Chair Kelly Long

Posted: (date) May 18, 2026 (time) 3:30 p.m. (attest) Eva Ibarra
At: https://www.FPBGSA.org

Posted: (date) May 18, 2026 (time) 3:35 p.m. (attest) Eva Ibarra
At: https://www.facebook.com/FPBGSA

Posted: (date) May 18, 2026 (time) 3:40 p.m. (attest) Eva Ibarra
At: UWCD, 1701 N. Lombard Street, Oxnard

Posted: (date) May 18, 2026 (time) 3:45 p.m. (attest) Juana Garcia
At: Fillmore City Hall, 250 Central Avenue, Fillmore, CA

Board of Directors Meeting
Thursday, March 19, 2026, at 4:00 p.m.
MINUTES

Directors in Attendance
Director John Garnica
Director Brian Hauss
Director Debbie Jackson
Director Gordon Kimball
Director Kelly Long
Director Candice Meneghin

Directors Absent
Director Kelly Long

Staff in Attendance
Anthony Emmert, executive director
Eva Ibarra, clerk of the board
Patrick O'Connell, senior hydrogeologist (virtual)
Phillip Hall, legal counsel
Zachary Plummer, it staff

Public in Attendance
Sara Guzman, UWCD (virtual)
Taylor Jones, UWCD (virtual)
Rachel Laenen, Kimball Ranches (virtual)
Tony Morgan, DBS&A (virtual)
Gus Tolley, DBS&A (virtual)

1. CALL TO ORDER
Director Garnica called the meeting to order at 4:00 p.m.

1A Pledge of Allegiance
Director Meneghin led everyone in reciting the Pledge of Allegiance.

1B Directors Roll Call
The Clerk called the roll. (Garnica, Hauss, Jackson, Kimball, and Meneghin) 5 Directors were present. Director Long was absent.

1C Public Comments
Director Garnica asked if there were any comments or questions from the public. None were offered.

1D Approval of Agenda

Motion

Director Garnica asked Executive Director Emmert if there were any changes to the agenda. Mr. Emmert responded with no and Director Garnica then asked for a motion.

Motion to approve the agenda, Director Jackson; Second, Director Meneghin. Voice vote: 5 ayes (Garnica, Hauss, Jackson, Kimball, and Meneghin) none opposed. Motion carries unanimously 5/0/1.

2. UPDATES

2A Director Announcements/Board Communications:

Oral Reports from the Board.

Fillmore Pumpers Association Stakeholder Director Update

Director Jackson reported that the Fillmore Pumpers Stakeholders met this week and expressed a need for an online system to pay their invoices. She also provided an update on the basin's status and noted that stakeholders are concerned about possible rising water rates.

Piru Pumpers Association Stakeholder Director Update

Director Hauss reported the Piru Pumpers Stakeholders also met and have the same concerns as the Fillmore Pumpers.

Environmental Stakeholder Director Update

Director Meneghin reported Ventura County has had their collaborative kick off and stated their first task will be economic analysis and fundraising.

City of Fillmore Member Director Update

Director Garnica reported that the City of Fillmore's well #10 is in process.

United Water Conservation District Member Director Update

Director Kimball reported that United's reporting structure will transition to a water-year basis in 2026. Budgeting efforts are currently underway, and several major CIP projects are in the funding phase. He also noted that the dam and lake are currently full, and that Castaic and Pyramid will begin releases for groundwater recharge. The projected recharge quantity is 100,000 acre-feet for the Oxnard Plain basins this water year. He concluded his update by stating that the Fillmore and Piru basins are continuing to fill.

County of Ventura Member Director Update

No report. Director Long was absent.

2B Executive Director Update Information Item

The Executive Director provided an informational update on Agency activities since the Special Board of Directors meeting held on February 26, 2026. Executive Director Emmert reported that the O-PV litigation caused delays in modeling; however, United staff have since completed, calibrated, and established the base-case scenario for the valley basins model. Development of alternative scenarios is ongoing. In March 2026,

United distributed the Agency's groundwater statements covering pumping for the period of July through December 2025. Additionally, the Agency's auditor, RAMS, has completed its audit for fiscal years 2023 through 2025, and the results will be presented at the next Board meeting. He concluded his update by noting that he had contacted the Ojai Basin GMA to explore ways to support the Small GSAs Coalition in its advocacy for reducing the administrative burden associated with SGMA.

2C Legal Counsel Update <u>Information Item</u>

Legal Counsel reported no updates on the Agency's legal matters since the Special Board of Directors meeting on February 26, 2026.

2D GSP Consultant Update <u>Information Item</u>

Representatives from Daniel B Stephens & Associates provided an informational update on the Agency's groundwater sustainability planning activities since the previous Special Board of Directors meeting of February 26, 2026 (see slides).

3. CONSENT CALENDAR

All matters listed under the Consent Calendar are considered routine by the Board and will be enacted by one motion. There will be no separate discussion of these items unless a Board member pulls an item from the Calendar. Pulled items will be discussed and acted on separately by the Board. Members of the public who want to comment on a Consent Calendar item should do so under Public Comments. (ROLL CALL VOTE REQUIRED)

3A Approval of Minutes

The Board approved the Minutes from the Special Board of Directors meeting of February 26, 2026.

3B Approval of Warrants

The Board approved payment of outstanding vendor invoices:

United Water Conservation District	$29,743.54
Aleshire & Wynder LLP	$ 1,463.20
DBS&A	$ 1,426.00
Stillwater Sciences Inc.	$ 925.50

3C Monthly Financial Report

The Board approved the monthly financial report for the Fillmore and Piru Basins Groundwater Sustainability Agency.

Motion to approve consent calendar, Director Kimball; Second, Director Meneghin. Voice vote: 5 ayes (Garnica, Hauss, Jackson, Kimball, and Meneghin) none opposed. Motion carries unanimously 5/0/1.

4. MOTION ITEMS

4A Write-Off of Uncollectible Receivable

Motion

The Board approved the write-off of uncollectible receivables

Motion to approve, Director Jackson; Second, Director Meneghin. Voice vote: 5 ayes (Garnica, Hauss, Jackson, Kimball, and Meneghin) none opposed. Motion carries unanimously 5/0/1.

4B Annual Reports to California Department of Water Resources

Motion

The Board approved the Water Year 2024-2025 Annual Reports to the California Department of Water Resources for the Fillmore subbasin and Piru subbasin.

Motion to approve, Director Hauss; Second, Director Jackson. Voice vote: 5 ayes (Garnica, Hauss, Jackson, Kimball, and Meneghin) none opposed. Motion carries unanimously 5/0/1.

4C Proposed Amendments to Work Plan and Schedule

The Board received a presentation from staff and DBS&A on proposed changes to the Agency's Fiscal Year 2025-2026 Work Plan and Schedule. The Board provided comments and direction. Staff will provide detailed plans at future meeting.

5. FUTURE ITEMS

None mentioned.

6. ADJOURNMENT

Director Garnica adjourned the meeting at 6:00 p.m., to the next **Board Meeting on Thursday, April 16, 2026,** or call of the chair.

I certify that the above is a true and correct copy of the minutes of the Fillmore and Piru Basins Groundwater Sustainability Agency's Board of Directors meeting of March 19, 2026.

ATTEST: _____
John Garnica, Vice Chair, FPBGSA Board of Directors

ATTEST: _____
Eva Ibarra, Clerk of the Board

Special Board of Directors Meeting
19 March 2026
Item 2D GSP Consultant Update

Fillmore and Piru Basins
Groundwater Sustainability Agency

MAJOR ACTIVITIES

- **FY25-26 Task Activities**
  - Consultations with UWCD staff re: GW model updates and scenarios
  - Draft Final Annual Reports (Agenda Item 4B)
  - Preliminary drafts in progress:
    - Land Subsidence Technical Memorandum / Final Guidance Manual on Land Subsidence
    - Domestic Well Vulnerability Assessment
    - Periodic Evaluations
  - Revised Project Schedule and Work Plan (Agenda Item 4C)

QUESTIONS?

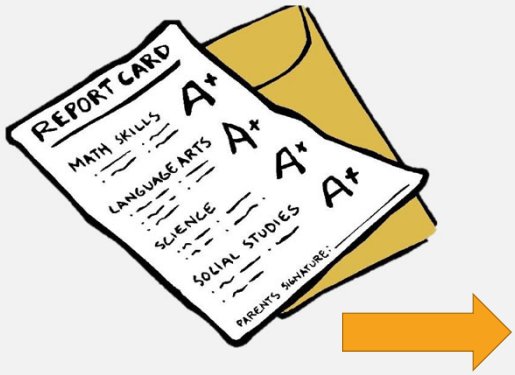
Special Board of Directors Meeting

19 March 2026

Item 4B Annual Reports to DWR

Fillmore and Piru Basins
Groundwater Sustainability Agency

GSP ANNUAL REPORTS SUMMARY



- Provide summary of reports to aid with Director and stakeholder review
- Receive comments from Directors and stakeholders by March 9th
- Board consideration for adoption at March 19th meeting
- Annual Reports due to DWR by/on April 1st (CA Water Code §356.2)

WY 2025 EXECUTIVE SUMMARY

WATER YEAR TYPE: DRY

Fillmore Subbasin

Average change in water levels:
-7.79 ft
(previously -9.75 ft)

Total groundwater extractions:
49,149 AF
(previously 50,308 AF)

Estimated Change in Storage:
-13,949 AF
(previously -18,952 AF)

Piru Subbasin

Average change in water levels:
-11.97 ft

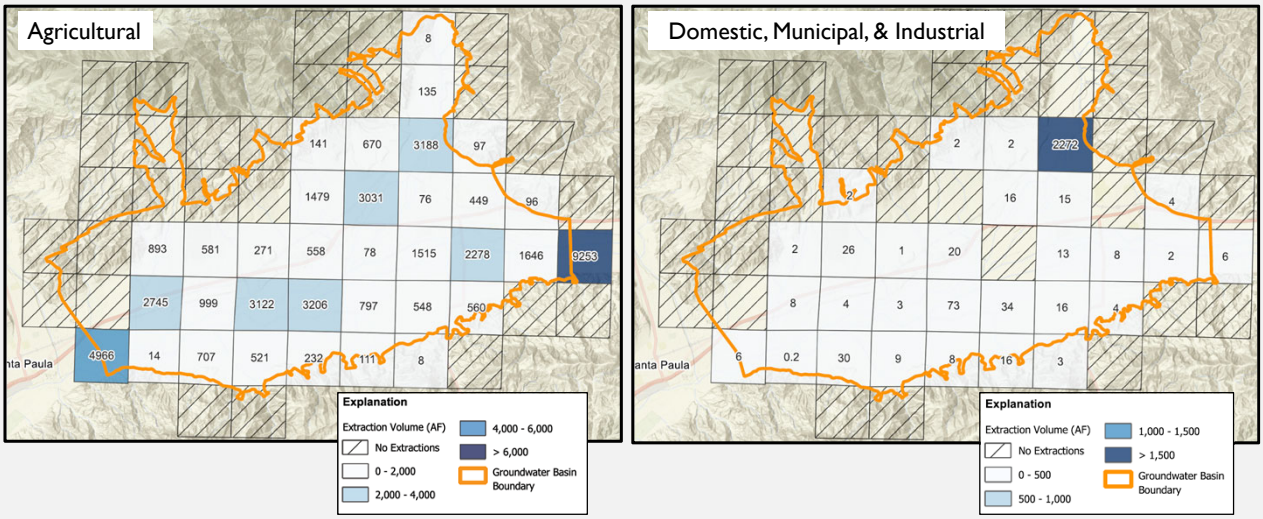
Total groundwater extractions:
12,259 AF

Estimated Change in Storage:
-8,416 AF

Groundwater Extractions by Sector

(Fillmore Subbasin Annual Report Section 3)

Groundwater pumping totaled approximately **49,149 AF**, with agricultural beneficial uses accounting for about 95% of total groundwater extractions for WY 2025.



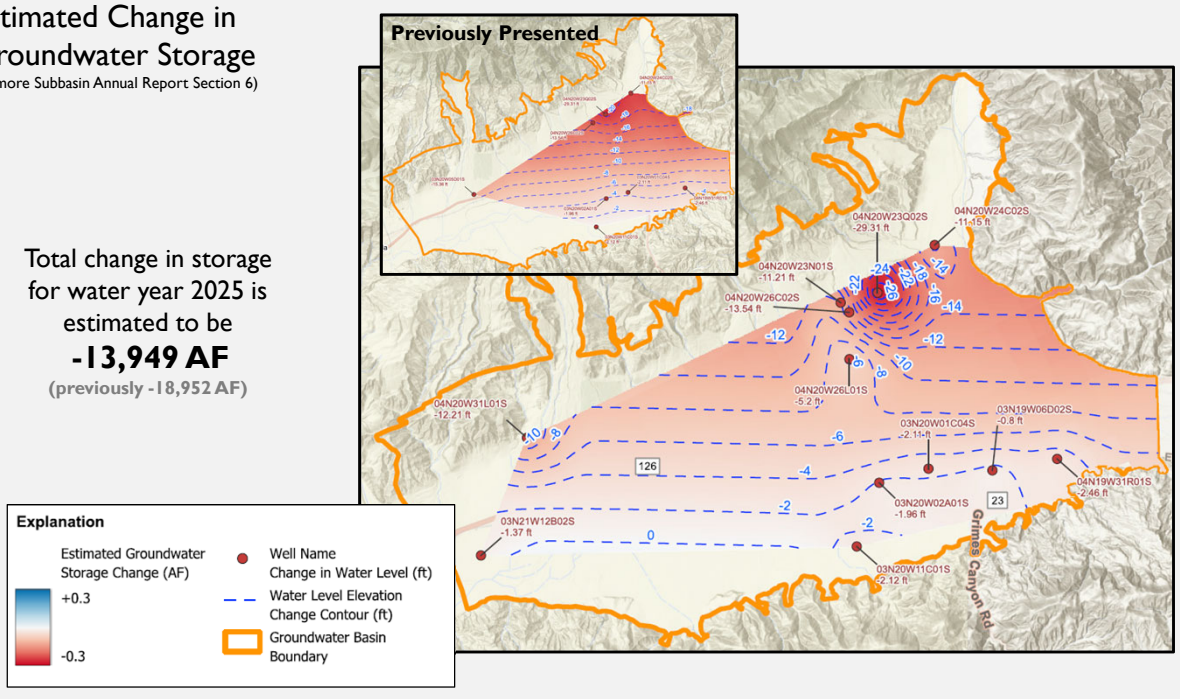
Estimated Change in Groundwater Storage

(Fillmore Subbasin Annual Report Section 6)

Total change in storage for water year 2025 is estimated to be

-13,949 AF

(previously -18,952 AF)

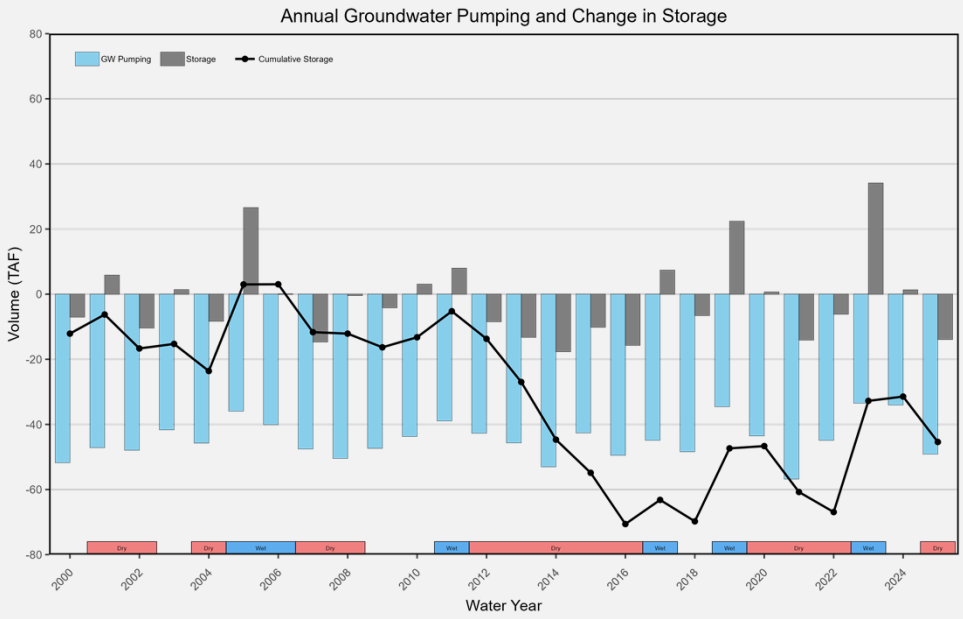


GW Pumping & Change in Storage Since 2000

(Fillmore Subbasin Annual Report Section 6)

Total estimated change in storage for WY 2025 is **-13,949 AF** (previously -18,952 AF)

Total estimated change in storage relative to 1988 is **-45,399 AF** (previously -50,402 AF)



Added text for Section 7.2 Project #7: Subsidence Infrastructure Vulnerability

"The project team has consulted with DWR representatives regarding the technical approach for evaluating infrastructure vulnerability in the basin. A revised subsidence vulnerability technical memorandum is in progress and incorporates suggestions from DWR consultations and their Recommended Corrective Actions (RCAs). The technical approach is in general agreement with the Final Land Subsidence Best Management Practices (BMP) guidance for basins that have not historically experienced subsidence. The Technical Memorandum expands upon previous versions by identifying industry standards for differential settlement for a variety of major infrastructure types that can used to help provide rationale for establishing Minimum Thresholds. A key component in the vulnerability assessment is the use of the updated groundwater flow model (see Section 7.3 Groundwater Model Updates) to forecast whether future groundwater levels (including the effects of climate change) are expected to fall below the historic levels that could establish conditions conducive for the initiation of subsidence. The technical memorandum will be included as part of the Periodic Evaluation documentation."

QUESTIONS?

Special Board of Directors Meeting

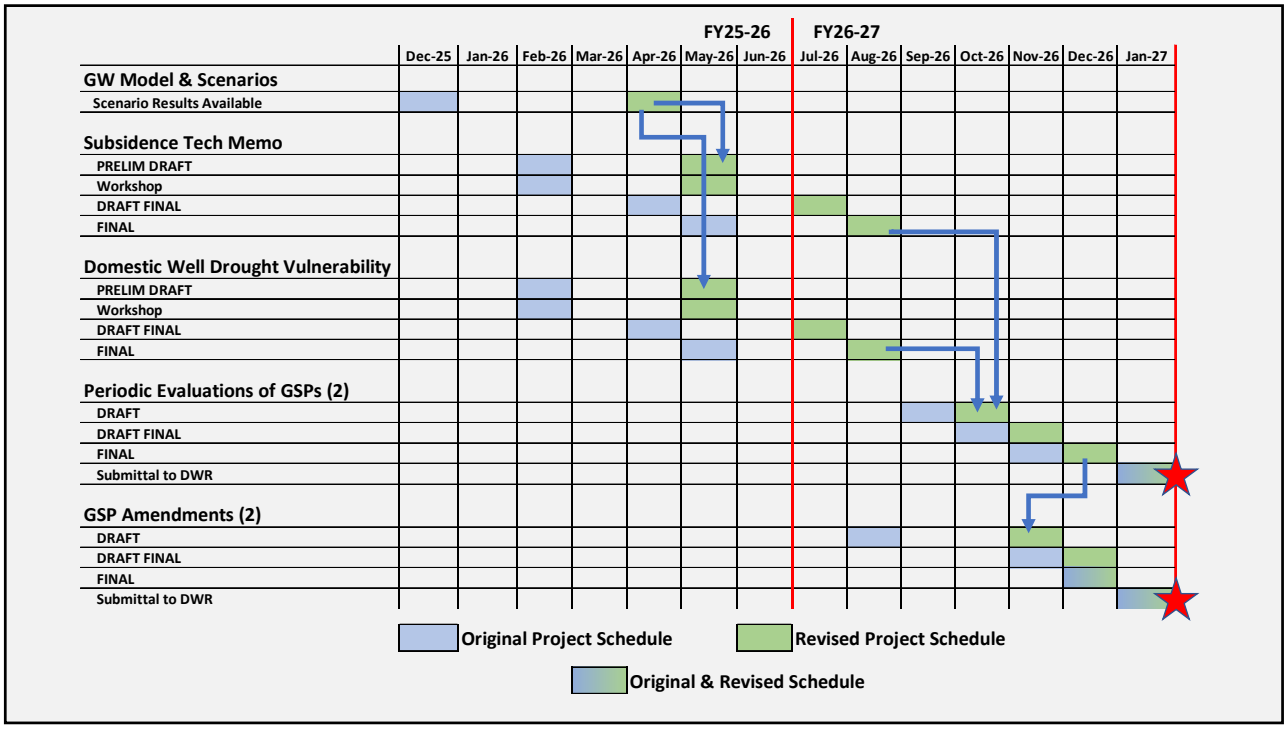
19 March 2026

Item 4C Proposed Amendments to Work Plan and Schedule

Fillmore and Piru Basins
Groundwater Sustainability Agency

PLANNED & BUDGETED ACTIVITIES

Activity	In Progress		Postpone ?	On Hold
	as planned	delayed		
Annual Reports and Update of Online GW Database	X			
GW Data Gaps	X			
East Grove GDE Biological Data Gaps	X			
Sespe Ck Confluence w/ Santa Clara River Data Gaps	X			
Cienega Springs Study-Project Entitlements & Grant Funding		X	→ X	
Domestic Well Drought Vulnerability Evaluation		X		
Refine SW & GW Models		X		
Subsidence Evaluation		X		
Five-year Periodic Evaluations		X		
Amendment of GSPs		X	→ X	
As-Needed Technical Support	X			
Policies Update	X			
Well Permitting Review Process				X
Export Policy				X



QUESTIONS?

Check Detail Report

Date	Transaction type	Num	Name	Memo/Description	Cleared	Amount
Citizens Business Bank						
27671						
04/13/2026	Bill Payment (Check)	11314	Aleshire & Wynder LLP		Uncleared	-24.80
04/13/2026	Bill Payment (Check)	11314	Aleshire & Wynder LLP			-24.80
27672						
04/13/2026	Bill Payment (Check)	11317	United Water Conservation District		Uncleared	-30,027.16
04/13/2026	Bill Payment (Check)	11317	United Water Conservation District			-30,027.16
27673						
04/13/2026	Bill Payment (Check)	11316	Stillwater Sciences Inc.		Uncleared	-6,769.62
04/13/2026	Bill Payment (Check)	11316	Stillwater Sciences Inc.			-6,769.62
27674						
04/13/2026	Bill Payment (Check)	11315	Daniel B Stephens & Associates, Inc.		Uncleared	-11,243.25
04/13/2026	Bill Payment (Check)	11315	Daniel B Stephens & Associates, Inc.			-11,243.25

Check Detail Report

Date	Transaction type	Num	Name	Description	Cleared	Amount
Citizens Business Bank						
27842						
05/07/2026	Bill Payment (Check)	11318	Aleshire & Wynder LLP		Uncleared	-148.80
05/07/2026	Bill Payment (Check)	11318	Aleshire & Wynder LLP			-148.80
27843						
05/07/2026	Bill Payment (Check)	11319	Daniel B Stephens & Associates, Inc.		Uncleared	-10,649.00
05/07/2026	Bill Payment (Check)	11319	Daniel B Stephens & Associates, Inc.			-10,649.00
27844						
05/07/2026	Bill Payment (Check)	11320	Rogers, Anderson, Malody & Scott, LLP		Uncleared	-6,615.00
05/07/2026	Bill Payment (Check)	11320	Rogers, Anderson, Malody & Scott, LLP			-6,615.00
27849						
05/14/2026	Bill Payment (Check)	11321	United Water Conservation District		Uncleared	-29,456.03
05/14/2026	Bill Payment (Check)	11321	United Water Conservation District			-29,456.03

ITEM NO. **3C Consent Item**

DATE: May 8, 2026 (for May 21, 2026, meeting)

TO: Board of Directors

VIA: Anthony A. Emmert, Executive Director

FROM: United Water Conservation District Finance

SUBJECT: **Monthly Financial Report**

SUMMARY

The Board will receive the monthly financial reports for the Fillmore and Piru Basins Groundwater Sustainability Agency (Agency).

BACKGROUND

United Water Conservation District accounting staff has prepared financial reports based on the Agency revenue and expenses for the months of March and April 2026.

FISCAL IMPACT

None

ATTACHMENTS:

Attachment A – March 31, 2026, Profit and Loss Budget Performance

Attachment B – March 31, 2026, Balance Sheet

Attachment C – April 30, 2026, Profit and Loss Budget Performance

Attachment D – April 30, 2026, Balance Sheet

Fillmore and Piru Basins, GSA

Budget vs. Actuals: FY_ 2025_2026 - FY26 P&L

July 2025 - March 2026

	JUL - SEP, 2025		OCT - DEC, 2025		JAN - MAR, 2026		TOTAL	
	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET
Income								
40001 Groundwater Extraction Charge	-9,839.67	0.00	-800.33	0.00	324,586.40	339,834.09	$313,946.40	$339,834.09
47000 Other Revenue							$0.00	$0.00
47001 Late Fees	12,128.15		9,979.13		2,829.44		$24,936.72	$0.00
Total 47000 Other Revenue	**12,128.15**		**9,979.13**		**2,829.44**		**$24,936.72**	**$0.00**
Total Income	**$2,288.48**	**$0.00**	**$9,178.80**	**$0.00**	**$327,415.84**	**$339,834.09**	**$338,883.12**	**$339,834.09**
GROSS PROFIT	**$2,288.48**	**$0.00**	**$9,178.80**	**$0.00**	**$327,415.84**	**$339,834.09**	**$338,883.12**	**$339,834.09**
Expenses								
52200 Professional Services							$0.00	$0.00
52240 Prof Svcs - IT Consulting	3,677.83	4,749.99		4,749.99	1,993.75	4,749.99	$5,671.58	$14,249.97
52250 Prof Svcs - Planning & Implementation							$0.00	$0.00
52252 Prof Svcs - GSP Consultant							$0.00	$0.00
5225A Professional Services Monitoring & Reporting							$0.00	$0.00
5225A - A1 Monitoring Equipment	3,798.00	999.99	62.08	999.99		999.99	$3,860.08	$2,999.97
5225A - A2 Routine Reporting		8,250.00		8,250.00	7,634.85	8,250.00	$7,634.85	$24,750.00
5225A - A3 Groundwater and Surface Water Data Gaps	2,428.64	12,500.01	10,846.33	12,500.01	363.60	12,500.01	$13,638.57	$37,500.03
5225A - A4 Biological Data Gaps	248.42	25,500.00	9,372.02	25,500.00	15,509.79	25,500.00	$25,130.23	$76,500.00
Total 5225A Professional Services Monitoring & Reporting	**6,475.06**	**47,250.00**	**20,280.43**	**47,250.00**	**23,508.24**	**47,250.00**	**$50,263.73**	**$141,750.00**
5225B Prof. Services- Dom Well Vulnerability							$0.00	$0.00
5225B - B1 Data Gathering & Vulnerability Analysis		20,000.01	3,047.43	20,000.01	2,490.64	20,000.01	$5,538.07	$60,000.03
Total 5225B Prof. Services- Dom Well Vulnerability		**20,000.01**	**3,047.43**	**20,000.01**	**2,490.64**	**20,000.01**	**$5,538.07**	**$60,000.03**
5225C Prof. Services - Cienega Drought Project							$0.00	$0.00
5225C - C2 Planning, Design, Permitting		18,750.00		18,750.00		18,750.00	$0.00	$56,250.00
5225C - C3 Grant Applications		8,750.01	317.00	8,750.01		8,750.01	$317.00	$26,250.03
Total 5225C Prof. Services - Cienega Drought Project		**27,500.01**	**317.00**	**27,500.01**		**27,500.01**	**$317.00**	**$82,500.03**
5225D Prof. Services - GSP Updates							$0.00	$0.00
5225D - D1 GW & SW Modeling	6,087.16	27,500.01	40,402.54	27,500.01	50,485.37	27,500.01	$96,975.07	$82,500.03
5225D - D2 Periodic Performance Evals. 5-Yr		32,525.01		32,525.01	2,219.00	32,525.01	$2,219.00	$97,575.03
5225D - D3 GSPs Amendment	146.34	44,124.99	11,432.88	44,124.99	634.00	44,124.99	$12,213.22	$132,374.97
Total 5225D Prof. Services - GSP Updates	**6,233.50**	**104,150.01**	**51,835.42**	**104,150.01**	**53,338.37**	**104,150.01**	**$111,407.29**	**$312,450.03**
5225E Prof. Svcs.- General Programs Support & Dvlpmt							$0.00	$0.00
5225E - E1 Well Permit Review					124.15		$124.15	$0.00
5225E - E3 Gen. Programs Support	248.30	22,500.00	8,359.28	22,500.00	6,487.90	22,500.00	$15,095.48	$67,500.00
5225E - E4 Prop. 218 Process		8,750.01		8,750.01		8,750.01	$0.00	$26,250.03
Total 5225E Prof. Svcs.- General Programs Support & Dvlpmt	**248.30**	**31,250.01**	**8,359.28**	**31,250.01**	**6,612.05**	**31,250.01**	**$15,219.63**	**$93,750.03**
Total 52252 Prof Svcs - GSP Consultant	**12,956.86**	**230,150.04**	**83,839.56**	**230,150.04**	**85,949.30**	**230,150.04**	**$182,745.72**	**$690,450.12**
Total 52250 Prof Svcs - Planning & Implementation	**12,956.86**	**230,150.04**	**83,839.56**	**230,150.04**	**85,949.30**	**230,150.04**	**$182,745.72**	**$690,450.12**
52270 Prof Svcs - Accounting	2,558.03	9,624.99	30,480.16	9,624.99	8,591.66	9,624.99	$41,629.85	$28,874.97
52275 Prof Svcs - Admin/Clerk of Bd	854.40	3,000.00	1,789.28	3,000.00	982.92	3,000.00	$3,626.60	$9,000.00
52280 Prof Svcs - Executive Director	6,277.04	15,024.99	15,549.23	15,024.99	5,125.29	15,024.99	$26,951.56	$45,074.97
52290 Prof Svcs - Other		62.49		62.49		62.49	$0.00	$187.47
Total 52200 Professional Services	**26,324.16**	**262,612.50**	**131,658.23**	**262,612.50**	**102,642.92**	**262,612.50**	**$260,625.31**	**$787,837.50**
52500 Legal Fees							$0.00	$0.00
52501 Legal Counsel	2,405.60	7,500.00	1,512.80	7,500.00	1,488.00	7,500.00	$5,406.40	$22,500.00
Total 52500 Legal Fees	**2,405.60**	**7,500.00**	**1,512.80**	**7,500.00**	**1,488.00**	**7,500.00**	**$5,406.40**	**$22,500.00**
53000 Office Expenses							$0.00	$0.00
53010 Public Information		249.99		249.99		249.99	$0.00	$749.97
53020 Office Supplies	57.50	249.99	199.75	249.99	255.00	249.99	$512.25	$749.97
53026 Postage & Mailing	76.96	249.99	274.42	249.99	337.46	249.99	$688.84	$749.97
53060 Computer Software	2,538.00				19.17		$2,557.17	$0.00
53110 Travel & Training	32.90	249.99	61.58	249.99	34.31	249.99	$128.79	$749.97
Total 53000 Office Expenses	**2,705.36**	**999.96**	**535.75**	**999.96**	**645.94**	**999.96**	**$3,887.05**	**$2,999.88**
53500 Insurance							$0.00	$0.00
53510 Liability Insurance		0.00	2,512.42	2,611.79		0.00	$2,512.42	$2,611.79
Total 53500 Insurance		**0.00**	**2,512.42**	**2,611.79**		**0.00**	**$2,512.42**	**$2,611.79**
Total Expenses	**$31,435.12**	**$271,112.46**	**$136,219.20**	**$273,724.25**	**$104,776.86**	**$271,112.46**	**$272,431.18**	**$815,949.17**
NET OPERATING INCOME	**$ -29,146.64**	**$ -271,112.46**	**$ -127,040.40**	**$ -273,724.25**	**$222,638.98**	**$68,721.63**	**$66,451.94**	**$ -476,115.08**
Other Expenses								
Depreciation	2,574.99	2,574.99	2,574.99	2,574.99	2,574.99	2,574.99	$7,724.97	$7,724.97
Total Other Expenses	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$7,724.97**	**$7,724.97**
NET OTHER INCOME	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -7,724.97**	**$ -7,724.97**
NET INCOME	**$ -31,721.63**	**$ -273,687.45**	**$ -129,615.39**	**$ -276,299.24**	**$220,063.99**	**$66,146.64**	**$58,726.97**	**$ -483,840.05**

Fillmore and Piru Basins, GSA

Balance Sheet

As of Mar 31, 2026

	Total
Assets	
Current Assets	
Bank Accounts	
10100 Citizens Business Bank	1,757,685.65
Total for Bank Accounts	**$1,757,685.65**
Accounts Receivable	
11000 Accounts Receivable	557,371.55
Total for Accounts Receivable	**$557,371.55**
Other Current Assets	
12000 Undeposited Funds	0.00
12900 Clearing Account	0.00
Total for Other Current Assets	**$0.00**
Total for Current Assets	**$2,315,057.20**
Fixed Assets	
Fillmore Piru Monitoring Wells (4 Wells)	$515,000.00
Accumulated Depreciation - Monitoring Wells (4 Wells)	-28,324.89
Total for Fillmore Piru Monitoring Wells (4 Wells)	**$486,675.11**
Total for Fixed Assets	**$486,675.11**
Total for Assets	**$2,801,732.31**
Liabilities and Equity	
Liabilities	
Current Liabilities	
Accounts Payable	
20000 Accounts Payable	48,064.83
Total for Accounts Payable	**$48,064.83**
Other Current Liabilities	
California Department of Tax and Fee Administration Payable	0.00
Out Of Scope Agency Payable	0.00
Total for Other Current Liabilities	**$0.00**
Total for Current Liabilities	**$48,064.83**
Total for Liabilities	**$48,064.83**
Equity	
30000 Opening Balance Equity	515,000.00
32000 Retained Earnings	2,179,940.51
Net Income	58,726.97
Total for Equity	**$2,753,667.48**
Total for Liabilities and Equity	**$2,801,732.31**

Fillmore and Piru Basins, GSA

Budget vs. Actuals: FY_ 2025_2026 - FY26 P&L

July 2025 - April 2026

	JUL - SEP, 2025		OCT - DEC, 2025		JAN - MAR, 2026		APR 2026		TOTAL	
	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET
Income										
40001 Groundwater Extraction Charge	-9,839.67	0.00	-800.33	0.00	324,586.40	339,834.09		0.00	$313,946.40	$339,834.09
47000 Other Revenue									$0.00	$0.00
47001 Late Fees	12,128.15		9,979.13		2,829.44				$24,936.72	$0.00
Total 47000 Other Revenue	**12,128.15**		**9,979.13**		**2,829.44**				**$24,936.72**	**$0.00**
Total Income	**$2,288.48**	**$0.00**	**$9,178.80**	**$0.00**	**$327,415.84**	**$339,834.09**	**$0.00**	**$0.00**	**$338,883.12**	**$339,834.09**
GROSS PROFIT	**$2,288.48**	**$0.00**	**$9,178.80**	**$0.00**	**$327,415.84**	**$339,834.09**	**$0.00**	**$0.00**	**$338,883.12**	**$339,834.09**
Expenses										
52200 Professional Services									$0.00	$0.00
52240 Prof Svcs - IT Consulting	3,677.83	4,749.99		4,749.99	1,993.75	4,749.99		1,583.33	$5,671.58	$15,833.30
52250 Prof Svcs - Planning & Implementation									$0.00	$0.00
52252 Prof Svcs - GSP Consultant									$0.00	$0.00
5225A Professional Services Monitoring & Reporting									$0.00	$0.00
5225A - A1 Monitoring Equipment	3,798.00	999.99	62.08	999.99		999.99		333.33	$3,860.08	$3,333.30
5225A - A2 Routine Reporting		8,250.00		8,250.00	7,634.85	8,250.00	6,636.93	2,750.00	$14,271.78	$27,500.00
5225A - A3 Groundwater and Surface Water Data Gaps	2,428.64	12,500.01	10,846.33	12,500.01	363.60	12,500.01	2,911.10	4,166.67	$16,549.67	$41,666.70
5225A - A4 Biological Data Gaps	248.42	25,500.00	9,372.02	25,500.00	15,509.79	25,500.00	4,289.55	8,500.00	$29,419.78	$85,000.00
Total 5225A Professional Services Monitoring & Reporting	**6,475.06**	**47,250.00**	**20,280.43**	**47,250.00**	**23,508.24**	**47,250.00**	**13,837.58**	**15,750.00**	**$64,101.31**	**$157,500.00**
5225B Prof. Services- Dom Well Vulnerability									$0.00	$0.00
5225B - B1 Data Gathering & Vulnerability Analysis		20,000.01	3,047.43	20,000.01	2,490.64	20,000.01	912.80	6,666.67	$6,450.87	$66,666.70
Total 5225B Prof. Services- Dom Well Vulnerability		**20,000.01**	**3,047.43**	**20,000.01**	**2,490.64**	**20,000.01**	**912.80**	**6,666.67**	**$6,450.87**	**$66,666.70**
5225C Prof. Services - Cienega Drought Project									$0.00	$0.00
5225C - C2 Planning, Design, Permitting		18,750.00		18,750.00		18,750.00		6,250.00	$0.00	$62,500.00
5225C - C3 Grant Applications		8,750.01	317.00	8,750.01		8,750.01		2,916.67	$317.00	$29,166.70
Total 5225C Prof. Services - Cienega Drought Project		**27,500.01**	**317.00**	**27,500.01**		**27,500.01**		**9,166.67**	**$317.00**	**$91,666.70**
5225D Prof. Services - GSP Updates									$0.00	$0.00
5225D - D1 GW & SW Modeling	6,087.16	27,500.01	40,402.54	27,500.01	50,485.37	27,500.01	11,209.83	9,166.67	$108,184.90	$91,666.70
5225D - D2 Periodic Performance Evals. 5-Yr		32,525.01		32,525.01	2,219.00	32,525.01		10,841.67	$2,219.00	$108,416.70
5225D - D3 GSPs Amendment	146.34	44,124.99	11,432.88	44,124.99	634.00	44,124.99	634.00	14,708.33	$12,847.22	$147,083.30
Total 5225D Prof. Services - GSP Updates	**6,233.50**	**104,150.01**	**51,835.42**	**104,150.01**	**53,338.37**	**104,150.01**	**11,843.83**	**34,716.67**	**$123,251.12**	**$347,166.70**
5225E Prof. Svcs.- General Programs Support & Dvlpmt									$0.00	$0.00
5225E - E1 Well Permit Review					124.15				$124.15	$0.00
5225E - E3 Gen. Programs Support	248.30	22,500.00	8,359.28	22,500.00	6,487.90	22,500.00	2,007.00	7,500.00	$17,102.48	$75,000.00
5225E - E4 Prop. 218 Process		8,750.01		8,750.01		8,750.01		2,916.67	$0.00	$29,166.70
Total 5225E Prof. Svcs.- General Programs Support & Dvlpmt	**248.30**	**31,250.01**	**8,359.28**	**31,250.01**	**6,612.05**	**31,250.01**	**2,007.00**	**10,416.67**	**$17,226.63**	**$104,166.70**
Total 52252 Prof Svcs - GSP Consultant	**12,956.86**	**230,150.04**	**83,839.56**	**230,150.04**	**85,949.30**	**230,150.04**	**28,601.21**	**76,716.68**	**$211,346.93**	**$767,166.80**
Total 52250 Prof Svcs - Planning & Implementation	**12,956.86**	**230,150.04**	**83,839.56**	**230,150.04**	**85,949.30**	**230,150.04**	**28,601.21**	**76,716.68**	**$211,346.93**	**$767,166.80**
52270 Prof Svcs - Accounting	2,558.03	9,624.99	30,480.16	9,624.99	8,591.66	9,624.99	12,808.06	3,208.33	$54,437.91	$32,083.30
52275 Prof Svcs - Admin/Clerk of Bd	854.40	3,000.00	1,789.28	3,000.00	982.92	3,000.00	1,310.57	1,000.00	$4,937.17	$10,000.00
52280 Prof Svcs - Executive Director	6,277.04	15,024.99	15,549.23	15,024.99	5,125.29	15,024.99	3,685.60	5,008.33	$30,637.16	$50,083.30
52290 Prof Svcs - Other		62.49		62.49		62.49	310.38	20.83	$310.38	$208.30
Total 52200 Professional Services	**26,324.16**	**262,612.50**	**131,658.23**	**262,612.50**	**102,642.92**	**262,612.50**	**46,715.82**	**87,537.50**	**$307,341.13**	**$875,375.00**
52500 Legal Fees									$0.00	$0.00
52501 Legal Counsel	2,405.60	7,500.00	1,512.80	7,500.00	1,488.00	7,500.00	148.80	2,500.00	$5,555.20	$25,000.00
Total 52500 Legal Fees	**2,405.60**	**7,500.00**	**1,512.80**	**7,500.00**	**1,488.00**	**7,500.00**	**148.80**	**2,500.00**	**$5,555.20**	**$25,000.00**
53000 Office Expenses									$0.00	$0.00
53010 Public Information		249.99		249.99		249.99		83.33	$0.00	$833.30
53020 Office Supplies	57.50	249.99	199.75	249.99	255.00	249.99	1.25	83.33	$513.50	$833.30
53026 Postage & Mailing	76.96	249.99	274.42	249.99	337.46	249.99	2.96	83.33	$691.80	$833.30
53060 Computer Software	2,538.00				19.17				$2,557.17	$0.00
53110 Travel & Training	32.90	249.99	61.58	249.99	34.31	249.99		83.33	$128.79	$833.30
Total 53000 Office Expenses	**2,705.36**	**999.96**	**535.75**	**999.96**	**645.94**	**999.96**	**4.21**	**333.32**	**$3,891.26**	**$3,333.20**
53500 Insurance									$0.00	$0.00
53510 Liability Insurance		0.00	2,512.42	2,611.79		0.00		0.00	$2,512.42	$2,611.79
Total 53500 Insurance		**0.00**	**2,512.42**	**2,611.79**		**0.00**		**0.00**	**$2,512.42**	**$2,611.79**
Total Expenses	**$31,435.12**	**$271,112.46**	**$136,219.20**	**$273,724.25**	**$104,776.86**	**$271,112.46**	**$46,868.83**	**$90,370.82**	**$319,300.01**	**$906,319.99**
NET OPERATING INCOME	**$ -29,146.64**	**$ -271,112.46**	**$ -127,040.40**	**$ -273,724.25**	**$222,638.98**	**$68,721.63**	**$ -46,868.83**	**$ -90,370.82**	**$19,583.11**	**$ -566,485.90**
Other Expenses										
Depreciation	2,574.99	2,574.99	2,574.99	2,574.99	2,574.99	2,574.99	858.33	858.33	$8,583.30	$8,583.30
Total Other Expenses	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$2,574.99**	**$858.33**	**$858.33**	**$8,583.30**	**$8,583.30**
NET OTHER INCOME	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -2,574.99**	**$ -858.33**	**$ -858.33**	**$ -8,583.30**	**$ -8,583.30**
NET INCOME	**$ -31,721.63**	**$ -273,687.45**	**$ -129,615.39**	**$ -276,299.24**	**$220,063.99**	**$66,146.64**	**$ -47,727.16**	**$ -91,229.15**	**$10,999.81**	**$ -575,069.20**

Fillmore and Piru Basins, GSA

Balance Sheet

As of Apr 30, 2026

	Total
Assets	
Current Assets	
Bank Accounts	
10100 Citizens Business Bank	1,859,025.68
Total for Bank Accounts	**$1,859,025.68**
Accounts Receivable	
11000 Accounts Receivable	407,966.69
Total for Accounts Receivable	**$407,966.69**
Other Current Assets	
12000 Undeposited Funds	0.00
12900 Clearing Account	0.00
Total for Other Current Assets	**$0.00**
Total for Current Assets	**$2,266,992.37**
Fixed Assets	
Fillmore Piru Monitoring Wells (4 Wells)	$515,000.00
Accumulated Depreciation - Monitoring Wells (4 Wells)	-29,183.22
Total for Fillmore Piru Monitoring Wells (4 Wells)	**$485,816.78**
Total for Fixed Assets	**$485,816.78**
Total for Assets	**$2,752,809.15**
Liabilities and Equity	
Liabilities	
Current Liabilities	
Accounts Payable	
20000 Accounts Payable	46,868.83
Total for Accounts Payable	**$46,868.83**
Other Current Liabilities	
California Department of Tax and Fee Administration Payable	0.00
Out Of Scope Agency Payable	0.00
Total for Other Current Liabilities	**$0.00**
Total for Current Liabilities	**$46,868.83**
Total for Liabilities	**$46,868.83**
Equity	
30000 Opening Balance Equity	515,000.00
32000 Retained Earnings	2,179,940.51
Net Income	10,999.81
Total for Equity	**$2,705,940.32**
Total for Liabilities and Equity	**$2,752,809.15**

ITEM NO. **3D Consent Item**

DATE: May 14, 2026

TO: Board of Directors

VIA: Anthony A. Emmert, Executive Director

FROM: United Water Conservation District Finance Staff

SUBJECT: **Auditors Report for FY 2023-24 and FY 2024-25**

RECOMMENDATION

The Board will receive the Agency's Biannual Financial Audit Reports for Fiscal Years 2023-2024 and 2024-2025 performed by Rogers, Anderson, Malody & Scott, LLP.

BACKGROUND

The Agency with Rogers, Anderson, Malody and Scott, LLP to provide an audit of the financial statements for Fiscal Year 2023-2024 and Fiscal Year 2024-2025. The audit reports and the audited financial statements are attached. The auditors gave an unmodified, or "clean" opinion on the financial statements.

Also attached is the SAS 114 letter, which is a required letter that communicates to the Board the scope of the audit, significant findings and other information that is not communicated in the financial statements. There were no findings, difficulties or uncorrected misstatements during the audit.

FISCAL IMPACT

Audit fees of $11,769 were approved by the Board and included in the FY 25-26 budget.

ATTACHMENTS

Attachment A - Financial Statements for FY 23-24 and 24-25 with Auditor's Report

Attachment B - Internal Controls Report for FY 23-24 and 24-25

Attachment C - Auditor Issued SAS 114 letter for FY 23-24 and 24-25

Attachment A

Fillmore and Piru Basins
Groundwater Sustainability Agency

FINANCIAL STATEMENTS

WITH INDEPENDENT AUDITOR'S REPORT

JUNE 30, 2025

Fillmore and Piru Basins Groundwater Sustainability Agency

Table of Contents
For the year ended June 30, 2025

RAMS
CERTIFIED PUBLIC ACCOUNTANTS

Independent Auditor's Report

To the Board of Directors
Fillmore and Piru Basins Groundwater Sustainability Agency
Ventura, California

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Fillmore and Piru Basins Groundwater Sustainability Agency (the Agency), as of June 30, 2025, the related changes in financial position and cash flows for the years ended June 30, 2025 and 2024, and the related notes to the financial statements, which collectively comprise the Agency's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the Agency, as of June 30, 2025, and the changes in financial position and cash flows for the years ended June 30, 2025 and 2024 in accordance with accounting principles generally accepted in the United States of America, as well as the accounting systems prescribed by the State Controller's Office and state regulations governing Special Districts.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS), the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States (Government Auditing Standards), and the State Controller's *Minimum Audit Requirements for California Special Districts*. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Agency and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

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In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Agency's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Agency's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information, such as management's discussion and analysis, as listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated March 11, 2026 on our consideration of the Agency's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Agency's internal control over financial reporting and compliance.

Rogers, Anderson, Malody & Scott, LLP.

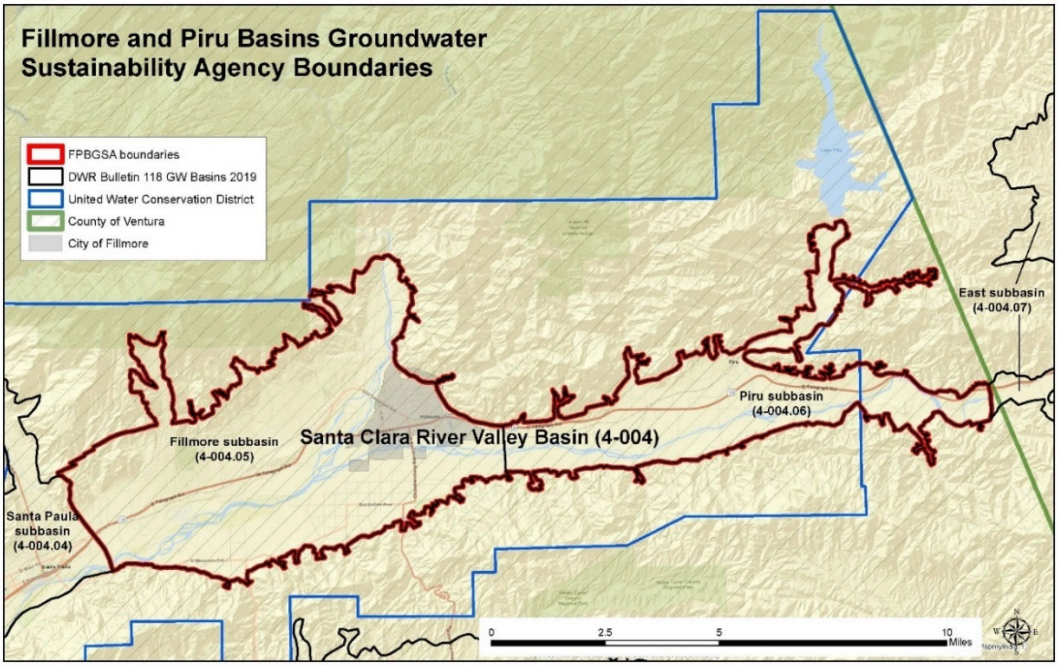
San Bernardino, California
March 11, 2026

The following Management Discussion and Analysis (MD&A) of activities and financial performance of the Fillmore and Piru Basins Groundwater Sustainability Agency (Agency) introduces the financial statements of the Agency for the fiscal years ended June 30, 2025 and June 30, 2024. We encourage readers to consider the information presented here in conjunction with the basic financial statements and related notes, which follow this section.

Introduction to the Agency

The Agency was formed in June 2017 in response to the 2014 Sustainable Groundwater Management Act (SGMA). SGMA requires groundwater-dependent regions form a Groundwater Sustainability Agency (GSA) to develop and implement Groundwater Sustainability plans (GSPs) to achieve sustainability with their local groundwater basins by calendar year 2042. This often required that GSAs halt overdraft and bring their basins into balanced levels of pumping and recharge. SGMA also requires the Agency to submit a Groundwater Sustainability Plan to the Department of Water Resources for approval by January 31, 2022.

The Agency is a joint powers authority comprised of the following three local public agencies: United Water Conservation District (United), the City of Fillmore (the City), and the County of Ventura (the County). The boundaries of these agencies and the newly formed Fillmore and Piru Basins Groundwater Sustainability Agency are shown on the map below.



The Agency's Board of Directors is composed of three Member Directors and three Stakeholder Directors. United, the County of Ventura, and the City of Fillmore each appoint one Member Director to the Board. The Agency designates three seats for Stakeholder Directors. One for a Stakeholder Director from the Fillmore Basin Pumpers Association, one for a Stakeholder Director from the Piru Basin Pumpers Association, and one for a Stakeholder Director from Environmental Interest Groups.

The Agency's primary source of revenue is groundwater extraction fees, charged to each entity that pumps water from a well located within the basin during the reporting period. Data on acre feet of water pumped is provided to the Agency by United. Well owners and operators report their pumping to United on a semi-annual basis. The Agency was awarded a grant from the Department of Water Resources to assist with the preparation of the Groundwater Sustainability Plan. The grant period runs through April 2022. An amendment was granted that extended the grant period through December 2022. Grant funding totals $1,500,000 and requires a cost share by the Agency of $527,258. Grant revenue is recorded in the period in which it is earned.

Financial and Operational Highlights

- Fiscal Year 2024-25, the Agency charged groundwater extraction fees for the entire year which resulted in $720,316 in revenue. The Agency charged $13.00 per acre foot extracted on a total of 55,409-acre feet of water pumped in the basin.
- Fiscal Year 2023-24, the Agency charged groundwater extraction fees for the entire year which resulted in $503,854 in revenue. The Agency charged $12.00 per acre foot extracted on a total of 41,988-acre feet of water pumped in the basin.
- The Agency had an increase in net position by $149,672 in Fiscal Year 2024-25 and an increase of $501,265 in Fiscal Year 2023-24.

Overview of the Financial Statements

The discussion and analysis provided here are intended to serve as an introduction to the Agency's basic financial statements. The Agency's basic financial statements consist of two components: 1) fund financial statements and 2) notes to the financial statements.

Fund Financial Statements. A *fund* is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The Agency, like other State and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. The Agency utilizes one fund, which is categorized as a proprietary (enterprise) fund.

The Agency uses the *accrual basis of accounting* in its proprietary fund, which is similar to the accounting method used by most private sector companies. All the current year's revenues and expense are taken into accounts regardless of when the cash is received or paid.

Required Financial Statements

Statement of Net Position. The Statement of Net Position presents financial information on all the Agency's assets (resources) and liabilities (obligations), with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Agency is improving or deteriorating.

The following condensed financial information provides an overview of the Agency's net position for the year ended June 30, 2024 and 2025:

	June 30		Change	
	2025	2024	Dollar	Percentage
Assets				
Current assets	$ 2,333,256	$ 2,201,449	$ 131,807	5.99%
Capital assets	494,400	504,700	(10,300)	100.00%
Total assets	2,827,656	2,706,149	121,507	4.49%
Liabilities				
Current liabilities	133,297	161,463	(28,166)	-17.44%
Total liabilities	133,297	161,463	(28,166)	-17.44%
Net position				
Investment in capital assets	494,400	504,700	(10,300)	100.00%
Restricted	2,199,959	2,039,986	159,973	7.84%
Total net position	$ 2,694,359	$ 2,544,686	$ 149,673	5.88%

The Agency's total net position as of June 30, 2025 is $2,694,359, $2,199,959 of which is restricted. The largest portion of the Agency's assets as of June 30, 2025 is cash of $1,677,723 and receivables of $655,533. The Agency's liabilities are accounts payable of $133,297. The Agency's liabilities are 5.00% of net position.

Statement of Revenues, Expenses and Change in Net Position. The Statement of Revenues, Expenses and Change in Net Position provides information on the Agency's financial activity during the year. It provides a summary of the Agency's revenues generated from groundwater extraction fees and the operating expenses associated with the activities of the Agency. It also summarizes other non-operating revenue sources such as grant revenue.

The following condensed financial information provides an overview of the Agency's revenues and expenses for the fiscal years ended June 30, 2024 and June 30, 2025:

	June 30		Change	
	2025	2024	Dollar	Percentage
Groundwater extraction fees	$ 720,316	$ 503,854	$ 216,462	42.96%
Total operating revenue	720,316	503,854	216,462	42.96%
Total operating expenses	582,070	449,582	132,488	29.47%
Operating income	138,246	54,272	83,974	154.73%
Net nonoperating revenues (expenses)	11,426	446,993	(435,567)	-97.44%
Change in net position	$ 149,672	$ 501,265	$ (351,593)	-70.14%

The Agency had an increase of net position by $149,672 in the current fiscal year. The Agency's sources of revenue were groundwater extraction fees and State Water Resource grant proceeds. The groundwater extraction fees for the current fiscal year were at the rate of $13.00 per acre foot for the period of July 1 through December 31, 2024 and for the period of January 1, 2025 through June 30, 2025, resulting in revenues of $720,316, an increase of $216,461 from the prior year. The Agency received grant revenue totaling $425,311 in fiscal year 2024. In fiscal year 2025, the Agency did not receive any grant revenue. Operating expenses were $582,070 in the current fiscal year, an increase of $132,488, which consisted of services for GSP preparation, finance and administration, grant solicitation, legal fees, office and insurance expenses.

In the prior fiscal year, the Agency increased its net position by $501,265. For the 2023-24 fiscal year, revenue for groundwater extractions fees covers two periods: July 1 through December 31, 2023 and January 1 through June 30, 2024. The groundwater extraction fee was $12.00 per acre foot for both periods. Total revenue from groundwater extraction fees was $503,854. The largest component of the expenses (58%) related to professional services for GSP preparation and contracted staff. The Agency also recognized grant revenue of $425,311 in FY 2023-2024.

Budgetary Highlights

Original Budget to Final Budget. During the current fiscal year, there were no adjustments made to the originally approved budget. In fiscal year 2024-25 there was a mid-year budget appropriation in the amount if $23,900 for professional fees related to preparation and submittal of the Agency's GSP.

Variances to Budget. A condensed statement of variances to budget is presented below.

	2025 Actual	2025 Final Budget	Variance	2024 Actual	2024 Final Budget	Variance
Operating revenues - groundwater extraction fees	$ 720,316	$ 715,000	$ 5,316	$ 503,854	$ 638,537	$ (134,683)
Operating expenses	582,070	833,800	251,730	449,582	716,959	267,377
Capital outlays	-	-	-	-	-	-
Nonoperating revenues/(expense)	11,426	-	(11,426)	446,993	95,000	(351,993)
Net income (loss)	$ 149,672	$ (118,800)	$ (268,472)	$ 501,265	$ 16,578	$ (484,687)

Groundwater extraction fee revenue was $5,316 higher than budgeted for the current fiscal year. It was lower than budgeted for Fiscal Year 2023-24 by $134,683.

Expenses were $519,107 lower than budgeted for the two fiscal years combined. Approximately $499,359 of this variance is a timing difference as professional services related to the development of the GSP have been incurred more slowly than planned. The remainder of the variance is due to savings in operating expenses, primarily contractual staff and legal fees.

The higher-than-planned net position will be used towards the development of the GSP and regular operating expenses in future fiscal years.

Statement of Cash Flows. The Statement of Cash Flows reports the Agency's sources and uses of cash and the change in cash balance during the reporting period. $3,892 of the Agency's cash was provided by operating activities in Fiscal Year 2024-25 and $167,430 was provided by operating activities in Fiscal Year 2023-24, consisting of cash received from customers. Grant proceeds of $425,311 were received in fiscal year 2024.

Notes to the Financial Statements. The notes provide additional information that is necessary to acquire a full understanding of the data provided in the basic financial statements. The notes to the financial statements can be found on page 12 of this report.

Debt

The Agency had no debt during the past two fiscal years.

Economic Factors and Next Year's Budgets and Rates

The following factors currently affect the Agency and were considered in developing the Fiscal Year 2025-26 budget.

- Anticipated groundwater pumping volume based on conservative historical averages, rather than based on Fiscal Year 2023-24 and 2024-25 pumping volumes.
- Anticipated timing of grant reimbursements, retention will not be paid until closing report has been approved by Department of Water Resources.
- Professional services for the preparation and implementation of the GSP that were not performed in Fiscal Year 2023-24 and 2024-25 that will need to be performed in future years.
- Groundwater extraction fee rates to remain at $13 per acre foot in Fiscal Year 2025-26.

Requests for Information

This report is designed to provide the Agency's ratepayers, stakeholder, funding sources and other interested parties with an overview of the Agency's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to Anthony Emmert, Executive Director, Fillmore and Piru Basins Groundwater Sustainability Agency, 1701 N. Lombard Street, Suite 200, Oxnard, CA 93030.

Fillmore and Piru Basins Groundwater Sustainability Agency

Statement of Net Position
June 30, 2025

Assets	
Current assets:	
Cash	$ 1,677,723
Receivables:	
Accounts receivable	655,533
Total current assets	2,333,256
Noncurrent assets:	
Capital assets	515,000
Less: accumulated depreciation	(20,600)
Total noncurrent assets	494,400
Total assets	2,827,656
Liabilities	
Current liabilities:	
Accounts payable	133,297
Total current liabilities	133,297
Total liabilities	133,297
Net position	
Net investment in capital assets	494,400
Restricted	2,199,959
Total net position	$ 2,694,359

The accompanying notes are an integral part of these financial statements.

Fillmore and Piru Basins Groundwater Sustainability Agency

Statement of Revenues, Expenses and Changes in Net Position
For the years ended June 30, 2025 and June 30, 2024

	2025	2024
Operating revenues		
Groundwater extraction fees	$ 720,316	$ 503,854
Total operating revenues	720,316	503,854
Operating expenses		
Professional services	544,294	411,247
Legal fees	22,362	19,439
Office expenses	2,627	6,134
Insurance	2,487	2,462
Depreciation	10,300	10,300
Total operating expenses	582,070	449,582
Operating income	138,246	54,272
Nonoperating revenues (expenses)		
State grants	-	425,311
Other revenues	11,426	21,682
Total nonoperating revenues (expenses)	11,426	446,993
Change in net position	149,672	501,265
Net position, beginning of year	2,544,687	2,043,422
Net position, end of year	$ 2,694,359	$ 2,544,687

The accompanying notes are an integral part of these financial statements.

Fillmore and Piru Basins Groundwater Sustainability Agency

Statement of Cash Flows
For the years ended June 30, 2025 and June 30, 2024

	2025	2024
Cash flows from operating activities:		
Cash received from customers	$ 603,827	$ 451,339
Cash payments to suppliers for goods and services	(599,935)	(283,909)
Net cash provided by (used for) operating activities	3,892	167,430
Cash flows from noncapital financing activities:		
Proceeds from grants	-	425,311
Net cash provided by (used for) noncapital financing activities	-	425,311
Net change in cash and cash equivalents	3,892	592,741
Cash and cash equivalents, beginning of year	1,673,831	1,081,090
Cash and cash equivalents, end of year	$ 1,677,723	$ 1,673,831
Reconciliation of operating income to net cash provided by (used for) operating activities:		
Operating income	$ 138,246	$ 54,272
Other revenues	11,426	21,371
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:		
(Increase) decrease in assets:		
Accounts receivables	(127,915)	(52,515)
Increase (decrease) in liabilities:		
Accounts payable	(28,165)	134,002
Depreciation and amortization	10,300	10,300
Net cash provided by (used for) operating activities	$ 3,892	$ 167,430

Schedule of non-cash operating, noncapital and capital related financing and investing activities

None

The accompanying notes are an integral part of these financial statements.

1. Summary of Significant Accounting Policies

Reporting entity

In July 2017, the three public agencies, the United Water Conservation District (United), the City of Fillmore (the City), and the County of Ventura (the County), formed the Fillmore and Piru Basins Groundwater Sustainability Agency by execution of a joint powers authority agreement. Each of the member agencies is represented by one Member Director on the Agency Board of Directors. The Board also includes three Stakeholder Directors, representing the Fillmore Basin Pumpers Association, the Piru Basin Pumpers Association, and the local Environmental Interest Groups.

Measurement focus and basis of accounting

The Agency utilizes accounting principles appropriate for an enterprise fund to record its activities. Accordingly, the Agency uses the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of any related cash flows.

The Agency distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services or member contributions in connection with the principal ongoing operations. Non-operating revenue typically consists of grants.

The Agency has elected to follow all pronouncements of the Governmental Accounting Standards Board (GASB).

When both restricted and unrestricted resources are available for use, it is the Agency's policy to use restricted resources first, then unrestricted resources as they are needed.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the use of estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Cash and cash equivalents

The Agency considers cash on hand, demand deposits at financial institutions to be cash and cash equivalents. The Agency does not hold any investments as of June 30, 2025.

Fair value measurements

Currently, the Agency does not have any assets subject to fair value measurements.

1. Summary of Significant Accounting Policies (continued)

Capital assets

Capital assets, which include dams, structures and improvements and equipment, are reported at historical costs in the Statement of Net Position.

Equipment and intangible assets purchased or acquired with an original cost of $5,000 or more and structures and improvements purchased or acquired with an original cost of $25,000 or more are capitalized. Donated capital assets, donated works of art and similar items, and capital assets received in a service concession arrangement are reported at acquisition value. Additions, improvements, and other capital outlays that significantly extend the useful life of an asset are capitalized. Repairs and maintenance are expensed as incurred.

Land and construction in progress are not depreciated. Depreciable capital assets are depreciated using the straight-line method over the following estimated useful lives:

Dams	100 years
Structures and Improvements	15 - 50 years
Equipment	3 - 25 years

2. Cash and Cash Equivalents

Cash and cash equivalents at June 30, 2025 consist of cash in the bank of $1,677,723. The carrying amount of the Agency's cash is covered by the Federal Deposit Insurance Corporation (FDIC) up to $250,000. Should deposits exceed the insured limits, the balance is covered by collateral held by the bank in accordance with California law requiring the depository bank to hold collateral equal to 110% of the excess government funds on deposit. This collateral must be in the form of government-backed securities. As of June 30, 2025, the Agency had $1,431,313 in excess of the federally insured amounts, which were collateralized by the bank.

The Agency has not adopted any policies which address credit risk, custodial credit risk, interest rate risk or concentration of credit risk.

3. Accounts Receivable

The Agency extends credit to customers in the normal course of operations. Management reviews all accounts receivable as eventually collectible. However, as of June 30, 2025, management is aware of two customer accounts that are delinquent by over a year with 10% collectability and the Agency is in the process of using any and all existing remedies to collect.

4. State Grants

The Agency receives significant financial assistance from the State Department of Water Resources in the form of grants, which are generally conditioned upon compliance with terms and conditions of the grant agreements and applicable state regulations, including the expenditure of the resources for eligible purposes. Substantially all grants are subject to financial and compliance audits. Any disallowance because of these audits could become a liability of the Agency. As of June 30, 2025, the Agency is unable to estimate the amount, if any, of expenses that may be disallowed, although the Agency expects such amounts, if any, to be immaterial.

5. Capital Assets

Changes in capital assets for the year were as follows:

	Balance June 30, 2024	Additions	Deletions	Balance June 30, 2025
Depreciable Assets:				
Monitoring Wells	$ 515,000	$ -	$ -	$ 515,000
Accumulated Depreciation:				
Monitoring Wells	$ (10,300)	$ (10,300)	$ -	$ (20,600)

	Balance June 30, 2023	Additions	Deletions	Balance June 30, 2024
Non-depreciable Assets:				
Construction in Progress	$ 514,689	$ -	$ (514,689)	$ -
Depreciable Assets:				
Monitoring Wells	-	515,000	-	515,000
Accumulated Depreciation:				
Monitoring Wells	$ -	$ 10,300	$ -	$ 10,300

6. Risk Management

The Agency is exposed to various risks of loss related to torts; theft of; damage to and destruction of assets; errors and omissions; and natural disasters. The Agency pays an annual premium for general liability insurance and property loss. There were no settlements in excess of the insurance coverage in any of the past three years.

REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

Independent Auditor's Report

To the Board of Directors
Fillmore and Piru Groundwater Sustainability Agency
Ventura, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*), the financial statements of the Fillmore and Piru Groundwater Sustainability Agency (the entity), as of and for the year ended June 30, 2025, and for the years ended June 30, 2025 and 2024, the related notes to the financial statements, which collectively comprise the entity's basic financial statements, and have issued our report thereon dated March 11, 2026.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the entity's internal control over financial reporting (internal control) as a basis for designing procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we do not express an opinion on the effectiveness of the entity's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

Tel. 909-889-0871 | www.ramscpa.net | 735 E. Carnegie Dr. Suite 100, San Bernardino, CA 92408

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the entity's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Rogers, Anderson, Malody & Scott, LLP.

San Bernardino, California
March 11, 2025

To the Board of Directors
Fillmore and Piru Groundwater Sustainablilty Agency
Fillmore, California

We have audited the financial statements of the Fillmore and Piru Basin Groundwater Sustainability Agency (the Agency) as of and for the year ended June 30, 2025, and the statement of revenues and expenses and cash flows for the year ended June 30, 2025 and 2024, and have issued our report thereon dated March 11, 2026. Professional standards require that we advise you of the following matters relating to our audit.

Our Responsibility in Relation to the Financial Statement Audit

As communicated in our engagement letter dated April 8, 2025, our responsibility, as described by professional standards, is to form and express opinions about whether the financial statements that have been prepared by management with your oversight are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America. Our audit of the financial statements does not relieve you or management of your respective responsibilities.

Our responsibility, as prescribed by professional standards, is to plan and perform our audit to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control over financial reporting. Accordingly, as part of our audit, we considered the internal control of the Agency solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are also responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures for the purpose of identifying other matters to communicate to you.

Planned Scope and Timing of the Audit

We conducted our audit consistent with the planned scope and timing we previously communicated to you.

Compliance with All Ethics Requirements Regarding Independence

The engagement team, others in our firm and our firm, have complied with all relevant ethical requirements regarding independence.

We have evaluated whether certain nonattest services performed by our firm during the audit have created a significant threat to our independence in relation to the entity. We have identified a threat to our independence (preparation of the entity's financial statements, creating a self-review threat) that if not reduced to an acceptable level, would impair our independence. In order to reduce the threat to an acceptable level, we have applied the following safeguard:

> Prior to the issuance of the entity's financial statements, another partner or manager, independent of the engagement, will review the financial statements.

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Significant Risks Identified

We have identified the possibility of the following significant risks:

> *Management's override of internal controls over financial reporting:* Management override of internal controls is the intervention by management in handling financial information and making decisions contrary to internal control policy.
>
> *Revenue recognition:* Management's failure to recognize revenue in accordance with generally accepted accounting principles.

These significant risks are presumptive in most audits and merit attention by the auditors due to the direct impact over financial reporting and internal control processes. Although identified as significant risks, we noted not matters of management override of controls or deviations from generally accepted accounting principles which caused us to modify our audit procedures or any related matters which are required to be communicated to those charged with governance due to these identified risks.

Qualitative Aspects of the Agency's Significant Accounting Practices

Significant Accounting Policies

Management has the responsibility to select and use appropriate accounting policies. A summary of the significant accounting policies adopted by the entity is included in Note 1 to the financial statements. There have been no initial selection of accounting policies or their application during 2024. No matters have come to our attention that would require us, under professional standards, to inform you about (1) the methods used to account for significant unusual transactions and (2) the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.

Significant Accounting Estimates and Related Disclosures

Accounting estimates and related disclosures are an integral part of the financial statements prepared by management and are based on management's current judgments. Those judgments are normally based on knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ markedly from management's current judgments.

The most sensitive accounting estimates affecting the financial statements are:

None.

Financial Statement Disclosures

Certain financial statement disclosures involve significant judgment and are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the Agency's financial statements relate to:

None

Significant Difficulties Encountered during the Audit

We encountered no significant difficulties in dealing with management relating to the performance of the audit.

Uncorrected and Corrected Misstatements

For purposes of this communication, professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that we believe are trivial, and communicate them to the appropriate level of management. Further, professional standards require us to also communicate the effect of uncorrected misstatements related to prior periods on the relevant classes of transactions, account balances or disclosures, and the financial statements as a whole and each applicable opinion unit. There were no uncorrected misstatements noted.

Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter, which could be significant to the Agency's financial statements or the auditor's report. No such disagreements arose during the course of the audit.

Representations Requested from Management

We have requested certain written representations from management, which are included in the attached letter dated March 11, 2026.

Management's Consultations with Other Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing and accounting matters.

Other Significant Matters, Findings, or Issues

In the normal course of our professional association with the Agency, we generally discuss a variety of matters, including the application of accounting principles and auditing standards, operating and regulatory conditions affecting the entity, and operational plans and strategies that may affect the risks of material misstatement. None of the matters discussed resulted in a condition to our retention as the Agency's auditors.

Other Information in Documents Containing Audited Financial Statements

Pursuant to professional standards, our responsibility as auditors for other information, whether financial or nonfinancial, included in the entity's annual reports, does not extend beyond the information identified in the audit report, and we are not required to perform any procedures to corroborate such other information.

Our responsibility also includes communicating to you any information which we believe is a material misstatement of fact. Nothing came to our attention that caused us to believe that such information, or its manner of presentation, is materially inconsistent with the information, or manner of its presentation, appearing in the financial statements.

This information is intended solely for the use of the Agency's Board and management of the Agency and is not intended to be, and should not be, used by anyone other than these specified parties.

Rogers, Anderson, Malody & Scott, LLP.

San Bernardino, California
March 11, 2026

Fillmore and Piru Basins
Groundwater Sustainability Agency

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Oxnard, California 93030
(805) 525-4431
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March 11, 2026

Rogers, Anderson, Malody & Scott, LLP

This representation letter is provided in connection with your audit of the basic financial statements of Fillmore and Piru Groundwater Sustainability Agency (the Agency) as of June 30, 2025 and for the years ended June 30, 2025 and 2024, and for the year then ended, and the related notes to the financial statements, for the purpose of expressing opinions on whether the basic financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows, where applicable, of the various opinion units of the entity in accordance with accounting principles generally accepted for governments in the United States of America (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information such that, in the light of surrounding circumstances, there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

We confirm that, to the best of our knowledge and belief, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves as of March 11, 2026:

Financial Statements

- We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated April 8, 2025, for the preparation and fair presentation of the financial statements of the various opinion units referred to above in accordance with U.S. GAAP.
- The financial statements refer to above have been fairly presented in accordance with U.S. GAAP and include all properly classified funds, required supplementary information, and noted to the basic financial statements.
- We acknowledge our responsibility for the design, implementation, and maintenance of the system of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
- We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
- We acknowledge our responsibility for compliance with the laws, regulations, and provisions of contracts and grant agreements.
- We have reviewed, approved, and taken responsibility for the financial statements and related notes.
- We have identified and communicated to you all previous audits, attestation engagements, and other studies related to the audit objectives and whether related recommendations have been implemented.
- The methods, data and significant assumptions used by us in making accounting estimates and their related disclosures, are appropriate to achieve recognition, measurement, or disclosure that is reasonable in the context of the applicable financial reporting framework.
- All related party relationships and transactions have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP.
- All events subsequent to the date of the financial statements and for which U.S. GAAP requires adjustment or disclosure have been adjusted or disclosed.
- The effects of all known actual or possible litigation and claims have been accounted for and disclosed in accordance with U.S. GAAP.
- All funds and activities are properly classified.

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Groundwater Sustainability Agency

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- Our policy regarding whether to first apply restricted or unrestricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position/fund balance are available is appropriately disclosed and net position/fund balance is properly recognized under the policy.
- All interfund and intra-entity transactions and balances have been properly classified and reported.
- Special items and extraordinary items have been properly classified and reported.
- Deposit and investment risks have been properly and fully disclosed.
- Capital assets, including infrastructure assets, are properly capitalized, reported, and if applicable, depreciated.
- All required supplementary information is measured and presented within the prescribed guidelines.
- With regard to investments and other instruments reported at fair value:
  - The underlying assumptions are reasonable and they appropriately reflect management's intent and ability to carry out its stated courses of action.
  - The measurement methods and related assumptions used in determining fair value are appropriate in the circumstances and have been consistently applied.
  - The disclosures related to fair values are complete, adequate, and in accordance with U.S. GAAP.
  - There are no subsequent events that require adjustments to the fair value measurements and disclosures included in the financial statements.
- With respect to preparation of the financial statements, we have performed the following:
  - Made all management decisions and performed all management functions;
  - Assigned a competent individual to oversee the services;
  - Evaluated the adequacy of the services performed;
  - Evaluated and accepted responsibility for the result of the service performed; and
  - Established and maintained internal controls, a process to monitor the system of internal controls.

Information Provided

- We have provided you with:
  - Access to all information, of which we are aware that is relevant to the preparation and fair presentation of the financial statements of the various opinion units referred to above, such as records, documentation, meeting minutes, and other matters;
  - Additional information that you have requested from us for the purpose of the audit; and
  - Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
- The financial statements and any other information included in the annual report are consistent with one another, and the other information does not contain any material misstatements.
- All information provided in electronic form are true representations of the original documents.
- All transactions have been recorded in the accounting records and are reflected in the financial statements.
- We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- We have provided to you our analysis of the entity's ability to continue as a going concern, including significant conditions and events present, and we believe that our use of the going concern basis of accounting is appropriate.
- We have no knowledge of any fraud or suspected fraud that affects the entity and involves:
  - Management;
  - Employees who have significant roles in internal control; or
  - Others where the fraud could have a material effect on the financial statements.

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- We have no knowledge of any instances, that have occurred or are likely to have occurred, of fraud and noncompliance with provisions of laws and regulations that have a material effect on the financial statements or other financial data significant to the audit objectives, and any other instances that warrant the attention of those charged with governance, whether communicated by employees, former employees, vendors (contractors), analysts, regulators, or others.
- We are not aware of any pending or threatened litigation, claims, and assessments whose effects should be considered when preparing the financial statements.
- We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.
- There have been no communications from regulatory agencies concerning noncompliance with or deficiencies in accounting, internal control, or financial reporting practices.
- The entity has no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
- We have disclosed to you all guarantees, whether written or oral, under which the entity is contingently liable.
- We have disclosed to you all significant estimates and material concentrations known to management that are required to be disclosed in accordance with GASB Statement No. 62 (GASB-62), Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements. Significant estimates are estimates at the balance sheet date that could change materially within the next year. Concentrations refer to volumes of business, revenues, available sources of supply, or markets or geographic areas for which events could occur that would significantly disrupt normal finances within the next year.
- We have identified and disclosed to you the laws, regulations, and provisions of contracts and grant agreements that could have a direct and material effect on financial statement amounts, including legal and contractual provisions for reporting specific activities in separate funds. We have disclosed to you all nonexchange financial guarantees, under which we are obligated and have declared liabilities and disclosed properly in accordance with GASB Statement No. 70, Accounting and Financial Reporting for Nonexchange Financial Guarantees, for those guarantees where it is more likely than not that the entity will make a payment on any guarantee.
- There are no:
  - Violations or possible violations of laws or regulations, or provisions of contracts or grant agreements whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency, including applicable budget laws and regulations.
  - Unasserted claims or assessments that our lawyer has advised are probable of assertion and must be disclosed in accordance with GASB-62.
  - Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by GASB-62
  - Continuing disclosure consent decree agreements or filings with the Securities and Exchange Commission and we have filed updates on a timely basis in accordance with the agreements (Rule 240, 15c2-12).
- The entity has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset or future revenue been pledged as collateral, except as disclosed to you.
- We have complied with all aspects of grant agreements and other contractual agreements that would have a material effect on the financial statements in the event of noncompliance.

Use of a Specialist

- We agree with the findings of specialists in evaluating the entity's net pension and net other post-employment benefit liabilities and related deferred amounts and have adequately considered the qualifications of the specialist in determining the amounts and disclosures used in the financial statements and underlying accounting records. We did not give or cause any instructions to be

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given to specialists with respect to the values or amounts derived in an attempt to bias their work, and we are not otherwise aware of any matters that have had an impact on the independence or objectivity of the specialists.

Cybersecurity

- There have been no cybersecurity breaches or other cyber events whose effects should be considered for disclosure in the financial statements, as a basis for recording a loss contingency, or otherwise considered when preparing the financial statements.

Supplementary Information in Relation to the Financial Statements as a Whole

With respect to supplementary information accompanying the financial statements:

- We acknowledge our responsibility for the presentation of the supplementary information in accordance with accounting principles generally accepted in the United States of America.
- We believe the supplementary information, including its form and content, is fairly presented in accordance with accounting principles generally accepted in the United States of America.
- The methods of measurement or presentation have not changed from those used in the prior period.
- We believe any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.
- When the supplementary information is not presented with the audited financial statements, management will make the audited financial statements readily available to the intended users of the supplementary information no later than the date of issuance by the entity of the supplementary information and the auditor's report thereon.
- We acknowledge our responsibility to include the auditor's report on the supplementary information in any document containing the supplementary information and that indicates the auditor reported on such supplementary information.
- We acknowledge our responsibility to present the supplementary information with the audited financial statements or, if the supplementary information will not be presented with the audited financial statements, to make the audited financial statements readily available to the intended users of the supplementary information no later than the date of issuance by the entity of the supplementary information and the auditor's report thereon.

Required Supplementary Information

With respect to the required supplementary information accompanying the financial statements:

- We acknowledge our responsibility for the presentation of the required supplementary information in accordance with U.S. GAAP.
- We believe the required supplementary information, including its form and content, is measured and fairly presented in accordance with U.S. GAAP.
- The methods of measurement or presentation have not changed from those used in the prior period.
- We believe the significant assumptions or interpretations underlying the measurement or presentation
- of the required supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.

Accounting Estimates and Related Disclosures

- The significant judgments made in making the accounting estimates have taken into account all relevant information of which we are aware.

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- We have consistently and appropriately selected and applied methods, assumptions, and data when making accounting estimates.
- The assumptions we used in making and disclosing accounting estimates appropriately reflect our intent and ability to carry out specific courses of action on behalf of the entity, when relevant to the accounting estimates and disclosures.
- The disclosures related to accounting estimates, including those disclosures describing estimation uncertainty, are complete and are reasonable in the context of the applicable financial reporting framework.
- We have obtained and applied appropriate specialized skills and expertise in making accounting estimates.
- We are not aware of any events subsequent to the date of the financial statements that require adjustment to our accounting estimates and related disclosures included in the financial statements.

Anthony Emmert, Executive Director

DATE: May 14, 2026

TO: Board of Directors

VIA: Anthony A. Emmert, Executive Director

FROM: United Water Conservation District Finance Staff

SUBJECT: Waiver of Late Penalties and Interest for Quality Ag and Richardson Revocable Trust for Well # 03N21W12A01S, 03N21W01R01S, and 04N19W30D01S

RECOMMENDATION

The Board will consider waiving penalties and interest in the amount of $254.68 for Quality Ag for Richardson Revocable Trust for late payments associated with pumping from State Well Numbers 03N21W12A01S, 03N21W01R01S, and 04N19W30D01S.

DISCUSSION

Late penalties and interest are associated with three wells managed by Quality Ag, as shown in the table below. Fillmore and Piru Basins Groundwater Sustainability Agency (Agency) staff and Quality Ag representatives have been working for several months to resolve the issue, but disagreement remains.

Well No.	Operator's Name	Amount	
03N21W12A01S	Quality Ag	$	31.61
03N21W01R01S	Quality Ag	$	1.88
04N19W30D01S	Richardson Trust	$	221.19
Total		**$**	**254.68**

Chloe Lozano, on behalf of Quality Ag and Richardson Revocable Trust, submitted a letter to the Agency (attached) requesting a waiver of the late fees and interest, alleging that mistakes made by the Agency contributed to generation of the late penalties and interest. Agency staff disagrees; however, as more time spent attempting to resolve the issue is likely to cost more than the current total, staff recommends that the Board grant the requested waiver.

ATTACHMENTS

- Letter of Request
- Statement of Accounts

FISCAL IMPACT

Waiving late fees and interest will result in less revenue received by the Agency in the amount of $254.68. However, late fees and interest are not budgeted by the GSA and waiving the fees will not materially impact on the Agency's financial position.

Waive Late fees and interest totaling $254.68 for Quality Ag and Richardson Revocable Trust

1st: Director_____ 2nd: Director _____

Voice/Roll call vote:

Director Garnica:	Director Hauss:	Director Jackson:
Director Kimball:	Director Long:	Director Meneghin:

Quality Ag, Inc.

Contractor *Rooted* in California's Growth

01/22/2026

Dear Board of Directors of Fillmore and Piru Basins, GSA,

I am writing this letter to request that you waive the following finance charges and any future charges that may occur before this issue is resolved:

#FC 16284, #FC 16376, #FC 16299, #FC 16389, #FC 16300, and #FC16390.

These charges apply to the following well numbers:

#04N19W30D01S

#03N21W01R01S

#03N21W12A01S

After an analysis of the finance charges, I learned that a check was issued timely, but the payment was applied incorrectly to the outstanding invoices. This caused the invoices to remain partially paid and incur finance charges. Additionally, I called a few times in November to discuss this issue and never received a call back. This caused more finance charges to incur. After emailing on 1/15/26, I received a call back. I didn't realize that email communication would be best.

To prevent this from happening again, I plan to move Well #03N21W01R01S and #03N21W12A01S into the property owner's name so they can pay you directly. Hopefully, this will resolve the issue of misapplying payments to incorrect wells. If you have any questions, please feel free to call me at 805.524.9800 or email me at chloe@qualityag.net. Thank you for your consideration in this matter to resolve our accounts.

Best Wishes,

Chloe Lozano

Office Manager of Quality Ag, Inc.

Fillmore and Piru Basins, GSA
1701 N. Lombard St Ste 200
Oxnard, CA 93030
+18055254431
billing@fpbgsa.org
www.fpbgsa.org

Well# 03N21W01R01S
Acct# 200-01940-01

Statement

TO
QUALITY AG INC
PO BOX 989
FILLMORE, CA 93016

STATEMENT NO. 5004
DATE 05/01/2026
TOTAL DUE $1.88
ENCLOSED

DATE	DESCRIPTION	AMOUNT	OPEN AMOUNT
10/31/2025	Invoice #FC 16299: Due 10/31/2025.	1.72	1.72
12/31/2025	Invoice #FC 16389: Due 12/31/2025.	0.16	0.16

Current Due	1-30 Days Past Due	31-60 Days Past Due	61-90 Days Past Due	90+ Days Past Due	Amount Due
0.00	0.00	0.00	0.00	1.88	**$1.88**

One percent (1%) interest per month on the delinquent amount and a ten percent (10%) late penalty will be assessed if not paid by the due date.

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1701 N. Lombard St Ste 200
Oxnard, CA 93030
+18055254431
billing@fpbgsa.org
www.fpbgsa.org

Well # 03N21W12A01S
Acct # 200-01950-01

Statement

TO
QUALITY AG INC.
PO BOX 989
FILLMORE, CA 93016

STATEMENT NO. 5005
DATE 05/01/2026
TOTAL DUE $31.61
ENCLOSED

DATE	DESCRIPTION	AMOUNT	OPEN AMOUNT
10/31/2025	Invoice #FC 16300: Due 10/31/2025.	29.63	29.63
12/31/2025	Invoice #FC 16390: Due 12/31/2025.	1.98	1.98

Current Due	1-30 Days Past Due	31-60 Days Past Due	61-90 Days Past Due	90+ Days Past Due	Amount Due
0.00	0.00	0.00	0.00	31.61	**$31.61**

One percent (1%) interest per month on the delinquent amount and a ten percent (10%) late penalty will be assessed if not paid by the due date.

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1701 N. Lombard St Ste 200
Oxnard, CA 93030
+18055254431
billing@fpbgsa.org
www.fpbgsa.org

Well # 04N19W30D01S
Acct # 200-01070-00

Statement

TO
Richardson Revocable Trust
PO BOX 989
FILLMORE, CA 93016

STATEMENT NO. 5003
DATE 05/01/2026
TOTAL DUE $221.19
ENCLOSED

DATE	DESCRIPTION	AMOUNT	OPEN AMOUNT
10/31/2025	Invoice #FC 16284: Due 11/01/2025.	203.14	203.14
12/31/2025	Invoice #FC 16376: Due 01/01/2026.	18.05	18.05

Current Due	1-30 Days Past Due	31-60 Days Past Due	61-90 Days Past Due	90+ Days Past Due	Amount Due
0.00	0.00	0.00	0.00	221.19	**$221.19**

One percent (1%) interest per month on the delinquent amount and a ten percent (10%) late penalty will be assessed if not paid by the due date.

Item No. **4B Motion Item**

DATE: **May 15, 2026 (for May 21, 2026, meeting)**

TO: **Board of Directors**

FROM: **Anthony A. Emmert, Executive Director**

SUBJECT: **Santa Clara River Watershed Committee**

RECCOMENDATION:

The Board will consider the Santa Clara River Watershed Committee's invitation to join as a member and provide comments and direction.

BACKGROUND:

The Santa Clara River Watershed Committee existed under the Watersheds Coalition of Ventura County (WCVC) as one of three watershed committees for approximately 18 years. The efforts of the WCVC and its three committees brought over $90 million dollars of integrated regional water management (IRWM) grant funding to the County and increased regional cooperation. California has chosen to no longer fund the IRWM grant program. The WCVC is no longer active.

In April 2026, the Santa Clara River Watershed Committee (SCRWC) formed under a new charter, with the goals of increasing regional coordination on watershed-wide issues and seeking grant funding for projects in the watershed. At its April 2026 meeting, the SCRWC Executive Committee invited the Fillmore and Piru Basins Groundwater Sustainability Agency (Agency) to join and hold a seat on the Executive Committee. The Fox Canyon Groundwater Management Agency and the Mound Basin Groundwater Sustainability Agency have already agreed to join. The commitment would be to participate in monthly Executive Committee meetings and contribute approximately $1,000 per year.

Due to the relatively low cost and potential for securing grants for regional efforts that could benefit the Agency by reducing its direct costs, staff recommends that the Agency agree to participate in the SCRWC as a member of the Executive Committee, and work to define watershed goals and objectives that would benefit the Agency's efforts and stakeholders.

FISCAL IMPACT:

Direct costs would be approximately $1,000 per year to fund the SCRWC and the cost of Agency representatives participating in the Executive Committee meetings and other associated meetings and efforts. The Agency's budget has sufficient funds for these expenditures.

ATTACHMENTS

None

Proposed Motion:

Recommend that Agency join the Santa Clara River Watershed Committee and participate on Executive Committee.

1st: Director_____ 2nd Director _____

Voice/Roll call vote:

Director Garnica:	Director Hauss:	Director Jackson:
Director Kimball:	Director Long:	Director Meneghin:

Item No. **4C Motion Item**

DATE: **May 14, 2026 (for May 21, 2026, meeting)**

TO: **Board of Directors**

FROM: **Anthony A. Emmert, Executive Director**

SUBJECT: **Biological Data Gaps East Grove GDE Status Report and Study Plan**

RECCOMENDATION:

The Board will receive a presentation from Stillwater Sciences and United Water Conservation District on the East Grove Groundwater Dependent Ecosystem Study Status and Study Plan and provide comments and directions.

BACKGROUND:

In January 2024, the California Department of Water Resources (DWR) issued determination letters that found the Agency's Groundwater Sustainability Plans (GSPs) to be "Incomplete" and included a recommended corrective action stating that, "The GSA should evaluate and disclose, sufficiently and thoroughly, the potential effects of the [GSP]'s sustainable management criteria [SMC] for depletions of interconnected surface water on beneficial uses of the interconnected surface water and on groundwater uses and users."[1] During subsequent Board meetings and discussions leading up to the resubmission of the Agency's GSPs in July 2024, Project No. 9 (Habitat Suitability Assessment) was added to the GSPs to address data gaps pertaining to what ecological beneficial uses and users exist and could potentially be affected by the Agency's SMCs at the East Grove Groundwater Dependent Ecosystem (GDE) Unit, which is known to have the most persistent occurrence of interconnected surface water in the Agency's basins.

In response to these comments, the Agency initiated an effort to better understand the East Grove GDE area, starting with an initial study during the Fiscal Year 2024-2025 and continuing study during the Fiscal Year 2025-2026. Over the two-year period, the study has been conducted by a team of Stillwater Sciences and United Water Conservation District biologists, and focused on gaining an understanding on how the East Grove GDE area is used by aquatic species, especially special status species.

The fall 2024 conditions were representative of stream courses reset by very high surface water flows and very high groundwater levels, following the very wet conditions

[1] See Page 2 of 3 of DWR's Statement of Findings Regarding the Determination of Incomplete Status of the Santa Clara River Valley – Fillmore Subbasin Groundwater Sustainability Plan (https://sgma.water.ca.gov/portal/service/gspdocument/download/10010)

of 2023. The conditions in 2025 and early 2026 have been more representative of a median wet period. The team will present the Board with a summary of its observations to date and recommendations for further study. The next phase of study will be included in the Fiscal Year 2026-2027 Work Plan and budget.

FISCAL IMPACT:

None.

ATTACHMENTS

Attachment 1 – East Grove GDE Study Presentation.

Proposed Motion:

Receive presentation, provide directions and recommendation, and file.

1st: Director_____ 2nd Director _____

Voice/Roll call vote:

Director Garnica:	Director Hauss:	Director Jackson:
Director Kimball:	Director Long:	Director Meneghin:

EAST GROVE GROUNDWATER DEPENDENT ECOSYSTEM

FY 2026 Monitoring Results

Stillwater Sciences

United Water CONSERVATION DISTRICT

May 21, 2026 – Fillmore/Piru Basins GSA Board Meeting

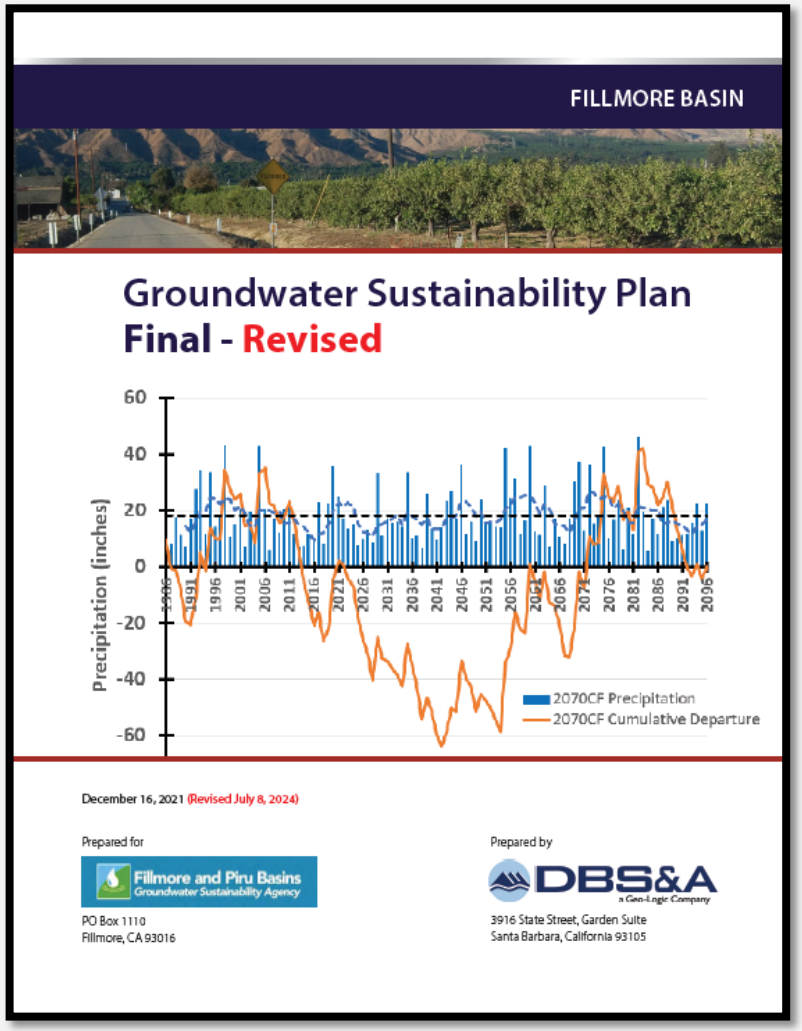
Presentation Overview

- Background/Context
- FY 2026 Results
- Remaining Questions
- Conclusions

SGMA & GSP

Project #9 Habitat Suitability Assessment

"To address the uncertainty regarding use of the Fillmore Basin by O. mykiss for spawning and rearing, as well as other protected aquatic species in the East Grove GDE, a study plan to assess aquatic habitat suitability will be developed in 2024-25."



O. mykiss

Southern Steelhead/Rainbow Trout

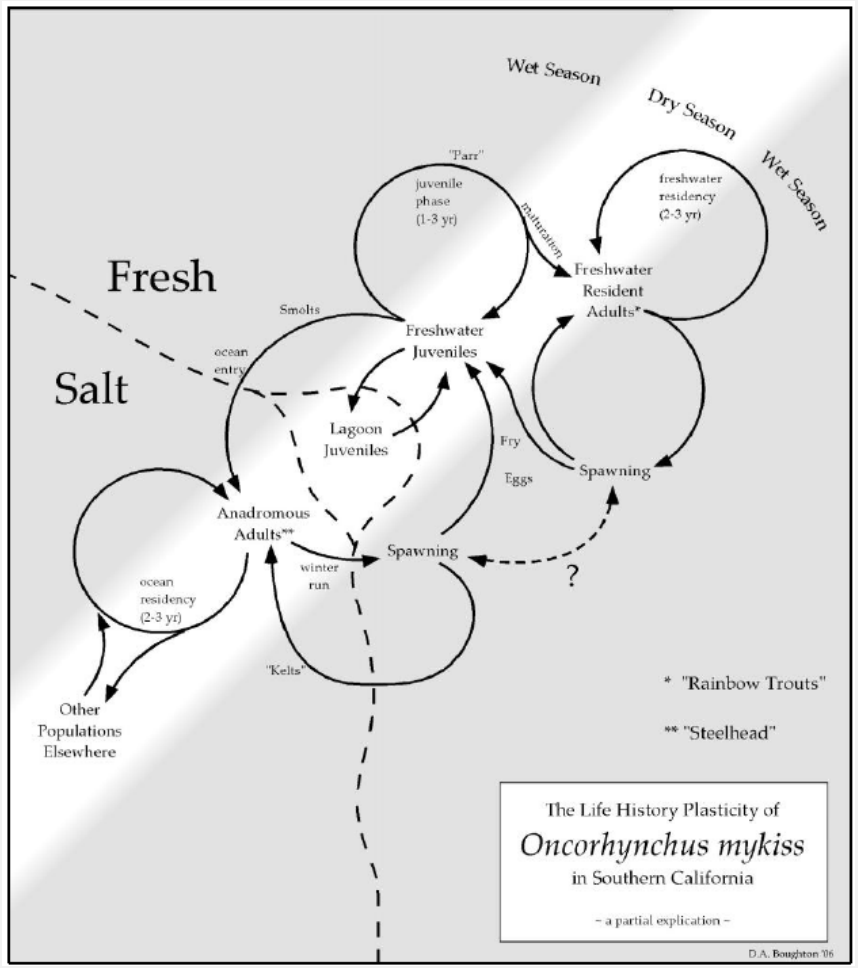
Oncorhynchus mykiss (O. mykiss)

Historical records of *O. mykiss* in East Grove do exist

Aside from sparse historical records, very little is known about aquatic wildlife in East Grove

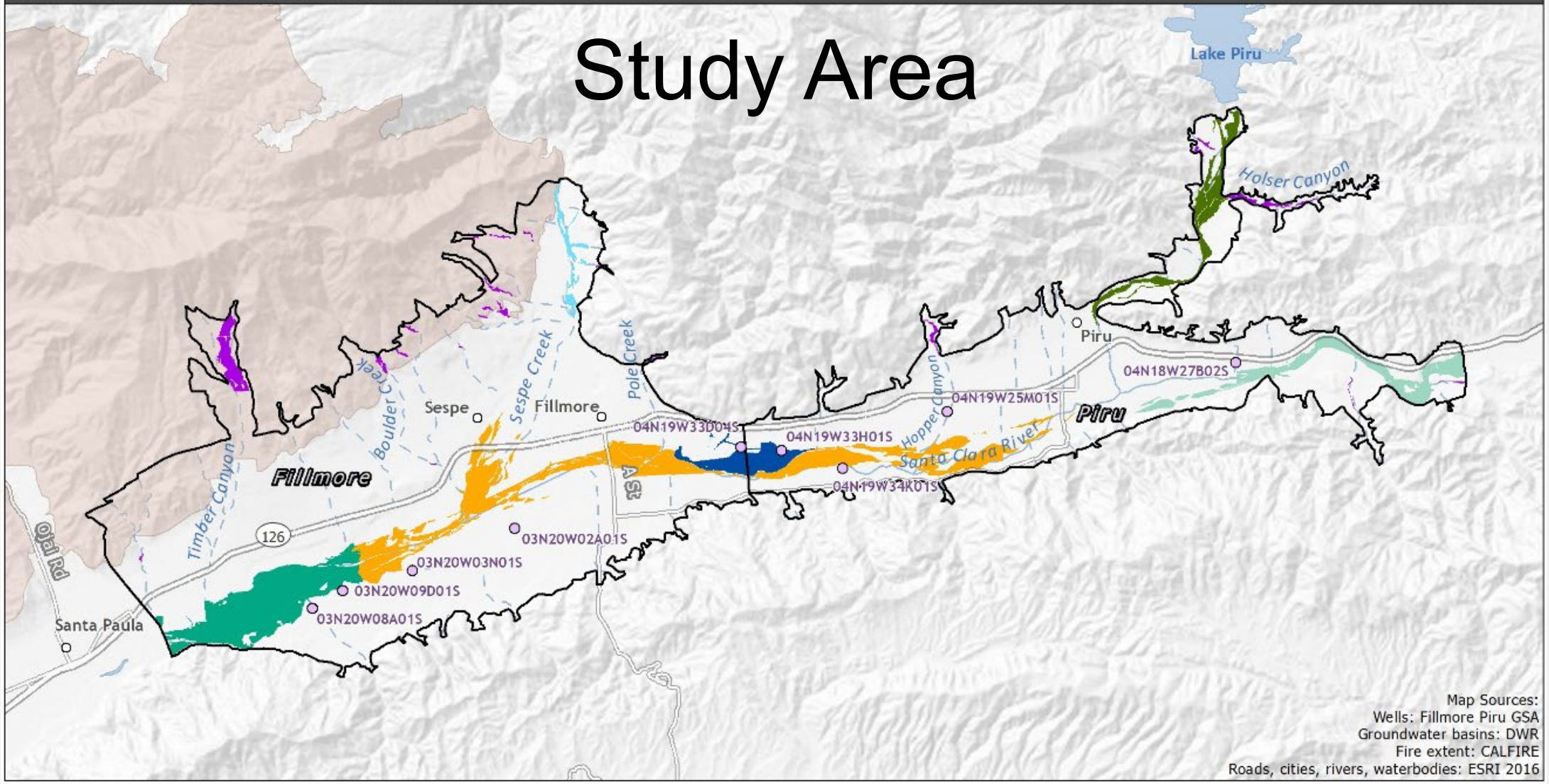
1997 – Federally listed as endangered

2024 – CA Fish and Game Commission voted to list under CESA



Southern California *O. mykiss* life history strategies
Taken from Boughton et al. (2006)

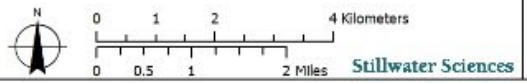
Study Area



Potential GDE Units

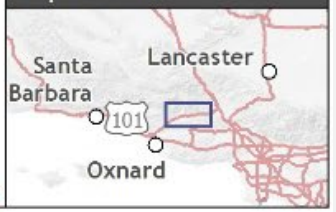
- Cienega
- Del Valle
- East Grove
- Piru Creek Riparian
- Santa Clara River Riparian Shrubland
- Sespe Creek Riparian
- Tributary Riparian

- Groundwater well
- Groundwater basin
- Stream - Perennial
- Stream - Intermittent



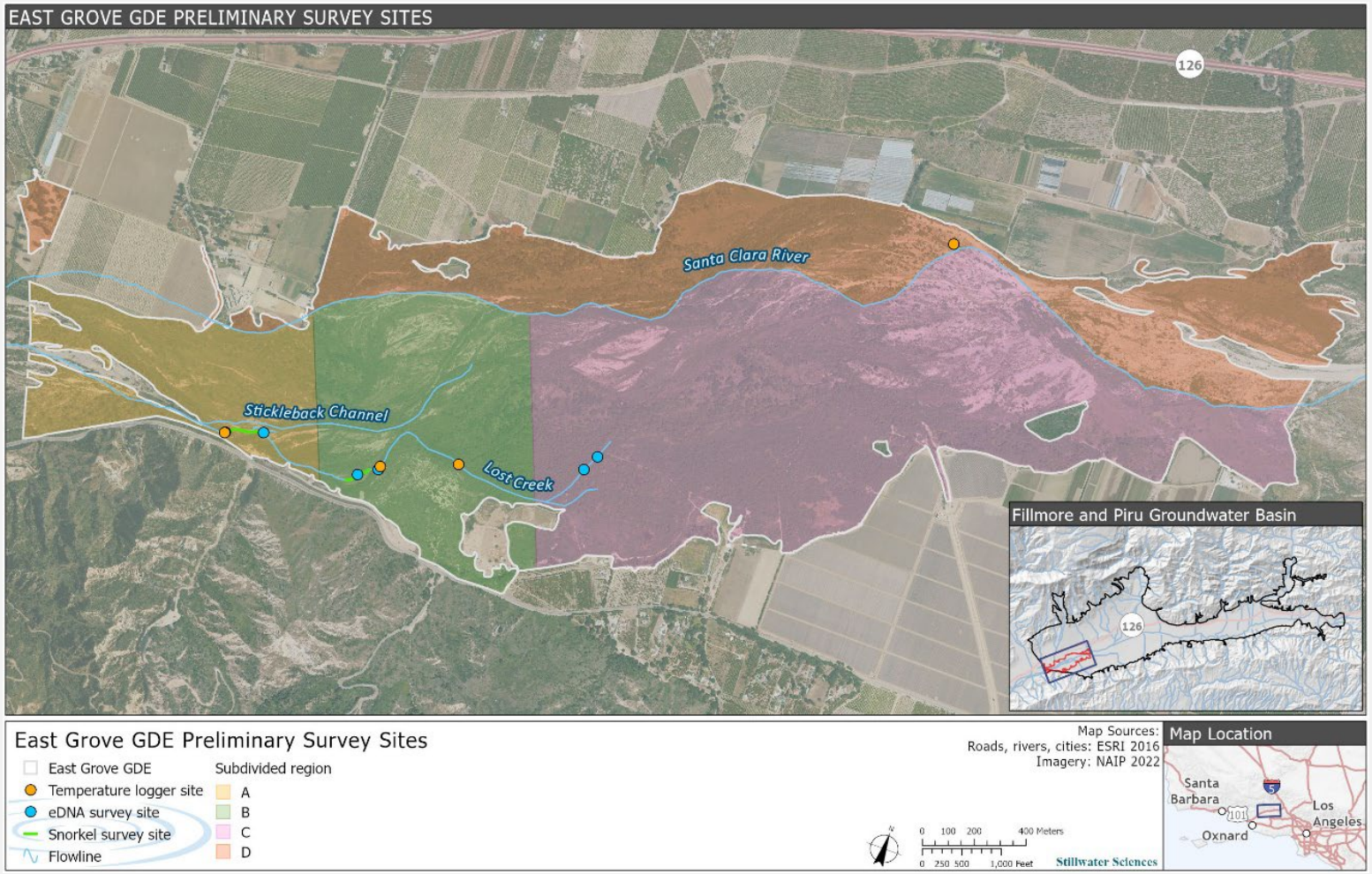
Stillwater Sciences

Map Location



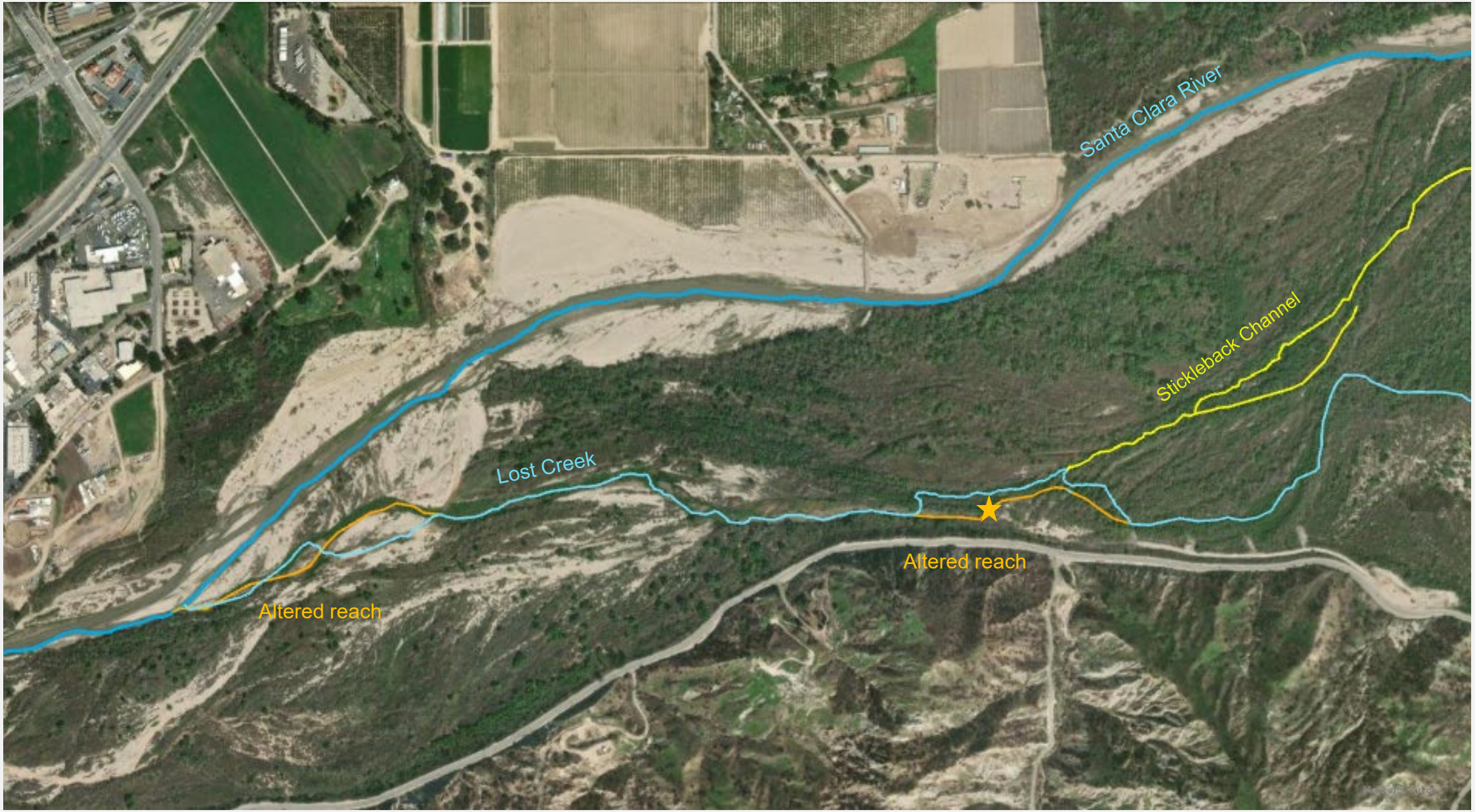
2025 Preliminary Studies

- Extensive thermally suitable aquatic habitat
- Habitat varies by region
- No *O. mykiss* observed/detected, but native sucker/chub observed
- Due to expected interannual variability, additional monitoring recommended



FY 26 Study Plan Objectives

- Perform additional habitat mapping and conduct baseline habitat assessments
- Evaluate different approaches for establishing flow-habitat relationships in Lost Creek
- Continue monitoring water quality
- Develop stage height – flow relationships
- Evaluate critical riffles
- Continued fish population monitoring using snorkel surveys + eDNA


Santa Clara River
Stickleback Channel
Lost Creek
Altered reach
Altered reach


May 1, 2025


April 20, 2026

Habitat Assessment

<u>April-May 2026 Habitat Assessment</u>

Level 2 Habitat Typing

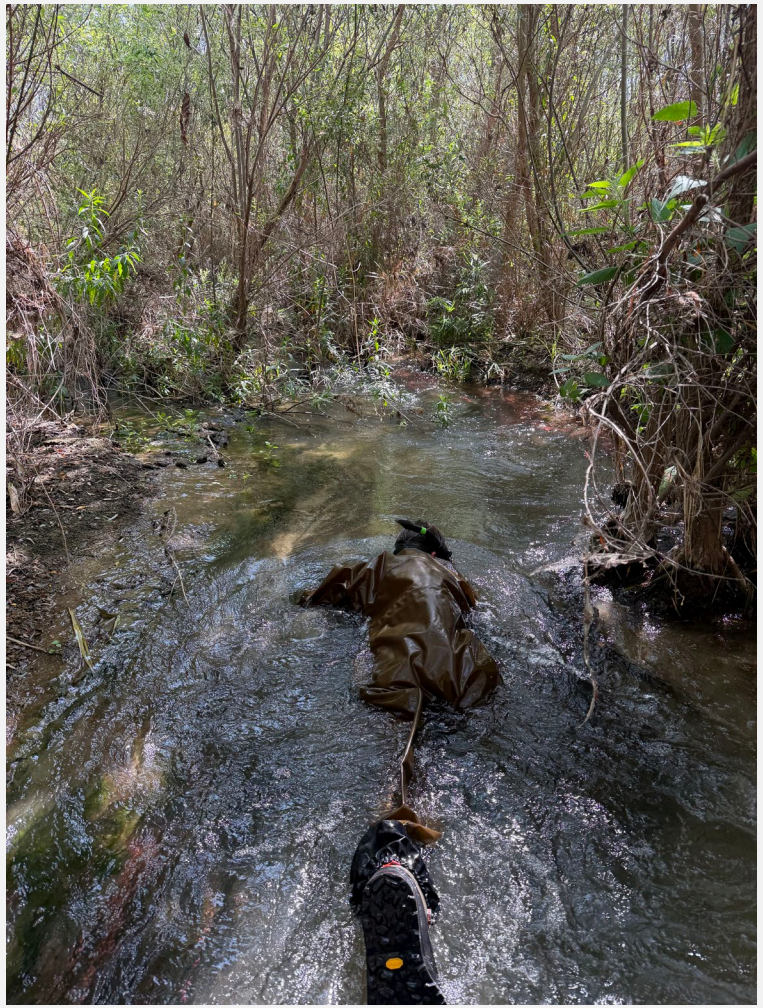
~ 2.1 km of stream surveyed

- 1659m flatwater/run (78% of total)
- 400m riffle (19%)
- 55m pool (2%)

~475m of stream snorkeled in Regions A and B

Habitat Assessment

- Sand/silt dominant
- ~1 ft average depth
- small pockets with depths >2 ft
- Aquatic refugia sparse in Region A



Aquatic Species Monitoring

Environmental DNA

Methods

- Sample dates:

Aug 2024, May 2025, Nov 2025

Apr 2026 (results pending)

- 6-8 sites (2-3 in each region; 1 in SCR)
- 4 -5 stream samples and one negative control per site
- Analyzed via metabarcoding for fish
- Aug 2024 included qPCR for CA red-legged frog and western pond turtle

Common Name	Status
Arroyo chub	Detected
Black bullhead	Detected
Brown bullhead	Detected
Common carp	Detected
Fathead minnow	Detected
Goldfish	Detected
Goldfish and Common carp hybrid	Detected
Green sunfish	Detected
Largemouth bass	Detected
Mosquitofish	Detected
Prickly sculpin	Detected
Sucker species (unconfirmed)	Detected
Threespine stickleback	Detected
O. mykiss	Detected
Pacific lamprey	Not Detected*

Aquatic Species monitoring

Field Observations

- **Western pond turtle observed**
- ***O. mykiss* observed**
- **Juvenile pacific lamprey observed**
- **Reduced abundance of native fish (sucker, chub) observed compared to FY 25**

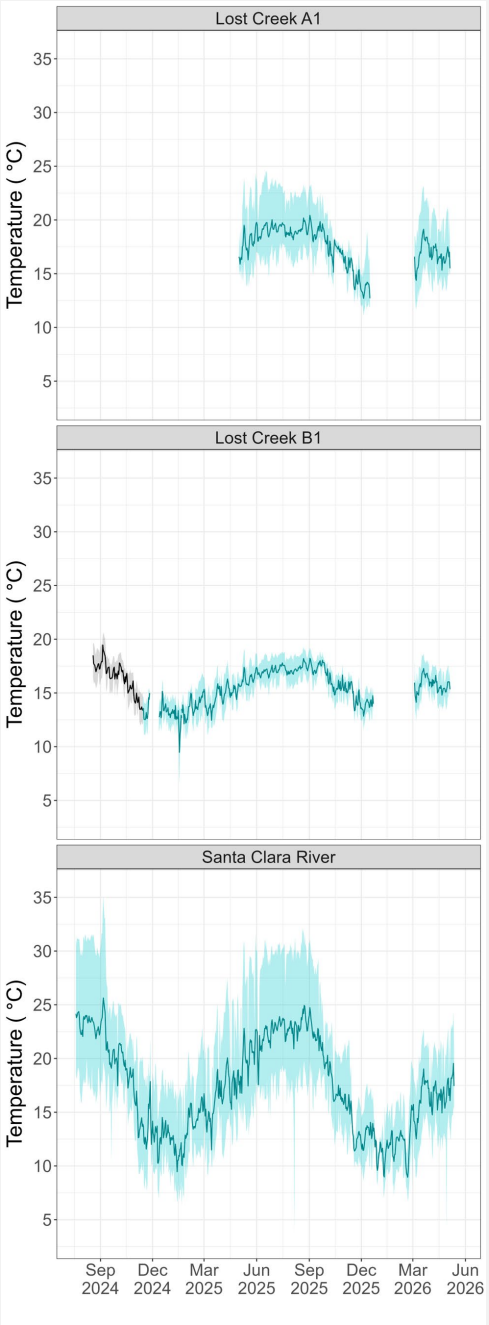
Aquatic Species monitoring

Field Observations

Preliminary Results

Water Quality Monitoring

- **2025 – 2026 correspond to 2024**
- **Lost Creek has suitable thermal conditions**
- **SCR mainstem can be thermally stressful**



Preliminary Results

Stage-Discharge

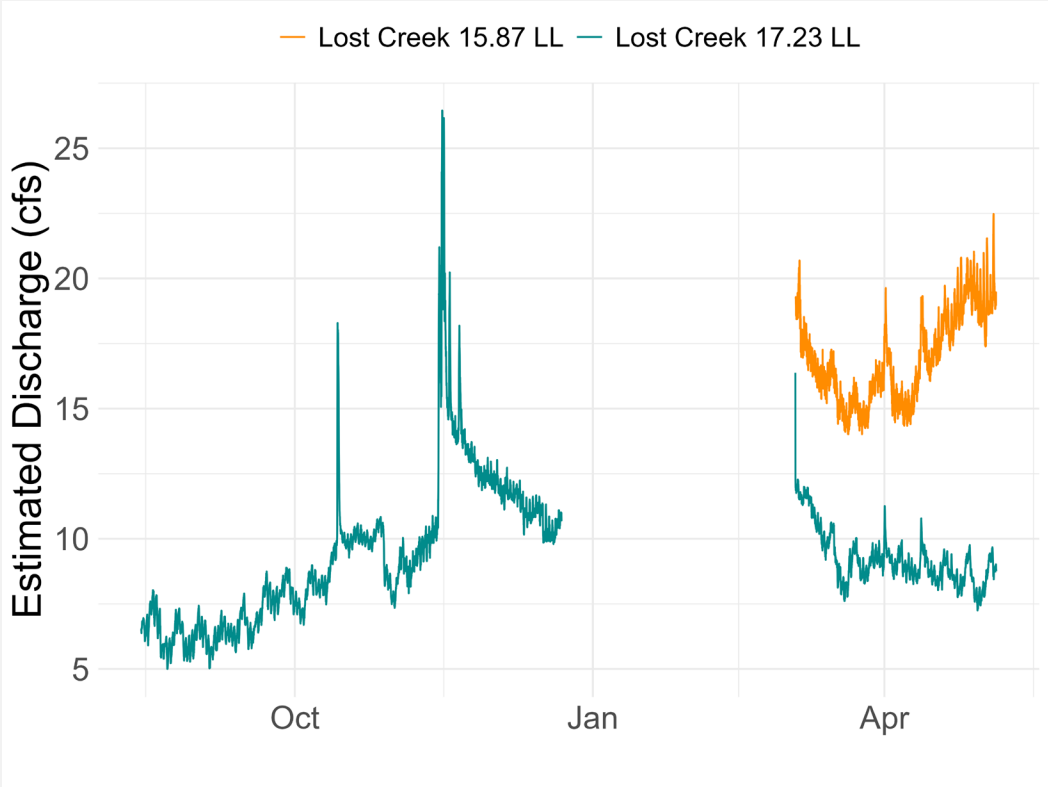
Methods

- Water level logger (pressure transducer)

  Lost Creek (n=2)

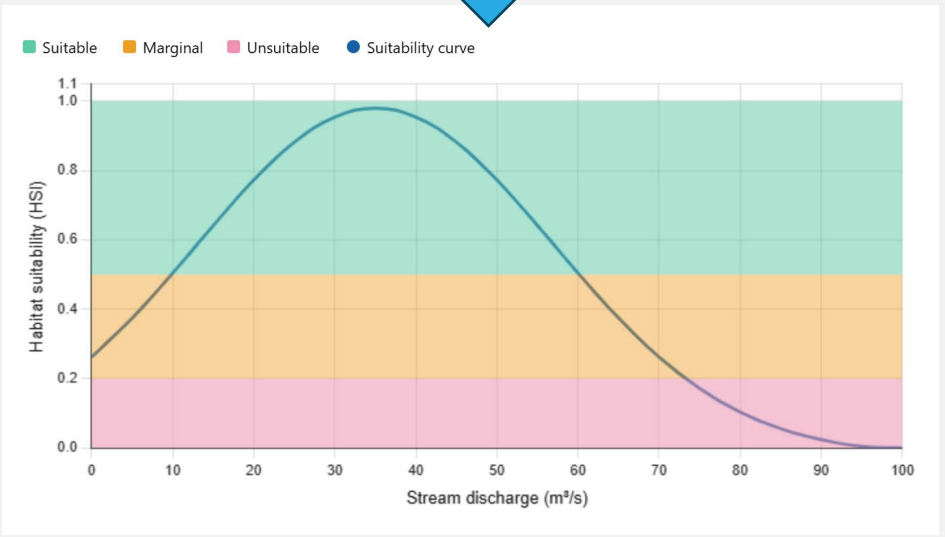
Results

- Muted storm responses
- Clear diurnal pattern
- Challenges with channel stability for reliable rating curves at downstream site



Flow-Habitat Approaches

- California Environmental Flows Framework (CEFF)
- Habitat Criteria Mapping (HCM)
- Instream Flow Incremental Methodology (IFIM) and one-dimensional (1D) physical habitat simulation (PHABSIM) modeling
- Two-dimensional (2D) habitat simulation modeling

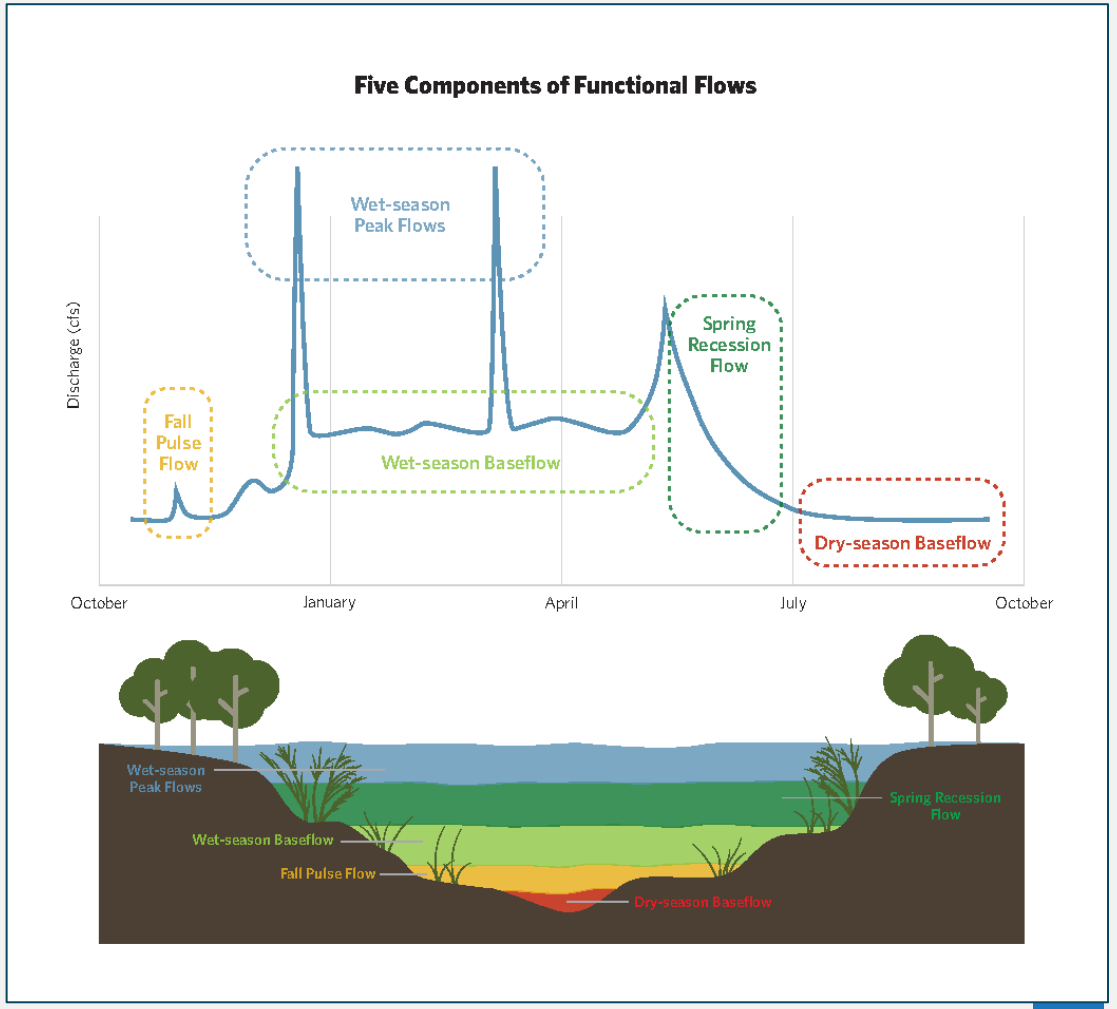


Example of Habitat Suitability Index curve from IFIM/PHABSIM

Flow-Habitat Approaches

California Environmental Flows Framework (CEFF)

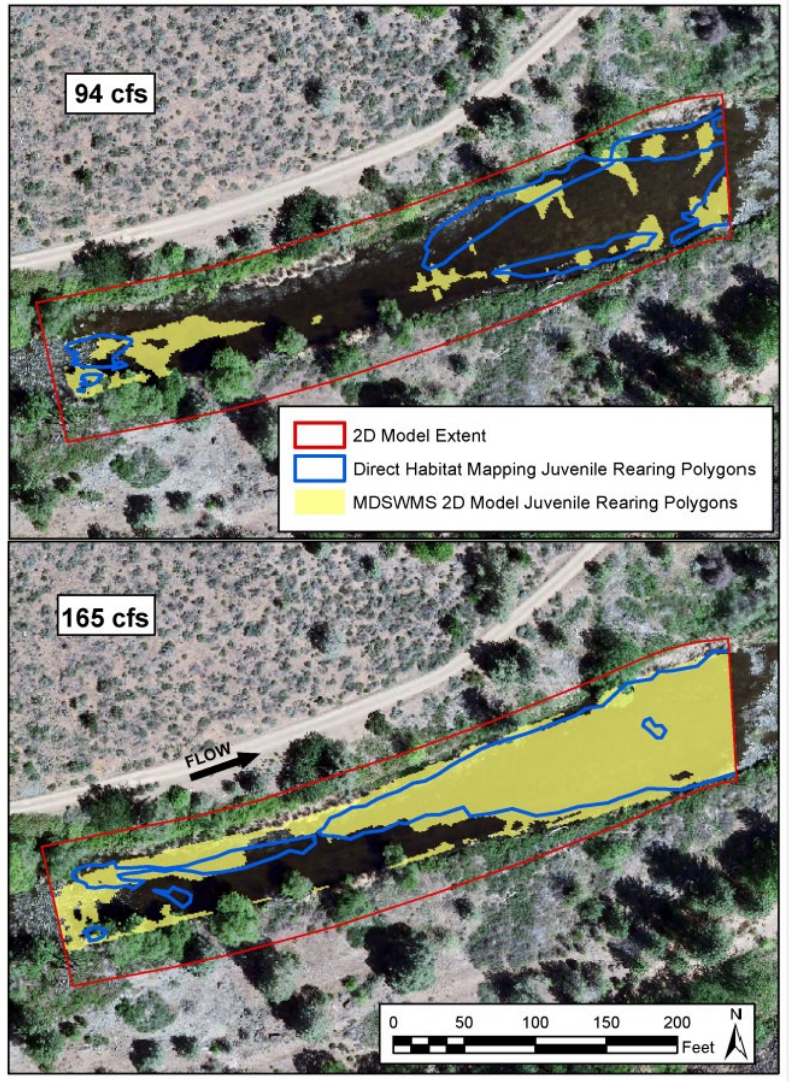
- Functional flows (e.g, dry season baseflows, wet season pulse flows)
- Requirements - unimpaired hydrology or uses regional database
- Benefit – broader ecological focus rather than relying on species-specific habitat approaches
- Limitations
  - Functional flows and unimpaired hydrology not defined for Lost Creek
  - Increased coordination with agencies
  - Likely the most costly



Flow-Habitat Approaches

Habitat Criteria Mapping

- Map habitat under different flow conditions
- Requirements – surveys across different hydrologic conditions (dry vs wet)
- Benefit - More flexible for changes in channel morphology
- Limitations:
  - Species specific
  - Does not predict outside of the range of flows surveyed



FY 26 Conclusions

- We learn a lot about Lost Creek with each season of monitoring
- Confirmed presence of *O. mykiss* and habitat that supports *O. mykiss*
- Drastic changes in channel location and morphology can occur at the lower reaches
- Hydrology within a given year, however, is relatively stable across baseline flows
- Knowledge gaps
    - Dry water year conditions
    - Longer term species patterns
- Long-term approach needed, with habitat mapping being the most suitable approach given site characteristics and available information

Study Plan Components

Water Quantity

- Discharge
- Continuous monitoring (data loggers)

Water Quality

- Temperature
- Continuous monitoring (data loggers)

Aquatic Species Monitoring

- Snorkel surveys (direct observation)
- eDNA

Habitat Mapping

- Surface extent/availability
- Species-specific

Habitat Assessment

- Evaluate several quantitative methods
- Species-specific

Study Plan Components

Water Quantity

- Discharge
- Continuous monitoring (data loggers)

Water Quality

- Temperature & dissolved oxygen
- Continuous monitoring (data loggers)

Aquatic Species Monitoring

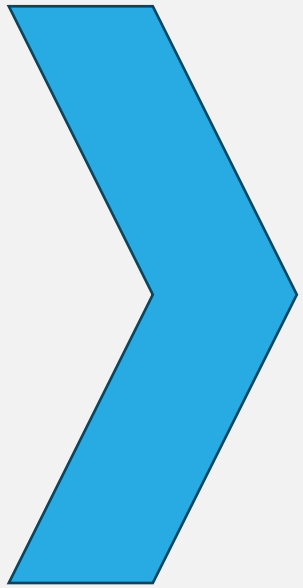
- Snorkel surveys (direct observation)
- eDNA

Habitat Mapping

- Surface extent/availability
- Species-specific

Habitat Assessment

- Evaluate several quantitative methods
- Species-specific



Long-term monitoring

Focused assessment

Thank You!

Stillwater Sciences

Item No. **4D Motion Item**

DATE: **May 14, 2026 (for May 21, 2026, meeting)**

TO: **Board of Directors**

FROM: **Anthony A. Emmert, Executive Director**

SUBJECT: **Domestic Wells Vulnerability**

RECCOMENDATION:

The Board will receive a presentation from Daniel B. Stephens & Associates on the Domestic Wells Investigation and Vulnerability Evaluation and provide comments and directions.

BACKGROUND:

In its February 2025 letter, the California Department of Water Resources (DWR) approved the Agency's Groundwater Sustainability Plans (GSPs) but issued several recommended corrective actions. One of the recommended corrective actions (RCA) was to better quantitatively describe the undesirable results for all well uses going dry to be based on seasonal low groundwater levels to ensure potential impacts to beneficial uses and users are considered. As previously shared with the Board of Directors, there are many wells in the basins where the construction (e.g., well depth, screened interval, etc.) and uses (domestic, agricultural production, monitoring) are unknown.

To address that RCA, the Agency has identified the wells lacking construction details. Typically, these are older wells constructed prior to the requirement for well drillers to document construction information. Over the past year, the Agency has worked with the County of Ventura, the United Water Conservation District, and well owners to investigate the construction information and uses for the domestic wells since they are frequently shallow and therefore more vulnerable to drought-induced impacts. Once all the available information is collected and organized, then the Agency's technical team will analyze the vulnerability of these wells to future droughts using modeling.

Daniel B. Stephens & Associates will provide a status report and on the effort and describe next steps.

FISCAL IMPACT:

None.

ATTACHMENTS

None

Proposed Motion:

Receive presentation, provide directions and recommendation, and file.

1st: Director_____ 2nd Director _____

Voice/Roll call vote:

Director Garnica:	Director Hauss:	Director Jackson:
Director Kimball:	Director Long:	Director Meneghin:

Item No. **4E Motion Item**

DATE: **May 15, 2026 (for May 21, 2026, meeting)**

TO: **Board of Directors**

FROM: **Anthony A. Emmert, Executive Director**

SUBJECT: **Recommended Corrective Actions**

RECCOMENDATION:

The Board will receive a presentation from Daniel B. Stephens & Associates on the California Department of Water Resources' Recommended Corrective Actions on the Agency's Groundwater Sustainability Plans and provide comments and directions.

DISCUSSION:

In its February 2025 letters (see attachments), the California Department of Water Resources (DWR) approved the Agency's Groundwater Sustainability Plans (GSPs) but issued several recommended corrective actions (RCAs) (see attached summary):

- Chronic Lowering of Groundwater Level
  - Quantitative Description of Undesirable Results for Wells Going Dry
  - Quantitative Description of Undesirable Results for Vegetation Die Off
  - Relationship Between MTs for chronic lowering of Groundwater Levels and Other Sustainability Indicators
- Interconnected Surface Waters
  - Description of Undesirable Results of Depletions of Interconnected SW
  - DWR ISW Guidance (When issued)
  - Identify and Fill Data Gaps
  - Improve Understanding of Uses and Users of ISW
- GSP Implementation Costs
  - Cost Estimates for Implementation of Projects and Management Actions
- Aquifer Delineation
  - Aquifer Zone C
    - Justify Exclusion (or)
    - Identify Pumping from Zone C as Data Gap
- Sustainability Goals
  - Better Define Sustainability Goal
  - Explain Better How Agency Achieves it

- Degraded Water Quality
    - Clarify Constituents of Concern
    - Quantitative Descriptions of Significant and Unreasonable Water Quality
    - Description of Criteria Regarding Degraded Water Quality
    - Develop Sampling Plan for Degraded Water Quality
    - Develop Water Quality Table for Degraded Water Quality
- Subsidence
    - Description of Criteria for Undesirable Results for Subsidence
    - Revise Minimum Threshold for Subsidence

The activities included in Agency's Work Plan are intended to address these RCAs.

Daniel B. Stephens & Associates will provide a review of the RCAs and discussion of the Agency's plans to address them.

FISCAL IMPACT:

None.

ATTACHMENTS

Attachment A – DWR Letter on Fillmore Subbasin
Attachment B – DWR Letter on Piru Subbasin
Attachment C – Summary of Recommended Corrective Actions

Proposed Motion:

Receive presentation, provide directions and recommendations, and file.

1st: Director_____ 2nd Director _____

Voice/Roll call vote:

Director Garnica:	Director Hauss:	Director Jackson:
Director Kimball:	Director Long:	Director Meneghin:

CALIFORNIA DEPARTMENT OF WATER RESOURCES
SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE
715 P Street, 8th Floor | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

February 27, 2025

Tony Emmert
Fillmore and Piru Basins GSA - Piru
P.O. Box 1110
Fillmore, CA 93016
tonye@unitedwater.org

RE: Approved Determination of the 2024 Groundwater Sustainability Plan Submitted for the Santa Clara River Valley – Fillmore Subbasin

Dear Tony Emmert,

The Department of Water Resources (Department) has evaluated the 2024 groundwater sustainability plan (GSP) for the Santa Clara River Valley – Fillmore Subbasin in response to the Department's Incomplete Determination on January 18, 2024, and has determined the GSP is approved. The approval is based on recommendations from the Staff Report, included as an exhibit to the attached Statement of Findings, which describes that the Santa Clara River Valley – Fillmore Subbasin GSP has taken sufficient action to correct deficiencies identified by the Department, satisfies the objectives of the Sustainable Groundwater Management Act (SGMA), and substantially complies with the GSP Regulations. The Staff Report also proposes recommended corrective actions that the Department believes will enhance the GSP and facilitate future evaluation by the Department. The Department strongly encourages the recommended corrective actions be given due consideration and suggests incorporating all resulting changes in future updates.

Recognizing SGMA sets a long-term horizon for groundwater sustainability agencies (GSAs) to achieve their basin sustainability goals, monitoring progress is fundamental for successful implementation. GSAs are required to evaluate their GSPs at least every five years and whenever the Plan is amended, and to provide a written assessment to the Department. Accordingly, the Department will evaluate approved GSPs and issue an assessment at least every five years. The GSAs are required to submit their periodic evaluation of the Santa Clara River Valley – Fillmore Subbasin GSP no later than January 26, 2027.

Please contact Sustainable Groundwater Management staff by emailing sgmps@water.ca.gov if you have any questions related to the Department's assessment or implementation of your GSP.

Thank You,

Paul Gosselin

Paul Gosselin
Deputy Director
Sustainable Groundwater Management

Attachment:

1. Statement of Findings Regarding the Determination of Approval of the Santa Clara River Valley – Fillmore Subbasin 2024 Groundwater Sustainability Plan

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

STATEMENT OF FINDINGS REGARDING THE APPROVAL OF THE SANTA CLARA RIVER VALLEY – FILLMORE SUBBASIN 2024 GROUNDWATER SUSTAINABILITY PLAN

Under the Sustainable Groundwater Management Act (SGMA or Act), the Department of Water Resources (Department) is required to evaluate whether a submitted groundwater sustainability plan (GSP or Plan) conforms to specific requirements of the SGMA, is likely to achieve the sustainability goal for the basin covered by the Plan, and whether the Plan adversely affects the ability of an adjacent basin to implement its GSP or impedes achievement of sustainability goals in an adjacent basin.[1] The Department is directed to issue an assessment of the Plan within two years of its submission.[2] If a Plan is determined to be Incomplete, the Department must identify deficiencies that preclude approval of the Plan and identify corrective actions required to make the Plan substantially compliant with SGMA and the GSP Regulations. The Groundwater Sustainability Agency (GSA or Agency) has up to 180 days from the date the Department issues its assessment to make the necessary corrections and submit a revised Plan.[3] When evaluating a revised GSP that was determined to be incomplete, the Department reviews the materials provided by the GSA (e.g., revised or amended GSP) to address the deficiencies by the submission deadline. Part of the Department's review focuses on how the Agency addressed the deficiencies that precluded approval of the Plan. The Department shall find a Plan previously determined to be incomplete to be either:

1. Approved, if the Department determines the Agency has sufficiently addressed those deficiencies, the Department may evaluate other components of the Plan, particularly to assess whether and, if so, how revisions to address deficiencies may have affected other components of a Plan or its likelihood of achieving sustainable groundwater management.

2. Inadequate if, after consultation with the State Water Resources Control Board, the Agency has not taken sufficient action to correct the deficiencies previously identified by the Department.

This Statement of Findings explains the Department's determination regarding the revised Plan for the Santa Clara River Valley – Fillmore Subbasin (Basin No. 4-004.05)

[1] Water Code § 10733.
[2] Water Code § 10733.4.
[3] 23 CCR § 355.2(e)(2).

by the Fillmore and Piru Basins Groundwater Sustainability Agency (GSA or Agency) submitted on July 16, 2024 (referred to as the 2024 GSP or 2024 Plan).

Department management have discussed the 2024 Plan with Department staff and have reviewed the written assessment titled Sustainable Groundwater Management Program Assessment of Incomplete Groundwater Sustainability Plan 2025 Staff Report (Staff Report), attached as Exhibit A, which recommends approval of the 2024 GSP. Department management are satisfied that staff have conducted a thorough evaluation and assessment of the 2024 Plan and concur with staff's recommendations and all the recommended corrective actions. The Department therefore **APPROVES** the 2024 Plan and makes the following findings:

A. On January 26, 2022, the GSA submitted a GSP (referred to as the 2022 GSP or 2022 Plan) for the Department's evaluation.

B. On January 18, 2024, the Department issued a Staff Report (referred to as the 2024 Incomplete Determination) and Findings determining the 2022 GSP to be incomplete because the 2022 GSP did not satisfy the requirements of SGMA, nor did it substantially comply with the GSP Regulations. The Department's 2024 Incomplete Determination identified the following deficiencies that precluded approval and provided the GSA with corrective actions that were intended to address the deficiencies.

    1. Deficiency 1: The 2022 GSP did not establish sustainable management criteria for chronic lowering of groundwater levels in a manner substantially complaint with the GSP regulations.

    2. Deficiency 2: The 2022 GSP did not set sustainable management criteria for depletions of interconnected surface water.

    The Department provided the Agency with 180 days to address the deficiencies.[4]

C. On July 16, 2024, the GSA submitted a revised Plan (the 2024 GSP) to the Department. After staff's thorough evaluation of the 2024 Plan, the Department finds:

    1. The Agency has taken sufficient actions to correct Deficiency 1, such that, at this time, the Department no longer finds this deficiency to preclude approval. The 2024 GSP has sufficiently identified the impacts to beneficial uses and users that would occur at an undesirable condition through a well impacts analysis and has revised sustainable management criteria to identify the undesirable conditions that reflect the identified impacts. The 2024 GSP also includes an additional project to further

[4] 23 CCR § 355.2(e)(2).

assess groundwater well drought vulnerability and potentially develop a drought mitigation plan.

2. The Agency has taken sufficient actions to correct Deficiency 2, such that, at this time, the Department no longer finds this deficiency to preclude approval. The 2024 GSP has set preliminary sustainable management criteria and planned to fill major data gaps related to surface water-groundwater interconnection and beneficial uses and users of interconnected surface waters.

The 2024 Plan satisfies the required conditions as outlined in § 355.4(a) of the GSP Regulations[5]:

1. The Plan was complete, meaning it generally appeared to include the information required by the Act and the GSP Regulations sufficient to warrant a thorough evaluation and issuance of an assessment by the Department.[6]

2. The Plan, either on its own or in coordination with other Plans, appears to cover the entire Basin sufficient to warrant a thorough evaluation.[7]

D. The general standards the Department applied in its evaluation and assessment of the Plan are: (1) "conformance" with the specified statutory requirements, (2) "substantial compliance" with the GSP Regulations, (3) whether the Plan is likely to achieve the sustainability goal for the Subbasin within 20 years of the implementation of the Plan, and (4) whether the Plan adversely affects the ability of an adjacent basin to implement its GSP or impedes achievement of sustainability goals in an adjacent basin.[8] Application of these standards requires exercise of the Department's expertise, judgment, and discretion when making its determination of whether a Plan should be deemed "approved," "incomplete," or "inadequate."

The statutes and GSP Regulations require Plans to include and address a multitude and wide range of informational and technical components. The Department has observed a diverse array of approaches to addressing these technical and informational components being used by GSAs in different basins throughout the state. The Department does not apply a set formula or criterion that would require a particular outcome based on how a Plan addresses any one of SGMA's numerous informational and technical components. The Department finds that affording flexibility and discretion to local GSAs is consistent with the

[5] 23 CCR § 350 et seq.
[6] 23 CCR § 355.4(a)(2).
[7] 23 CCR § 355.4(a)(3).
[8] Water Code § 10733.

standards identified above; the state policy that sustainable groundwater management is best achieved locally through the development, implementation, and updating of local plans and programs[9]; and the Legislature's express intent under SGMA that groundwater basins be managed through the actions of local governmental agencies to the greatest extent feasible, while minimizing state intervention to only when necessary to ensure that local agencies manage groundwater in a sustainable manner.[10] The Department's final determination is made based on the entirety of the Plan's contents on a case-by-case basis, considering and weighing factors relevant to the particular Plan and basin under review.

E. In making these findings and Plan determination, the Department also recognized that: (1) the Department maintains continuing oversight and jurisdiction to ensure the Plan is adequately implemented; (2) the Legislature intended SGMA to be implemented over many years; (3) SGMA provides Plans 20 years of implementation to achieve the sustainability goal in a basin (with the possibility that the Department may grant GSAs an additional five years upon request if the GSA has made satisfactory progress toward sustainability); and, (4) local agencies acting as GSAs are authorized, but not required, to address undesirable results that occurred prior to enactment of SGMA.[11]

F. The Plan conforms with Water Code §§ 10727.2 and 10727.4, substantially complies with 23 CCR § 355.4, and appears likely to achieve the sustainability goal for the Subbasin. It does not appear at this time that the Plan will adversely affect the ability of adjacent basins to implement their GSPs or impede achievement of sustainability goals.

    1. The sustainable management criteria and the Plan's goal of avoiding the undesirable results of affecting the ability to pump from production wells or groundwater dependent ecosystem (GDE) vegetation die-off are sufficiently justified and explained. The Plan relies on credible information and science to analyze potential impacts to groundwater wells and GDEs from lowering groundwater levels and quantify the groundwater conditions that the Plan seeks to avoid and provides an objective way to determine whether the Subbasin is being managed sustainably in accordance with SGMA.[12]

    2. The Plan has identified reasonable measures and schedule to fill data gaps related to surface water-groundwater interconnection and beneficial uses

[9] Water Code § 113.
[10] Water Code § 10720.1(h).
[11] Water Code §§ 10721(r); 10727.2(b); 10733(a); 10733.8.
[12] 23 CCR § 355.4(b)(1).

and users of interconnected surface water, which may lead to refinement of sustainable management criteria and monitoring networks.[13]

3. The projects and management actions proposed are designed to improve monitoring, address data gaps, plan for drought mitigation, and provide supplemental water. The projects and management actions are reasonable and commensurate with the level of understanding of the Subbasin setting. The projects and management actions described in the Plan provide a feasible approach to achieving the Subbasin's sustainability goal and should provide the GSA with greater versatility to adapt and respond to changing conditions and future challenges during GSP implementation.[14]

4. The Plan provides a detailed explanation of how the varied interests of groundwater uses and users in the Subbasin were considered in developing the sustainable management criteria and how those interests, including domestic, municipal, agricultural, and industrial groundwater wells and groundwater dependent ecosystems, would be impacted by the chosen minimum thresholds.[15]

5. The Plan's projects and management actions appear feasible at this time and capable of preventing undesirable results and ensuring that the Subbasin is operated within its sustainable yield within 20 years. The Department will continue to monitor Plan implementation and reserves the right to change its determination if projects and management actions are not implemented or appear unlikely to prevent undesirable results or achieve sustainability within SGMA timeframes.[16]

6. The Plan includes a reasonable assessment of overdraft conditions and includes reasonable means to mitigate overdraft, if present.[17]

7. At this time, it does not appear that the Plan will adversely affect the ability of an adjacent basin to implement its GSP or impede achievement of sustainability goals in an adjacent basin. The Fillmore Subbasin and its adjacent Piru Subbasin are managed by the same GSA and have their sustainable management criteria established using similar methods and in coordination across the two subbasins.[18]

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[13] 23 CCR § 355.4(b)(2).
[14] 23 CCR § 355.4(b)(3).
[15] 23 CCR § 355.4(b)(4).
[16] 23 CCR § 355.4(b)(5).
[17] 23 CCR § 355.4(b)(6).
[18] 23 CCR § 355.4(b)(7).

8. Because a single plan was submitted for the Subbasin, a coordination agreement was not required.[19]

9. The GSA's three member agencies, the City of Fillmore, County of Ventura, and United Water Conservation District, have historically implemented surface water and groundwater monitoring and management programs in the Subbasin, including the conjunctive use programs for groundwater replenishment purposes. The GSA's member agencies and their history of groundwater management provide a reasonable level of confidence that the GSA has the legal authority and financial resources necessary to implement the Plan.[20]

10. Through review of the Plan and consideration of public comments, the Department determines that the GSA adequately responded to comments that raised credible technical or policy issues with the Plan, sufficient to warrant approval of the Plan at this time. The Department has also provided recommended corrective actions in the Staff Report which are important in addressing certain technical or policy issues that were raised. Failure to address these recommended corrective actions before future, subsequent plan evaluations may preclude approval of the Plan in those future evaluations.[21]

G. In addition to the grounds listed above, DWR also finds that:

1. The Department developed its GSP Regulations consistent with and intending to further the State's human right to water policy through implementation of SGMA and the Regulations, primarily by achieving sustainable groundwater management in a basin. By ensuring substantial compliance with the GSP Regulations, the Department has considered the state policy regarding the human right to water in its evaluation of the Plan.[22]

2. The Plan acknowledges and identifies interconnected surface waters within the Subbasin. The GSA proposes initial sustainable management criteria to manage this sustainability indicator and measures to improve understanding and management of interconnected surface water. The GSA acknowledges, and the Department agrees, many data gaps related to interconnected surface water exist. The GSA should continue filling data gaps, collecting additional monitoring data, and coordinating with resources agencies and interested parties to understand beneficial uses and users that may be impacted by depletions of interconnected surface water caused

[19] 23 CCR § 355.4(b)(8).
[20] 23 CCR § 355.4(b)(9).
[21] 23 CCR § 355.4(b)(10).
[22] Water Code § 106.3; 23 CCR § 350.4(g).

by groundwater pumping. Future periodic evaluations of the Plan and amendments to the Plan should aim to improve the initial sustainable management criteria as more information and improved methodology become available.

3. The basin is not currently in a state of long-term overdraft and projections of future basin extractions are likely to stay within current and historic ranges, at least until the next periodic evaluation by the GSA and the Department. Projections of future basin extractions appear likely to stay within current and historic ranges, at least until the next periodic evaluation by the GSA and the Department. Subbasin groundwater levels and other SGMA sustainability indicators appear unlikely to substantially deteriorate while the GSA implements the Department's recommended corrective actions.
4. The California Environmental Quality Act[23] does not apply to the Department's evaluation and assessment of the Plan.

[23] Public Resources Code § 21000 *et seq*.

Accordingly, the 2024 GSP submitted by the Agency for the Santa Clara River Valley – Fillmore Subbasin is hereby **APPROVED**. The recommended corrective actions identified in the Staff Report will assist the Department's future review of the Plan's implementation for consistency with SGMA and the Department therefore recommends the Agency address them in the next Periodic Evaluation, which is set to be submitted by January 26, 2027, as required by Water Code § 10733.8. Failure to address the Department's recommended corrective actions before future, subsequent plan evaluations, may lead to a Plan being determined incomplete or inadequate.

Signed:

Karla Nemeth

Karla Nemeth, Director
Date: February 27, 2025

Exhibit A: Groundwater Sustainability Plan Assessment Staff Report – Santa Clara River Valley – Fillmore Subbasin

State of California
Department of Water Resources
Sustainable Groundwater Management Program
Reassessment of Incomplete
Groundwater Sustainability Plan
2025 Staff Report

Groundwater Basin Name:	Santa Clara River Valley – Fillmore Subbasin (No. 4-004.05)
Submitting Agency:	Fillmore and Piru Basins Groundwater Sustainability Agency – Fillmore
Submittal Type:	Revised Plan in Response to Incomplete Determination
Submittal Date:	July 16, 2024
Recommendation:	Approve
Date:	February 27, 2025

On July 16, 2024, the Fillmore and Piru Basins Groundwater Sustainability Agency (GSA or Agency) – Fillmore resubmitted the Fillmore Subbasin Groundwater Sustainability Plan (2024 GSP or 2024 Plan) for the Fillmore Subbasin (Subbasin) to the Department of Water Resources (Department or DWR) for evaluation and assessment as required by the Sustainable Groundwater Management Act (SGMA)[1] and GSP Regulations.[2] This was in response to the Department's Incomplete Determination of the initial GSP (2022 GSP or 2022 Plan) on January 18, 2024.[3]

After evaluation and assessment, Department staff conclude the GSA has taken sufficient actions to correct deficiencies identified by the Department; however, Department staff have provided additional recommended corrective actions which will be required to be addressed by the Plan's periodic evaluation.

Overall, Department staff believe the 2024 Plan contains the required components of a GSP, demonstrates a thorough understanding of the Subbasin based on what appears to be the best available science and information, sets well explained, supported, and reasonable sustainable management criteria to prevent undesirable results as defined in the 2024 Plan, and proposes a set of projects and management actions that, if successfully implemented, are likely to achieve the sustainability goal defined for the Subbasin.[4] Department staff will continue to monitor and evaluate the Subbasin's

[1] Water Code § 10720 *et seq*.
[2] 23 CCR § 350 *et seq*.
[3] Water Code § 10733.4(b); 23 CCR § 355.4(a)(4); https://sgma.water.ca.gov/portal/gsp/assessments/73.
[4] 23 CCR § 354.24.

progress toward achieving the sustainability goal through annual reporting and future periodic evaluations of the 2024 GSP and its implementation.

- ***Based on the evaluation of the 2024 Plan, Department staff recommend the Plan be approved.***

This assessment includes six sections:

- **Section 1 – Summary:** Overview of the Department Staff's assessment and recommendation.
- **Section 2 – Evaluation Criteria:** Describes the legislative requirements and the Department's evaluation criteria.
- **Section 3 – Required Conditions:** Describes the submission requirements of an incomplete resubmittal to be evaluated by the Department.
- **Section 4 – Deficiency Evaluation:** Provides an assessment of whether and how the contents included in the 2024 GSP resubmittal addressed the deficiencies identified by the Department in the initial incomplete determination.
- **Section 5 – Plan Evaluation:** Provides a detailed assessment of the contents included in the 2024 GSP organized by each Subarticle outlined in the GSP Regulations.
- **Section 6 – Staff Recommendation:** Includes the staff recommendation for the 2024 Plan.

1 SUMMARY

Department staff recommend **approval** of the 2024 Fillmore Subbasin GSP and have identified recommended corrective actions designed to address shortcomings of the 2024 Plan described in this Staff Report. In Section 4 of this report, Department staff reviewed how the 2022 Plan was updated in the 2024 Plan by comparing content from each plan in order to determine if sufficient action was taken in response to deficiencies identified in the 2022 Plan. In Section 5, Department staff reviewed content in the GSP for its substantial compliance with GSP Regulations, and have provided recommended corrective actions for components of the plan that need improvement to support substantial compliance with GSP Regulations and for Subbasin sustainability.

The GSA has identified areas for improvement of its 2024 Plan (e.g., addressing data gaps related to groundwater levels in groundwater dependent ecosystem areas, interconnected surface water, and well construction information). Department staff concur that those items are important and recommend the GSA address them as soon as possible. Department staff have also identified additional recommended corrective actions that the GSA should consider for the first periodic evaluation of the 2024 Plan (see Section 6). Addressing these recommended corrective actions will be important to demonstrate, on an ongoing basis, that implementation of the 2024 Plan is likely to achieve the sustainability goal. The recommended corrective actions generally focus on the following:

1. Providing additional clarifying information for the sustainability goal.
2. Updating the understanding of principal aquifers in the hydrogeologic conceptual model.
3. Providing additional information or necessary modifications related to sustainable management criteria for chronic lowering of groundwater levels, degraded water quality, and land subsidence.
4. Estimating the quantity and timing of depletions of interconnected surface water systems. Updating sustainable management criteria for interconnected surface water.
5. Continuing to fill data gaps, collecting additional monitoring data, coordinating with resources agencies and interested parties to understand beneficial uses and users that may be impacted by depletions of interconnected surface water caused by groundwater pumping, and potentially refine sustainable management criteria.

2 EVALUATION CRITERIA

The Department evaluates whether a Plan conforms to the statutory requirements of SGMA[5] and is likely to achieve the basin's sustainability goal,[6] whether evaluating a basin's first Plan,[7] a Plan previously determined incomplete,[8] an amended Plan,[9] or a GSA's periodic evaluation to an approved Plan.[10] To achieve the sustainability goal, each version of the Plan must demonstrate that implementation will lead to sustainable groundwater management, which means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.[11] The Department is also required to evaluate, on an ongoing basis, whether the Plan will adversely affect the ability of an adjacent basin to implement its groundwater sustainability program or achieve its sustainability goal.[12]

The Plan evaluated in this Staff Report was previously determined to be incomplete. An incomplete Plan is one which had one or more deficiencies that precluded its initial approval, may not have had supporting information that was sufficiently detailed or analyses that were sufficiently thorough and reasonable, or Department staff determined it was unlikely the GSAs in the basin could achieve the sustainability goal. After a GSA has been afforded up to 180 days to address the deficiencies and based on the GSA's efforts, the Department can either approve[13] the Plan or determine the Plan inadequate.[14]

The Department's evaluation and assessment of a Plan previously determined to be incomplete, as presented in this Staff Report, continues to follow Article 6 of the GSP Regulations[15] to determine whether the Plan, with revisions or additions prepared by the GSA, complies with SGMA and substantially complies with the GSP Regulations.[16] As stated in the GSP Regulations, "substantial compliance means that the supporting information is sufficiently detailed and the analyses sufficiently thorough and reasonable, in the judgment of the Department, to evaluate the Plan, and the Department determines that any discrepancy would not materially affect the ability of the Agency to achieve the sustainability goal for the basin, or the ability of the Department to evaluate the likelihood of the Plan to attain that goal."[17]

[5] Water Code §§ 10727.2, 10727.4, 10727.6.
[6] Water Code § 10733; 23 CCR § 354.24.
[7] Water Code § 10720.7.
[8] 23 CCR § 355.2(e)(2).
[9] 23 CCR § 355.10.
[10] 23 CCR § 355.6.
[11] Water Code § 10721(v).
[12] Water Code § 10733(c).
[13] 23 CCR §§ 355.2(e)(1).
[14] 23 CCR §§ 355.2(e)(3).
[15] 23 CCR § 355 *et seq*.
[16] 23 CCR § 350 *et seq*.
[17] 23 CCR § 355.4(b).

The recommendation to approve a Plan previously determined to be incomplete does not signify that Department staff, were they to exercise the professional judgment required to develop a Plan for the basin, would make the same assumptions and interpretations as those contained in the revised Plan, but simply that Department staff have determined that the modified assumptions and interpretations relied upon by the submitting GSA(s) are supported by adequate, credible evidence, and are scientifically reasonable. The assessment of a Plan previously determined to be incomplete may involve the review of new information presented by the GSA(s), including models and assumptions, and an evaluation of that information based on scientific reasonableness. In conducting its assessment, Department staff does not recalculate or reevaluate technical information or perform its own geologic or engineering analysis of that information.

The recommendation to not approve a Plan previously determined to be incomplete and instead determine it to be inadequate signifies that the resubmitted Plan contains significant deficiencies based on one or more of the criteria identified in 23 CCR § 355.4(b), or the GSA(s) in the basin have not taken sufficient actions to correct the deficiencies previously identified by the Department when it found the Plan incomplete. The Department engages in consultation with the State Water Resources Control Board before finding a Plan inadequate. A Plan determined to be inadequate is subject to the state intervention provisions contained in Chapter 11 of SGMA.[18]

[18] Water Code § 10735 *et seq*.

3 REQUIRED CONDITIONS

For a Plan that the Department previously determined to be incomplete, the Department provided required corrective actions that address minor or potentially significant deficiencies that the Department identified in the initially submitted Plan. The GSA(s) in a basin, whether developing a single GSP covering the basin or multiple GSPs, must attempt to sufficiently address those required corrective actions within the time provided, not to exceed 180 days, for the Plan to be reevaluated by the Department and potentially approved.

3.1 INCOMPLETE RESUBMITTAL

GSP Regulations specify that the Department shall evaluate a resubmitted GSP in which the GSA has taken corrective actions within 180 days from the date the Department issued an incomplete determination to address deficiencies.[19]

The Department issued the incomplete determination on January 18, 2024. The GSA resubmitted the GSP to the Department on July 16, 2024, in compliance with the 180-day deadline.

The GSAs have provided a redline/strikeout version of the resubmitted GSP. The redline/strikeout version highlights the changes made from the initial 2022 submission to the 2024 submission.[20]

[19] 23 CCR § 355.4(a)(4).
[20] https://sgma.water.ca.gov/portal/service/gspdocument/download/10249.

4 DEFICIENCY EVALUATION

As stated in Section 355.4 of the GSP Regulations, a basin "shall be sustainably managed within 20 years of the applicable statutory deadline consistent with the objectives of the Act." The Department's assessment is based on a number of related factors including whether the elements of a GSP were developed in the manner required by the GSP Regulations, whether the GSP was developed using appropriate data and methodologies and whether its conclusions are scientifically reasonable, and whether the GSP, through the implementation of clearly defined and technically feasible projects and management actions, is likely to achieve a tenable sustainability goal for the basin.

In its initial incomplete determination, the Department identified deficiencies in the Plan which precluded the Plan's approval on January 18, 2024.[21] The GSA was given 180 days to take corrective actions to remedy the identified deficiencies. Consistent with the GSP Regulations, Department staff are providing an evaluation of the resubmitted Plan to determine if the GSAs have taken sufficient actions to correct the deficiencies identified in the 2022 Plan. For each deficiency, the corrective actions are repeated, the 2022 Plan content is summarized, the 2024 Plan is then described, followed by Department staff's evaluation.

4.1 DEFICIENCY 1. THE GSP DOES NOT ESTABLISH SUSTAINABLE MANAGEMENT CRITERIA FOR CHRONIC LOWERING OF GROUNDWATER LEVELS IN A MANNER SUBSTANTIALLY COMPLIANT WITH THE GSP REGULATIONS.

4.1.1 Corrective Action 1

The GSA should modify its sustainable management criteria and must provide a more detailed explanation and justification regarding the selection of the sustainable management criteria for groundwater levels, particularly the undesirable results and minimum thresholds, and the effects of those criteria on the interests of beneficial uses and users of groundwater. The minimum thresholds should indicate a depletion of supply at a given location that may lead to undesirable results. Department staff recommend the GSA consider and address the following:

a) The GSA should revise the GSP to sufficiently and clearly explain the undesirable results that the GSA aims to avoid. The GSA should sufficiently and clearly explain what it considers to be a significant and unreasonable level of impact, such as a number or percentage of wells going dry. In support of the explanation, the GSP should clearly discuss and disclose the potential effects on uses and users of drinking water wells and all other beneficial uses and users of groundwater in the Subbasin.

[21] https://sgma.water.ca.gov/portal/service/gspdocument/download/10010.

b) The GSA should revise the minimum thresholds and must explain how the minimum threshold groundwater levels are consistent with avoiding undesirable results the GSA aims to avoid. If, for example, the GSA seeks to avoid domestic wells going dry, the GSP should explain how the minimum threshold at each representative well will avoid impact to nearby domestic and other production wells. The GSP should also explain how the Agency has determined that basin conditions at minimum threshold water level conditions will avoid undesirable results for other sustainability indicators.

c) Provide an evaluation of how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests. Identify the number and location of wells that may be negatively affected when minimum thresholds are reached. Compare well infrastructure for all well types in the Subbasin with minimum thresholds at nearby, suitably representative, monitoring sites. Document all assumptions and steps clearly so that it will be understood by readers of the GSP. Include maps of potentially affected well locations, identify the number of potentially affected wells by well type, and provide a supporting discussion of the effects.

4.1.2 Evaluation of Resubmitted Plan

4.1.2.1 Corrective Action 1a – Assessment of Undesirable Results and Potential Effects
The Department's Incomplete Determination directed the GSA that the 2022 Plan did not specify the number of wells going dry or the groundwater level declines which would be considered significant and unreasonable and, therefore, lacked sufficient description of the undesirable results that the GSA aims to avoid.

In response to this corrective action, the GSA evaluated the potential effects of lowering groundwater levels on various well types (i.e., agricultural, domestic, municipal, industrial, monitoring, wells of unknown use, and cathodic protection wells) and riparian vegetation to redefine the significant and unreasonable condition.[22] For well infrastructure, the GSA identified four impact status categories for wells with known screen elevations: "not impacted", "impacted", "severely impacted", and "dry". These categories are based on projected water levels in relation to known screen intervals. The GSA then conducted a well impact analysis, using the water table surface of average water year 2011 groundwater elevations—considered the "basin full" condition—and three projected scenarios of water level declines: 50-foot, 75-foot, and 100-foot elevation declines from the 2011 surface. Based on results of this analysis, the GSA decided that the 75-foot and 100-foot decline scenarios resulted in too many severely impacted and dry wells in the Subbasin, whereas the 50-foot decline scenario led to a reasonable number of wells being impacted.[23] Specifically, it is estimated that a decline of 50 feet from the 2011 "basin full"

[22] 2024 Fillmore GSP, Section 3.2.3.1, p. 115; Appendix J – Section 3.3.1, pp. 1518-1522.
[23] 2024 Fillmore GSP, Appendix J Section 3.3.1.1.1, pp. 1515-1516.

average would cause 1 agricultural irrigation well, 3 domestic wells, and 1 well of unknown use to go dry.[24] Department staff consider the analysis to be thorough and well-detailed because it utilizes best available groundwater level and well construction information, produces detailed impact status that are well conceptualized, and captures impacts from varied levels of groundwater supply depletions across the Subbasin. Additional details regarding the well impact analysis are discussed in Section 4.1.2.3.

The Plan defines the quantitative criteria of when and where undesirable results for productive wells occur as when water levels drop below minimum thresholds in 3 (out of 11) representative monitoring sites.[25] The Plan's well impact analysis shows that only about 2 percent (5 out of 269) of production wells (i.e., agricultural, domestic, industrial, municipal, and wells of unknown use) are projected to go dry when minimum thresholds are reached in all representative monitoring sites across the Subbasin (i.e., when 11 out of 11 production well representative monitoring sites reach minimum thresholds).[26] The well impact analysis also shows that these dry wells are scattered in the eastern, central, and western portions of the Subbasin, instead of clustered together.[27] The quantitative criteria suggest an even smaller percentage (i.e., less than 2 percent) of production wells going dry when the GSA determines that undesirable results are occurring in the Subbasin. In other words, the quantitative criteria support the 2024 GSP's aim to "protect" the "ability to pump groundwater"[28] by incurring an undesirable result determination when the number of impacted wells is still less than what is considered as "reasonable" by the GSA[29]. Overall, Department staff believe that the GSA's quantitative criteria of groundwater level undesirable results for production wells appear to be reasonable.

However, Department staff note that the GSA does not specify the timing of groundwater level data collection when defining the quantitative criteria.[30] The 2024 GSP states in the monitoring network section that "biannual data is needed to assess seasonal groundwater level trends for evaluation of GSP implementation" and that "as tight (short) a monitoring event time window as reasonably possible will be scheduled around the middle of October and March of each year."[31] It is unclear to Department staff how the groundwater level data will be used to determine the occurrence of undesirable results, whether biannually with either spring or fall data, annually using the averages of spring and fall data, or annually using both spring and fall data. Because water levels are generally lower in the fall in the Subbasin, wells are more likely to experience undesirable results in the fall. Department staff recommend that the GSA revise the 2024 GSP to specifically use seasonal low groundwater levels in the undesirable result criteria to more accurately

[24] 2024 Fillmore GSP, Section 3.3.1.1, p. 120; Appendix J – Section 3.3.1.1.1, p. 1516; Appendix J – Table 3-2, p. 1517.
[25] 2024 Fillmore GSP, Section 3.2.4, p. 116; Appendix J – Figure 3-21, p. 1563.
[26] 2024 Fillmore GSP, Appendix J – Table 3-2, p. 1517.
[27] 2024 Fillmore GSP, Appendix J – Figure 3-10, p. 1552.
[28] 2024 Fillmore GSP, Section 3.3.1.1, p. 118.
[29] 2024 Fillmore GSP, Section 3.3.1.1, p. 118.
[30] 23 CCR § 354.26(b)(2).
[31] 2024 Fillmore GSP, Section 3.5.4.1.2, p. 140.

reflect the percentage of impacted production wells in the GSA's consideration of significant and unreasonable effects of lowering of groundwater levels (see Recommended Corrective Action 1a).

The 2024 GSP also describes die-off of riparian vegetation due to groundwater level declines attributable to groundwater pumping as another category of undesirable results.[32] Based on a 2021 research study, the GSA determines that the undesirable result of vegetation die-off begins to occur when groundwater levels decline to the critical water level of 10 feet below the water year 2011 average within or immediately adjacent to the East Grove or Cienega Springs Groundwater Dependent Ecosystem (GDE) areas.[33] Both GDE areas are located along the Santa Clara River near the Subbasin's boundaries and are described as "rising groundwater" areas where groundwater discharges into surface water.[34] In the GSA's decisions regarding where the undesirable results may occur, the 2022 GSP covers the Cienega Springs GDE area only and monitors with one well,[35] whereas the revised 2024 GSP adds the East Grove GDE area and presents a total of 7 representative monitoring wells for both GDE areas.[36]

The GSP states that undesirable results are considered to occur when groundwater levels at 2 of 7 GDE representative monitoring points fall below established minimum thresholds.[37] The 2024 GSP presents 3 and 4 representative monitoring wells for the East Grove and Cienega Springs GDE areas, respectively.[38] However, it is unclear from the information provided how the GSA would determine undesirable results occurring with the possible combinations of two wells with minimum threshold exceedances. More specifically, it is unclear from the definition whether an undesirable result requires one exceedance in both GDE areas or two exceedances in either GDE area. Department staff believe it is more appropriate to define undesirable results for one GDE area based on monitoring of that GDE area. Requiring minimum threshold exceedances to occur in both GDE areas at the same time before taking management actions not only is unreasonable because it appears unlikely that the two GDE areas will experience undesirable results at the same time but also lacks consideration of Subbasin conditions. For example, while the 2024 GSP states that undesirable results of vegetation die-off could occur in both GDE areas[39], the 2024 GSP acknowledges that the Cienega Springs GDE area is most susceptible to vegetation die-off due to significant groundwater level declines during drought.[40] Therefore, Department staff recommend that the GSA revise the quantitative criteria for undesirable results of GDE vegetation die-off to clarify the number of minimum

[32] 2024 Fillmore GSP, Section 3.2.2, p. 114.
[33] 2024 Fillmore GSP, Sections 3.2.3.1 and 3.2.3.2, pp. 115-116; Figure 2.2-30, p. 214.
[34] 2024 Fillmore GSP, Section 2.2.2.7, p. 85.
[35] 2022 Fillmore GSP, Section 3.2.3.1, p. 112; Table 3.5-3, p. 135.
[36] 2024 Fillmore GSP, Section 3.2.3.1, p. 115; Appendix J – Section 3.3.1.2, pp. 1520-1522; Appendix J – Section 3.3.3.2, p. 1524; Appendix J – Table 3-4, p. 1523; Appendix J – Figure 3-21, p. 1563; Table 3.0-1, p. 109.
[37] 2024 Fillmore GSP, Section 3.2.4, p. 116.
[38] 2024 Fillmore GSP, Figure 3.5-4, p. 227; Appendix J - Figure 3-21, p. 1563.
[39] 2024 Fillmore GSP, Section 3.2.3.1, p. 115.
[40] 2024 Fillmore GSP, Section 2.1.4.2, p. 42.

threshold exceedances for each GDE area that would lead to an undesirable result determination for that area[41] (see Recommended Corrective Action 1b).

The results of the well impact analysis and consideration of riparian vegetation led to the GSA updating the 2024 GSP, revising the definition of undesirable results, and determining that "undesirable results due to lowering of groundwater levels begin to occur when water levels in the [Subbasin] drop 50 feet below the 2011 average, or 10 feet below the 2011 average within and immediately adjacent to the East Grove or Cienega Springs GDE areas."[42] Department staff are encouraged by the GSA's revisions to analyze potential wells impacts using different scenarios and levels of impact to identify conditions which would be significant and unreasonable. The rationale provided in the 2024 GSP to support defining a 50-foot decline below historical 2011 groundwater levels and 10-foot decline below historical 2011 groundwater levels near GDE areas as significant and unreasonable, appears to be sound and done with consideration of the basin setting and beneficial uses and users.

Despite the recommended corrective actions, Department staff conclude the 2024 GSP describes the specific undesirable results that the GSA aims to avoid with sufficient detail and supporting analysis. The GSA's responses sufficiently address Component 1a of the Deficiency.

4.1.2.2 Corrective Action 1b – Assessment of Minimum Thresholds

The Department's Incomplete Determination directed the GSA that the minimum thresholds for groundwater levels must be revised to be consistent with avoiding the undesirable results that the agency aims to avoid, such as impacts to domestic and other production wells.[43] In addition, the 2022 GSP should explain how the Agency has determined that basin conditions at minimum threshold water level conditions will avoid undesirable results for other sustainability indicators.[44]

As mentioned in Section 4.1.2.1 and detailed in Section 4.1.2.3 below, the GSA performed a well impact analysis to determine significant and unreasonable effects (i.e., undesirable results) based on impacts to groundwater wells and riparian vegetation at different levels of groundwater decline. The GSA considers the projected well impacts to be reasonable when groundwater levels decline 50-feet below 2011 averages, but undesirable results begin to occur when groundwater levels are lower.[45] Therefore, the 2024 GSP revised minimum thresholds for production wells from the bottom of the well screen to 50-foot below the 2011 average groundwater levels. The revision equates to minimum thresholds in 9 of 11 representative monitoring wells being raised 130 – 340

[41] 23 CCR § 354.26(b)(2).
[42] 2024 Fillmore GSP, Section 3.2.3.1, p. 115.
[43] 23 CCR §§ 354.28(a) and 354.28(b)(1).
[44] 23 CCR § 354.28(b)(2).
[45] 2024 Fillmore GSP, Appendix J Section 3.3.1.1.1, p. 1515; Section 3.2.3.1, p. 115.

feet from what was originally proposed in the 2022 Plan.[46] Thus, this method ties the minimum thresholds directly to undesirable results that represent a depletion of supply across the Subbasin that the GSA aims to avoid.[47] Department staff consider defining sustainable management criteria for chronic lowering of groundwater levels based on a thorough analysis of potential effects on beneficial uses and users of groundwater a sound and reasonable approach.

Furthermore, the 2024 GSP revised minimum thresholds for avoiding riparian vegetation die-off to be either 10 feet below the 2011 average (i.e., the "critical" water level when undesirable results of vegetation die-off begins to occur based on research results,[48] same as defined in the 2022 GSP) or the pre-2015 minimum water level elevation, whichever is more conservative. [49] The minimum thresholds are set in shallow groundwater monitoring wells within or immediately adjacent to the Cienega Springs and East Grove GDE areas.[50] The 2024 GSP states that the criteria of pre-2015 minimum water level generally applies to the East Grove GDE area.[51] Department staff consider it reasonable and consistent with GSA's description of undesirable results to use 10 feet below the 2011 average as the minimum thresholds, and even more protective of groundwater beneficial uses by GDE vegetations to apply the second criteria of pre-2015 minimum water level to limit potential impacts to what have been historically experienced.

Although the 2024 GSP's minimum thresholds for groundwater levels are considered reasonable and supported by best available information, the 2024 GSP has not presented information regarding how the Agency has determined that basin conditions at these minimum thresholds will avoid undesirable results for other sustainability indicators, as required by the GSP Regulations.[52] Department staff recommend that the GSA provide related information (see Recommended Corrective Action 1c).

Despite the recommended corrective action, Department staff conclude at this time that the GSA has taken sufficient action to address component 1b of this deficiency. The 2024 GSP's groundwater level minimum thresholds are consistent with avoiding the undesirable results of affecting the ability to pump from production wells or GDE vegetation die-off that the Agency aims to avoid.

[46] 2024 Fillmore GSP, Section 3.3.1.1, p. 118; Table 3.0-2, p. 110; Appendix J – Table 3-4, p. 1523; 2022 Fillmore GSP, Table 3.5-3, p. 135.
[47] 23 CCR § 354.28(c)(1).
[48] 2024 Fillmore GSP, Section 3.2.3.1, p. 115.
[49] 2024 Fillmore GSP, Appendix J – Section 3.3.3.2, p. 1524; Appendix J – Table 3-4, p. 1523; Table 3.0-2, p. 109.
[50] 2024 Fillmore GSP, Section 3.2.4, p. 116; Table 3.0-2, p. 110; Figure 3.5-4, p. 227; Section 3.3.1.2, p. 119.
[51] 2024 Fillmore GSP, Appendix J – Section 3.3.3.2, pp. 1524.
[52] 23 CCR § 354.28(b)(2).

4.1.2.3 Corrective Action 1c – Assessment of Impacts to Beneficial Uses and Users

The Department's Incomplete Determination directed the GSA to assess how minimum thresholds may affect the interests of beneficial uses and users of groundwater, in particular, groundwater wells.[53]

The 2024 GSP provides analyses of how minimum thresholds impact wells and GDEs in the Subbasin. For wells with known screen intervals that are within the 2011 average groundwater elevation contour area, the 2024 GSP evaluates impacts when subbasin-wide groundwater elevations are at the minimum thresholds of 50-foot below the 2011 average. The projected impacts are categorized as "no impact," "impacted," "severely impacted," or "dry," based on groundwater elevations in relation to the known screen intervals.[54] The 2024 GSP summarizes the number and percentage of wells by impact category and well type (i.e., agricultural, domestic, municipal, industrial, monitoring, wells of unknown use, and cathodic protection wells).[55] The 2024 GSP also maps the location and projected impact status for each well that was analyzed.[56] Results indicate, a total of 25 wells (or 9 percent of wells analyzed) are estimated to be severely impacted or dry when water levels drop 50 feet from the 2011 average condition. These 25 wells include 10 agricultural wells, 9 domestic wells, 2 wells of unknown use, and 4 monitoring wells; the GSA does not consider 4 monitoring wells "temporarily going dry during a drought period to be an undesirable result."[57] The 2024 GSP notes that no production wells in the Subbasin have been reported to go dry in the DWR's Dry Well Reporting System.[58] Department staff consider the GSA's assessment of how minimum thresholds may affect groundwater wells to be sufficiently detailed and thorough because it utilizes best available groundwater level and well construction information, includes number and location of potentially affected wells by well type, and captures impacts from varied levels of groundwater supply depletions across the Subbasin.

The 2024 GSP was also revised to include a drought vulnerability assessment project to further evaluate possible future well impacts and guide the GSA's management actions.[59] The 2024 GSP provides a brief outline of initial activities for the assessment that are expected to extend over a two-year period.[60] As part of the drought vulnerability assessment, the GSA may develop a well mitigation program which may establish a "mitigation fund" to assist impacted well owners. The 2024 GSP affirms that "the Agency has committed to developing a mitigation program for wells that do go dry."[61] Department staff believe the GSA's decision to use results of the drought vulnerability assessment as the trigger for developing a well mitigation program is proactive and will allow the

[53] 23 CCR § 354.28(b)(4).
[54] 2024 Fillmore GSP, Appendix J – Section 3.3.1.1, pp. 1514-1516.
[55] 2024 Fillmore GSP, Appendix J – Table 3-2, p. 1517.
[56] 2024 Fillmore GSP, Appendix J – Figure 3-10, p. 1552.
[57] 2024 Fillmore GSP, Section 3.2.3.1, p. 115.
[58] 2024 Fillmore GSP, Section 3.3.1.1, p. 118; Appendix J – Section 3.3.1.1, p. 1515.
[59] 2024 Fillmore GSP, Section 4.8, pp. 152-154.
[60] 2024 Fillmore GSP, Section 4.8, p. 153.
[61] 2024 Fillmore GSP, Section 3.3.1.1, p. 118.

Subbasin to be prepared for drought impacts under different climate change conditions if the assessment is conducted in the early stage of Plan implementation. Department staff encourage the GSA to initiate the drought vulnerability assessment before the next periodic evaluation of the Plan.

In addition, the 2024 GSP discusses in detail how minimum thresholds may impact GDEs in the Cienega Springs GDE area and the East Grove GDE area.[62] As described in Section 4.1.2.2, the 2024 GSP revised minimum thresholds in shallow groundwater monitoring wells within or immediately adjacent to the two GDE areas to a level that would prevent die-off of riparian vegetation due to groundwater level declines based on results of a 2021 research study. Additionally, both the 2022 and 2024 GSPs include two projects in support of the Cienega Springs GDE area; the Cienega Springs Restoration Project to provide supplemental groundwater to the Cienega Springs GDE area during multi-year droughts when shallow groundwater levels decline to below the critical water level, and a second project to install additional shallow monitoring wells to fill data gaps in this GDE area.[63] In water year 2022 the GSA completed the second project by installing 3 shallow monitoring wells in the Cienega Springs Restoration Project site.[64] Department staff consider the GSA's assessment of how minimum thresholds may affect GDEs to be sufficiently detailed and thorough because the 2024 GSP revised minimum thresholds based on best available information and science, and the GSA reported progress on projects and management actions that support the GDEs in the Subbasin.

In summary, the 2024 GSP has been revised to present sufficiently detailed information on how minimum thresholds of groundwater levels may impact the beneficial uses and users of groundwater by wells and GDEs and includes reasonable projects for assessing and mitigating possible future impacts of climate change and lowering of groundwater levels. The GSA's responses sufficiently address Component 1c of the Deficiency.

4.1.3 Conclusion

Overall, Department staff believe the GSA has taken sufficient action to address the identified deficiencies by identifying the depletion of supply that is an undesirable result and establishing minimum thresholds that were determined by considering that depletion's impacts to beneficial uses and users. The well impact analysis presented in the 2024 GSP appears to be reasonable and supported with sufficiently detailed information. Department staff are also encouraged by the planned drought vulnerability assessment and the GSA's commitment to potential well mitigation. Despite the recommended corrective action, staff conclude that the 2024 GSP's sustainable management criteria for lowering of groundwater levels sufficiently meets the requirements of the GSP Regulations.

[62] 2024 Fillmore GSP, Appendix J – Sections 3.3.1.2.1 – 3.3.1.2.2, pp. 1521-1522.
[63] 2024 Fillmore GSP, Sections 4.1 - 4.2, pp. 147-149.
[64] Fillmore Groundwater Subbasin Annual Report Water Year 2022, Section 7.2, p. 25.

4.2 Deficiency 2. The GSP does not set sustainable management criteria for depletions of interconnected surface water.

4.2.1 Corrective Action 2

The GSA must set preliminary sustainable management criteria for depletions of interconnected surface water associated with groundwater use, as required by the GSP Regulations,[65] based on best available information and science. The GSA should evaluate and disclose, sufficiently and thoroughly, the potential effects of the Plan's sustainable management criteria for depletions of interconnected surface water on beneficial uses of the interconnected surface water and on groundwater uses and users.

4.2.2 Evaluation of Resubmitted Plan

To address the deficiency, the GSAs included three components in the 2024 GSP: 1) identifying data gaps related to surface water-groundwater interconnection and beneficial uses and users of interconnected surface waters, in particular spawning and rearing habitats for southern California steelhead; 2) a new project of habitat suitability study to address the identified data gaps; and 3) preliminary sustainable management criteria using groundwater level as a proxy. Most of the material is provided in Chapter 3 (Sustainable Management Criteria) and Appendices D, J, and K of the 2024 Plan.

The 2022 GSP was revised to present details of the GSA's understanding of interconnected stream reaches and their beneficial uses and users.[66] The 2024 GSP still retains the identification of consistently interconnected surface waters in the Subbasin as described in the 2022 GSP (i.e., reaches of the mainstem Santa Clara River near the Cienega Springs or East Grove GDE areas, and the upper reach of the Sespe Creek).[67] However, the 2024 GSP considers it possible to have steelhead spawning and rearing habitats in the East Grove GDE area along the western part of the Santa Clara River, where flow is perennial even during the extreme drought and is supported entirely by groundwater discharges in the dry summer months in most years.[68] Therefore, the 2024 GSP adds a high priority data gap: "determination of interconnection between groundwater and surface water and steelhead habitat suitability for the East Grove GDE area of the Santa Clara River."[69] Department staff assume the term "interconnection" here means the location, quantity and timing of interconnected stream reaches,[70] based on the 2024 GSP's statement that "data gaps remain regarding identifying the extent and timing of interconnectedness of other stream channel areas (e.g., Sespe Creek and central

[65] 23 CCR §§ 354.26, 354.28, 354.30.
[66] 2024 Fillmore GSP, Appendix K – Section 5.6.3, pp. 1754 – 1757.
[67] 2024 Fillmore GSP, Appendix K – Section 5.6.3, p. 1755; Figure 2.2-27, p. 211; 2022 Fillmore GSP, Figure 2.2-27, p. 204.
[68] 2024 Fillmore GSP, Appendix K – Section 5.6.3, p. 1755; Appendix K – Figure 5-11, p. 1756; Appendix K – Figure 5-11, p. 1756; Section 2.2.2.7, p. 85; Section 3.3.6, p. 121.
[69] 2024 Fillmore GSP, Table 3.5-3, p. 145; Appendix K – Section 5.6.3, p. 1757; Appendix K – Table 6.1, p. 1759; Appendix D, Section 5.2.2, p. 405.
[70] 23 CCR §§ 354.28(c)(6).

[losing reach] portions of the Santa Clara River);"[71] and the GSA's consideration of using field methods to quantify discharges from groundwater to surface water.[72] Department staff agree with the GSA that identifying interconnection and beneficial uses and users of the East Grove GDE area in the early stage of Plan implementation is important for managing interconnected surface waters in the Subbasin.

In addition, the 2024 GSP clearly identifies interconnectivity along the upper reach of the Sespe Creek (north of telegraph road) within the Subbasin as a data gap.[73] The revised 2024 GSP also indicate that the Sespe Creek (and its tributaries in upland areas) have "designated beneficial uses consistent with steelhead spawning and rearing habitat" and "has particular habitat importance."[74] As a result, the 2024 GSP adds a medium priority data gap - "determination of interconnection between groundwater and surface water and steelhead habitat suitability for Sespe Creek north of Telegraph Road to the groundwater basin boundary".[75] Considering the Sespe Creek's habitat importance and stream depletions due to groundwater pumping that may adversely impact aquatic habitats, Department staff recommend the GSA treat this data gap as high priority and make efforts to fill it in the early stage of Plan implementation.

The 2024 GSP acknowledges that data gaps exist in understanding interconnectivity and beneficial uses of interconnected surface water in the Subbasin, in particular spawning and rearing habitats for the Oncorhynchus mykiss (southern California steelhead and trout) fish species. The 2024 GSP presents tables and maps for the critical habitats and designated beneficial uses along the mainstem Santa Clara River and the Sespe Creek in the Subbasin as defined by National Marine Fisheries Service (NMFS) and Los Angeles Regional Water Quality Control Board (LARWQCB).[76] The GSA disagrees with the NMFS designation and points out that LARWQCB does not list the [mainstem] Santa Clara River as critical habitat for steelhead spawning and rearing.[77] While retaining the GSA's current understanding that the Oncorhynchus mykiss fish species primarily use the Santa Clara River for migration rather than spawning and rearing, the GSA recognizes that this assumption may have biased its determination regarding undesirable results in the Subbasin.[78] Although not explicitly explained, the 2024 GSP made it apparent to Department staff that the "Santa Clara River" means the mainstem Santa Clara River in the GSP's discussions about depletions of interconnected surface water.

[71] 2024 Fillmore GSP, Section 2.2.27, p. 86.
[72] Fillmore Groundwater Subbasin Annual Report Water Year 2023, Section 7.3, pp. 25-26.
[73] 2024 Fillmore GSP, Section 3.3.6, p. 121.
[74] 2024 Fillmore GSP, Appendix K – Section 5.6.2, p. 1753; Appendix K – Section 5.6.3, p. 1754; Figures 2.2-32, p. 216; Appendix K – Table 5-6, p. 1751; Appendix D – Section 5.2.2, p. 404.
[75] 2024 Fillmore GSP, Table 3.5-3, p. 145; Appendix K – Table 5-6, p. 1751, Section 3.3.6, p. 121.
[76] 2024 Fillmore GSP, Section 2.2.2.8, p. 89; Figures 2.2-31 and 2.2-32, pp. 215-216; Appendix K – Sections 5.6.1 and 5.6.2, pp. 1748 – 1753.
[77] 2024 Fillmore GSP, Section 2.2.2.8, p. 89; Appendix K – Sections 5.6.1, p. 1749; Appendix K – Sections 5.6.2, p. 1752; Section 5.6.3, pp. 1754-1755.
[78] 2024 Fillmore GSP, Section 3.2.1, pp. 113-114.

To address the identified data gaps related to beneficial uses and users of interconnected surface water, the 2024 GSP includes a new project to assess habitat suitability for Oncorhynchus mykiss spawning and rearing, and other protected aquatic species in the Subbasin.[79] The GSA will conduct a reconnaissance field visit in 2024 to decide on the area extent and methods of the study. Field investigations in 2024 will focus on the East Grove GDE area and employ methods such as snorkel survey, environmental DNA sampling, and stream temperature logging. The GSA will then develop a three-year study plan in 2024-2025, integrating data collected from the 2024 field investigations and information gained from the ongoing investigations in the Santa Clara River basin by UC Santa Barbara and CDFW. The GSA anticipates that results from each year will inform the subsequent year's study plan. Department staff is encouraged by the GSA's project plan to address the identified data gaps of surface water beneficial uses in the Subbasin and recommend that the GSA include the Sespe Creek in the study due to its habitat importance.

To fill data gaps related to surface water-groundwater interconnection, the 2024 GSP includes two projects of installing groundwater monitoring wells,[80] which have been completed in water year 2022.[81] The GSA installed three new shallow monitoring wells in the Cienega Springs GDE area, and four new nested wells in a single borehole in the East Grove GDE area along the Santa Clara River.[82] According to the Subbasin's water year 2023 Annual Report, the GSA is considering the improvement of GDE and surface water-groundwater interaction monitoring network, including using methods such as field measurements to estimate rates of groundwater discharging into surface water.[83] Department staff is satisfied with the GSA's efforts and progress in adding monitoring sites to fill data gaps in surface water-groundwater interconnection.

The 2024 GSP does not specifically describe the undesirable results it aims to avoid. Instead, the 2024 GSP includes general descriptions, such as "avoid significant and unreasonable adverse impacts on beneficial uses and users of surface water,"[84] or "surface water flow declines due to groundwater extractions that interfere with beneficial uses and users."[85] While the 2024 GSP acknowledges that data gaps regarding Oncorhynchus mykiss (steelhead) habitats in the Subbasin may have biased the GSA's determination,[86] at this time the 2024 GSP retains similar reasoning and the determination as presented in the 2022 GSP that "the Agency does not consider depletions of interconnected surface water a significant and unreasonable effect."[87] Department staff note that the 2024 GSP negates the designation of the Sespe Creek as

[79] 2024 Fillmore GSP, Section 4.9, pp. 154-155; Appendix D – Section 7, pp. 448-449.
[80] 2024 Fillmore GSP, Sections 4.2 and 4.3, p. 149.
[81] Fillmore Groundwater Subbasin Annual Report Water Year 2023, Section 7, p. 21.
[82] Fillmore Groundwater Subbasin Annual Report Water Year 2022, Sections 7.2 and 7.3, pp. 25-26.
[83] Fillmore Groundwater Subbasin Annual Report Water Year 2023, Section 7.3, pp. 25-26.
[84] 2024 Fillmore GSP, Executive Summary, p. 15.
[85] 2024 Fillmore GSP, Table 3.0-1, p. 109.
[86] 2024 Fillmore GSP, Section 3.2.1, p. 114.
[87] 2024 Fillmore GSP, Section 3.2.1, pp. 113-114.

spawning and rearing habitat by LARWQCB in its discussion of undesirable results of stream depletions, despite the 2024 GSP's recognition of the Sespe Creek as a primary surface water body.[88] Department staff also note that significant and unreasonable adverse impacts from stream depletion may occur so long as there are groundwater extractions and interconnected surface waters in the Subbasin, and beneficial uses and users of interconnected surface waters.

Despite the 2024 GSP's projection that future conditions will be similar to historical conditions, the GSA should describe the specific undesirable results that the GSA aims to avoid, as required by the GSP Regulations. The GSA's current consideration of undesirable results, "namely loss of O. mykiss rearing and spawning habitat along the Santa Clara River,"[89] appears narrowly focused on one beneficial use along the mainstem Santa Clara River alone. For example, the 2024 GSP has not discussed how some of the important factors or information provided are considered by the GSA, such as the habitat importance of the Sespe Creek and its upland tributaries for steelhead spawning, rearing and migration,[90] the data gaps regarding how pumping may influence downstream migration of juvenile steelhead,[91] and how other species may be impacted by stream depletions due to pumping. Department staff believe the GSA's projects on filling data gaps in surface water-groundwater interconnection and beneficial uses and users of surface water will lead to better understanding of undesirable results of depletions of interconnected surface water. Department staff recommend that the GSA follow the Department's future guidance document to revise its description of undesirable results by the first periodic evaluation of the Plan (see Recommended Corrective Action 2a).

The 2024 GSP was revised to establish minimum thresholds for depletions of interconnected surface water, using groundwater levels as a proxy.[92] The 2024 GSP presents in graphics the empirical relationships between groundwater elevations in key wells and measured stream flows near the East Grove or Cienega Springs GDE areas.[93] The minimum thresholds (i.e., 348.86 feet msl at 03N20W01C04S and 493.98 feet msl at 04N18W31D04S)[94] correspond to approximately 5 cubic feet per second (cfs) streamflow near the East Grove area and zero streamflow near the Cienega Springs area, which are both within historical ranges of flow measurements. During the 2012-2016 drought the Santa Clara River went dry near Cienega Springs but had persisted stream flows for at least part of the reach near East Grove.[95] The minimum threshold for stream depletions near Cienega Springs was set the same as that for lowering of groundwater levels at well

[88] 2024 Fillmore GSP, Section 3.2.1, p. 113; Section 2.2.2.8, p. 89; Figure 2.2-32, p. 216; Section 2.2.1.5.6, p. 64; Appendix K – Section 5.6.2, p. 1753.
[89] 2024 Fillmore GSP, Section 3.2.1, p. 113.
[90] 2024 Fillmore GSP, Appendix K – Section 5.6.2, p. 1753.
[91] 2024 Fillmore GSP, Appendix D – Section 5.2.2, p. 405.
[92] 2024 Fillmore GSP, Section 3.3.6, pp. 121-122.
[93] 2024 Fillmore GSP, Section 3.3.6, p. 121; Appendix J – Figure 2-4, p. 1538.
[94] 2024 Fillmore GSP, Section 3.3.6, p. 121.
[95] 2024 Fillmore GSP, Appendix D – Section 6.4.3, p. 448; Appendix D – Figure 4.3-2, p. 369.

04N18W31D04S (i.e., 493.98 feet msl).[96] Department staff note that Table 3.0-1 shows a different minimum threshold for the East Grove area (i.e., 325.86 feet msl at 03N20W01C04S) and recommend that the GSA resolve the inconsistency.[97] Department staff recognize that the established empirical relationships describe the general correlations between groundwater levels and streamflow under historical conditions. However, the relationships may change under different pumping schemes. In addition, the minimum thresholds do not quantify surface water depletions due to groundwater pumping in the Subbasin, as required by the GSP Regulations.[98]

Department staff understand that quantifying depletions of surface water from groundwater extractions is a complex task that likely requires developing new, specialized tools, models, and methods to understand local hydrogeologic conditions, interactions, and responses. During the initial review of GSPs, Department staff have observed that most GSAs have struggled with this new requirement of SGMA. However, staff believe that most GSAs will more fully comply with regulatory requirements after several years of Plan implementation that includes projects and management actions to address the data gaps and other issues necessary to understand, quantify, and manage depletions of interconnected surface waters. Accordingly, Department staff believes that affording GSAs adequate time to refine their Plans to address interconnected surface waters is appropriate and remains consistent with SGMA's timelines and local control preferences.

The Department will continue to support GSAs in this regard by providing, as appropriate, financial and technical assistance to GSAs, including the development of guidance describing appropriate methods and approaches to evaluate the rate, timing, and volume of depletions of interconnected surface water caused by groundwater extractions. Once the Department's guidance related to depletions of interconnected surface water is publicly available, the GSA, where applicable, should consider incorporating appropriate guidance approaches into their future periodic evaluations of the GSP (see Recommended Corrective Action 2b). GSAs should consider availing themselves of the Department's financial or technical assistance, but in any event must continue to fill data gaps, collect additional monitoring data, and implement strategies to better understand and manage depletions of interconnected surface water caused by groundwater extractions and define segments of interconnectivity and timing within their jurisdictional area (see Recommended Corrective Action 2c). Furthermore, GSAs should coordinate with local, state, and federal resources agencies as well as interested parties to better understand the full suite of beneficial uses and users that may be impacted by pumping induced surface water depletion (see Recommended Corrective Action 2d).

4.2.3 Conclusion

Department staff believe the GSA has taken sufficient action to address this deficiency by setting preliminary sustainable management criteria and planning to fill data gaps. The

[96] 2024 Fillmore GSP, Appendix J – Table 3-4, p. 1523.
[97] 2024 Fillmore GSP, Table 3.0-1, p. 109.
[98] 23 CCR §§ 354.28(c)(6).

GSA has identified and developed plans to fill major data gaps related to surface water-groundwater interconnection and beneficial uses and users of interconnected surface waters. Department staff advise that the GSA further use the newly collected data and follow the Department's future guidance document to establish sustainable management criteria based on location, quantity, and timing of depletions, as required by the GSP Regulations, by the next periodic evaluation.

5 PLAN EVALUATION

As stated in Section 355.4 of the GSP Regulations, a basin "shall be sustainably managed within 20 years of the applicable statutory deadline consistent with the objectives of the Act." The Department's assessment is based on a number of related factors including whether the elements of a GSP were developed in the manner required by the GSP Regulations, whether the GSP was developed using appropriate data and methodologies and whether its conclusions are scientifically reasonable, and whether the GSP, through the implementation of clearly defined and technically feasible projects and management actions, is likely to achieve a tenable sustainability goal for the basin.

The Department staff's evaluation of the likelihood of the Plan to attain the sustainability goal for the Subbasin is provided below. Department staff consider the information presented in the Plan to satisfy the general requirements of the GSP Regulations.

5.1 ADMINISTRATIVE INFORMATION

The GSP Regulations require each Plan to include administrative information identifying the submitting Agency, its decision-making process, and its legal authority;[99] a description of the Plan area and identification of beneficial uses and users in the Plan area;[100] and a description of the ability of the submitting Agency to develop and implement a Plan for that area.[101]

The 2024 GSP describes the GSA, discusses its decision-making process, and provides its legal authority. The GSA is formed under a joint exercise of powers agreement (JPA) among the City of Fillmore, County of Ventura, and United Water Conservation District (United).[102] The GSA is governed by a six-member board of directors, consisting of the three JPA signatories, a director from each of the two subbasin (Fillmore and Piru) pumpers associations, and an "Environmental Stakeholder" director.[103] The 2024 GSP states that the JPA is the "legal foundational document for the GSA."[104] The Fillmore Subbasin is entirely managed by the GSA.[105]

The 2024 GSP provides a description of the plan area. The Fillmore Subbasin is one of a series of subbasins extending along the Santa Clara River Valley and is located between the upslope Piru Subbasin to the east and the downslope, adjudicated Santa Paula Subbasin to the west.[106] The Fillmore Subbasin is a high priority basin and covers approximately 22,600 acres of land. Jurisdictions in the Subbasin include federal, state,

[99] 23 CCR § 354.6 *et seq*.
[100] 23 CCR § 354.8 *et seq*.
[101] 23 CCR § 354.6(e).
[102] 2024 Fillmore GSP, Section 1.2, pp. 18-19; Appendix A, pp. 228-254.
[103] 2024 Fillmore GSP, Section 1.3.1, pp. 19-21.
[104] 2024 Fillmore GSP, Section 1.3.2, p. 21.
[105] 2024 Fillmore GSP, Section 2.1.1, p. 32.
[106] 2024 Fillmore GSP, Section 2.1.1, p. 31.

and local agencies.[107] A map of the Subbasin location, boundary, and adjacent subbasins is shown in Figure 1 below.

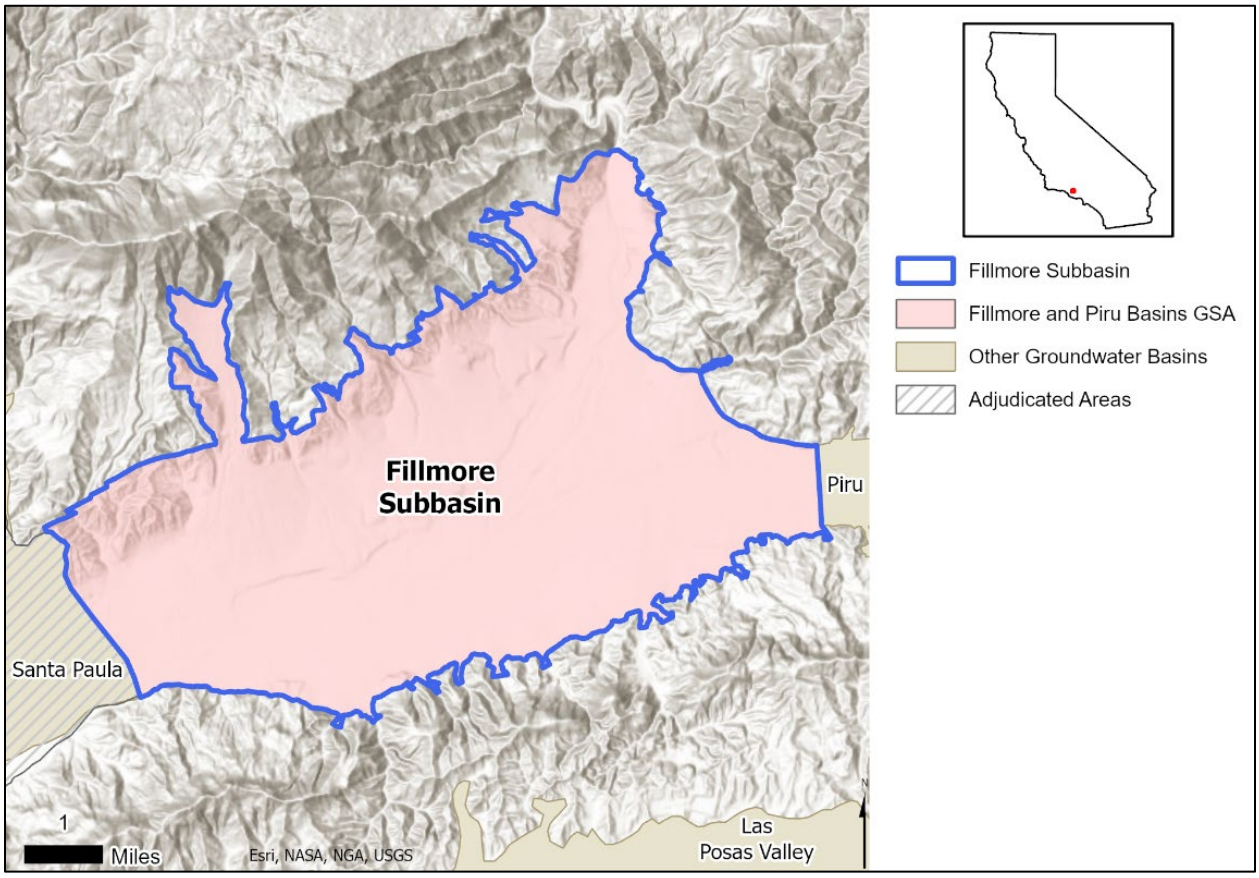

Figure 1: Fillmore Subbasin Location Map.

Land use in the Subbasin is primarily agricultural (58 percent), followed by open space (33 percent) and urban (9 percent).[108] The 2024 GSP describes the County Save Open Space and Agricultural Resources ordinance and city urban restriction boundaries which requires voter approval to change land use designations, and therefore puts limitations on urban growth.[109] The 2024 GSP states that urban land use is "planned to grow modestly (i.e., by about 800 AFY [acre-feet per year] in additional groundwater demand…) ".[110]

The 2024 GSP describes the beneficial uses and users in the Subbasin. Beneficial uses and users of groundwater in the Subbasin include agriculture, domestic, municipal, industrial (i.e., Fillmore Fish Hatchery), public water systems, and groundwater dependent ecosystems.[111] The 2024 GSP includes maps of well density by well type and

[107] 2024 Fillmore GSP, Section 2.1.1, p. 32.
[108] 2024 Fillmore GSP, Section 2.1.3, pp. 36-38; Table 2.1-2, p. 37.
[109] 2024 Fillmore GSP, Section 2.1.3, pp. 37-38.
[110] 2024 Fillmore GSP, Section 2.1.3, p. 38.
[111] 2024 Fillmore GSP, Sections 2.1.5.1-2.5.1.2, pp. 42-44.

a map depicting communities dependent on groundwater, including disadvantaged communities and locations of domestic wells.[112]

The Subbasin is highly dependent on groundwater. Estimated total surface water uses averaged 157 acre-foot per year during water years 2018 - 2022.[113] Water resources in the Subbasin is managed by the Ventura County Watershed Protection District (VCWPD), United, and the City of Fillmore.[114] United operates the primary conjunctive use programs for groundwater replenishment purposes in the Subbasin which include "…conservation releases from Lake Piru through Santa Felicia Dam, flood flow releases from Castaic Lake, and State Water Project (SWP) imports via Pyramid Lake or Castaic Lake."[115] The three agencies have historically implemented surface water and groundwater monitoring and management programs in the Subbasin. Therefore, the GSA has the authority and capability to develop and implement the 2024 GSP.

The 2024 GSP does not provide an estimated cost of implementing the Plan; instead, the 2024 GSP states that the estimated cost is still under development.[116] The 2024 GSP also provides a brief discussion of how the GSA intends to meet costs of implementing the 2024 Plan, stating that the GSA has "…typically financed its operation via a groundwater extraction charge" and that "…the agency has other financial mechanisms that could be employed if needed."[117] Department staff recommend that the GSA provide its best estimate of the cost of implementing the 2024 Plan along with a more detailed description of how the Agency plans to meet those costs in future periodic evaluations of the Plan as required by the GSP Regulations[118] (see Recommended Corrective Action 3).

The administrative information section included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[119] at this time. Department staff have provided recommended corrective actions for this section which the GSA should consider and address by the next periodic evaluation.

5.2 Basin Setting

GSP Regulations require information about the physical setting and characteristics of the basin and current conditions of the basin, including a hydrogeologic conceptual model; a description of historical and current groundwater conditions; and a water budget

[112] 2024 Fillmore GSP, Figures 2.1-4 through 2.1-7, pp. 175-178.
[113] Fillmore Groundwater Subbasin Annual Report Water Year 2023, Section 4, pp. 16 and 20.
[114] 2024 Fillmore GSP, Sections 2.1.2.1 – 2.1.2.3, pp. 34-36.
[115] 2024 Fillmore GSP, Section 2.1.2.2, pp. 35-36.
[116] 2024 Fillmore GSP, Section 1.3.3, p. 21.
[117] 2024 Fillmore GSP, Section 1.3.3, p. 21.
[118] 23 CCR §§ 354.6(e).
[119] 23 CCR §§ 354.2 et seq.

accounting for total annual volume of groundwater and surface water entering and leaving the basin, including historical, current, and projected water budget conditions.[120]

5.2.1 Hydrogeologic Conceptual Model

The hydrogeologic conceptual model is a non-numerical model of the physical setting, characteristics, and processes that govern groundwater occurrence within a basin, and represents a local agency's understanding of the geology and hydrology of the basin that support the geologic assumptions used in developing mathematical models, such as those that allow for quantification of the water budget.[121] The GSP Regulations require a descriptive hydrogeologic conceptual model that includes a written description of geologic conditions, supported by cross sections and maps,[122] and includes a description of basin boundaries and the bottom of the basin,[123] principal aquifers and aquitards,[124] and data gaps.[125]

The 2024 GSP provides a description of the regional geology and structures within the Subbasin, with supporting maps and cross sections. The Subbasin is located within the tectonically active Transverse Ranges, which encompasses a series of mountain ridges and valleys trending east-to-west due to north-to-south compression.[126] Geologic faulting and folding has resulted in complex synclinal structures of the Subbasin and surrounding areas. The Subbasin is filled with a mixture of deeper, consolidated (Tertiary and older) marine deposits that are considered as non-water-bearing bedrock, and shallower, unconsolidated (Quaternary) terrestrial and coastal deposits that are considered as water-bearing aquifers.[127] The 2024 GSP presents geology maps of the Subbasin sourced from various reports and studies, showing surface expressions, faults, and cross-sections.[128]

The 2024 Plan describes that the Subbasin is bounded by the Topatopa Mountains to the north and South Mountain to the south, along the contacts between the unconsolidated alluvium and the exposed bedrock.[129] Faults located along the Subbasin's boundaries significantly limit or divert groundwater flow.[130] The 2024 Plan also describes structural

[120] 23 CCR § 354.12 *et seq*.
[121] DWR Best Management Practices for the Sustainable Management of Groundwater: Hydrogeologic Conceptual Model, December 2016: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-3-Hydrogeologic-Conceptual-Model_ay_19.pdf.
[122] 23 CCR §§ 354.14(a), 354.14(c).
[123] 23 CCR §§ 354.14(b)(2-3).
[124] 23 CCR § 354.14(b)(4) *et seq.*
[125] 23 CCR § 354.14(b)(5).
[126] 2024 Fillmore GSP, Section 2.2.1, p. 52.
[127] 2024 Fillmore GSP, Section 2.2.1.1, p. 52.
[128] 2024 Fillmore GSP, Figures 2.2-2 and 2.2-3, pp. 186-187; Figures 2.2-5 through 2.2-7, pp. 189-191.
[129] 2024 Fillmore GSP, Section 2.2.1.2, p. 53; Section 2.2.1.5.1, p. 62.
[130] 2024 Fillmore GSP, Section 2.2.1.2, pp. 53-54.

properties (e.g., basin narrows) of the Subbasin's boundaries with the Piru Subbasin to the east and the Santa Paula Subbasin to the west.[131]

The 2024 GSP defines the bottom of the Subbasin as that of the water-bearing deposits, which is described by existing studies as "at least 2,000 ft at the axis of the Santa Clara syncline" or "about 5,000 feet below ground surface".[132] The 2024 GSP states that there is uncertainty with regard to the depth of water bearing deposits in the Subbasin; however, the 2024 GSP indicates that the uncertainty "does not have a material impact of this GSP's ability to ensure sustainable conditions because water wells are typically constructed less than 2,000 feet [below ground surface] and the substantial changes in groundwater storage (i.e., the water table fluctuations) occur at shallower depths."[133] The 2024 GSP also suggests that few wells are more than 800 feet deep.[134]

The 2024 GSP identifies one principal aquifer in the Subbasin, which corresponds to Aquifer Zones A and B in United's hydrogeologic conceptual model.[135] Aquifer Zones A and B are considered merged in the Subbasin.[136] The 2024 GSP describes the conceptual hydrostratigraphic units in detail including lithology, thickness, horizontal and vertical presences, and effects on groundwater flow.[137]

The 2024 GSP considers Aquifer Zone C in United's model as a non-principal aquifer "because relatively little groundwater is pumped from this zone."[138] Uncertainty exists regarding the amount of pumping from this aquifer zone. Based on average annual pumping rates over calendar years 2015 to 2019, 1 percent of the pumping was from Aquifer Zone C; however, 11 percent of the pumping originated from wells with screen intervals spanning the principal aquifer (Aquifer Zones A and B) and Aquifer Zone C, while another 15 percent of the pumping originated from wells with unknown screen intervals.[139] The 2024 GSP also acknowledges that the relative contributions from the principal aquifer versus Aquifer Zone C is uncertain.[140] Principal aquifers, as defined by the GSP Regulations, refer in part to aquifer systems that yield significant or economic quantities of groundwater. Because of the uncertainty and the possibility of a relatively substantial amount of pumping from Aquifer Zone C, Department staff recommend that additional justification for excluding Aquifer Zone C from the principal aquifer designation should be provided, or, alternatively, the Aquifer Zone C should be defined as a principal aquifer,

[131] 2024 Fillmore GSP, Section 2.1.1, p. 31; Section 2.2.1.4.2, pp. 57-58; Figures 2.2-5 and 2.2-7, pp. 189 and 191.
[132] 2024 Fillmore GSP, Section 2.2.1.3, p. 54.
[133] 2024 Fillmore GSP, Section 2.2.1.3, p. 54.
[134] 2024 Fillmore GSP, Appendix E-1 – Section 2.4.5, p. 518; Appendix E-1 – Table 3-9, pp. 593-625.
[135] 2024 Fillmore GSP, Section 2.2.1.4, p. 54.
[136] 2024 Fillmore GSP, Section 2.2.1.4.1, p. 56.
[137] 2024 Fillmore GSP, Section 2.2.1.4.1, pp. 54-56; Figure 2.2-1, p. 185; Figure 2.2-4, p. 188.
[138] 2024 Fillmore GSP, Section 2.2.1.4, p. 54.
[139] 2024 Fillmore GSP, Table 2.2-2, p. 62.
[140] 2024 Fillmore GSP, Table 2.2-2, p. 62.

and the GSP should provide the additional required information for principal aquifers as required[141] (see Recommended Corrective Action 4).

The 2024 Plan discusses the physical and structural properties of the principal aquifer and aquitards.[142] The thickness of the principal aquifer varies from 300 to 700 feet, generally shallowest at the Subbasin's southern boundary. The principal aquifer is considered largely unconfined, except for the Subbasin's flank areas where a semi-continuous aquitard occurs at shallow depths.[143] The 2024 Plan presents aquifer hydraulic properties as estimated through the United's model.[144] The 2024 Plan also discusses general water quality and sources of water quality impairments in the principal aquifer.[145]

The 2024 GSP describes the primary uses of the principal aquifer, which include pumping for agricultural, domestic, municipal, and industrial users as well as evapotranspiration by vegetation (i.e., groundwater dependent ecosystems).[146] The average pumping rates over years 2015 to 2019 are tabulated for each beneficial use category.[147] GDEs are depicted[148] and their water demands are estimated through the United's groundwater flow model.[149]

Regarding data gaps and uncertainties of the hydrogeologic conceptual model, the 2024 GSP acknowledges "lack of groundwater level data in the shallow groundwater of the principal aquifer along the streams (e.g., Santa Clara River and Sespe Creek)" and describes data gap addressal via installation of monitoring wells.[150] The 2024 GSP also describes the lack of surface water flow monitoring data due to difficulties of maintaining gauging stations. The 2024 GSP acknowledges that shallow groundwater data collected at more locations in the future could improve model simulations of surface water flows.[151]

The 2024 GSP also provides descriptions and maps of recharge and discharge areas, topography, soil characteristics, surface water bodies, and imported water supplies of the Subbasin.[152] In particular, the discussions of surface water cover wetted stream reaches during wet and dry periods, surface water diversions, recycled wastewater reuse, and beneficial uses of surface water.[153] The 2024 GSP describes that the Subbasin receives variable amounts of imported water from the SWP, released from Lake Piru or

[141] 23 CCR § 354.14(b)(4) *et seq*.
[142] 2024 Fillmore GSP, Sections 2.2.1.4.2 – 2.2.4.1.3, pp. 57-60.
[143] 2024 Fillmore GSP, Section 2.2.1.4.2, p. 56.
[144] 2024 Fillmore GSP, Section 2.2.1.4.2, pp. 58-59; Table 2.2-1, p. 59.
[145] 2024 Fillmore GSP, Section 2.2.1.4.4, pp. 60-61.
[146] 2024 Fillmore GSP, Section 2.2.1.4.5, pp. 61-62.
[147] 2024 Fillmore GSP, Table 2.2-2, p. 62.
[148] 2024 Fillmore GSP, Figure 2.2-30, p. 214.
[149] 2024 Fillmore GSP, Section 2.2.1.4.5, p. 62.
[150] 2024 Fillmore GSP, Section 2.2.1.6, p. 67.
[151] 2024 Fillmore GSP, Section 2.2.1.6, p. 67.
[152] 2024 Fillmore GSP, Sections 2.2.1.5.1 – 2.2.1.5.7, pp. 62-66; Figures 2.2.8 through 2.2-11, pp. 192-195.
[153] 2024 Fillmore GSP, Section 2.2.1.5.6, pp. 66-68; Figures 2.2.11-2.2.14, pp. 195-198.

occasionally from Castaic Lake.[154] Surface water deliveries in water years 2010 through 2019 are presented in a table.[155]

The hydrogeologic conceptual model section included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[156] at this time. Department staff have provided recommended corrective actions for this section which the GSA should consider and address by the next periodic evaluation.

5.2.2 Groundwater Conditions

The GSP Regulations require a written description of historical and current groundwater conditions for each of the applicable sustainability indicators and groundwater dependent ecosystems that includes the following: groundwater elevation contour maps and hydrographs,[157] a graph depicting change in groundwater storage,[158] maps and cross-sections of the seawater intrusion front,[159] maps of groundwater contamination sites and plumes,[160] maps depicting total subsidence,[161] identification of interconnected surface water systems and an estimate of the quantity and timing of depletions of those systems,[162] and identification of groundwater dependent ecosystems.[163]

The 2024 GSP states that precipitation is important to consider when evaluating groundwater conditions in the Subbasin.[164] Long-term (decades long) and intermediate (about five-year long) wet and dry periods are consistent with climate variability of the region. Groundwater level hydrographs from wells with long-term records show similar trends as precipitation.[165]

The 2024 GSP presents in Figure 2.2-18 long-term hydrographs of 11 wells in the Fillmore and Piru Subbasins.[166] Long-term groundwater elevation data are from as early as 1930, with most data from 1970 through 2020.[167] The 2024 GSP states that the hydrographs show periods of stable “basin full” conditions, interrupted by periods of water level declines and subsequent recoveries associated with drought cycles.[168] The lowest groundwater levels during the 2012-2016 drought are considered generally similar to historical lows in previous droughts.[169] Temporal variations of groundwater levels are

[154] 2024 Fillmore GSP, Section 2.2.1.5.7, pp. 66-67.
[155] 2024 Fillmore GSP, Table 2.2-8, p. 96.
[156] 23 CCR § 354.14 *et seq*.
[157] 23 CCR §§ 354.16(a)(1-2).
[158] 23 CCR § 354.16(b).
[159] 23 CCR § 354.16(c).
[160] 23 CCR § 354.16(d).
[161] 23 CCR § 354.16(e).
[162] 23 CCR § 354.16(f).
[163] 23 CCR § 354.16(g).
[164] 2024 Fillmore GSP, Section 2.2.2.1, p. 68; Figure 2.2-15, p. 199.
[165] 2024 Fillmore GSP, Section 2.2.2.1, p. 68.
[166] 2024 Fillmore GSP, Figure 2.2-18, p. 202.
[167] 2024 Fillmore GSP, Figure 2.2-18, p. 202.
[168] 2024 Fillmore GSP, Section 2.2.2.2, p. 69.
[169] 2024 Fillmore GSP, Section 2.2.2.2, p. 69.

greatest (about 70 feet) in the northern and eastern portions of the Subbasin, and more modest (about 40 feet) towards the west.[170]

The 2024 GSP also presents groundwater elevation contours in the principal aquifer for Spring 2019 (seasonal high) and Fall 2019 (seasonal low).[171] The contour maps show generally westward groundwater flow directions, and that groundwater pumping led to water level troughs in the Sespe Creek, City of Fillmore, and Bardsdale areas.[172]

The 2024 Plan depicts annual and cumulative changes of groundwater storage, as well as annual pumping and water year types for the period of 1988-2019.[173] The storage changes are estimated using United's groundwater flow modeling.[174] Average annual storage change is estimated to be an overdraft of 2,000 acre-foot per year during 1998-2015 (historical period), and a surplus of 1,900 acre-foot per year during 2016-2019 (current period).[175] Staff note that groundwater storage declines experienced from 2012 to 2016—and depicted on Figure 2.2-19—have not recovered by 2019 to the conditions in 2005/2006 or 2011, which represent near zero change in cumulative storage.[176] The 2024 GSP states that the most recent drought (2012-2016) is part of a long-term drought that dates to 2000.[177] Fourteen years during 2000-2019 are noted by the 2024 GSP as below normal, dry, or critical water years.[178] The 2024 GSP suggests that the time needed for groundwater level recovery is longer because of the extended period of long-term drought.[179]

The 2024 GSP states that seawater intrusion is not applicable because of substantial horizontal and vertical distances from the ocean (i.e., 15 miles inland and groundwater levels being at least 170 feet above mean sea level).[180] Department staff agree with the 2024 GSP's assessment of seawater intrusion.

The 2024 GSP describes current and historical groundwater quality issues in the Subbasin, and identifies total dissolved solids (TDS), sulfate, chloride, nitrate, and boron as the primary constituents of concern (COC).[181] The 2024 Plan discusses where concentrations of the primary COC have exceeded water quality standards in 2015,[182] as well as concentrations of additional potential constituents of concern including

[170] 2024 Fillmore GSP, Section 2.2.2.2, p. 69.
[171] 2024 Fillmore GSP, Figures 2.2-16 and 2.2-17, pp. 193-194.
[172] 2024 Fillmore GSP, Section 2.2.2.2, p. 69.
[173] 2024 Fillmore GSP, Section 2.2.2.3, pp. 69-71; Figure 2.2-19, p. 203.
[174] 2024 Fillmore GSP, Section 2.2.2.3, p. 70.
[175] 2024 Fillmore GSP, Section 2.2.3.3.2, p. 97; Table 2.2-10, p. 98; Section 2.2.3.4, pp. 99-101; Table 2.2-12, p. 101.
[176] 2024 Fillmore GSP, Figure 2.2-19, p. 203.
[177] 2024 Fillmore GSP, Section 2.2.2.3, pp. 70-71.
[178] 2024 Fillmore GSP, Figure 2.2-19, p. 203.
[179] 2024 Fillmore GSP, Section 2.2.2.3, p. 71.
[180] 2024 Fillmore GSP, Section 2.2.2.4, p. 71.
[181] 2024 Fillmore GSP, Section 2.2.2.5.1, pp. 72-73.
[182] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 73-79.

radiochemistry (gross alpha and uranium), selenium, lead, iron, and manganese.[183] Elevated concentrations above Water Quality Objectives (WQO) have been reported in some groundwater wells in the Subbasin for each of the primary COCs in 2015.[184] Historical time-series graphs,[185] and water quality trend analysis in long-term (1983-2018) and short-term (available data in 2000-2020) durations are also included in the 2024 Plan.[186] The 2024 GSP presents maps of short-term groundwater quality trends for the primary COC, and a map of locations of known groundwater contamination sites.[187] The 2024 Plan notes increasing trends of TDS, sulfate and boron in the Pole Creek Fan area, increasing trends of nitrate in some wells, and overall increasing trends of chloride in the Subbasin.[188]

The 2024 GSP states that land subsidence is a low risk in the Subbasin based on various studies including numerical groundwater flow modeling and Interferometric Synthetic Aperture Radar (InSAR) surveys.[189] The 2024 GSP presents a map of cumulative change in land elevations from 2015-2019 for the entire Subbasin based on InSAR data.[190] The 2024 Plan concludes that both annual and cumulative rates of land subsidence are insignificant.[191]

Surface water is considered “interconnected” along the upper portion of Sespe Creek and two reaches of the Santa Clara River near the Subbasin boundaries, “uncertain” along the lower portion of Sespe Creek, and “unlikely” in the central portion of the Santa Clara River and most tributaries (i.e., Poll Creek, Boulder Creek, and Timber Canyon Creek). The two reaches of the Santa Clara River near the Subbasin boundaries (i.e., Cienega Springs and East Grove) are referred to as “significant interconnected surface water systems;”[192] and their surrounding areas are called areas of rising groundwater, where surface water is often entirely sourced from groundwater especially during dry periods.[193] Streamflow in the Cienega Springs area exhibit larger variability than the East Grove area and dried out during the drought years of 2014-2016.[194] The 2024 Plan includes a map that identifies interconnected stream reaches within the Subbasin.[195] Lack of groundwater level data along streams (e.g., Santa Clara River and Sespe Creek) is described as data gap to be addressed (see Section 5.2.1).

[183] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 79-81.
[184] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 73-79.
[185] 2024 Fillmore GSP, Appendix K – Appendix D and E, pp. 1953-2532.
[186] 2024 Fillmore GSP, Appendix K – Section 4, pp. 1673-1703.
[187] 2024 Fillmore GSP, Figures 2.2-20 to 2.2-25, pp. 204-209.
[188] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 75-79; Figure 2.2-20 to 2.2-24, pp. 204-208.
[189] 2024 Fillmore GSP, Section 2.2.2.6, p. 84.
[190] 2024 Fillmore GSP, Figure 2.2-26, p. 210.
[191] 2024 Fillmore GSP, Section 2.2.2.6, pp. 84-85.
[192] 2024 Fillmore GSP, Section 2.2.2.7, p. 85.
[193] 2024 Fillmore GSP, Section 2.2.2.7, p. 85.
[194] 2024 Fillmore GSP, Section 2.2.2.7, p. 85; Figure 2.2-12, p. 196.
[195] 2024 Fillmore GSP, Figure 2.2-27, p. 211.

The 2024 GSP estimates stream depletions at the two rising groundwater areas with the United's regional groundwater flow model by comparing two model scenarios: one with historical pumping rates and another that excludes pumping within a 1-mile band centered along the Santa Clara River channel.[196] The estimated average monthly depletion rates during 1988-2019 range from zero (when surface water stops flowing during droughts) at the Cienega Springs area to the maximums of 10 cubic feet per second (cfs) and 20 cfs at the East Grove and Cienega Springs areas, respectively.[197] The 2024 GSP also presents estimated annual depletions for the two areas in a table.[198] However, the 2024 GSP does not provide supporting information using best available science or information to exclude pumping in other parts of the Subbasin beyond the 1-mile band which may also cause stream depletion. Therefore, Department staff consider these estimations using a 1-mile band as potentially inaccurate and most likely an underestimation of the stream depletion due to pumping that is occurring in the Subbasin. Department staff recommend the GSA follow the Department's future guidance document to develop more appropriate methods to quantify the location, timing, and rate of depletion (see Recommended Corrective Action 2).

The 2024 GSP includes a description of five units of GDEs in the Subbasin.[199] Two of the GDE units (i.e., the Cienega Riparian Complex and the East Grove Riparian Complex) are associated with areas of rising groundwater.[200] The 2024 GSP states that GDE health is monitored with the Normalized Difference Vegetation Index (NDVI), Normalized Difference Moisture Index (NDMI), and groundwater records of nearby wells.[201] The 2024 GSP indicates that vegetation health in the Cienega Riparian Complex has not recovered from die-off effects of the 2012-2016 drought.[202] The 2024 GSP identifies three species with critical habitat areas in the Subbasin, including Southern California steelhead,[203] and maps the critical habitats and surface water beneficial uses as they relate to fish.[204] The 2024 GSP also lists ongoing habitat management and special-status species recovery plans in the Fillmore and Piru Subbasins.[205]

The groundwater conditions section included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[206] at this time. Department staff have provided recommended corrective actions for this section which the GSA should consider and address by the next periodic evaluation.

[196] 2024 Fillmore GSP, Section 2.2.2.7, p. 86.
[197] 2024 Fillmore GSP, Section 2.2.2.7, p. 86; Figure 2.2-29, p. 213.
[198] 2024 Fillmore GSP, Table 2.2-4, p. 87.
[199] 2024 Fillmore GSP, Section 2.2.2.8, pp. 87-88; Table 2.2-5, p. 88; Figure 2.2-30, p. 214.
[200] 2024 Fillmore GSP, Section 2.2.2.8, p. 87.
[201] 2024 Fillmore GSP, Section 2.2.2.8, p. 87.
[202] 2024 Fillmore GSP, Section 2.2.2.8, p. 87.
[203] 2024 Fillmore GSP, Section 2.2.2.8, pp. 86-87; Table 2.2-7, p. 87.
[204] 2024 Fillmore GSP, Figures 2.2-31 and 2.2-32, pp. 215-216.
[205] 2024 Fillmore GSP, Section 2.2.2.8, p. 89.
[206] 23 CCR § 354.16 *et seq*.

5.2.3 Water Budget

GSP Regulations require a water budget for the basin that provides an accounting and assessment of the total annual volume of groundwater and surface water entering and leaving the basin, including historical; current; and projected water budget conditions,[207] and the sustainable yield.[208]

The 2024 GSP estimates historical, current, and projected water budgets with the United's Ventura Regional Groundwater Flow Model, which was developed with the MODFLOW-NWT numerical code and calibrated over the period of 1985-2019.[209] The model was reviewed by an expert panel and considered "suitable for assisting with long-term sustainable management of the groundwater resources" in the Subbasin.[210] The water budget information is provided in tabular and graphical forms for the surface water and groundwater systems.[211]

The 2024 GSP includes a historical water budget for water years 1988-2015,[212] a current water budget for water years 2016-2019,[213] and a projected water budget that applies DWR's 2070 central tendency climate factors to the historical hydrology of water years 1943-2019.[214] The average annual change in groundwater storage in the historical water budget was an overdraft of 2,000 acre-feet per year (AFY).[215] The current water budget reports an average annual change in groundwater storage of 1,900 AFY.[216] The projected water budget with climate change estimates an annual storage surplus of 400 AFY.[217] The 2024 GSP explains that while temporary overdraft occurs during periods of multiple years of below average precipitation, the Subbasin "refills" following one or more wet years.[218] Therefore, as the 2024 GSP states, the Subbasin does not exhibit long-term overdraft.[219] Department staff note that by 2019 the Subbasin's groundwater storage had still not recovered to the "basin full" conditions following the extended drought years of 2012-2016.[220] Staff recommend that the GSA continue to report groundwater storage conditions in annual reports and periodic evaluations.

The 2024 GSP presents inconsistent estimates of the sustainable yield of the Subbasin in different parts of the Plan, as either 50,000 AFY or 50,800 AFY.[221] In comparison to the historical average pumping (46,800 AFY), the 2024 GSP states that the Subbasin can

[207] 23 CCR §§ 354.18(a), 354.18(c) *et seq*.
[208] 23 CCR § 354.18(b)(7).
[209] 2024 Fillmore GSP, Section 2.2.3, p. 90; Appendix E-1, p. 479; Appendix E-4, p. 1363.
[210] 2024 Fillmore GSP, Appendix E-4, p. 1371.
[211] 2024 Fillmore GSP, Section 2.2.3, pp. 90-106; Figures 2.2-34 through 2.2-39, pp. 218-223.
[212] 2024 Fillmore GSP, Section 2.2.3.3, pp. 94-99.
[213] 2024 Fillmore GSP, Section 2.2.3.4, pp. 99-101.
[214] 2024 Fillmore GSP, Section 2.2.3.5, pp. 101-105.
[215] 2024 Fillmore GSP, Table 2.2-10, p. 98.
[216] 2024 Fillmore GSP, Table 2.2-12, p. 101.
[217] 2024 Fillmore GSP, Table 2.2-14, p. 105.
[218] 2024 Fillmore GSP, Section 2.2.3.6, p. 105.
[219] 2024 Fillmore GSP, Section 2.2.3.6, p. 105.
[220] 2024 Fillmore GSP, Figure 2.2-36, p. 220.
[221] 2024 Fillmore GSP, Section 2.2.3.7, p. 106; Section 3.1, p. 111.

pump an additional 3,200 AFY on average without causing chronic declines of groundwater levels,[222] and that "the sustainable yield for the [Subbasin] is estimated to be 50,000 AFY."[223] The 2024 GSP also states "the estimated minimum sustainable yield for the [Subbasin] is calculated to be 50,800 AFY," based on the average annual pumping rate of 50,400 AFY and the storage surplus of 400 AFY in the projected water budget.[224] Although the two estimates are very close—differing by less than 2 percent—Department staff recommend the GSP present a consistent estimate of sustainable yield in future periodic evaluations of the Plan.

The water budget described in the 2024 GSP substantially complies with the GSP Regulations and appears to be developed using the best available science. The 2024 GSP provides the required historical, current, and future accounting and assessment of the total annual volume of groundwater and surface water entering and leaving the Subbasin including an estimate of the sustainable yield of the Subbasin.

5.2.4 Management Areas

The GSP Regulations provide the option for one or more management areas to be defined within a basin if the GSA has determined that the creation of the management areas will facilitate implementation of the Plan. Management areas may define different minimum thresholds and be operated to different measurable objectives, provided that undesirable results are defined consistently throughout the basin.[225]

The 2024 GSP designates the Cienega Riparian Complex GDE unit which spans the Fillmore and Piru Subbasins as a management area to mitigate GDE vegetation die-off due to groundwater level declines during drought periods.[226] The GDE unit extends equally into the two subbasins. There are currently four representative monitoring sites for this management area, which are all located in the Fillmore Subbasin.[227] For the GDE unit, the 2024 GSP establishes minimum thresholds for the chronic lowering of groundwater levels sustainability indicator at the "critical water level," defined as 10 feet below the 2011 average groundwater levels based on recent research studies.[228] The minimum thresholds for this management area are significantly higher than those for subbasin-wide groundwater level declines (i.e., 50 feet below the 2011 average groundwater levels) that are considered protective of well pumping.[229] The measurable objectives for the GDE unit are the 2011 average groundwater levels, the same as those for subbasin-wide groundwater level declines.[230]

[222] 2024 Fillmore GSP, Section 2.2.3.7, p. 106.
[223] 2024 Fillmore GSP, Section 3.1, p. 111.
[224] 2024 Fillmore GSP, Section 2.2.3.7, p. 106.
[225] 23 CCR § 354.20.
[226] 2024 Fillmore GSP, Section 2.2.4, p. 107; Section 3.2.2, p. 114; Table 3.0-1, p. 109; Figure 2.2-30, p. 214.
[227] 2024 Fillmore GSP, Figure 3.5-4, p. 227; 2024 Piru GSP, Figure 3.5-4, p. 221.
[228] 2024 Fillmore GSP, Section 3.3.1.2, p. 119.
[229] 2024 Fillmore GSP, Section 3.3.1.1, p. 118.
[230] 2024 Fillmore GSP, Section 3.4, p. 123; Table 3.0-1, p. 109.

The GSP's description and sustainable management criteria for this management area are supported with sufficient information and justification, and significantly complies with the GSP Regulations. Department staff note that the 2024 GSP adds similar minimum thresholds and measurable objectives for the East Grove Riparian Complex GDE unit for the same purpose of protecting vegetation die-off.[231] Department staff recommend the GSA clarify whether the East Grove GDE unit is also considered a management area by the next periodic evaluation.

5.3 Sustainable Management Criteria

GSP Regulations require each Plan to include a sustainability goal for the basin and to characterize and establish undesirable results, minimum thresholds, and measurable objectives for each applicable sustainability indicator, as appropriate. The GSP Regulations require each Plan to define conditions that constitute sustainable groundwater management for the basin including the process by which the GSA characterizes undesirable results and establishes minimum thresholds and measurable objectives for each applicable sustainability indicator.[232]

5.3.1 Sustainability Goal

GSP Regulations require that GSAs establish a sustainability goal for the basin. The sustainability goal should be based on information provided in the GSP's basin setting and should include an explanation of how the sustainability goal is likely to be achieved within 20 years of Plan implementation.[233]

The 2024 GSP states that the sustainability goal is memorialized in the guiding principles that were adopted by the Fillmore and Piru Basins Groundwater Sustainability Agency in November 2019.[234] From the over 40 guiding principles described, two are described as being the "most pertinent to the sustainability goal". They are:

> *1) "sustainable groundwater conditions in the Basins are critical to support, preserve, and enhance the economic viability, social well-being, environmental health, and cultural norms of all beneficial users and uses including Tribal, domestic, municipal, agricultural, environmental and industrial users;" and*
>
> *2) "[Fillmore and Piru Basins GSA] is committed to conduct sustainable groundwater practices that balance the needs of and protect the groundwater resources for all Beneficial Users in the Basins."*[235]

The 2024 GSP also refers to the definition of "sustainability goal" in Water Code 10721(u) which emphasizes measures targeted to ensure that a basin is operated within its

[231] 2024 Fillmore GSP, Section 3.2.3.1, p. 115; Appendix J – Section 3.3.3.2, p. 1524; Figure 3.5-4, p. 227.
[232] 23 CCR § 354.22 *et seq*.
[233] 23 CCR § 354.24.
[234] 2024 Fillmore GSP, Section 3.1, p. 111.
[235] 2024 Fillmore GSP, Section 3.1, p. 111.

sustainable yield and states that "based on the evaluation of historical, current, and projected water budgets (Section 2.2.3), the sustainable yield for the Basin is estimated to be 50,000 AFY."[236] Information presented in the 2024 GSP suggest that the Subbasin's historical groundwater extractions are within the sustainable yield and that projected groundwater extractions are sustainable.[237] However, the 2024 GSP does not discuss the measures that will be implemented to ensure that the Subbasin will be operated within its sustainable yield although the GSA requires pumpers in the Subbasin to report their groundwater extractions.[238] Department staff recommend that the GSA further discuss management actions to ensure the Subbasin's groundwater extractions do not exceed the sustainable yield.

Department staff recommend the GSA explicitly define the sustainability goal and explain how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon, as required by the GSP Regulations[239] (see Recommended Corrective Action 5).

Because the 2024 GSP describes the Subbasin's groundwater conditions as relatively stable, references guiding principles adopted by the GSA, and recognizes the requirement to operate the Subbasin within its sustainability yield, Department staff conclude that the recommended corrective action does not prevent Plan approval at this time. Staff recommend that the GSA address it by the next periodic evaluation of the Plan.

5.3.2 Sustainability Indicators

Sustainability indicators are defined as any of the effects caused by groundwater conditions occurring throughout the basin that, when significant and unreasonable, cause undesirable results.[240] Sustainability indicators thus correspond with the six undesirable results – chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon, significant and unreasonable reduction of groundwater storage, significant and unreasonable seawater intrusion, significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies, land subsidence that substantially interferes with surface land uses, and depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water[241] – but refer to groundwater conditions that are not, in and of themselves, significant and unreasonable. Rather, sustainability indicators refer to the effects caused by changing groundwater conditions that are monitored, and for which criteria in the form of minimum thresholds are established by the agency to define when the effect becomes significant and unreasonable, producing an undesirable result.

[236] 2024 Fillmore GSP, Section 3.1, p. 111.
[237] 2024 Fillmore GSP, Section 2.2.3.7, p. 106; Section 2.2.3.3.3, p. 99.
[238] 2024 Fillmore GSP, Section 3.5.1.4, pp. 130-131.
[239] 23 CCR § 354.24.
[240] 23 CCR § 351(ah).
[241] Water Code § 10721(x).

GSP Regulations require that GSAs provide descriptions of undesirable results including defining what are significant and unreasonable potential effects to beneficial uses and users for each sustainability indicator.[242] GSP Regulations also require GSPs provide the criteria used to define when and where the effects of the groundwater conditions cause undesirable results for each applicable sustainability indicator. The criteria shall be based on a quantitative description of the combination of minimum threshold exceedances that cause significant and unreasonable effects in the basin.[243]

GSP Regulations require that the description of minimum thresholds include the information and criteria relied upon to establish and justify the minimum threshold for each sustainability indicator.[244] GSAs are required to describe how conditions at minimum thresholds may affect beneficial uses and users,[245] and the relationship between the minimum thresholds for each sustainability indicator, including an explanation for how the GSA has determined conditions at each minimum threshold will avoid causing undesirable results for other sustainability indicators.[246]

GSP Regulations require that GSPs include a description of the criteria used to select measurable objectives, including interim milestones, to achieve the sustainability goal within 20 years.[247] GSP Regulations also require that the measurable objectives be established based on the same metrics and monitoring sites as those used to define minimum thresholds.[248]

The following subsections thus consolidate three facets of sustainable management criteria: undesirable results, minimum thresholds, and measurable objectives. Information, as presented in the Plan, pertaining to the processes and criteria relied upon to define undesirable results applicable to the Subbasin, as quantified through the establishment of minimum thresholds, are addressed for each applicable sustainability indicator. A submitting agency is not required to establish criteria for undesirable results that the agency can demonstrate are not present and are not likely to occur in a basin.[249]

5.3.2.1 Chronic Lowering of Groundwater Levels

In addition to components identified in 23 CCR §§ 354.28 (a-b), for the chronic lowering of groundwater, the GSP Regulations require the minimum threshold for chronic lowering of groundwater levels to be the groundwater elevation indicating a depletion of supply at a given location that may lead to undesirable results that is supported by information

[242] 23 CCR §§ 354.26(a), 354.26(b)(c).
[243] 23 CCR § 354.26(b)(2).
[244] 23 CCR § 354.28(b)(1).
[245] 23 CCR § 354.28(b)(4).
[246] 23 CCR § 354.28(b)(2).
[247] 23 CCR § 354.30(a).
[248] 23 CCR § 354.30(b).
[249] 23 CCR § 354.26(d).

about groundwater elevation conditions and potential effects on other sustainability indicators.[250]

In the Department's Incomplete Determination, the Department identified deficiencies related to the sustainable management criteria for the chronic lowering of groundwater levels. The GSA revised this portion of the 2022 Plan, and Department staff have evaluated this sustainability indicator in Section 4.1 of this Staff Report. As presented above, Department staff concluded that the GSA took sufficient action to correct this deficiency, but staff also provided recommended corrective actions based on the revised 2024 GSP.

In addition to the facets of sustainable management criteria evaluated in Section 4.1 of this Staff Report, the 2024 GSP establishes measurable objectives for the chronic lowering of groundwater levels at "average 2011 groundwater elevations, which represent 'basin full' conditions." [251] Department staff believe the measurable objectives are consistent with the 2024 GSP's description of the basin setting which describes the Subbasin's hydrology to "exhibit a repetitive sequence of lower water levels during drought periods with recovery during subsequent wet periods," and "not exhibit evidence of chronic, long-term water level declines."[252] The 2024 GSP explains that water levels recovering to similar "basin full" conditions following a drought would indicate sustainable conditions in the Subbasin.[253] The measurable objectives are also supported by the 2024 GSP's model projection that the Subbasin's water levels would recover to similar "basin full" conditions even with significant increases in future pumping. [254] Therefore, Department staff consider it reasonable to establish the measurable objectives as the groundwater levels that occur at the "basin full" conditions.

However, the 2024 GSP does not establish interim milestones for chronic lowering of groundwater levels and does not provide an explanation for why they were not established. Interim milestones allow GSA, the public (i.e., beneficial users of groundwater) and the Department to track the progress of the Plan, in increments of five years, to achieve the sustainability goal in the Subbasin. Department staff recommend that the GSA establish interim milestones for this sustainability indicator; due to the relationship between the Subbasin's water levels and cycles of wet and dry periods as described above, staff further recommend that the GSA consider establishing interim milestones at the "basin full" conditions, the same as the measurable objectives.

The sustainable management criteria for chronic lowering of groundwater levels sustainability indicator included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[255] at this time. Department staff have

[250] 23 CCR § 354.28(c)(1) *et seq*.
[251] 2024 Fillmore GSP, Section 3.4, p. 123; Tables 3.0-1 and 3.0-2, pp. 109-110.
[252] 2024 Fillmore GSP, Appendix J – Section 2.4, p. 1506.
[253] 2024 Fillmore GSP, Appendix J – Section 3.3.4, p. 1524.
[254] 2024 Fillmore GSP, Appendix J – Section 2.4, p. 1506.
[255] 23 CCR §§ 354.22-30.

provided recommended corrective actions for this sustainability indicator which the GSA should consider and address by the next periodic evaluation.

5.3.2.2 Reduction of Groundwater Storage

In addition to components identified in 23 CCR §§ 354.28 (a-b), for the reduction of groundwater storage, the GSP Regulations require the minimum threshold for the reduction of groundwater storage to be a total volume of groundwater that can be withdrawn from the basin without causing conditions that may lead to undesirable results. Minimum thresholds for reduction of groundwater storage shall be supported by the sustainable yield of the basin, calculated based on historical trends, water year type, and projected water use in the basin.[256]

The 2024 GSP describes the undesirable results from reduction of groundwater storage as "the loss of ability to pump groundwater,"[257] or "inadequate groundwater volume in storage to last through multi-year drought without pumping reductions."[258] The 2024 GSP uses groundwater levels as a proxy and establishes sustainable management criteria (i.e., undesirable results, minimum thresholds and measurable objectives) for reduction of groundwater storage as the same as those for the chronic lowering of groundwater levels sustainability indicator in subbasin-wide areas outside of GDE areas (i.e. monitoring the ability to pumping groundwater from production wells).[259] The GSA explains that the amount of groundwater in storage is linked to groundwater levels and exhibit similar cyclic behaviors of decline during drought periods with recovery during wet periods.[260] Department staff largely agree with the GSA's assessment of the relationship between groundwater levels and storage, but recommend the GSA continue to evaluate and confirm this relationship in the Subbasin in annual reports and periodic evaluations of the Plan.

Department staff consider it reasonable to use the groundwater level sustainable management criteria for depletion of supply in production wells as a proxy to manage groundwater storage reduction. The GSA's descriptions of undesirable results for the two sustainability indicators are similar and, therefore, maintaining sustainable water levels for production wells would mean sustainable volume of groundwater storage. Staff conclude that the GSP substantially complies with this part of the GSP Regulations.

5.3.2.3 Seawater Intrusion

In addition to components identified in 23 CCR §§ 354.28 (a-b), for seawater intrusion, the GSP Regulations require the minimum threshold for seawater intrusion to be defined

[256] 23 CCR § 354.28(c)(2).
[257] 2024 Fillmore GSP, Section 3.2.3.2, p. 116.
[258] 2024 Fillmore GSP, Tale 3.0-1, p. 109.
[259] 2024 Fillmore GSP, Section 3.3.2, p. 119; Section 3.2.4, p. 116; Section 3.4, p. 123; Appendix J – Sections 3.4.3 and 3.4.4, pp. 1524-1525.
[260] 2024 Fillmore GSP, Appendix J – Section 3.4, pp. 1524-1525.

by a chloride concentration isocontour for each principal aquifer where seawater intrusion may lead to undesirable results.[261]

The 2024 GSP states that "undesirable results related to seawater intrusion are not applicable to this Basin due to the large horizontal and vertical distances separating groundwater levels from seawater."[262] The 2024 GSP details that the western boundary of the [Fillmore and Piru Subbasins] is approximately 15 miles inland and groundwater elevations have been at least 170 feet above mean sea level.[263] In addition, the 2024 GSP states that "seawater intrusion has not historically migrated beyond the coastal plain (e.g., Oxnard Basin) even during severe drought conditions."[264] Department staff agree with the GSA's rationale for not setting sustainable management criteria for seawater intrusion in the Subbasin.

5.3.2.4 Degraded Water Quality

In addition to components identified in 23 CCR §§ 354.28 (a-b), for degraded water quality, the GSP Regulations require the minimum threshold for degraded water quality to be the degradation of water quality, including the migration of contaminant plumes that impair water supplies or other indicator of water quality as determined by the Agency that may lead to undesirable results. The minimum threshold shall be based on the number of supply wells, a volume of water, or a location of an isocontour that exceeds concentrations of constituents determined by the Agency to be of concern for the basin. In setting minimum thresholds for degraded water quality, the Agency shall consider local, state, and federal water quality standards applicable to the basin.[265]

The 2024 GSP describes significant and unreasonable effects of water quality degradation as "water quality degradation beyond historical conditions."[266] The 2024 GSP also states that "significant and unreasonable water quality degradation would result if water quality exceeds Maximum Contaminant Levels (MCLs) (e.g., nitrate above the MCL can result in Blue Baby Syndrome) or water quality significantly exceeds historical concentrations."[267] The 2024 GSP gives examples of undesirable results that impair agricultural or domestic beneficial uses and users because of high concentrations of constituents, such as boron, chloride, nitrate, sulfate, TDS, and "constituents with a maximum contaminant level (MCL) listed in Title 22 of the CCR."[268]

Five primary COC (i.e., boron, chloride, nitrate, sulfate, TDS) were identified in the 2024 GSP, with presentations of their maximum contaminant levels (MCLs)[269] and/or water

[261] 23 CCR § 354.28(c)(3).
[262] 2024 Fillmore GSP, Section 3.2.2, p. 114.
[263] 2024 Fillmore GSP, Section 2.2.2.4, p. 71; Appendix J – Section 3.1, p. 1510.
[264] 2024 Fillmore GSP, Appendix J – Sections 3.1, p. 1510.
[265] 23 CCR § 354.28(c)(4).
[266] 2024 Fillmore GSP, Section 3.2.2, p. 114.
[267] 2024 Fillmore GSP, Section 3.2.3.2, p. 116.
[268] 2024 Fillmore GSP, Appendix J – Section 3.2.1, p. 1512.
[269] 2024 Fillmore GSP, Table 2.2-3, p. 73; Appendix K – Table 4-2, p. 1682.

quality objectives (WQOs).[270] Although information in the 2024 GSP's basin setting section indicate that the five primary COC will be the focus of SGMA implementation,[271] the 2024 GSP has not specifically defined the COC in its water quality sustainable management criteria (e.g., no reference to COC in Chapter 3). Instead, the 2024 GSP's Appendix J states that "the proposed metrics are the water quality analyte values and units included in existing and future regulations…."[272] Department staff understand that the GSA intends to be thorough in its water quality evaluation but recommend that the GSA clearly identify which COC are included in its current sustainable management criteria for water quality and whether the minimum thresholds are established at the MCL/WQO or based on historical concentrations (see Recommended Corrective Action 6a).

The 2024 GSP does not describe the combination of minimum threshold (i.e., MCL or WQO, as discussed below) exceedances among the 21 representative monitoring wells used to define when and where the effects of groundwater conditions cause undesirable results for degraded water quality in the Subbasin. The GSA plans to depend on the existing groundwater quality monitoring programs of United and Ventura County Watershed Protection District (VCWPD) for GSP implementation.[273] Exceedances of MCL or WQO for each of the primary COC have been reported in some monitoring wells in 2015.[274] Increasing concentration trends have also been observed in some monitoring wells.[275] In its discussions of "Multiple Minimum Thresholds Used to Determine Undesirable Results," the 2024 GSP appears to suggest that the GSA's responsibility is limited to evaluating water quality parameters against the minimum thresholds associated with water quality standards and to "not implement projects or management actions that further degrade water quality beyond historical conditions."[276] However, The GSP Regulations require the criteria to be a quantitative description of the combination of minimum threshold exceedances.[277] Furthermore, Department staff note that SGMA specifies undesirable results as "caused by groundwater conditions occurring throughout the basin" not just from projects or management actions of groundwater sustainability agencies. Degraded water quality caused by groundwater pumping, changes in groundwater levels, changes in the direction of groundwater flow, or changes in horizontal or vertical movement of groundwater within the Subbasin should be considered in the assessment of undesirable results. Additionally, the 2024 GSP does not describe the time interval or frequency of sample collection to evaluate the occurrence of water quality undesirable results even as the monitoring programs by United and VCWPD differ in sampling frequencies. The GSA considers semiannual sampling necessary to assess

[270] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 73-79.
[271] 2024 Fillmore GSP, Section 2.2.2.5.4, pp. 83-84.
[272] 2024 Fillmore GSP, Appendix J – Section 3.2.2, p. 1512.
[273] 2024 Fillmore GSP, Sections 3.5.1.2 – 3.5.1.2.1, pp. 127-128; Figure 2.1-9, p. 180, Figure 3.5-2, p. 225.
[274] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 74-79.
[275] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 74-79; Appendix K – Section 4.1.2, pp. 1681-1697.
[276] 2024 Fillmore GSP, Section 3.2.4, p. 116.
[277] 23 CCR § 354.26(b)(2).

seasonal trends but identifies as a data gap that VCWPD samples its 14 monitoring wells only in the fall.[278] Therefore, Department staff recommend that the GSA develop a method or rationale to quantify what it considers as "water quality [that] significantly exceeds historical concentrations" for each COC and remove any limitation to specific activities the GSA is engaged in to define the quantitative criteria of water quality undesirable results as required by the GSP Regulations[279] (see Recommended Corrective Action 6b).

The 2024 GSP establishes minimum thresholds for water quality degradation as "WQOs [Water Quality Objectives] and MCLs established by the LARWQCB [Los Angeles Regional Water Quality Control Board] Basin Plan and California DDW [Water Board Division of Drinking Water], respectively."[280] Department staff consider it reasonable to use federal and state water quality standards as minimum thresholds to protect beneficial uses and users of groundwater. However, it is unclear how the 2024 GSP applies the two standards to establish minimum thresholds when their values differ. In addition, WQO may vary among the three management areas as designated in the LARWQCB Basin Plan.[281] Therefore, Department staff recommend that the GSA clearly convey the numeric values of minimum thresholds for each constituent of concern at each representative monitoring well and present the information in a tabular format (i.,e., the minimum thresholds, measurable objectives, and interim milestones for each constituent of concern at each representative monitoring sites) as required by the GSP Regulations[282] (see Recommended Corrective Action 6c).

The 2024 GSP establishes measurable objectives for degraded water quality the same as the minimum thresholds (i.e., MCLs and WQOs) for each constituent of concern.[283] Department staff believe these measurable objectives meet the GSP Regulations' requirement of using the same matrix and monitoring sites as minimum thresholds[284] and are protective of drinking water and agricultural beneficial uses of groundwater by using the federal and state water quality standards. However, the GSP does not establish water quality interim milestones in five-year increments as required by the GSP Regulations.[285] Department staff recommend that the GSA establish interim milestones for water quality.

Overall, the GSP has established minimum thresholds and measurable objectives of degraded water quality that are consistent with federal and state water quality standards and protective of drinking water and agricultural uses of groundwater. The recommended corrective actions do not preclude Plan approval at this time. Department staff expect the

[278] 2024 Fillmore GSP, Section 3.5.4.2.2, p. 142; Section 2.2.2.5.4, pp. 83-84; Section 3.5.1.2.1, pp. 127-128.
[279] 23 CCR § 354.26(b)(2).
[280] 2024 Fillmore GSP, Section 3.3.4, p. 120.
[281] 2024 Fillmore GSP, Section 2.2.2.5.2, pp. 74-79.
[282] 23 CCR § 354.36(a).
[283] 2024 Fillmore GSP, Section 3.4, p. 123.
[284] 23 CCR § 354.30(b).
[285] 23 CCR § 354.30(a).

GSA to address the recommended corrective actions by the next periodic evaluation of the Plan.

5.3.2.5 Land Subsidence

In addition to components identified in 23 CCR §§ 354.28 (a-b), the GSP Regulations require the minimum threshold for land subsidence to be the rate and extent of subsidence that substantially interferes with surface land uses and may lead to undesirable results.[286] Minimum thresholds for land subsidence shall be supported by identification of land uses and property interests that have been affected or are likely to be affected by land subsidence in the basin, including an explanation of how the Agency has determined and considered those uses and interests, and the Agency's rationale for establishing minimum thresholds in light of those effects and maps and graphs showing the extent and rate of land subsidence in the basin that defines the minimum thresholds and measurable objectives.[287]

The 2024 GSP states that the Fillmore and Piru Subbasins have a low risk of subsidence based on previous studies and evaluation of recent InSAR datasets.[288] Numerical modeling suggests just over 0.1 foot of subsidence in the historical period of 1891-1993, and recent InSAR observations show insignificant changes in land elevations from 2015 to 2019.[289] The 2024 GSP explains that "the [Subbasin] is composed largely of coarse-grained aquifer material, making it resistant to inelastic land subsidence."[290] Additionally, the GSA's updated subsidence evaluation concluded that "there has not been any measurable net subsidence in the [Fillmore and Piru Subbasins] since [InSAR] measurements started in June 2015."[291] The GSA monitors land subsidence in the entire Fillmore Subbasin with InSAR datasets provided by TRE Altimira and DWR.[292]

The 2024 GSP describes significant and unreasonable effects of land subsidence as "inelastic land subsidence that damages critical infrastructure (water distribution systems, roads, railways, bridges, etc.),"[293] and describes "loss of aquifer storage (i.e., compaction of pore spaces)" as another potential effect of inelastic land subsidence.[294] Although the 2024 GSP does not identify the infrastructures or areas of concern, the GSA's updated subsidence evaluation examined InSAR data at 8 infrastructure locations (i.e., railways and bridges), and 8 additional locations with geographical or hydrogeological characteristics that may be susceptible to subsidence.[295]

[286] 23 CCR § 354.28(c)(5).
[287] 23 CCR §§ 354.28(c)(5)(A-B).
[288] 2024 Fillmore GSP, Section 2.2.2.6, p. 84.
[289] 2024 Fillmore GSP, Section 2.2.2.6, p. 84.
[290] 2024 Fillmore GSP, Section 2.2.2.6, pp. 84-85.
[291] Technical Memorandum - Fillmore and Piru Basins Subsidence Update, DBS&A, Feb. 10, 2023, p. 6.
[292] 2024 Fillmore GSP, Section 3.5.1.7, p. 133.
[293] 2024 Fillmore GSP, Section 3.2.2, p. 114.
[294] 2024 Fillmore GSP, Section 3.2.3.2, p. 116.
[295] Technical Memorandum - Fillmore and Piru Basins Subsidence Update, DBS&A, Feb. 10, 2023, pp. 2-3.

However, the 2024 GSP has not described the quantitative criteria used to determine when and where the effects of land subsidence cause undesirable results in the Subbasin as required by the GSP Regulations.[296] It is unclear when InSAR data will be evaluated and whether minimum threshold exceedances at one or multiple locations will lead to the determination of undesirable results occurring in the Subbasin. Department staff recommend that the GSP include the quantitative criteria of undesirable results for land subsidence (see Recommended Corrective Action 7a).

The 2024 GSP establishes the minimum thresholds for inelastic land subsidence as "1 foot per year or 1 foot cumulative displacement over 5 years,"[297] and the measurable objectives as "within 0.1 ft/yr (i.e., the error of the InSAR method)."[298] However, the 2024 GSP does not explain the process, criteria or rationale used to justify the the minimum thresholds. More specifically, the 2024 GSP does not explain why avoiding "1 foot per year or 1 foot cumulative displacement over 5 years" would prevent the long-term, cumulative effects of subsidence on critical infrastructures in the Subbasin throughout the SGMA planning and implementation horizon. For example, the GSA has not presented analysis of the total amount of land subsidence that the Subbasin's infrastructures can tolerate. Furthermore, Department staff note that it was the intention of the legislature that the implementation of SGMA would avoid or minimize subsidence[299] once basins achieve their sustainability goal. Because land subsidence has been historically insignificant in the Subbasin, Department staff recommend that the GSA establish conservative minimum thresholds (e.g., close to InSAR measurement error) to avoid future land subsidence (see Recommended Corrective Action 7b).

Overall, the 2024 GSP has presented sufficiently detailed information to demonstrate that land subsidence due to groundwater pumping has not been observed historically in the Subbasin. Because the Subbasin's groundwater levels are relatively stable, Department staff do not anticipate land subsidence occurring soon. Department staff expect the GSA to address the recommended corrective actions related to the sustainable management criteria of land subsidence by the next periodic evaluation of the Plan.

5.3.2.6 Depletions of Interconnected Surface Water

SGMA defines undesirable results for the depletion of interconnected surface water as those that have significant and unreasonable adverse impacts on beneficial uses of surface water and are caused by groundwater conditions occurring throughout the basin.[300] The GSP Regulations require that a Plan identify the presence of interconnected surface water systems in the basin and estimate the quantity and timing of depletions of those systems.[301] The GSP Regulations further require that minimum thresholds be set based on the rate or volume of surface water depletions caused by groundwater use,

[296] 23 CCR § 354.26(b)(2).
[297] 2024 Fillmore GSP, Section 3.3.5, p. 120.
[298] 2024 Fillmore GSP, Section 3.4, p. 123.
[299] Water Code § 10720.1(e).
[300] Water Code § 10721(x)(6).
[301] 23 CCR § 354.16(f).

supported by information including the location, quantity, and timing of depletions, that adversely impact beneficial uses of the surface water and may lead to undesirable results.[302]

In the Department's Incomplete Determination, the Department identified deficiencies related to the sustainable management criteria of depletions of interconnected surface water. The GSA revised this portion of the Plan and Department staff provide evaluation for this sustainability indicator in Section 4.2 of this Staff Report. As presented above, Department staff concluded the GSAs had taken sufficient actions to correct the deficiencies and provided additional recommended corrective actions based on the changes the Agency has made to the sustainable management criteria for this sustainability indicator.

5.4 Monitoring Network

The GSP Regulations describe the monitoring network that must be developed for each sustainability indicator including monitoring objectives, monitoring protocols, and data reporting requirements. Collecting monitoring data of a sufficient quality and quantity is necessary for the successful implementation of a groundwater sustainability plan. The GSP Regulations require a monitoring network of sufficient quality, frequency, and distribution to characterize groundwater and related surface water conditions in the basin and evaluate changing conditions that occur through implementation of the Plan.[303] Specifically, a monitoring network must be able to monitor impacts to beneficial uses and users,[304] monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds,[305] capture seasonal low and high conditions,[306] include required information such as location and well construction and include maps and tables clearly showing the monitoring site type, location, and frequency.[307] Department staff encourage GSAs to collect monitoring data as specified in the GSP, follow SGMA data and reporting standards,[308] fill data gaps identified in the GSP prior to the first periodic evaluation,[309] update monitoring network information as needed, follow monitoring best management practices,[310] and submit all monitoring data to the Department's Monitoring Network Module immediately after collection including any additional groundwater monitoring data that is collected within the Plan area that is used for groundwater management decisions. Department staff note that if GSAs do not fill their identified data

[302] 23 CCR § 354.28(c)(6).
[303] 23 CCR § 354.32.
[304] 23 CCR § 354.34(b)(2).
[305] 23 CCR § 354.34(b)(3).
[306] 23 CCR § 354.34(c)(1)(B).
[307] 23 CCR §§ 354.34(g-h).
[308] 23 CCR § 352.4 *et seq*.
[309] 23 CCR § 354.38(d).
[310] Department of Water Resources, 2016, Best Management Practices and Guidance Documents.

gaps, the GSA's basin understanding may not represent the best available science for use to monitor basin conditions.

The 2024 GSP includes monitoring networks for chronic lowering of groundwater levels, reduction of groundwater storage, degraded water quality, land subsidence, and depletions of interconnected surface water sustainability indicators. The 2024 GSP proposes to use the chronic lowering of groundwater levels monitoring network as a proxy for the reduction of groundwater storage sustainability indicator. The 2024 GSP also proposes to use groundwater levels as a proxy to monitor the depletions of interconnected surface water sustainability indicator.

The Subbasin's existing groundwater level monitoring network includes 41 wells, with 14 wells monitored by VCWPD on a quarterly basis, and 31 wells monitored by United on monthly, bimonthly, semiannual, or event-based schedules.[311] These wells include 28 in the principal aquifer, 1 in the non-principal aquifer, 5 screened across multiple zones, and 7 with unknown construction; Department staff recommend the GSA continue to pursue methods to verify screen intervals for the 7 wells with unknown construction.[312] Additionally, three shallow monitoring wells at the Cienega Springs Project site and four nested wells in a single borehole at the East Grove site were installed in 2022.[313] The 2024 GSP selects a total of 18 wells as representative monitoring sites (RMS) for the chronic lowering of groundwater levels monitoring network.[314] The proposed density of groundwater level monitoring wells exceeds the range (0.2 – 10 wells per 100 square miles) recommended by the Department's Best Management Practices.[315]

The 2024 GSP proposes to use the chronic lowering of groundwater levels monitoring network as a proxy for the reduction of groundwater storage monitoring network which Department staff consider reasonable.[316]

The 2024 GSP states seawater intrusion is not applicable to this Subbasin; therefore, no monitoring network is proposed for this sustainability indicator.[317] Department staff agree the sustainability indicator for seawater intrusion is not present in this Subbasin and does not require a monitoring network at this time.

The 2024 GSP identifies 21 wells in the degraded water quality monitoring network, including 1 monitoring well and 6 production wells that are sampled by United in both spring and fall and 14 production wells that are sampled by VCWPD in the fall only.[318] The 2024 GSP identifies five primary COC that have historically been analyzed by the

[311] 2024 Fillmore GSP, Section 3.5.1.1.1, p. 125; Figure 3.5-1, p. 224.
[312] 2024 Fillmore GSP, Table 3.5-1, p. 126.
[313] Fillmore Groundwater Subbasin Annual Report Water Year 2022, Sections 7.2 and 7.3, pp. 25-26.
[314] 2024 Fillmore GSP, Table 3.0-2, p. 110; Figure 3.5-4, p. 227.
[315] 2024 Fillmore GSP, Section 3.5.1.1.3, p. 126.
[316] 2024 Fillmore GSP, Section 3.3.2, p. 119; Section 3.2.4, p. 116; Section 3.4, p. 123; Appendix J – Sections 3.4.3 and 3.4.4, p. 1525.
[317] 2024 Fillmore GSP, Section 3.2.2, p. 114.
[318] 2024 Fillmore GSP, Section 3.5.1.2, pp. 127-128; Figure 2.1-9, p. 180; Figure 3.5-2, p. 225.

monitoring programs, including total dissolved solids (TDS), sulfate, chloride, nitrate, and boron.[319] The 2024 GSP states both United and VCWPD have traditionally reported on the trends of these analytes in annual or biennial reports, except for boron, for which only United has systematically sampled and reported.[320] As discussed in Section 5.3.2.4, Department staff have noted areas of improvement in the monitoring frequency and provided a related recommended corrective action.

The 2024 GSP proposes to monitor land elevations related to the undesirable results of land subsidence through InSAR datasets provided by TRE Altimira and DWR.[321] Department staff note the InSAR datasets largely cover the entire Subbasin and consider it appropriate to use the datasets for subsidence monitoring.

The 2024 GSP proposes to use groundwater levels at a key well location as a proxy for depletions of interconnected surface water monitoring.[322] The 2024 GSP also describes additional monitoring sites currently in the Subbasin but these sites are not designated as part of the monitoring network for the depletions of interconnected surface water sustainability indicator. The additional monitoring sites in the Subbasin include a streamflow monitoring network of 8 manual stream gaging locations operated by United and 2 recording stream gages operated by USGS or VCWPD, along the Santa Clara River, Sepse Creek, and Pole Creek.[323] The 2024 GSP identifies and proposes to address data gaps in shallow groundwater levels near streams by adding shallow monitoring wells in GDE areas.[324] As discussed in Section 4.2.2, Department staff recommend the GSA follow the Department's future guidance on methods and approaches to evaluate the location, quantity, and timing of depletions of interconnected surface water (see Recommended Corrective Action 2). Staff further recommend that the GSP establish a dedicated monitoring network for depletions of interconnected surface waters that includes surface water monitoring sites and shallow groundwater level monitoring sites.

Overall, the 2024 GSP's descriptions of monitoring networks for the sustainability indicators with the exception of depletions of interconnected surface water appear supported by the best available information and substantially comply with the requirements outlined in the GSP Regulations.

5.5 Projects and Management Actions

The GSP Regulations require a description of the projects and management actions the submitting Agency has determined will achieve the sustainability goal for the basin,

[319] 2024 Fillmore GSP, Section 2.2.2.5.1, pp. 71-73.
[320] 2024 Fillmore GSP, Section 2.2.2.5.1, p. 73.
[321] 2024 Fillmore GSP, Section 3.5.1.7, p. 133.
[322] 2024 Fillmore GSP, Section 3.3.6, p. 121.
[323] 2024 Fillmore GSP, Section 3.5.1.5, p. 131; Figure 2.1-10, p. 181.
[324] 2024 Fillmore GSP, Section 2.2.1.6, p. 67; Fillmore Groundwater Subbasin Annual Report Water Year 2022, Sections 7.2 and 7.3, pp. 25-26.

including projects and management actions to respond to changing conditions in the basin.[325] Each Plan's description of projects and management actions must include details such as: how projects and management actions in the GSP will achieve sustainability, the implementation process and expected benefits, and prioritization and criteria used to initiate projects and management actions.[326]

The 2024 GSP presents 9 projects and management actions to enhance the Subbasin's water resources and help reach desired future conditions.[327] If implemented, these projects and management actions will improve monitoring, address data gaps, provide supplemental water, plan for drought mitigation, and evaluate land subsidence.

The 2024 GSP indicates that some of the projects described are already being implemented; these projects are referred to as Projects 1 - 3.[328] Project 1 involves supporting the Cienega Springs Restoration Project by providing supplemental groundwater to GDE areas to mitigate GDE impacts of multi-year droughts.[329] Project 2 and Project 3 consist of the construction of monitoring wells in Cienega Springs or other areas of the Subbasin to improve monitoring and address data gaps in shallow groundwater levels.[330] The GSA's water year 2022 Annual Report shows that Project 2 and Project 3 have been completed, with the installation of three shallow monitoring wells at Cienega Springs and four nested monitoring wells in a single borehole at East Grove.[331]

According to the 2024 GSP, Projects 4 through 7 are not necessarily needed to maintain a sustainable condition in the Subbasin but could provide water resource benefits.[332] These four projects encompass purchasing supplemental water when available, enhancing the water quality monitoring network in the Pole Creek Fan vicinity, removing non-native vegetation species that are intensive water users, and evaluating infrastructure subsidence vulnerability.[333] The 2024 GSP states that additional details of these projects are continuing to be developed.[334] The GSA's water year 2023 Annual Report suggests that the GSA has decided not to conduct further evaluation of subsidence infrastructure vulnerability based on the results of an updated subsidence evaluation in 2023.[335] Department staff understand that many details will be developed when the GSA elects to implement the projects; but identifying details and a process would allow the GSA to be more prepared when implementation does occur. Department staff recommend the GSA include water budget benefits of supplemental water and/or

[325] 23 CCR § 354.44(a).
[326] 23 CCR § 354.44(b) *et seq.*
[327] 2024 Fillmore GSP, Section 4, p. 147.
[328] 2024 Fillmore GSP, Section 5.2, pp. 156-157.
[329] 2024 Fillmore GSP, Section 4.1, pp. 147-149.
[330] 2024 Fillmore GSP, Sections 4.2-4.3, p. 149.
[331] Fillmore Groundwater Subbasin Annual Report Water Year 2022, Sections 7.2 and 7.3, pp. 25-26.
[332] 2024 Fillmore GSP, Section 5.2, p. 157.
[333] 2024 Fillmore GSP, Sections 4.4-4.7, pp. 150-152.
[334] 2024 Fillmore GSP, Section 5.2, p. 157.
[335] Fillmore Groundwater Subbasin Annual Report Water Year 2023, Section 7.2, p. 25.

non-native vegetation removal in future annual reports and periodic evaluations of the Plan if the GSA decides to implement the two projects.

The GSA added Projects 8 and 9 in the 2024 GSP.[336] Project 8 involves conducting drought vulnerability assessments for all wells within the Subbasin and developing a drought mitigation program to assist well owners if warranted by results of the assessment. The 2024 GSP does not specify the initiation date of Project 8, but the assessment is expected to span a two-year period to collect well construction information from well owners and revise the groundwater flow model. Project 9 consists of developing a study plan in 2024-2025 and conducting a three-year study that collects field data and integrates ongoing investigations by other organizations. The initial field work planned for 2024 includes a reconnaissance field visit, snorkel survey, potential environmental DNA sampling, and stream temperature logging. Department staff are encouraged by the GSA's schedule on Project 9 and recommend that the GSA initiate Project 8 in the early stage of Plan implementation to be better prepared for climate change and drought impacts.

Overall, the 2024 GSP provides a reasonable discussion of how the projects and management actions are related to the Subbasin's sustainability. The projects and management actions are developed to monitor basin conditions, maintain sustainability or mitigate potential undesirable results. The 2024 GSP describes projects and management actions in a manner that substantially complies with the GSP Regulations.

5.6 Consideration of Adjacent Basins/Subbasins

SGMA requires the Department to "…evaluate whether a groundwater sustainability plan adversely affects the ability of an adjacent basin to implement their groundwater sustainability plan or impedes achievement of sustainability goals in an adjacent basin."[337] Furthermore, the GSP Regulations state that minimum thresholds defined in each GSP be designed to avoid causing undesirable results in adjacent basins or affecting the ability of adjacent basins to achieve sustainability goals.[338]

The Fillmore Subbasin has two adjacent subbasins that are hydrologically connected to it through the Santa Clara River and subsurface flows – the upgradient Piru Subbasin and the downgradient Santa Paula Subbasin. The Santa Paula Subbasin is adjudicated and does not require a GSP under SGMA. The Piru Subbasin is a high priority basin that requires a GSP. The Fillmore and Piru Subbasins are managed by the same GSA and have sustainable management criteria established using similar methods and in coordination across the subbasins. Though the 2024 GSP does not explicitly discuss how the Fillmore Subbasin's Plan may impact the adjacent subbasins, based on information available, Department staff have no reason to believe that the Fillmore Subbasin's GSP

[336] 2024 Fillmore GSP, Sections 4.8-4.9, pp. 152-155.
[337] Water Code § 10733(c).
[338] 23 CCR § 354.28(b)(3).

will adversely affect the Piru Subbasin's ability to implement its GSP or reach its sustainability goals or negatively impact the adjacent subbasins' sustainability.

5.7 Consideration of Climate Change and Future Conditions

The GSP Regulations require a GSA to consider future conditions and project how future water use may change due to multiple factors including climate change.[339]

Since the GSP was adopted and submitted, climate change conditions have advanced faster and more dramatically. It is anticipated that the hotter, drier conditions will result in a loss of 10% of California's water supply. As California adapts to a hotter, drier climate, GSAs should be preparing for these changing conditions as they work to sustainably manage groundwater within their jurisdictional areas. Specifically, the Department encourages GSAs to:

1. Explore how their proposed groundwater level thresholds have been established in consideration of groundwater level conditions in the basin based on current and future drought conditions.
2. Explore how groundwater level data from the existing monitoring network will be used to make progress towards sustainable management of the basin given increasing aridification and effects of climate change, such as prolonged drought.
3. Take into consideration changes to surface water reliability and that impact on groundwater conditions.
4. Evaluate updated watershed studies that may modify assumed frequency and magnitude of recharge projects, if applicable, and
5. Continually coordinate with the appropriate groundwater users, including but not limited to domestic well owners and state small water systems, and the appropriate overlying county jurisdictions developing drought plans and establishing local drought task forces to evaluate how their Plan's groundwater management strategy aligns with drought planning, response, and mitigation efforts within the basin.

[339] 23 CCR § 354.18.

6 STAFF RECOMMENDATION

Department staff believe sufficient action has been taken by the GSAs to address the deficiencies identified. Department staff recommend **APPROVAL** of the Plan with the required and recommended corrective actions listed below. The Plan conforms with Water Code Sections 10727.2 and 10727.4 of SGMA and substantially complies with the GSP Regulations. Implementation of the Plan will likely achieve the sustainability goal for the Fillmore Subbasin. The GSA has identified several areas for improvement of its Plan and Department staff concur that those items are important and should be addressed as soon as possible. Department staff have also identified additional recommended corrective actions that should be considered by the GSA for the first periodic evaluation of its GSP. Addressing these recommended corrective actions will be important to demonstrate that implementation of the Plan is likely to achieve the sustainability goal.

The recommended corrective actions include:

RECOMMENDED CORRECTIVE ACTION 1

Department staff recommend the following as it relates to chronic lowering of groundwater levels:

a) Revise the quantitative description of undesirable results[340] for wells going dry to be based on seasonal low groundwater levels to ensure potential impacts to beneficial uses and users are considered.

b) Revise the quantitative description of undesirable results[341] for vegetation die-off to be specific about the location (i.e., GDE areas) and number of the representative monitoring sites with minimum threshold exceedances that would constitute an undesirable result for that GDE area.

c) Revise the GSP to include a discussion of the relationship between the minimum thresholds for chronic lowering of groundwater levels and the other sustainability indicators.[342]

RECOMMENDED CORRECTIVE ACTION 2

Department staff understand that estimating the location, quantity, and timing of stream depletion due to ongoing, Subbasin-wide pumping is a complex task and that developing suitable tools may take additional time; however, it is critical for the Department's ongoing and future evaluations of whether GSP implementation is on track to achieve sustainable groundwater management. The Department plans to provide guidance on methods and approaches to evaluate the rate, timing, and volume of depletions of interconnected

[340] 23 CCR § 354.26(b)(2).
[341] 23 CCR § 354.26(b)(2).
[342] 23 CCR § 354.28(b)(2).

surface water and support for establishing specific sustainable management criteria in the near future. This guidance is intended to assist GSAs to sustainably manage depletions of interconnected surface water.

In addition, the GSA should work to address the following items by the first periodic evaluation of the GSP:

a) Describe the undesirable results of depletions of interconnected surface water that the Agency aims to avoid.

b) Consider utilizing the interconnected surface water guidance, as appropriate, when issued by the Department to establish quantifiable minimum thresholds, measurable objectives, and management actions.

c) Continue to fill data gaps, collect additional monitoring data, and implement the current strategy to manage depletions of interconnected surface water and define segments of interconnectivity and timing.

d) Prioritize collaborating and coordinating with local, state, and federal regulatory agencies as well as interested parties to better understand the full suite of beneficial uses and users that may be impacted by pumping induced surface water depletion within the GSA's jurisdictional area.

RECOMMENDED CORRECTIVE ACTION 3

Develop and disclose the estimated cost of implementing the Plan, including projects and management actions deemed likely to be required by GSA, along with a general description of how the GSA plans to meet those costs.[343]

RECOMMENDED CORRECTIVE ACTION 4

Provide further justification for the exclusion of Aquifer Zone C from the principal aquifer given the uncertainty regarding the quantity of groundwater extracted from this zone. If additional justification is not possible, identify the pumping originating from Aquifer Zone C as a data gap in the hydrogeologic conceptual model, develop a plan and schedule to address the data gap, and include Aquifer Zone C as part of the principal aquifer until such a time that its removal can be justified with more certainty.[344]

RECOMMENDED CORRECTIVE ACTION 5

Define the sustainability goal[345] and explain how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon by the next periodic evaluation of the Plan.

[343] 23 CCR § 354.6(e).
[344] 23 CCR § 354.14(b)(4).
[345] 23 CCR § 354.24.

RECOMMENDED CORRECTIVE ACTION 6

Department staff recommend the following as it relates to degraded water quality:

a) Clarify the constituents of concern that are included in the GSP's current sustainable management criteria for degraded water quality.[346]

b) Provide quantitative descriptions of what the GSA considers as significant and unreasonable effects of "water quality degradation beyond historical conditions" for each constituent of concern in the Subbasin, including quantitative descriptions of historical conditions (e.g., number of representative monitoring sites with exceedances of water quality standards). Describe the criteria used to define when and where the effects of degraded water quality cause undesirable results of the constituent of concern in the Subbasin.[347] The criteria shall be based on quantitative descriptions of the combination of minimum threshold exceedances that cause significant and unreasonable effects in the Subbasin. The definition of the undesirable result quantitative criteria should not be limited to minimum threshold exceedances directly caused by GSA activity.

c) Identify the method (e.g., MCL, WQO), numeric value and unit, and sampling frequency for each constituent of concern at each representative monitoring site in descriptions of minimum thresholds for degraded water quality.[348] Present in a tabular format the minimum threshold, measurable objective, and interim milestone for each constituent of concern at each representative monitoring site.

RECOMMENDED CORRECTIVE ACTION 7

Department staff recommend the following as it relates to land subsidence:

a) Describe the criteria[349] used to define when and where the effects of the groundwater conditions cause undesirable results for land subsidence. More specifically, describe how InSAR datasets will be used to determine the occurrence of undesirable results of land subsidence.

b) Revise the minimum thresholds to minimize or avoid future land subsidence in the Subbasin.[350]

[346] 23 CCR § 354.26 *et seq.*
[347] 23 CCR § 354.26(b)(2).
[348] 23 CCR § 354.36(a).
[349] 23 CCR § 354.26(b)(2).
[350] Water Code § 10720.1(e).

CALIFORNIA DEPARTMENT OF WATER RESOURCES
SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE
715 P Street, 8th Floor | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

February 27, 2025

Tony Emmert
Fillmore and Piru Basins GSA - Piru
P.O. Box 1110
Fillmore, CA 93016
tonye@unitedwater.org

RE: Approved Determination of the 2024 Groundwater Sustainability Plan Submitted for the Santa Clara River Valley – Piru Subbasin

Dear Tony Emmert,

The Department of Water Resources (Department) has evaluated the 2024 groundwater sustainability plan (GSP) for the Santa Clara River Valley – Piru Subbasin in response to the Department's Incomplete Determination on January 18, 2024, and has determined the GSP is approved. The approval is based on recommendations from the Staff Report, included as an exhibit to the attached Statement of Findings, which describes that the Santa Clara River Valley – Piru Subbasin GSP has taken sufficient action to correct deficiencies identified by the Department, satisfies the objectives of the Sustainable Groundwater Management Act (SGMA), and substantially complies with the GSP Regulations. The Staff Report also proposes recommended corrective actions that the Department believes will enhance the GSP and facilitate future evaluation by the Department. The Department strongly encourages the recommended corrective actions be given due consideration and suggests incorporating all resulting changes to the GSP in future updates.

Recognizing SGMA sets a long-term horizon for groundwater sustainability agencies (GSAs) to achieve their basin sustainability goals, monitoring progress is fundamental for successful implementation. GSAs are required to evaluate their GSPs at least every five years and whenever the Plan is amended, and to provide a written assessment to the Department. Accordingly, the Department will evaluate approved GSPs and issue an assessment at least every five years. The GSAs are required to submit their periodic evaluation of the Santa Clara River Valley – Piru Subbasin GSP no later than January 26, 2027.

Please contact Sustainable Groundwater Management staff by emailing sgmps@water.ca.gov if you have any questions related to the Department's assessment or implementation of your GSP.

Thank You,

Paul Gosselin

Paul Gosselin
Deputy Director
Sustainable Groundwater Management

Attachment:

1. Statement of Findings Regarding the Determination of Approval of the Santa Clara River Valley – Piru Subbasin 2024 Groundwater Sustainability Plan

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

STATEMENT OF FINDINGS REGARDING THE APPROVAL OF THE SANTA CLARA RIVER VALLEY – PIRU SUBBASIN 2024 GROUNDWATER SUSTAINABILITY PLAN

Under the Sustainable Groundwater Management Act (SGMA or Act), the Department of Water Resources (Department) is required to evaluate whether a submitted groundwater sustainability plan (GSP or Plan) conforms to specific requirements of the SGMA, is likely to achieve the sustainability goal for the basin covered by the Plan, and whether the Plan adversely affects the ability of an adjacent basin to implement its GSP or impedes achievement of sustainability goals in an adjacent basin.[1] The Department is directed to issue an assessment of the Plan within two years of its submission.[2] If a Plan is determined to be Incomplete, the Department must identify deficiencies that preclude approval of the Plan and identify corrective actions required to make the Plan substantially compliant with SGMA and the GSP Regulations. The Groundwater Sustainability Agency (GSA or Agency) has up to 180 days from the date the Department issues its assessment to make the necessary corrections and submit a revised Plan.[3] When evaluating a revised GSP that was determined to be incomplete, the Department reviews the materials provided by the GSA (e.g., revised or amended GSP) to address the deficiencies by the submission deadline. Part of the Department's review focuses on how the Agency addressed the deficiencies that precluded approval of the Plan. The Department shall find a Plan previously determined to be incomplete to be either:

1. Approved, if the Department determines the Agency has sufficiently addressed those deficiencies, the Department may evaluate other components of the Plan, particularly to assess whether and, if so, how revisions to address deficiencies may have affected other components of a Plan or its likelihood of achieving sustainable groundwater management.

2. Inadequate if, after consultation with the State Water Resources Control Board, the Agency has not taken sufficient action to correct the deficiencies previously identified by the Department.

This Statement of Findings explains the Department's determination regarding the revised Plan for the Santa Clara River Valley – Piru Subbasin (Basin No. 4-004.06) by the

[1] Water Code § 10733.
[2] Water Code § 10733.4.
[3] 23 CCR § 355.2(e)(2).

Fillmore and Piru Basins Groundwater Sustainability Agency (GSA or Agency) submitted on July 16, 2024 (referred to as the 2024 GSP or 2024 Plan).

Department management have discussed the 2024 Plan with Department staff and have reviewed the written assessment titled Sustainable Groundwater Management Program Assessment of Incomplete Groundwater Sustainability Plan 2025 Staff Report (Staff Report), attached as Exhibit A, which recommends approval of the 2024 GSP. Department management are satisfied that staff have conducted a thorough evaluation and assessment of the 2024 Plan and concur with staff's recommendations and all the recommended corrective actions. The Department therefore **APPROVES** the 2024 Plan and makes the following findings:

A. On January 26, 2022, the GSA submitted a GSP (referred to as the 2022 GSP or 2022 Plan) for the Department's evaluation.

B. On January 18, 2024, the Department issued a Staff Report (referred to as the 2024 Incomplete Determination) and Findings determining the 2022 GSP to be incomplete, because the 2022 GSP did not satisfy the requirements of SGMA, nor did it substantially comply with the GSP Regulations. The Department's 2024 Incomplete Determination identified the following deficiencies that precluded approval and provided the GSA with corrective actions that were intended to address the deficiencies.

    1. Deficiency 1: The 2022 GSP did not establish sustainable management criteria for chronic lowering of groundwater levels in a manner substantially complaint with the GSP regulations.

    2. Deficiency 2: The 2022 GSP did not set sustainable management criteria for depletions of interconnected surface water.

    The Department provided the Agencies with 180 days to address the deficiencies.[4]

C. On July 16, 2024, the GSA submitted a revised Plan (the 2024 GSP) to the Department. After staff's thorough evaluation of the 2024 Plan, the Department finds:

    1. The Agency has taken sufficient actions to correct Deficiency 1, such that, at this time, the Department no longer finds this deficiency to preclude approval. The 2024 GSP has sufficiently identified the impacts to beneficial uses and users that would occur at an undesirable condition through a well impacts analysis and has revised sustainable management criteria to identify the undesirable conditions that reflect the identified impacts. The 2024 GSP also includes an additional project to further

[4] 23 CCR § 355.2(e)(2).

assess groundwater well drought vulnerability and potentially develop a drought mitigation plan.

2. The Agency has taken sufficient actions to correct Deficiency 2, such that, at this time, the Department no longer finds this deficiency to preclude approval. The 2024 GSP has set preliminary sustainable management criteria and planned to fill major data gaps related to surface water-groundwater interconnection and beneficial uses and users of interconnected surface waters.

The 2024 Plan satisfies the required conditions as outlined in § 355.4(a) of the GSP Regulations[5]:

1. The Plan was complete, meaning it generally appeared to include the information required by the Act and the GSP Regulations sufficient to warrant a thorough evaluation and issuance of an assessment by the Department.[6]

2. The Plan, either on its own or in coordination with other Plans, appears to cover the entire Basin sufficient to warrant a thorough evaluation.[7]

D. The general standards the Department applied in its evaluation and assessment of the Plan are: (1) "conformance" with the specified statutory requirements, (2) "substantial compliance" with the GSP Regulations, (3) whether the Plan is likely to achieve the sustainability goal for the Subbasin within 20 years of the implementation of the Plan, and (4) whether the Plan adversely affects the ability of an adjacent basin to implement its GSP or impedes achievement of sustainability goals in an adjacent basin.[8] Application of these standards requires exercise of the Department's expertise, judgment, and discretion when making its determination of whether a Plan should be deemed "approved," "incomplete," or "inadequate."

The statutes and GSP Regulations require Plans to include and address a multitude and wide range of informational and technical components. The Department has observed a diverse array of approaches to addressing these technical and informational components being used by GSAs in different basins throughout the state. The Department does not apply a set formula or criterion that would require a particular outcome based on how a Plan addresses any one of SGMA's numerous informational and technical components. The Department finds that affording flexibility and discretion to local GSAs is consistent with the

[5] 23 CCR § 350 et seq.
[6] 23 CCR § 355.4(a)(2).
[7] 23 CCR § 355.4(a)(3).
[8] Water Code § 10733.

standards identified above; the state policy that sustainable groundwater management is best achieved locally through the development, implementation, and updating of local plans and programs[9]; and the Legislature's express intent under SGMA that groundwater basins be managed through the actions of local governmental agencies to the greatest extent feasible, while minimizing state intervention to only when necessary to ensure that local agencies manage groundwater in a sustainable manner.[10] The Department's final determination is made based on the entirety of the Plan's contents on a case-by-case basis, considering and weighing factors relevant to the particular Plan and basin under review.

E. In making these findings and Plan determination, the Department also recognized that: (1) the Department maintains continuing oversight and jurisdiction to ensure the Plan is adequately implemented; (2) the Legislature intended SGMA to be implemented over many years; (3) SGMA provides Plans 20 years of implementation to achieve the sustainability goal in a basin (with the possibility that the Department may grant GSAs an additional five years upon request if the GSA has made satisfactory progress toward sustainability); and, (4) local agencies acting as GSAs are authorized, but not required, to address undesirable results that occurred prior to enactment of SGMA.[11]

F. The Plan conforms with Water Code §§ 10727.2 and 10727.4, substantially complies with 23 CCR § 355.4, and appears likely to achieve the sustainability goal for the Subbasin. It does not appear at this time that the Plan will adversely affect the ability of adjacent basins to implement their GSPs or impede achievement of sustainability goals.

    1. The sustainable management criteria and the Plan's goal of avoiding the undesirable results of affecting the ability to pump from production wells or groundwater dependent ecosystem (GDE) vegetation die-off are sufficiently justified and explained. The Plan relies on credible information and science to analyze potential impacts to groundwater wells and GDEs from lowering groundwater levels and quantify the groundwater conditions that the Plan seeks to avoid and provides an objective way to determine whether the Subbasin is being managed sustainably in accordance with SGMA.[12]

    2. The Plan has identified reasonable measures and schedule to fill data gaps related to surface water-groundwater interconnection and beneficial uses

[9] Water Code § 113.
[10] Water Code § 10720.1(h).
[11] Water Code §§ 10721(r); 10727.2(b); 10733(a); 10733.8.
[12] 23 CCR § 355.4(b)(1).

and users of interconnected surface water, which may lead to refinement of sustainable management criteria and monitoring networks.[13]

3. The projects and management actions proposed are designed to improve monitoring, address data gaps, plan for drought mitigation, and provide supplemental water. The projects and management actions are reasonable and commensurate with the level of understanding of the Subbasin setting. The projects and management actions described in the Plan provide a feasible approach to achieving the Subbasin's sustainability goal and should provide the GSA with greater versatility to adapt and respond to changing conditions and future challenges during GSP implementation.[14]

4. The Plan provides a detailed explanation of how the varied interests of groundwater uses and users in the Subbasin were considered in developing the sustainable management criteria and how those interests, including domestic, municipal, agricultural, and industrial groundwater wells and groundwater dependent ecosystems, would be impacted by the chosen minimum thresholds.[15]

5. The Plan's projects and management actions appear feasible at this time and capable of preventing undesirable results and ensuring that the Subbasin is operated within its sustainable yield within 20 years. The Department will continue to monitor Plan implementation and reserves the right to change its determination if projects and management actions are not implemented or appear unlikely to prevent undesirable results or achieve sustainability within SGMA timeframes.[16]

6. The Plan includes a reasonable assessment of overdraft conditions and includes reasonable means to mitigate overdraft, if present.[17]

7. At this time, it does not appear that the Plan will adversely affect the ability of an adjacent basin to implement its GSP or impede achievement of sustainability goals in an adjacent basin. The Piru Subbasin and its adjacent, downgradient Fillmore Subbasin are managed by the same GSA and have their sustainable management criteria established using similar methods and in coordination across the two subbasins.[18]

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[13] 23 CCR § 355.4(b)(2).
[14] 23 CCR § 355.4(b)(3).
[15] 23 CCR § 355.4(b)(4).
[16] 23 CCR § 355.4(b)(5).
[17] 23 CCR § 355.4(b)(6).
[18] 23 CCR § 355.4(b)(7).

8. Because a single plan was submitted for the Subbasin, a coordination agreement was not required.[19]

9. The GSA's three member agencies, the City of Fillmore, County of Ventura, and United Water Conservation District, have historically implemented surface water and groundwater monitoring and management programs in the Subbasin, including the conjunctive use programs for groundwater replenishment purposes. The GSA's member agencies and their history of groundwater management provide a reasonable level of confidence that the GSA has the legal authority and financial resources necessary to implement the Plan.[20]

10. Through review of the Plan and consideration of public comments, the Department determines that the GSA adequately responded to comments that raised credible technical or policy issues with the Plan, sufficient to warrant approval of the Plan at this time. The Department has also provided the recommended corrective actions in the Staff Report which are important in addressing certain technical or policy issues that were raised. Failure to address these recommended corrective actions before future, subsequent plan evaluations, may preclude approval of the Plan in those future evaluations.[21]

G. In addition to the grounds listed above, DWR also finds that:

1. The Department developed its GSP Regulations consistent with and intending to further the State's human right to water policy through implementation of SGMA and the Regulations, primarily by achieving sustainable groundwater management in a basin. By ensuring substantial compliance with the GSP Regulations, the Department has considered the state policy regarding the human right to water in its evaluation of the Plan.[22]

2. The Plan acknowledges and identifies interconnected surface waters within the Subbasin. The GSA proposes initial sustainable management criteria to manage this sustainability indicator and measures to improve understanding and management of interconnected surface water. The GSA acknowledge, and the Department agrees, many data gaps related to interconnected surface water exist. The GSA should continue filling data gaps, collecting additional monitoring data, and coordinating with resources agencies and interested parties to understand beneficial uses and users that may be impacted by depletions of interconnected surface water caused

[19] 23 CCR § 355.4(b)(8).
[20] 23 CCR § 355.4(b)(9).
[21] 23 CCR § 355.4(b)(10).
[22] Water Code § 106.3; 23 CCR § 350.4(g).

by groundwater pumping. Future periodic evaluations of the Plan and amendments to the Plan should aim to improve the initial sustainable management criteria as more information and improved methodology becomes available.

3. The basin is not currently in a state of long-term overdraft and projections of future basin extractions are likely to stay within current and historic ranges, at least until the next periodic evaluation by the GSA and the Department. Projections of future basin extractions appear likely to stay within current and historic ranges, at least until the next periodic evaluation by the GSA and the Department. Subbasin groundwater levels and other SGMA sustainability indicators appear unlikely to substantially deteriorate while the GSA implements the Department's recommended corrective actions.
4. The California Environmental Quality Act[23] does not apply to the Department's evaluation and assessment of the Plan.

[23] Public Resources Code § 21000 *et seq*.

Accordingly, the 2024 GSP submitted by the Agency for the Santa Clara River Valley – Piru Subbasin is hereby **APPROVED**. The recommended corrective actions identified in the Staff Report will assist the Department's future review of the Plan's implementation for consistency with SGMA and the Department therefore recommends the Agency address them in the next Periodic Evaluation, which is set to be submitted by January 26, 2027, as required by Water Code § 10733.8. Failure to address the Department's recommended corrective actions before future, subsequent plan evaluations, may lead to a Plan being determined incomplete or inadequate.

Signed:

Karla Nemeth

Karla Nemeth, Director
Date: February 27, 2025

Exhibit A: Groundwater Sustainability Plan Assessment Staff Report – Santa Clara River Valley – Piru Subbasin

State of California
Department of Water Resources
Sustainable Groundwater Management Program
Reassessment of Incomplete
Groundwater Sustainability Plan
2025 Staff Report

Groundwater Basin Name:	Santa Clara River Valley – Piru Subbasin (No. 4-004.06)
Submitting Agency:	Fillmore and Piru Basins Groundwater Sustainability Agency – Piru
Submittal Type:	Revised Plan in Response to Incomplete Determination
Submittal Date:	July 15, 2024
Recommendation:	Approve
Date:	February 27, 2025

On July 15, 2024, the Fillmore and Piru Basins Groundwater Sustainability Agency (GSA or Agency) – Piru resubmitted the Piru Subbasin Groundwater Sustainability Plan (2024 GSP or 2024 Plan) for the Piru Subbasin (Subbasin) to the Department of Water Resources (Department or DWR) for evaluation and assessment as required by the Sustainable Groundwater Management Act (SGMA)[1] and GSP Regulations.[2] This was in response to the Department's Incomplete Determination of the initial GSP (2022 GSP or 2022 Plan) on January 18, 2024.[3]

After evaluation and assessment, Department staff conclude the GSA has taken sufficient actions to correct deficiencies identified by the Department; however, Department staff have provided additional recommended corrective actions which will be required to be addressed by the 2024 Plan's periodic evaluation.

Overall, Department staff believe the 2024 Plan contains the required components of a GSP, demonstrates a thorough understanding of the Subbasin based on what appears to be the best available science and information, sets well explained, supported, and reasonable sustainable management criteria to prevent undesirable results as defined in the 2024 Plan, and proposes a set of projects and management actions that, if successfully implemented, are likely to achieve the sustainability goal defined for the Subbasin.[4] Department staff will continue to monitor and evaluate the Subbasin's

[1] Water Code § 10720 *et seq*.
[2] 23 CCR § 350 *et seq*.
[3] Water Code § 10733.4(b); 23 CCR § 355.4(a)(4); https://sgma.water.ca.gov/portal/gsp/assessments/72.
[4] 23 CCR § 354.24.

progress toward achieving the sustainability goal through annual reporting and future periodic evaluations of the 2024 GSP and its implementation.

- ***Based on the evaluation of the 2024 Plan, Department staff recommend the Plan be approved.***

This assessment includes six sections:

- **Section 1 – Summary:** Overview of the Department Staff's assessment and recommendation.
- **Section 2 – Evaluation Criteria:** Describes the legislative requirements and the Department's evaluation criteria.
- **Section 3 – Required Conditions:** Describes the submission requirements of an incomplete resubmittal to be evaluated by the Department.
- **Section 4 – Deficiency Evaluation:** Provides an assessment of whether and how the contents included in the 2024 GSP resubmittal addressed the deficiencies identified by the Department in the initial incomplete determination.
- **Section 5 – Plan Evaluation:** Provides a detailed assessment of the contents included in the 2024 GSP organized by each Subarticle outlined in the GSP Regulations.
- **Section 6 – Staff Recommendation:** Includes the staff recommendation for the 2024 Plan.

1 SUMMARY

Department staff recommend **approval** of the 2024 Piru Subbasin GSP and have recommended corrective actions designed to address shortcomings of the Plan described in this Staff Report. In Section 4 of this report, Department staff reviewed how the 2022 Plan was updated in the 2024 Plan by comparing content from each plan in order to determine if sufficient action was taken in response to deficiencies identified in the 2022 Plan. In Section 5, Department staff reviewed content in the GSP for its substantial compliance with GSP Regulations, and have provided recommended corrective actions for components of the plan that need improvement to support substantial compliance with GSP Regulations and for Subbasin sustainability.

The GSA has identified areas for improvement of its 2024 Plan (e.g., addressing data gaps related to groundwater levels in groundwater dependent ecosystem areas, interconnected surface water, and well construction information). Department staff concur that those items are important and recommend the GSA address them as soon as possible. Department staff have also identified additional recommended corrective actions that the GSA should consider for the first periodic evaluation of the 2024 Plan (see Section 6). Addressing these recommended corrective actions will be important to demonstrate, on an ongoing basis, that implementation of the 2024 Plan is likely to achieve the sustainability goal. The recommended corrective actions generally focus on the following:

1. Providing additional clarifying information for the sustainability goal.
2. Updating the understanding of principal aquifers in the hydrogeologic conceptual model.
3. Providing additional information or necessary modifications related to sustainable management criteria for chronic lowering of groundwater levels, degraded water quality, and land subsidence.
4. Estimating the quantity and timing of depletions of interconnected surface water systems. Updating sustainable management criteria for interconnected surface water.
5. Continuing to fill data gaps, collecting additional monitoring data, coordinating with resources agencies and interested parties to understand beneficial uses and users that may be impacted by depletions of interconnected surface water caused by groundwater pumping, and potentially refine sustainable management criteria.

2 EVALUATION CRITERIA

The Department evaluates whether a Plan conforms to the statutory requirements of SGMA[5] and is likely to achieve the basin's sustainability goal,[6] whether evaluating a basin's first Plan,[7] a Plan previously determined incomplete,[8] an amended Plan,[9] or a GSA's periodic evaluation to an approved Plan.[10] To achieve the sustainability goal, each version of the Plan must demonstrate that implementation will lead to sustainable groundwater management, which means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.[11] The Department is also required to evaluate, on an ongoing basis, whether the Plan will adversely affect the ability of an adjacent basin to implement its groundwater sustainability program or achieve its sustainability goal.[12]

The Plan evaluated in this Staff Report was previously determined to be incomplete. An incomplete Plan is one which had one or more deficiencies that precluded its initial approval, may not have had supporting information that was sufficiently detailed or analyses that were sufficiently thorough and reasonable, or Department staff determined it was unlikely the GSAs in the basin could achieve the sustainability goal. After a GSA has been afforded up to 180 days to address the deficiencies and based on the GSA's efforts, the Department can either approve[13] the Plan or determine the Plan inadequate.[14]

The Department's evaluation and assessment of a Plan previously determined to be incomplete, as presented in this Staff Report, continues to follow Article 6 of the GSP Regulations[15] to determine whether the Plan, with revisions or additions prepared by the GSA, complies with SGMA and substantially complies with the GSP Regulations.[16] As stated in the GSP Regulations, "substantial compliance means that the supporting information is sufficiently detailed and the analyses sufficiently thorough and reasonable, in the judgment of the Department, to evaluate the Plan, and the Department determines that any discrepancy would not materially affect the ability of the Agency to achieve the sustainability goal for the basin, or the ability of the Department to evaluate the likelihood of the Plan to attain that goal."[17]

[5] Water Code §§ 10727.2, 10727.4, 10727.6.
[6] Water Code § 10733; 23 CCR § 354.24.
[7] Water Code § 10720.7.
[8] 23 CCR § 355.2(e)(2).
[9] 23 CCR § 355.10.
[10] 23 CCR § 355.6.
[11] Water Code § 10721(v).
[12] Water Code § 10733(c).
[13] 23 CCR §§ 355.2(e)(1).
[14] 23 CCR §§ 355.2(e)(3).
[15] 23 CCR § 355 *et seq*.
[16] 23 CCR § 350 *et seq*.
[17] 23 CCR § 355.4(b).

The recommendation to approve a Plan previously determined to be incomplete does not signify that Department staff, were they to exercise the professional judgment required to develop a Plan for the basin, would make the same assumptions and interpretations as those contained in the revised Plan, but simply that Department staff have determined that the modified assumptions and interpretations relied upon by the submitting GSA(s) are supported by adequate, credible evidence, and are scientifically reasonable. The assessment of a Plan previously determined to be incomplete may involve the review of new information presented by the GSA(s), including models and assumptions, and an evaluation of that information based on scientific reasonableness. In conducting its assessment, Department staff does not recalculate or reevaluate technical information or perform its own geologic or engineering analysis of that information.

The recommendation to not approve a Plan previously determined to be incomplete and instead determine it to be inadequate signifies that the resubmitted Plan contains significant deficiencies based on one or more of the criteria identified in 23 CCR § 355.4(b), or the GSA(s) in the basin have not taken sufficient actions to correct the deficiencies previously identified by the Department when it found the Plan incomplete. The Department engages in consultation with the State Water Resources Control Board before finding a Plan inadequate. A Plan determined to be inadequate is subject to the state intervention provisions contained in Chapter 11 of SGMA.[18]

[18] Water Code § 10735 *et seq*.

3 REQUIRED CONDITIONS

For a Plan that the Department previously determined to be incomplete, the Department provided required corrective actions that address minor or potentially significant deficiencies that the Department identified in the initially submitted Plan. The GSA(s) in a basin, whether developing a single GSP covering the basin or multiple GSPs, must attempt to sufficiently address those required corrective actions within the time provided, not to exceed 180 days, for the Plan to be reevaluated by the Department and potentially approved.

3.1 INCOMPLETE RESUBMITTAL

GSP Regulations specify that the Department shall evaluate a resubmitted GSP in which the GSA has taken corrective actions within 180 days from the date the Department issued an incomplete determination to address deficiencies.[19]

The Department issued the incomplete determination on January 18, 2024. The GSA resubmitted the GSP to the Department on July 15, 2024, in compliance with the 180-day deadline.

The GSAs have provided a redline/strikeout version of the resubmitted GSP. The redline/strikeout version highlights the changes made from the initial 2022 submission to the 2024 submission.[20]

[19] 23 CCR § 355.4(a)(4).
[20] https://sgma.water.ca.gov/portal/service/gspdocument/download/10232.

4 DEFICIENCY EVALUATION

As stated in Section 355.4 of the GSP Regulations, a basin "shall be sustainably managed within 20 years of the applicable statutory deadline consistent with the objectives of the Act." The Department's assessment is based on a number of related factors including whether the elements of a GSP were developed in the manner required by the GSP Regulations, whether the GSP was developed using appropriate data and methodologies and whether its conclusions are scientifically reasonable, and whether the GSP, through the implementation of clearly defined and technically feasible projects and management actions, is likely to achieve a tenable sustainability goal for the basin.

In its initial incomplete determination, the Department identified deficiencies in the Plan which precluded the Plan's approval on January 18, 2024.[21] The GSA was given 180 days to take corrective actions to remedy the identified deficiencies. Consistent with the GSP Regulations, Department staff are providing an evaluation of the resubmitted Plan to determine if the GSAs have taken sufficient actions to correct the deficiencies identified in the 2022 Plan. For each deficiency, the corrective actions are repeated, the 2022 Plan content is summarized, the 2024 Plan is then described, followed by Department staff's evaluation.

4.1 DEFICIENCY 1. THE GSP DOES NOT ESTABLISH SUSTAINABLE MANAGEMENT CRITERIA FOR CHRONIC LOWERING OF GROUNDWATER LEVELS IN A MANNER SUBSTANTIALLY COMPLAINT WITH THE GSP REGULATIONS.

4.1.1 Corrective Action 1

The GSA should modify its sustainable management criteria and must provide a more detailed explanation and justification regarding the selection of the sustainable management criteria for groundwater levels, particularly the undesirable results and minimum thresholds, and the effects of those criteria on the interests of beneficial uses and users of groundwater. The minimum thresholds should indicate a depletion of supply at a given location that may lead to undesirable results. Department staff recommend the GSA consider and address the following:

a) The GSA should revise the GSP to sufficiently and clearly explain the undesirable results that the GSA aims to avoid. The GSA should sufficiently and clearly explain what it considers to be a significant and unreasonable level of impact, such as a number or percentage of wells going dry. In support of the explanation, the GSP should clearly discuss and disclose the potential effects on uses and users of drinking water wells and all other beneficial uses and users of groundwater in the Subbasin.

[21] https://sgma.water.ca.gov/portal/service/gspdocument/download/10011.

b) The GSA should revise the minimum thresholds and must explain how the minimum threshold groundwater levels are consistent with avoiding undesirable results the GSA aims to avoid. If, for example, the GSA seeks to avoid domestic wells going dry, the GSP should explain how the minimum threshold at each representative well will avoid impact to nearby domestic and other production wells. The GSP should also explain how the Agency has determined that basin conditions at minimum threshold water level conditions will avoid undesirable results for other sustainability indicators.

c) Provide an evaluation of how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests. Identify the number and location of wells that may be negatively affected when minimum thresholds are reached. Compare well infrastructure for all well types in the Subbasin with minimum thresholds at nearby, suitably representative, monitoring sites. Document all assumptions and steps clearly so that it will be understood by readers of the GSP. Include maps of potentially affected well locations, identify the number of potentially affected wells by well type, and provide a supporting discussion of the effects.

4.1.2 Evaluation of Resubmitted Plan

4.1.2.1 Corrective Action 1a – Assessment of Undesirable Results and Potential Effects
The Department's Incomplete Determination directed the GSA that the 2022 Plan did not specify the number of wells going dry or the groundwater level declines which would be considered significant and unreasonable and, therefore, lacked sufficient description of the undesirable results that the GSA aims to avoid.

In response to the corrective action, the GSA evaluated the potential effects of lowering groundwater levels on various well types (i.e., agricultural, domestic, municipal, industrial, monitoring, wells of unknown use, and cathodic protection wells) and riparian vegetation to redefine the significant and unreasonable condition.[22] For well infrastructure, the GSA identified four impact status categories for wells with known screen elevations: "not impacted", "impacted", "severely impacted", and "dry". These categories are based on projected water levels in relation to known screen intervals. The GSA then conducted a well impact analysis, using the water table surface of average water year 2011 groundwater elevations—considered the "basin full" condition—and three projected scenarios of water level declines: 50-foot, 75-foot, and 100-foot elevation declines from the 2011 surface. Based on results of this analysis, the GSA decided that the 100-foot decline scenarios resulted in too many severely impacted and dry wells in the Subbasin, whereas the 50-foot and 75-foot decline scenarios led to similar impacts to production wells.[23] The GSA chose the 75-foot decline scenario as the significant and unreasonable condition to provide more operational flexibility. Specifically, it is estimated that a decline

[22] 2024 Piru GSP, Section 3.2.3.1, pp. 113-114; Appendix J – Section 3.3.1, pp. 1508-1516.
[23] 2024 Piru GSP, Appendix J Section 3.3.1.1.2, p. 1512.

of 75 feet from the 2011 "basin full" average would cause 1 industrial well and 1 well of unknown use to go dry.[24] Department staff consider the analysis to be thorough and well-detailed because it utilizes best available groundwater level and well construction information, produces detailed impact status that are well conceptualized, and captures impacts from varied levels of groundwater supply depletions across the Subbasin. Additional details regarding the well impact analysis are discussed in Section 4.1.2.3.

The Plan defines the quantitative criteria of when and where undesirable results for productive wells occur as when water levels drop below minimum thresholds in 3 (out of 8) representative monitoring sites.[25] The Plan's well impact analysis shows that only about 2 percent (2 out of 99) of production wells (i.e., agricultural, domestic, industrial, municipal, and wells of unknown use) are projected to go dry when minimum thresholds are reached in all representative monitoring sites across the Subbasin (i.e., when 8 out of 8 production well representative monitoring sites reach minimum thresholds).[26] The well impact analysis also shows that these dry wells are scattered in the eastern, central, and western portions of the Subbasin, instead of clustered together.[27] The quantitative criteria suggest an even smaller percentage (i.e., , less than 2 percent) of production wells going dry when the GSA determines that undesirable results are occurring in the Subbasin. In other words, the quantitative criteria support the GSP's aim to "protect" the "ability to pump groundwater"[28] by incurring an undesirable result determination when the number of impacted wells is still less than what is considered as "reasonable" by the GSA[29]. Overall, Department staff believe that the GSA's quantitative criteria of groundwater level undesirable results for production wells appear to be reasonable.

However, Department staff note that the GSA does not specify the timing of groundwater level data collection when defining the quantitative criteria.[30] The GSP states in the monitoring network section that "biannual data is needed to assess seasonal groundwater level trends for evaluation of GSP implementation" and that "as tight (short) a monitoring event time window as reasonably possible will be scheduled around the middle of October and March of each year."[31] It is unclear to Department staff how the groundwater level data will be used to determine the occurrence of undesirable results, whether biannually with either spring or fall data, annually using the averages of spring and fall data, or annually using both spring and fall data. Because water levels are generally lower in the fall in the Subbasin, wells are more likely to experience undesirable results in the fall. Department staff recommend that the GSA revise the GSP to specifically use seasonal low groundwater levels in the undesirable result criteria to more accurately reflect the

[24] 2024 Piru GSP, Section 3.3.1.1, p. 117; Appendix J – Section 3.3.1.1.2, p. 1514; Appendix J – Table 3-2, p. 1513.
[25] 2024 Piru GSP, Section 3.2.4, pp. 114-115; Appendix J – Figure 3-21, p. 1557.
[26] 2024 Piru GSP, Appendix J – Table 3-2, p. 1513.
[27] 2024 Piru GSP, Appendix J – Figure 3-17, p. 1553.
[28] 2024 Piru GSP, Section 3.3.1.1, p. 117.
[29] 2024 Piru GSP, Section 3.3.1.1, p. 117.
[30] 23 CCR § 354.26(b)(2).
[31] 2024 Piru GSP, Section 3.5.4.1.2, p. 138.

percentage of impacted production wells in the GSA's consideration of significant and unreasonable effects of lowering of groundwater levels (see Recommended Corrective Action 1a).

The GSP also describes die-off of riparian vegetation due to groundwater level declines attributable to groundwater pumping as another category of undesirable results.[32] Based on a 2021 research study, the GSA determines that the undesirable result of vegetation die-off begins to occur when groundwater levels decline to the critical water level of 10 feet below the water year 2011 average within or immediately adjacent to the Cienega Springs or Del Valle Groundwater Dependent Ecosystem (GDE) areas.[33] The Cienega Springs GDE area locates along the Santa Clara River and extends equally into the Fillmore Subbasin and the Piru Subbasin.[34] It is supported by "rising groundwater" and stream channels in this area dried up during the drought years of 2014-2016.[35] The Del Valle GDE area locates at the eastern edge of the Piru Subbasin and is primarily supported by effluent discharges to the Santa Clara River from the Valentia Waste Water Treatment Plant in the Santa Clara River Valley East Subbasin.[36] In the GSA's decisions regarding where the undesirable results may occur, the 2022 GSP covers the Cienega Springs GDE area only and monitors with one well located in the Fillmore Subbasin,[37] whereas the revised 2024 GSP adds the Del Valle GDE area and presents a total of 6 representative monitoring wells for both GDE areas.[38]

The GSP states that undesirable results are considered to occur when groundwater levels at 2 GDE representative monitoring points fall below established minimum thresholds.[39] The GSP presents 4 and 2 representative monitoring wells for the Cienega Springs and the Del Valle GDE areas, respectively, with the 4 monitoring wells for Cienega Springs located west of the Fillmore-Piru subbasin boundary in the Fillmore Subbasin.[40] However, it is unclear from the information provided how the GSA would determine undesirable results occurring with the possible combinations of two wells with minimum threshold exceedances. More specifically, it is unclear from the definition whether an undesirable result requires one exceedance in both GDE areas or two exceedances in either GDE area. Department staff believe it is more appropriate to define undesirable results for one GDE area based on monitoring of that GDE area. Requiring minimum threshold exceedances to occur in both GDE areas at the same time before taking management actions not only is unreasonable because it appears unlikely that the two GDE areas will experience undesirable results at the same time but also lacks consideration of Subbasin

[32] 2024 Piru GSP, Section 3.2.2, p. 112.
[33] 2024 Piru GSP, Sections 3.2.3.1 and 3.2.3.2, pp. 113-114; Figure 2.2-29, p. 208.
[34] 2024 Piru GSP, Section 2.2.4, p. 106.
[35] 2024 Piru GSP, Appendix J – Section 3.3.1.2, p. 1514; Section 2.2.2.7, pp. 82-83.
[36] 2024 Piru GSP, Appendix J – Section 3.3.1.2, p. 1514.
[37] 2022 Piru GSP, Section 3.2.3.1, p. 110, and Appendix J – Section 3.3.3, p. 1505; 2022 Fillmore GSP, Table 3.5-3, p. 135, and Figure 3.5-4, p. 220.
[38] 2024 Piru GSP, Section 3.2.3.1, p. 113; Appendix J – Section 3.3.1.2, p. 1515; Appendix J – Section 3.3.3.2, p. 1518; Appendix J – Table 3-4, p. 1517; Appendix J – Figure 3-21, p. 1557; Table 3.0-1, p. 109.
[39] 2024 Piru GSP, Section 3.2.4, pp. 114-115.
[40] 2024 Piru GSP, Figure 3.5-4, p. 221; Appendix J - Figure 3-21, p. 1557.

conditions. For example, while the GSP states that undesirable results of vegetation die-off could occur in both GDE areas[41], the GSP acknowledges that the Cienega Springs GDE area is most susceptible to vegetation die-off due to significant groundwater level declines during drought.[42] Therefore, Department staff recommend that the GSA revise the quantitative criteria for undesirable results of GDE vegetation die-off to clarify the number of minimum threshold exceedances for each GDE area that would lead to an undesirable result determination for that area[43] (see Recommended Corrective Action 1b).

The results of the well impact analysis and consideration of riparian vegetation led to the GSA updating the 2024 GSP, revising the definition of undesirable results, and determining that "undesirable results due to lowering of groundwater levels begin to occur when water levels in the [Subbasin] drop 75 feet below the 2011 average, or 10 feet below the 2011 average within and immediately adjacent to the Cienega Springs or Del Valle GDE areas."[44] Department staff are encouraged by the GSA's revisions to analyze potential wells impacts using different scenarios and levels of impact to identify conditions which would be significant and unreasonable. The rationale provided in the 2024 GSP to support defining a 75-foot decline below historical 2011 groundwater levels and 10-foot decline below historical 2011 groundwater levels near GDE areas as significant and unreasonable, appears to be sound and done with consideration of the basin setting and beneficial uses and users.

Despite the recommended corrective actions, Department staff conclude the 2024 GSP describes the specific undesirable results that the GSA aims to avoid with sufficient detail and supporting analysis. The GSA's responses sufficiently address Component 1a of the Deficiency.

4.1.2.2 Corrective Action 1b – Assessment of Minimum Thresholds

The Department's Incomplete Determination directed the GSA that the minimum thresholds for groundwater levels must be revised to be consistent with avoiding the undesirable results that the agency aims to avoid, such as impacts to domestic and other production wells.[45] In addition, the GSP should explain how the Agency has determined that basin conditions at minimum threshold water level conditions will avoid undesirable results for other sustainability indicators.[46]

As mentioned in Section 4.1.2.1 and detailed in Section 4.1.2.3 below, the GSA performed a well impact analysis to determine significant and unreasonable effects (i.e., undesirable results) based on impacts to groundwater wells and riparian vegetation at different levels of groundwater decline. The GSA considers the projected well impacts to

[41] 2024 Piru GSP, Section 3.2.3.1, p. 113.
[42] 2024 Piru GSP, Section 2.1.4.2, p. 41.
[43] 23 CCR § 354.26(b)(2).
[44] 2024 Piru GSP, Section 3.2.3.1, p. 113.
[45] 23 CCR §§ 354.28(a) and 354.28(b)(1).
[46] 23 CCR § 354.28(b)(2).

be reasonable when groundwater levels decline 75 feet below 2011 averages, but undesirable results begin to occur when groundwater levels are lower.[47] Therefore, the 2024 GSP revised minimum thresholds for production wells from the bottom of the well screen to 75-foot below the 2011 average groundwater levels. The revision equates to minimum thresholds in 6 of 8 representative monitoring wells being raised 160 – 360 feet from what was originally proposed in the 2022 Plan.[48] Thus, this method ties the minimum thresholds directly to undesirable results that represent a depletion of supply across the Subbasin that the GSA aims to avoid.[49] Department staff consider defining sustainable management criteria for chronic lowering of groundwater levels based on a thorough analysis of potential effects on beneficial uses and users of groundwater a sound and reasonable approach.

Furthermore, the GSP revised minimum thresholds for avoiding riparian vegetation die-off to be either 10 feet below the 2011 average (i.e., the "critical" water level when undesirable results of vegetation die-off begins to occur based on research results,[50] same as defined in the 2022 GSP) or the pre-2015 minimum water level elevation, whichever is more conservative.[51] The minimum thresholds are set in shallow groundwater monitoring wells within or immediately adjacent to the Cienega Springs and Del Valle GDE areas.[52] The GSP indicates that the criteria equates to minimum thresholds being set 10 feet below the 2011 average water level in the Cienega Springs GDE area[53] while interim minimum thresholds are set at 15 feet below ground surface in the Del Valle GDE area due to lack of water level data.[54] Department staff consider it reasonable and consistent with GSA's description of undesirable results to use 10 feet below the 2011 average as the minimum thresholds, and even more protective of groundwater beneficial uses by GDE vegetations to apply the second criteria of pre-2015 minimum water level to limit potential impacts to what have been historically experienced, although that does not result in changes of minimum thresholds in the Cienega Springs GDE area. In addition, staff consider "15 feet below ground surface" a reasonable replacement for "10 feet below the 2011 average" in the Del Valle GDE area given the lack of data and the shallow water level conditions pertaining to this area as described in the GSP. Therefore, the interim minimum thresholds in the Del Valle area will also likely prevent GDE vegetation die-off.

Although the 2024 GSP's minimum thresholds for groundwater levels are considered reasonable and supported by best available information, the GSP has not presented

[47] 2024 Piru GSP, Section 3.2.3.1, p. 113; Appendix J – Section 3.3.1.1.2, pp. 1512-1514.
[48] 2024 Piru GSP, Section 3.3.1.1, p. 117; Table 3.0-2, p. 110; Appendix J – Table 3-4, p. 1523; 2022 Piru GSP, Table 3.5-3, p. 133.
[49] 23 CCR § 354.28(c)(1).
[50] 2024 Piru GSP, Section 3.2.3.1, pp. 113-114.
[51] 2024 Piru GSP, Appendix J – Section 3.3.3.2, p. 1518; Appendix J – Table 3-4, p. 1517; Table 3.0-1, p. 109.
[52] 2024 Piru GSP, Section 3.2.4, pp. 114-115; Table 3.0-2, p. 109; Figure 3.5-4, p. 221; Section 3.3.1.2, p. 117.
[53] 2024 Piru GSP, Appendix J – Section 3.3.3.2, pp. 1518.
[54] 2024 Piru GSP, Appendix J – Section 3.3.3.2, pp. 1518.

information regarding how the Agency has determined that basin conditions at these minimum thresholds will avoid undesirable results for other sustainability indicators, as required by the GSP Regulations.[55] Department staff recommend that the GSA provide related information (see Recommended Corrective Action 1c).

Despite the recommended corrective action, Department staff conclude at this time that the GSA has taken sufficient action to address component 1b of this deficiency. The GSP's groundwater level minimum thresholds are consistent with avoiding the undesirable results of affecting the ability to pump from production wells or GDE vegetation die-off that the Agency aims to avoid.

4.1.2.3 Corrective Action 1c – Assessment of Impacts to Beneficial Uses and Users

The Department's Incomplete Determination directed the GSA to assess how minimum thresholds may affect the interests of beneficial uses and users of groundwater, in particular, groundwater wells.[56]

The 2024 GSP provides analyses of how minimum thresholds impact wells and GDEs in the Subbasin. For wells with known screen intervals that are within the 2011 average groundwater elevation contour area, the GSP evaluates impacts when subbasin-wide groundwater elevations are at the minimum thresholds of 75-foot below the 2011 average. The projected impacts are categorized as "no impact," "impacted," "severely impacted," or "dry," based on groundwater elevations in relation to the known screen intervals.[57] The GSP summarizes the number and percentage of wells by impact category and well type (i.e., agricultural, domestic, municipal, industrial, monitoring, wells of unknown use, and cathodic protection wells).[58] The GSP also maps the location and projected impact status for each well that was analyzed.[59] Results indicate, a total of 20 wells (or 18 percent of wells analyzed) are estimated to be severely impacted or dry when water levels drop 75 feet from the 2011 average condition. These 20 wells include 9 agricultural wells, 2 domestic wells, 1 industrial well, 1 well of unknown use, and 7 monitoring wells; the GSA does not consider 7 monitoring wells "temporarily going dry during a drought period to be an undesirable result."[60] The GSP notes that no production wells in the Subbasin have been reported to go dry in the Department's Dry Well Reporting System.[61] Department staff consider the GSA's assessment of how minimum thresholds may affect groundwater wells to be sufficiently detailed and thorough because it utilizes best available groundwater level and well construction information, includes number and location of potentially affected wells by well type, and captures impacts from varied levels of groundwater supply depletions across the Subbasin.

[55] 23 CCR § 354.28(b)(2).
[56] 23 CCR § 354.28 (b)(4).
[57] 2024 Piru GSP, Appendix J – Section 3.3.1.1, pp. 1508-1509; Appendix J – Section 3.3.1.1.2, pp. 1512-1514.
[58] 2024 Piru GSP, Appendix J – Table 3-3, p. 1513.
[59] 2024 Piru GSP, Appendix J – Figure 3-17, p. 1553.
[60] 2024 Piru GSP, Section 3.2.3.1, p. 113.
[61] 2024 Piru GSP, Section 3.3.1.1, p. 117; Appendix J – Section 3.3.1.1, p. 1514.

The 2024 GSP was also revised to include a drought vulnerability assessment project to further evaluate possible future well impacts and guide the GSA's management actions.[62] The GSP provides a brief outline of initial activities for the assessment that are expected to extend over a two-year period.[63] As part of the drought vulnerability assessment, the GSA may develop a well mitigation program which may establish a "mitigation fund" to assist impacted well owners. The GSP affirms that "the Agency has committed to developing a mitigation program for wells that do go dry."[64] Department staff believe the GSA's decision to use results of the drought vulnerability assessment as the trigger for developing a well mitigation program is proactive and will allow the Subbasin to be prepared for drought impacts under different climate change conditions if the assessment is conducted in the early stage of Plan implementation. Department staff encourage the GSA to initiate the drought vulnerability assessment before the next periodic evaluation of the Plan.

In addition, the 2024 GSP discusses how minimum thresholds may impact GDEs in the Cienega Springs GDE area and the Del Valle GDE area.[65] As described in Section 4.1.2.2, the 2024 GSP presents further justifications for minimum thresholds in shallow groundwater monitoring wells within or immediately adjacent to the Cienega Springs GDE area to a level that would prevent die-off of riparian vegetation due to groundwater level declines based on results of a 2021 research study, and establishes similar interim minimum thresholds for the Del Valle GDE area. Additionally, both the 2022 and 2024 GSPs include two projects in support of the Cienega Springs GDE area; the Cienega Springs Restoration Project to provide supplemental groundwater to the Cienega Springs GDE area during multi-year droughts when shallow groundwater levels decline to below the critical water level, and a second project to install additional shallow monitoring wells to fill data gaps in this GDE area.[66] In water year 2022 the GSA completed the second project by installing 3 shallow monitoring wells in the Cienega Springs Restoration Project site.[67] Department staff consider the GSA's assessment of how minimum thresholds may affect GDEs to be sufficiently detailed and thorough because the GSP justifies minimum thresholds based on best available information and science, and the GSA reported progress on projects and management actions that support the GDEs in the Subbasin.

In summary, the 2024 GSP has been revised to present sufficiently detailed information on how minimum thresholds of groundwater levels may impact the beneficial uses and users of groundwater by wells and GDEs, and includes reasonable projects for assessing and mitigating possible future impacts of climate change and lowering of groundwater levels. The GSA's responses sufficiently address Component 1c of the Deficiency.

[62] 2024 Piru GSP, Section 4.8, pp. 149-151.
[63] 2024 Piru GSP, Section 4.8, p. 150.
[64] 2024 Piru GSP, Section 3.3.1.1, p. 117.
[65] 2024 Piru GSP, Appendix J – Sections 3.3.3.2, p. 1518; Appendix J – Sections 3.3.1.2 – 3.3.1.2.1, pp. 1514-1515.
[66] 2024 Piru GSP, Sections 4.1 - 4.2, pp. 144-146.
[67] Piru Groundwater Subbasin Annual Report Water Year 2022, Section 7.2, p. 24.

4.1.3 Conclusion

Overall, Department staff believe the GSA has taken sufficient action to address the identified deficiencies by identifying the depletion of supply that is an undesirable result and establishing minimum thresholds that were determined by considering that depletion's impacts to beneficial uses and users. The well impact analysis presented in the GSP appears to be reasonable and supported with sufficiently detailed information. Department staff are also encouraged by the planned drought vulnerability assessment and the GSA's commitment to potential well mitigation. Despite the recommended corrective action, staff conclude that the GSP's sustainable management criteria for lowering of groundwater levels sufficiently meets the requirements of the GSP Regulations.

4.2 Deficiency 2. The GSP does not set sustainable management criteria for depletions of interconnected surface water.

4.2.1 Corrective Action 2

The GSA must set preliminary sustainable management criteria for depletions of interconnected surface water associated with groundwater use, as required by the GSP Regulations,[68] based on best available information and science. The GSA should evaluate and disclose, sufficiently and thoroughly, the potential effects of the Plan's sustainable management criteria for depletions of interconnected surface water on beneficial uses of the interconnected surface water and on groundwater uses and users.

4.2.2 Evaluation of Resubmitted Plan

To address the deficiency, the GSA revised the Plan to include two components: 1) identifying data gaps related to surface water-groundwater interconnection; and 2) preliminary sustainable management criteria using groundwater level as a proxy. Most of the material is provided in Chapter 3 (Sustainable Management Criteria) and Appendices D, J, and K.

The 2024 GSP was revised to present details of the GSA's understanding of interconnected stream reaches and their beneficial uses and users.[69] The GSP retains the identification of consistently interconnected surface waters in the Subbasin as described in the 2022 GSP (i.e., reaches of the mainstem Santa Clara River near the Cienega Springs and Del Valle GDE areas, and the Piru Creek within Piru Canyon).[70]

The 2024 GSP considers it possible to have steelhead spawning and rearing habitats in the Piru Creek, where flow is perennial and is supported predominantly by surface water

[68] 23 CCR §§ 354.26, 354.28, 354.30.
[69] 2024 Piru GSP, Appendix K – Section 5.6.3, pp. 1748 – 1751.
[70] 2024 Piru GSP, Appendix K – Section 5.6.3, p. 1748; Figure 2.2-26, p. 205; 2022 Piru GSP, Figure 2.2-26, p. 200.

releases from the Santa Felicia Dam of the Piru Lake.[71] Total groundwater extraction in the Piru Canyon is no greater than 100 acre-foot per year during 2014-2023 and amounts to only 10 percent of surface water diversions annually on average. Due to the Piru Creek being sustained by reservoir releases and groundwater pumping being a relatively small amount in the area, the 2024 GSP concludes that the probability of groundwater pumping "significantly and unreasonably impacting streamflow in Piru Canyon" is "very low".[72] The 2024 GSP adds a very low priority data gap: "determination of interconnection between groundwater and surface water and steelhead habitat suitability for Piru Creek within Piru Canyon."[73] Department staff assume the term "interconnection" here means the location, quantity and timing of interconnected stream reaches,[74] based on the GSP's statement that "data gaps remain regarding identifying the extent and timing of interconnectedness of other stream channel areas (e.g., Piru Creek and central and eastern portions of the Santa Clara River);"[75] and the GSA's consideration of using field methods to quantify discharges from groundwater to surface water.[76] Department staff concur that identification of interconnection and assessment of beneficial uses and users for Piru Creek will help manage interconnected surface waters and recommend the GSA fill this data gap in a timely manner.

In addition, the 2024 GSP identifies interconnectivity along the Del Valle reach of the Santa Clara River at the eastern portion of the Subbasin as a data gap, due to lack of data on shallow groundwater levels and surface water gages.[77] This reach is perennial and primarily sustained by upstream surface flows from the Santa Clara River Valley East Subbasin.[78] The 2024 GSP adds two representative monitoring wells to collect data on shallow groundwater levels in the Del Valle GDE area.[79] Department staff are encouraged by the GSA's improved monitoring network, which will help the GSA better understand surface water-groundwater interactions at this reach.

To fill data gaps related to surface water-groundwater interconnection in the Cienega Springs GDE area, the GSP includes a project of installing shallow groundwater monitoring wells,[80] which have been completed in water year 2022.[81] Three new shallow monitoring wells were installed in the Cienega Springs GDE area along the Santa Clara River and west of the Fillmore-Piru boundary.[82] According to the Subbasin's water year

[71] 2024 Piru GSP, Appendix K – Section 5.6.2, pp. 1744-1747; Appendix K – Section 5.6.3, pp. 1750-1751; Appendix K – Figure 5-10, p. 1748; Appendix K – Figure 5-11, p. 1750; Section 2.2.2.7, p. 84; Section 3.3.6, p. 120.
[72] 2024 Piru GSP, Appendix K – Section 5.6.3, pp. 1750-1751; Section 3.3.6, p. 120.
[73] 2024 Piru GSP, Table 3.5-3, p. 142; Appendix K – Table 6.1, p. 1763; Appendix D, Section 6.1, p. 411.
[74] 23 CCR §§ 354.28(c)(6).
[75] 2024 Piru GSP, Section 2.2.27, p. 84.
[76] Piru Groundwater Subbasin Annual Report Water Year 2023, Section 7.3, pp. 24-25.
[77] 2024 Piru GSP, Appendix K – Section 5.6.3, p. 1750; Section 2.2.2.7, p. 84; Section 3.3.6, p. 120.
[78] 2024 Piru GSP, Section 3.3.6, p. 119.
[79] 2024 Piru GSP, Appendix J – Section 3.3.3.2, p. 1518; Figure 3.5-4, p. 221.
[80] 2024 Piru GSP, Section 4.2, p. 146.
[81] Piru Groundwater Subbasin Annual Report Water Year 2023, Section 7, p. 20.
[82] Piru Groundwater Subbasin Annual Report Water Year 2022, Section 7.2, p. 24.

2023 Annual Report, the GSA is considering the improvement of GDE and surface water-groundwater interaction monitoring network, including using methods such as field measurements to estimate rates of groundwater discharging into surface water.[83] Department staff is satisfied with the GSA's efforts and progress in adding monitoring sites to fill data gaps in surface water-groundwater interconnection.

The 2024 GSP acknowledges that data gaps exist in understanding interconnectivity and beneficial uses of interconnected surface water in the Subbasin, in particular spawning and rearing habitats for the Oncorhynchus mykiss (southern California steelhead and trout) fish species. The 2024 GSP presents tables and maps for the critical habitats and designated beneficial uses along the mainstem Santa Clara River, and the Piru Creek and Hopper Creek in the Subbasin as defined by National Marine Fisheries Service (NMFS) and Los Angeles Regional Water Quality Control Board (LARWQCB).[84] The GSA disagrees with the NMFS designation and points out that LARWQCB does not list the [mainstem] Santa Clara River as critical habitat for steelhead spawning and rearing.[85] The GSP retains the GSA's current understanding that the Oncorhynchus mykiss fish species primarily use the Santa Clara River for migration rather than spawning and rearing.[86] Although not explicitly explained, the 2024 GSP made it apparent to Department staff that the "Santa Clara River" means the mainstem Santa Clara River in the GSP's discussions about depletions of interconnected surface water.

The GSP does not specifically describe the undesirable results it aims to avoid. Instead, the GSP includes general descriptions, such as "avoid significant and unreasonable adverse impacts on beneficial uses and users of surface water,"[87] or "surface water flow declines due to groundwater extractions that interfere with beneficial uses and users."[88] However, the GSP retains similar reasoning and the determination as presented in the 2022 submitted GSP that "the Agency does not consider depletions of interconnected surface water a significant and unreasonable effect."[89] Department staff note that the GSP negates the designation of the Piru Creek as spawning and rearing habitat by LARWQCB in its discussion of undesirable results of stream depletions, despite the GSP's recognition of the Piru Creek as a primary surface water body.[90] Department staff also note that significant and unreasonable adverse impacts from stream depletion may occur so long as there are groundwater extractions and interconnected surface waters in the Subbasin, and beneficial uses and users of interconnected surface waters.

[83] Piru Groundwater Subbasin Annual Report Water Year 2023, Section 7.3, pp. 24-25.
[84] 2024 Piru GSP, Section 2.2.2.8, p. 86; Figures 2.2-30 and 2.2-31, pp. 209-210; Appendix K – Sections 5.6.1 and 5.6.2, pp. 1743 – 1748.
[85] 2024 Piru GSP, Section 2.2.2.8, p. 86; Appendix K – Sections 5.6.1, p. 1743; Appendix K – Sections 5.6.2, p. 1746; Section 5.6.3, pp. 1748-1749.
[86] 2024 Piru GSP, Section 3.2.1, p. 112.
[87] 2024 Piru GSP, Executive Summary, p. 15.
[88] 2024 Piru GSP, Table 3.0-1, p. 108.
[89] 2024 Piru GSP, Section 3.2.1, pp. 111-112.
[90] 2024 Piru GSP, Section 3.2.1, p. 112; Section 2.2.2.8, p. 86; Figure 2.2-31, p. 210; Section 2.2.1.5.6, pp. 62-63; Appendix K – Section 5.6.2, p. 1747.

Despite the GSP's projection that future conditions will be similar to historical conditions, the GSA should describe the specific undesirable results that the GSA aims to avoid, as required by the regulations. The GSA's current consideration of undesirable results, "namely loss of O. mykiss rearing and spawning habitat along the Santa Clara River," appears narrowly focused on one beneficial use along the mainstem Santa Clara River alone. For example, the GSP has not discussed how some of the important factors or information provided in the GSP are considered by the GSA, such as the habitat importance of the Piru Creek and its upland tributaries for steelhead spawning, rearing and migration,[91] the data gaps regarding how pumping may influence downstream migration of juvenile steelhead,[92] and how other species may be impacted by stream depletions due to pumping. Department staff believe the GSA's projects on filling data gaps in surface water-groundwater interconnection and beneficial uses and users of surface water will lead to better understanding of undesirable results of depletions of interconnected surface water. Department staff recommend that the GSA follow the Department's future guidance document to revise its description of undesirable results by the first periodic evaluation of the Plan (see Recommended Corrective Action 2a).

The 2024 GSP was revised to establish minimum threshold for depletions of interconnected surface water, using groundwater levels as a proxy.[93] The GSP presents in a graphic the empirical relationship between groundwater elevations in a key well and measured stream flows near the Cienega Springs GDE area.[94] The minimum threshold (i.e., 493.98 feet msl at 04N18W31D04S)[95] correspond to zero streamflow near the Cienega Springs area, which has been historically observed. During the 2012-2016 drought the Santa Clara River went dry near Cienega Springs.[96] The minimum threshold for stream depletions near Cienega Springs was set the same as that for lowering of groundwater levels at well 04N18W31D04S (i.e., 493.98 feet msl).[97] The GSP further describes that no such empirical relationship exists for the Del Valle GDE area due to lack of data. Department staff recognize that the established empirical relationship describes the general correlations between groundwater levels and streamflow under historical conditions. However, the relationship may change under different pumping schemes. In addition, the minimum thresholds do not quantify surface water depletions due to groundwater pumping in the Subbasin, as required by the GSP Regulations.[98]

Department staff understand that quantifying depletions of surface water from groundwater extractions is a complex task that likely requires developing new, specialized tools, models, and methods to understand local hydrogeologic conditions, interactions, and responses. During the initial review of GSPs, Department staff have observed that

[91] 2024 Piru GSP, Appendix K – Section 5.6.2, p. 1747.
[92] 2024 Piru GSP, Appendix D – Section 5.2.2, p. 399.
[93] 2024 Piru GSP, Section 3.3.6, pp. 120-121.
[94] 2024 Piru GSP, Section 3.3.6, p. 120; Appendix J – Figure 2-4, p. 1532.
[95] 2024 Piru GSP, Section 3.3.6, p. 120.
[96] 2024 Piru GSP, Appendix D – Section 6.4.3, p. 442; Appendix D – Figure 4.3-2, p. 363.
[97] 2024 Piru GSP, Appendix J – Table 3-4, p. 1517.
[98] 23 CCR §§ 354.28(c)(6).

most GSAs have struggled with this new requirement of SGMA. However, staff believe that most GSAs will more fully comply with regulatory requirements after several years of Plan implementation that includes projects and management actions to address the data gaps and other issues necessary to understand, quantify, and manage depletions of interconnected surface waters. Accordingly, Department staff believes that affording GSAs adequate time to refine their Plans to address interconnected surface waters is appropriate and remains consistent with SGMA's timelines and local control preferences.

The Department will continue to support GSAs in this regard by providing, as appropriate, financial and technical assistance to GSAs, including the development of guidance describing appropriate methods and approaches to evaluate the rate, timing, and volume of depletions of interconnected surface water caused by groundwater extractions. Once the Department's guidance related to depletions of interconnected surface water is publicly available, the GSA, where applicable, should consider incorporating appropriate guidance approaches into their future periodic evaluations to the GSP (see Recommended Corrective Action 2b). GSAs should consider availing themselves of the Department's financial or technical assistance, but in any event must continue to fill data gaps, collect additional monitoring data, and implement strategies to better understand and manage depletions of interconnected surface water caused by groundwater extractions and define segments of interconnectivity and timing within their jurisdictional area (see Recommended Corrective Action 2c). Furthermore, GSAs should coordinate with local, state, and federal resources agencies as well as interested parties to better understand the full suite of beneficial uses and users that may be impacted by pumping induced surface water depletion (see Recommended Corrective Action 2d).

4.2.3 Conclusion

Department staff believe the GSA has taken sufficient action to address this deficiency by setting preliminary sustainable management criteria and planning to fill data gaps. The GSA has identified and developed plans to fill major data gaps related to surface water-groundwater interconnection and beneficial uses and users of interconnected surface waters. Department staff advise that the GSA further use the newly collected data and follow the Department's future guidance document to establish sustainable management criteria based on location, quantity, and timing of depletions, as required by the GSP Regulations, by the next periodic evaluation.

5 PLAN EVALUATION

As stated in Section 355.4 of the GSP Regulations, a basin "shall be sustainably managed within 20 years of the applicable statutory deadline consistent with the objectives of the Act." The Department's assessment is based on a number of related factors including whether the elements of a GSP were developed in the manner required by the GSP Regulations, whether the GSP was developed using appropriate data and methodologies and whether its conclusions are scientifically reasonable, and whether the GSP, through the implementation of clearly defined and technically feasible projects and management actions, is likely to achieve a tenable sustainability goal for the basin.

The Department staff's evaluation of the likelihood of the Plan to attain the sustainability goal for the Subbasin is provided below. Department staff consider the information presented in the Plan to satisfy the general requirements of the GSP Regulations.

5.1 ADMINISTRATIVE INFORMATION

The GSP Regulations require each Plan to include administrative information identifying the submitting Agency, its decision-making process, and its legal authority;[99] a description of the Plan area and identification of beneficial uses and users in the Plan area;[100] and a description of the ability of the submitting Agency to develop and implement a Plan for that area.[101]

The 2024 GSP describes the GSA, discusses its decision-making process, and provides its legal authority. The GSA is formed under a joint exercise of powers agreement (JPA) among the City of Fillmore, County of Ventura, and United Water Conservation District (United).[102] The GSA is governed by a six-member board of directors, consisting of the three JPA signatories, a director from each of the two subbasin pumpers associations (Fillmore and Piru), and an "Environmental Stakeholder" director.[103] The 2024 GSP states that the JPA is the "legal foundational document for the GSA."[104] The Piru Subbasin is entirely managed by the GSA.[105]

The 2024 GSP provides a description of the plan area. The Piru Subbasin is one of a series of subbasins extending along the Santa Clara River Valley and is located between the upslope Santa Clara River Valley East Subbasin to the east and the downslope Fillmore Subbasin to the west.[106] The Piru Subbasin is a high priority subbasin and covers approximately 10,900 acres of land. Jurisdictions in the Subbasin include federal, state,

[99] 23 CCR § 354.6 *et seq*.
[100] 23 CCR § 354.8 *et seq*.
[101] 23 CCR § 354.6(e).
[102] 2024 Piru GSP, Section 1.2, pp. 18-19; Appendix A, pp. 222-248.
[103] 2024 Piru GSP, Section 1.3.1, pp. 19-21.
[104] 2024 Piru GSP, Section 1.3.2, p. 21.
[105] 2024 Piru GSP, Section 2.1.1, p. 32.
[106] 2024 Piru GSP, Section 2.1.1, p. 31.

and local agencies.[107] A map of the Subbasin location, boundary, and adjacent subbasins is shown in Figure 1 below.

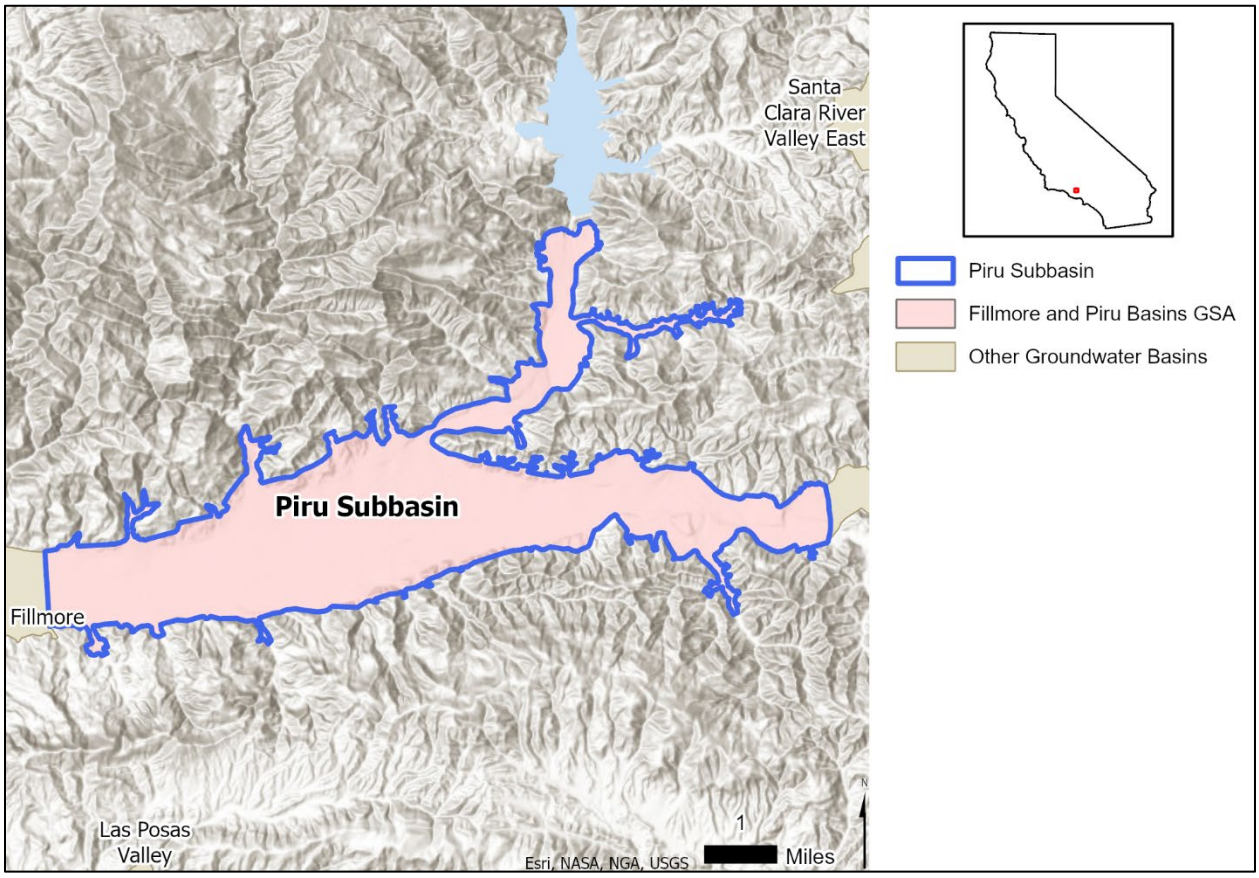

Figure 1: Piru Subbasin Location Map.

Land use in the Subbasin is primarily agricultural (52 percent), followed by open space (45 percent) and urban (3 percent).[108] The 2024 GSP describes the County Save Open Space and Agricultural Resources ordinance and city urban restriction boundaries which requires voter approval to change land use designations, and therefore puts limitations on urban growth.[109] The 2024 GSP states that urban land use is "planned to grow by about 241 housing units by 2045, which equates to about 500 AFY in additional groundwater demand".[110]

The 2024 GSP describes the beneficial uses and users in the Subbasin. Beneficial uses and users of groundwater in the Subbasin include agriculture, domestic, municipal, industrial, public water systems, and groundwater dependent ecosystems.[111] The 2024 GSP includes maps of well density by well type and a map depicting communities

[107] 2024 Piru GSP, Section 2.1.1, p. 32.
[108] 2024 Piru GSP, Section 2.1.3, pp. 36-37; Table 2.1-2, p. 36.
[109] 2024 Piru GSP, Section 2.1.3, p. 37.
[110] 2024 Piru GSP, Section 2.1.3, p. 37.
[111] 2024 Piru GSP, Sections 2.1.5.1-2.1.5.2, pp. 42-44; Appendix J – Table 3-3, p. 1513.

dependent on groundwater, including disadvantaged communities and locations of domestic wells.[112]

The Subbasin is highly dependent on groundwater. Estimated total surface water uses average 2,015 acre-foot per year during water years 2018 - 2022.[113] Water resources in the Subbasin is managed by the Ventura County Watershed Protection District (VCWPD) and United.[114] United operates the primary conjunctive use programs for groundwater replenishment purposes in the Subbasin which include "…conservation releases from Lake Piru through Santa Felicia Dam, flood flow releases from Castaic Lake, and State Water Project (SWP) imports via Pyramid Lake or Castaic Lake."[115] The two agencies have historically implemented surface water and groundwater monitoring and management programs in the Subbasin. Therefore, the GSA has the authority and capability to develop and implement the 2024 GSP.

The 2024 GSP does not provide an estimated cost of implementing the Plan; instead, the 2024 GSP states that the estimated cost is still under development.[116] The 2024 GSP also provides a brief discussion of how the GSA intends to meet costs of implementing the 2024 Plan, stating that the GSA has "…typically financed its operation via a groundwater extraction charge" and that "…the agency has other financial mechanisms that could be employed if needed."[117] Department staff recommend that the GSA provide their best estimate of the cost of implementing the 2024 Plan along with a more detailed description of how the Agency plans to meet those costs in future Plan evaluations as required by the GSP Regulations[118] (see Recommended Corrective Action 3).

The administrative information section included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[119] at this time. Department staff have provided recommended corrective actions for this section which the GSA should consider and address by the next periodic evaluation.

5.2 Basin Setting

GSP Regulations require information about the physical setting and characteristics of the basin and current conditions of the basin, including a hydrogeologic conceptual model; a description of historical and current groundwater conditions; and a water budget accounting for total annual volume of groundwater and surface water entering and leaving the basin, including historical, current, and projected water budget conditions.[120]

[112] 2024 Piru GSP, Figures 2.1-4 through 2.1-7, pp. 170-173.
[113] Piru Groundwater Subbasin Annual Report Water Year 2023, Section 4, pp. 15 and 19.
[114] 2024 Piru GSP, Sections 2.1.2.1 – 2.1.2.2, pp. 34-35.
[115] 2024 Piru GSP, Section 2.1.2.2, p. 35.
[116] 2024 Piru GSP, Section 1.3.3, p. 21.
[117] 2024 Piru GSP, Section 1.3.3, p. 21.
[118] 23 CCR §§ 354.6(e).
[119] 23 CCR §§ 354.2 et seq.
[120] 23 CCR § 354.12 *et seq*.

5.2.1 Hydrogeologic Conceptual Model

The hydrogeologic conceptual model is a non-numerical model of the physical setting, characteristics, and processes that govern groundwater occurrence within a basin, and represents a local agency's understanding of the geology and hydrology of the basin that support the geologic assumptions used in developing mathematical models, such as those that allow for quantification of the water budget.[121] The GSP Regulations require a descriptive hydrogeologic conceptual model that includes a written description of geologic conditions, supported by cross sections and maps,[122] and includes a description of basin boundaries and the bottom of the basin,[123] principal aquifers and aquitards,[124] and data gaps.[125]

The 2024 GSP provides a description of the regional geology and structures within the Subbasin, with supporting maps and cross sections. The Subbasin is located within the tectonically active Transverse Ranges, which encompasses a series of mountain ridges and valleys trending east-to-west due to north-to-south compression.[126] Geologic faulting and folding has resulted in complex synclinal structures of the Subbasin and surrounding areas. The Subbasin is filled with a mixture of deeper, consolidated (Tertiary and older) marine deposits that are considered as non-water-bearing bedrock, and shallower, unconsolidated (Quaternary) terrestrial and coastal deposits that are considered as water-bearing aquifers.[127] The 2024 GSP presents geology maps of the Subbasin sourced from various reports and studies, showing surface expressions, faults, and cross-sections.[128]

The 2024 Plan describes that the Subbasin is bounded by the Topatopa Mountains to the north and South Mountain to the south, along the contacts between the unconsolidated alluvium and the exposed bedrock.[129] Faults located along the Subbasin's boundaries significantly limit or divert groundwater flow.[130] The 2024 Plan also describes structural properties (e.g., basin narrows) of the Subbasin's boundary with the Fillmore Subbasin to the west.[131]

The 2024 GSP defines the bottom of the Subbasin as that of the water-bearing deposits, which is described by existing studies as "at least 2,000 ft at the axis of the Santa Clara

[121] DWR Best Management Practices for the Sustainable Management of Groundwater: Hydrogeologic Conceptual Model, December 2016: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-3-Hydrogeologic-Conceptual-Model_ay_19.pdf.
[122] 23 CCR §§ 354.14 (a), 354.14 (c).
[123] 23 CCR §§ 354.14 (b)(2-3).
[124] 23 CCR § 354.14 (b)(4) *et seq.*
[125] 23 CCR § 354.14 (b)(5).
[126] 2024 Piru GSP, Section 2.2.1, p. 52.
[127] 2024 Piru GSP, Section 2.2.1.1, p. 52.
[128] 2024 Piru GSP, Figures 2.2-2 and 2.2-3, pp. 186-187; Figures 2.2-5 through 2.2-6, pp. 184-185.
[129] 2024 Piru GSP, Section 2.2.1.1, p. 52; Section 2.2.1.2, p. 53; Section 2.2.1.5.1, p. 60.
[130] 2024 Piru GSP, Section 2.2.1.2, p. 53.
[131] 2024 Piru GSP, Section 2.1.1, p. 31; Section 2.2.1.4.2, pp. 56-57; Figures 2.2-5, p. 184.

syncline" or "as deep as 4,000 feet".[132] The 2024 GSP states that there is uncertainty with regard to the depth of water bearing deposits in the Subbasin; however, the 2024 GSP indicates that the uncertainty "does not have a material impact of this GSP's ability to ensure sustainable conditions because water wells are typically constructed less than 2,000 feet [below ground surface] and the substantial changes in groundwater storage occur at shallower depths."[133] The 2024 GSP also states that few wells are more than 700 feet deep.[134]

The 2024 GSP identifies one principal aquifer in the Subbasin, which corresponds to Aquifer Zones A and B in United's hydrogeologic conceptual model.[135] Aquifer Zones A and B are considered merged in the Subbasin.[136] The 2024 GSP describes the conceptual hydrostratigraphic units in detail, including lithology, thickness, horizontal and vertical presences, and effects on groundwater flow.[137]

The 2024 GSP considers Aquifer Zone C in United's model as a non-principal aquifer "because relatively little groundwater is pumped from this zone."[138] Uncertainty exists regarding the amount of pumping from this aquifer zone. Based on average annual pumping rates over calendar years 2015 to 2019, 4 percent of the pumping was from Aquifer Zone C; however, 20 percent of the pumping originated from wells with screen intervals spanning the principal aquifer (Aquifer Zones A and B) and Aquifer Zone C, while another 17 percent of the pumping originated from wells with unknown screen intervals.[139] The 2024 GSP also acknowledges that the relative contributions from the principal aquifer versus Aquifer Zone C is uncertain.[140] Principal aquifers, as defined by the GSP Regulations, refer in part to aquifer systems that yield significant or economic quantities of groundwater. Because of the uncertainty and the possibility of a relatively substantial amount of pumping from Aquifer Zone C, Department staff recommend that additional justification for excluding Aquifer Zone C from the principal aquifer designation should be provided, or, alternatively, the Aquifer Zone C should be defined as a principal aquifer, and the GSP should provide the additional required information for principal aquifers as required[141] (see Recommended Corrective Action 4).

The 2024 GSP discusses the physical and structural properties of the principal aquifer and aquitards.[142] The thickness of the principal aquifer varies from 30 to 700 feet, shallowest toward the Subbasin's eastern boundary. The principal aquifer is considered

[132] 2024 Piru GSP, Section 2.2.1.3, p. 54.
[133] 2024 Piru GSP, Section 2.2.1.3, p. 53.
[134] 2024 Piru GSP, Section 2.2.1.3, p. 53; Appendix E-1 – Section 2.4.4, p. 511; Appendix E-1 – Table 3-9, pp. 587-619.
[135] 2024 Piru GSP, Section 2.2.1.4, p. 54.
[136] 2024 Piru GSP, Section 2.2.1.4.1, p. 55.
[137] 2024 Piru GSP, Section 2.2.1.4.1, pp. 54-56; Figure 2.2-1, p. 180; Figure 2.2-4, p. 183.
[138] 2024 Piru GSP, Section 2.2.1.4, p. 54.
[139] 2024 Piru GSP, Table 2.2-2, p. 59.
[140] 2024 Piru GSP, Table 2.2-2, p. 59.
[141] 23 CCR § 354.14(b)(4) *et seq*.
[142] 2024 Piru GSP, Sections 2.2.1.4.2 – 2.2.4.1.3, pp. 56-58.

largely unconfined, except for the Subbasin's flank areas where a semi-continuous aquitard occurs at shallow depths.[143] The 2024 Plan presents aquifer hydraulic properties as estimated through United's model.[144] The 2024 Plan also discusses general water quality and sources of water quality impairments in the principal aquifer.[145]

The 2024 GSP describes the primary uses of the principal aquifer, which include pumping for agricultural, domestic, municipal, and industrial users as well as evapotranspiration by vegetation (i.e., groundwater dependent ecosystems).[146] The average pumping rates over years 2015 to 2019 are tabulated for each beneficial use category.[147] GDEs are depicted[148] and their water demands are estimated through United's groundwater flow model.[149]

Regarding data gaps and uncertainties of the hydrogeologic conceptual model, the 2024 GSP acknowledges "lack of groundwater level data in the shallow groundwater of the principal aquifer along the streams (e.g., Santa Clara River and Piru Creek)" and describes data gap addressal via installation of monitoring wells.[150] The 2024 GSP also describes the lack of surface water flow monitoring data due to difficulties of maintaining gauging stations. The 2024 GSP acknowledges that shallow groundwater data collected at more locations in the future could improve model simulations of surface water flows.[151]

The 2024 GSP also provides descriptions and maps of recharge and discharge areas, topography, soil characteristics, surface water bodies, and imported water supplies of the Subbasin.[152] In particular, the discussions of surface water cover wetted stream reaches during wet and dry periods, surface water diversions, recycled wastewater reuse, and beneficial uses of surface water.[153] The 2024 GSP describes that the Subbasin receives variable amounts of imported water from the SWP, released from Lake Piru or occasionally from Castaic Lake.[154] Surface water deliveries in water years 2010 through 2019 are presented in a table.[155]

The hydrogeologic conceptual model section included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[156] at this time. Department staff have provided recommended corrective actions for this section which the GSA should consider and address by the next periodic evaluation.

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[143] 2024 Piru GSP, Section 2.2.1.4.2, p. 56.
[144] 2024 Piru GSP, Section 2.2.1.4.2, pp. 57-58; Table 2.2-1, p. 58.
[145] 2024 Piru GSP, Section 2.2.1.4.4, pp. 58-59.
[146] 2024 Piru GSP, Section 2.2.1.4.5, pp. 59-60.
[147] 2024 Piru GSP, Table 2.2-2, p. 59.
[148] 2024 Piru GSP, Figure 2.2-29, p. 208.
[149] 2024 Piru GSP, Section 2.2.1.4.5, p. 60.
[150] 2024 Piru GSP, Section 2.2.1.6, p. 64.
[151] 2024 Piru GSP, Section 2.2.1.6, p. 65.
[152] 2024 Piru GSP, Sections 2.2.1.5.1 – 2.2.1.5.7, pp. 60-64; Figures 2.2.7 through 2.2-10, pp. 186-189.
[153] 2024 Piru GSP, Section 2.2.1.5.6, pp. 62-63; Figures 2.2.11-2.2.13, pp. 190-192.
[154] 2024 Piru GSP, Section 2.2.1.5.7, p. 64.
[155] 2024 Piru GSP, Table 2.2-8, p. 95.
[156] 23 CCR § 354.14 *et seq*.

5.2.2 Groundwater Conditions

The GSP Regulations require a written description of historical and current groundwater conditions for each of the applicable sustainability indicators and groundwater dependent ecosystems that includes the following: groundwater elevation contour maps and hydrographs,[157] a graph depicting change in groundwater storage,[158] maps and cross-sections of the seawater intrusion front,[159] maps of groundwater contamination sites and plumes,[160] maps depicting total subsidence,[161] identification of interconnected surface water systems and an estimate of the quantity and timing of depletions of those systems,[162] and identification of groundwater dependent ecosystems.[163]

The 2024 GSP states that precipitation is important to consider when evaluating groundwater conditions in the Subbasin.[164] Long-term (decades long) and intermediate (about five-year long) wet and dry periods are consistent with climate variability of the region. Groundwater level hydrographs from wells with long-term records show similar trends as precipitation.[165]

The 2024 GSP presents in Figure 2.2-18 long-term hydrographs of 11 wells in the Fillmore and Piru Subbasins.[166] Long-term groundwater elevation data are from as early as 1930, with most data from 1970 through 2020.[167] The 2024 GSP states that the hydrographs show periods of stable "basin full" conditions, interrupted by periods of water level declines and subsequent recoveries associated with drought cycles.[168] The lowest groundwater levels during the 2012-2016 drought are higher than historical lows in previous droughts.[169] Temporal variations of groundwater levels are greatest (about 120 feet) in the northern and eastern portions of the Subbasin, and more modest (about 40 feet) towards the west.[170]

The 2024 GSP also presents groundwater elevation contours in the principal aquifer for Spring 2019 (seasonal high) and Fall 2019 (seasonal low).[171] The contour maps show generally westward groundwater flow directions and higher groundwater levels in spring.[172]

[157] 23 CCR §§ 354.16 (a)(1-2).
[158] 23 CCR § 354.16 (b).
[159] 23 CCR § 354.16 (c).
[160] 23 CCR § 354.16 (d).
[161] 23 CCR § 354.16 (e).
[162] 23 CCR § 354.16 (f).
[163] 23 CCR § 354.16 (g).
[164] 2024 Piru GSP, Section 2.2.2.1, p. 65; Figure 2.2-14, p. 193.
[165] 2024 Piru GSP, Section 2.2.2.1, p. 65.
[166] 2024 Piru GSP, Figure 2.2-17, p. 196.
[167] 2024 Piru GSP, Figure 2.2-17, p. 196.
[168] 2024 Piru GSP, Section 2.2.2.2, p. 66.
[169] 2024 Piru GSP, Section 2.2.2.2, p. 66.
[170] 2024 Piru GSP, Section 2.2.2.2, p. 66; Figure 2.2-17, p. 196.
[171] 2024 Piru GSP, Figures 2.2-16 and 2.2-17, pp. 193-194.
[172] 2024 Piru GSP, Section 2.2.2.2, p. 66.

The 2024 Plan depicts annual and cumulative changes of groundwater storage, as well as annual pumping and water year types for the period of 1988-2019.[173] The storage changes are estimated using United's groundwater flow model.[174] Average annual storage change is estimated to be an overdraft of 1,500 acre-foot per year during 1988-2015 (historical period), and a surplus of 10,000 acre-foot per year during 2016-2019 (current period).[175] Staff note that groundwater storage declines experienced from 2012-2016—and depicted on Figure 2.2-18— have not recovered by 2019 to the conditions in 2005/2006 or 2011, which represent historical peaks of groundwater in storage.[176] The 2024 GSP states that the most recent drought (2012-2016) is part of a long-term drought that dates to 2000.[177] Fourteen years during 2000-2019 are noted by the 2024 GSP as below normal, dry, or critical water years.[178] The 2024 GSP suggests that the time needed for groundwater level recovery is longer because of the extended period of long-term drought.[179]

The 2024 GSP states that seawater intrusion is not applicable because of substantial horizontal and vertical distances from the ocean (i.e., 15 miles inland and groundwater levels being at least 170 feet above mean sea level).[180] Department staff agree with the 2024 GSP's assessment of seawater intrusion.

The 2024 GSP describes current and historical groundwater quality issues in the Subbasin, and identifies total dissolved solids (TDS), sulfate, chloride, nitrate, and boron as the primary constituents of concern (COC).[181] The 2024 Plan discusses where concentrations of the primary COC have exceeded water quality standards in 2015,[182] as well as concentrations of additional potential constituents of concern including radiochemistry (gross alpha and uranium), selenium, lead, iron, and manganese.[183] Elevated concentrations above Water Quality Objectives (WQO) in 2015 have been reported in some groundwater wells in the Subbasin for each of the primary COCs except boron.[184] Historical time-series graphs,[185] and water quality trend analysis in long-term (1983-2018) and short-term (available data in 2000-2020) durations are also included in the 2024 Plan.[186] The 2024 GSP presents maps of short-term groundwater quality trends for the primary COC, and a map of locations of known groundwater contamination

[173] 2024 Piru GSP, Section 2.2.2.3, pp. 67-68; Figure 2.2-18, p. 197.
[174] 2024 Piru GSP, Section 2.2.2.3, p. 67.
[175] 2024 Piru GSP, Section 2.2.3.3.2, p. 95; Table 2.2-10, p. 97; Section 2.2.3.4, pp. 99-101; Table 2.2-12, p. 100.
[176] 2024 Piru GSP, Figure 2.2-18, p. 197.
[177] 2024 Piru GSP, Section 2.2.2.3, pp. 67.
[178] 2024 Piru GSP, Figure 2.2-18, p. 197.
[179] 2024 Piru GSP, Section 2.2.2.3, p. 68.
[180] 2024 Piru GSP, Section 2.2.2.4, p. 68.
[181] 2024 Piru GSP, Section 2.2.2.5.1, pp. 69-70.
[182] 2024 Piru GSP, Section 2.2.2.5.2, pp. 71-78.
[183] 2024 Piru GSP, Section 2.2.2.5.2, pp. 78-79.
[184] 2024 Piru GSP, Section 2.2.2.5.2, pp. 71-78.
[185] 2024 Piru GSP, Appendix K – Appendix D and E, pp. 1947-2526.
[186] 2024 Piru GSP, Appendix K – Section 4, pp. 1667-1697.

sites.[187] The 2024 Plan notes overall increasing trends of chloride, increasing or stable trends of TDS and nitrate, and stable trends of sulfate and boron in the Subbasin.[188]

The 2024 GSP states that land subsidence is a low risk in the Subbasin based on various studies including numerical groundwater flow modeling and Interferometric Synthetic Aperture Radar (InSAR) surveys.[189] The 2024 GSP presents a map of cumulative change in land elevations from 2015-2019 for the entire Subbasin based on InSAR data.[190] The 2024 Plan concludes that both annual and cumulative rates of land subsidence are insignificant.[191]

Surface water is considered "interconnected" along the upper portion of Piru Creek and two reaches of the Santa Clara River near the Subbasin boundaries, "uncertain" along the lower portion of Piru Creek, and "unlikely" in the central portion of the Santa Clara River and the Hopper Creek. The two reaches of the Santa Clara River near the Subbasin boundaries (i.e., Del Valle and Cienega Springs) are referred to as "significant interconnected surface water systems."[192] The Cienega Springs area is called an area of rising groundwater, where surface water is often entirely sourced from groundwater especially during dry periods.[193] Streamflow in the Cienega Springs area exhibit large variability and dried out during the drought years of 2014-2016.[194] The 2024 Plan includes a map that identifies interconnected stream reaches within the Subbasin.[195] Lack of groundwater level data along streams (e.g., Santa Clara River and Piru Creek) is described as data gap to be addressed (see Section 5.2.1).

The 2024 GSP estimates stream depletion at the Cienega Springs area with United's regional groundwater flow model by comparing two model scenarios: one with historical pumping rates and another that excludes pumping within a 1-mile band centered along the Santa Clara River channel.[196] The estimated average monthly depletion rates during 1988-2019 range from zero (when surface water stops flowing during droughts) to the maximum of 20 cubic feet per second (cfs).[197] The 2024 GSP also presents estimated annual depletions for this area in a table.[198] However, the 2024 GSP does not provide supporting information using best available science or information (i.e., measured data) to exclude pumping in other parts of the Subbasin beyond the 1-mile band which may also cause stream depletion. Therefore, Department staff consider these estimations using a 1-mile band as potentially inaccurate and most likely an underestimation of the

[187] 2024 Piru GSP, Figures 2.2-19 to 2.2-24, pp. 198-203.
[188] 202 Piru GSP, Section 2.2.2.5.2, pp. 71-78; Figure 2.2-19 to 2.2-23, pp. 198-202.
[189] 2024 Piru GSP, Section 2.2.2.6, p. 82.
[190] 2024 Piru GSP, Figure 2.2-25, p. 204.
[191] 2024 Piru GSP, Section 2.2.2.6, p. 82.
[192] 2024 Piru GSP, Section 2.2.2.7, p. 82.
[193] 2024 Piru GSP, Section 2.2.2.7, p. 82.
[194] 2024 Piru GSP, Section 2.2.2.7, p. 83; Figure 2.2-11, p. 190.
[195] 2024 Piru GSP, Figure 2.2-26, p. 205.
[196] 2024 Piru GSP, Section 2.2.2.7, p. 83.
[197] 2024 Piru GSP, Section 2.2.2.7, pp. 83-84; Figure 2.2-28, p. 207.
[198] 2024 Piru GSP, Table 2.2-4, p. 84.

stream depletion due to pumping that is occurring in the Subbasin. Department staff recommend the GSA follow the Department's future guidance document to develop more appropriate methods to quantify the location, timing, and rate of depletion (see Recommended Corrective Action 2).

The 2024 GSP includes a description of five units of GDEs in the Subbasin.[199] Two of the GDE units (i.e., the Cienega Riparian Complex and the Del Valle Riparian Complex) are associated with areas of interconnected surface water.[200] The 2024 GSP states that GDE health is monitored with the Normalized Difference Vegetation Index (NDVI), Normalized Difference Moisture Index (NDMI), and groundwater records of nearby wells.[201] The 2024 GSP indicates that vegetation health in the Cienega Riparian Complex has not recovered from die-off effects of the 2012-2016 drought.[202] The 2024 GSP identifies three species with critical habitat areas in the Subbasin, including Southern California steelhead,[203] and maps the critical habitats and surface water beneficial uses as they relate to fish.[204] The 2024 GSP also lists ongoing habitat management and special-status species recovery plans in the Fillmore and Piru Subbasins.[205]

The groundwater conditions section included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[206] at this time. Department staff have provided recommended corrective actions for this section which the GSA should consider and address by the next periodic evaluation.

5.2.3 Water Budget

GSP Regulations require a water budget for the basin that provides an accounting and assessment of the total annual volume of groundwater and surface water entering and leaving the basin, including historical; current; and projected water budget conditions,[207] and the sustainable yield.[208]

The 2024 GSP estimates historical, current, and projected water budgets with United's Ventura Regional Groundwater Flow Model, which was developed with the MODFLOW-NWT numerical code and calibrated over the period of 1985-2019.[209] The model was reviewed by an expert panel and considered "suitable for assisting with long-term sustainable management of the groundwater resources" in the Subbasin.[210] The water

[199] 2024 Piru GSP, Section 2.2.2.8, pp. 84-86; Table 2.2-5, p. 86; Figure 2.2-29, p. 208.
[200] 2024 Piru GSP, Section 2.2.2.8, p. 84.
[201] 2024 Piru GSP, Section 2.2.2.8, p. 85.
[202] 2024 Piru GSP, Section 2.2.2.8, p. 85.
[203] 2024 Piru GSP, Section 2.2.2.8, p. 8; Table 2.2-7, p. 89.
[204] 2024 Piru GSP, Figures 2.2-30 and 2.2-31, pp. 209-210.
[205] 2024 Piru GSP, Section 2.2.2.8, p. 87.
[206] 23 CCR § 354.16 *et seq*.
[207] 23 CCR §§ 354.18 (a), 354.18 (c) *et seq*.
[208] 23 CCR § 354.18 (b)(7).
[209] 2024 Piru GSP, Section 2.2.3, p. 88; Appendix E-1, p. 473; Appendix E-4, p. 1357.
[210] 2024 Piru GSP, Appendix E-4, p. 1365.

budget information is provided in tabular and graphical forms for the surface water and groundwater systems.[211]

The 2024 GSP includes a historical water budget for water years 1988-2015,[212] a current water budget for water years 2016-2019,[213] and a projected water budget that applies the Department's 2070 central tendency climate factors to the historical hydrology of water years 1943-2019.[214] The average annual change in groundwater storage in the historical water budget is negative 1,500 acre-feet per year (AFY).[215] The current water budget reports a surplus of 10,000 AFY in storage.[216] The projected water budget with climate change estimates an annual storage surplus of 200 AFY.[217] Therefore, as the 2024 GSP states, the Subbasin does not exhibit long-term overdraft.[218] The 2024 GSP explains that temporary overdraft occurs during periods of multiple years of below average precipitation, but the Subbasin "refills" following one or more wet years.[219] Department staff note that by 2019 the Subbasin's groundwater storage has not recovered to the "basin full" conditions following the extended drought years of 2012-2016.[220] Staff recommend that the GSA continue to report groundwater storage conditions in annual reports and Plan evaluations.

The 2024 GSP estimates the sustainable yield for the Subbasin is about 15,000 AFY,[221] based on the average annual pumping rate of 14,900 AFY and the storage surplus of 200 AFY in the projected water budget.[222] Thus, the 2024 GSP states the Subbasin can pump an additional 2,600 AFY on average in comparison to the historical average pumping (12,400 AFY) without causing chronic declines of groundwater levels.[223]

The water budget described in the 2024 GSP substantially complies with the GSP Regulations and appears to be developed using the best available science. The 2024 GSP provides the required historical, current, and future accounting and assessment of the total annual volume of groundwater and surface water entering and leaving the Subbasin including an estimate of the sustainable yield of the Subbasin.

5.2.4 Management Areas

The GSP Regulations provide the option for one or more management areas to be defined within a basin if the GSA has determined that the creation of the management areas will facilitate implementation of the Plan. Management areas may define different minimum

[211] 2024 Piru GSP, Section 2.2.3, pp. 88-104; Figures 2.2-33 through 2.2-38, pp. 212-217.
[212] 2024 Piru GSP, Section 2.2.3.3, pp. 93-98.
[213] 2024 Piru GSP, Section 2.2.3.4, pp. 99-101.
[214] 2024 Piru GSP, Section 2.2.3.5, pp. 101-104.
[215] 2024 Piru GSP, Table 2.2-10, p. 97.
[216] 2024 Piru GSP, Table 2.2-12, p. 100.
[217] 2024 Piru GSP, Table 2.2-14, p. 104.
[218] 2024 Piru GSP, Section 2.2.3.6, p. 104.
[219] 2024 Piru GSP, Section 2.2.3.6, p. 104.
[220] 2024 Piru GSP, Figure 2.2-35, p. 214.
[221] 2024 Piru GSP, Section 2.2.3.7, p. 105; Section 3.1, p. 109.
[222] 2024 Piru GSP, Section 2.2.3.7, p. 105.
[223] 2024 Piru GSP, Section 2.2.3.7, p. 105.

thresholds and be operated to different measurable objectives, provided that undesirable results are defined consistently throughout the basin.[224]

The 2024 GSP designates the Cienega Riparian Complex GDE unit which spans the Fillmore and Piru Subbasins as a management area to mitigate GDE vegetation die-off due to groundwater level declines during drought periods.[225] The GDE unit extends equally into the two subbasins. There are currently four representative monitoring sites for this management area, which are all located in the Fillmore Subbasin.[226] For the GDE unit, the 2024 GSP establishes minimum thresholds for the chronic lowering of groundwater levels sustainability indicator at the "critical water level," defined as 10 feet below the 2011 average groundwater levels based on recent research studies.[227] The minimum thresholds for this management area are significantly higher than those for subbasin-wide groundwater level declines in the Fillmore Subbasin (i.e., 50 feet below the 2011 average groundwater levels) that are considered protective of well pumping.[228] The measurable objectives for the GDE unit are the 2011 average groundwater levels, the same as those for subbasin-wide groundwater level declines.[229]

The GSP's description and sustainable management criteria for this management area are supported with sufficient information and justification, and significantly complies with the GSP Regulations. Department staff note that the 2024 GSP adds similar, interim minimum thresholds and measurable objectives for the Del Valle Riparian Complex GDE unit for the same purpose of protecting vegetation die-off.[230] Department staff recommend the GSP clarify whether the Del Valle GDE unit is also considered a management area by the next periodic evaluation of the Plan.

5.3 Sustainable Management Criteria

GSP Regulations require each Plan to include a sustainability goal for the basin and to characterize and establish undesirable results, minimum thresholds, and measurable objectives for each applicable sustainability indicator, as appropriate. The GSP Regulations require each Plan to define conditions that constitute sustainable groundwater management for the basin including the process by which the GSA characterizes undesirable results and establishes minimum thresholds and measurable objectives for each applicable sustainability indicator.[231]

5.3.1 Sustainability Goal

GSP Regulations require that GSAs establish a sustainability goal for the basin. The sustainability goal should be based on information provided in the GSP's basin setting

[224] 23 CCR § 354.20.
[225] 2024 Piru GSP, Section 2.2.4, p. 106; Section 3.2.2, p. 112; Table 3.0-1, p. 108; Figure 2.2-29, p. 208.
[226] 2024 Fillmore GSP, Figure 3.5-4, p. 227; 2024 Piru GSP, Figure 3.5-4, p. 221.
[227] 2024 Fillmore GSP, Section 3.3.1.2, p. 119; 2024 Piru GSP, Section 3.3.1.2, p. 117.
[228] 2024 Fillmore GSP, Section 3.3.1.1, p. 118.
[229] 2024 Fillmore GSP, Section 3.4, p. 123; Table 3.0-1, p. 109; 2024 Piru GSP, Table 3.0-1, p. 108.
[230] 2024 Piru GSP, Section 3.2.3.1, p. 113; Appendix J – Section 3.3.3.2, p. 1518; Figure 3.5-4, p. 221.
[231] 23 CCR § 354.22 *et seq*.

and should include an explanation of how the sustainability goal is likely to be achieved within 20 years of Plan implementation.[232]

The 2024 GSP states that the sustainability goal is memorialized in the guiding principles that were adopted by the Fillmore and Piru Basins Groundwater Sustainability Agency in November 2019.[233] From the over 40 guiding principles described, two are described as being the "most pertinent to the sustainability goal". They are:

> *1) "sustainable groundwater conditions in the Basins are critical to support, preserve, and enhance the economic viability, social well-being, environmental health, and cultural norms of all beneficial users and uses including Tribal, domestic, municipal, agricultural, environmental and industrial users;" and*
>
> *2) "[Fillmore and Piru Basins GSA] is committed to conduct sustainable groundwater practices that balance the needs of and protect the groundwater resources for all Beneficial Users in the Basins."*[234]

The 2024 GSP also refers to the definition of "sustainability goal" in Water Code 10721(u) which emphasizes measures targeted to ensure that a basin is operated within its sustainable yield and states that "based on the evaluation of historical, current, and projected water budgets (Section 2.2.3), the sustainable yield for the Basin is estimated to be 15,000 AFY."[235] Information presented in the 2024 GSP suggest that the Subbasin's historical groundwater extractions are within the sustainable yield and that projected groundwater extractions are sustainable.[236] However, the 2024 GSP does not discuss the measures that will be implemented to ensure that the basin will be operated within its sustainable yield although the GSA requires pumpers in the Subbasin to report their groundwater extractions.[237] Department staff recommend that the GSA further discuss management actions to ensure the Subbasin's groundwater extractions do not exceed the sustainable yield.

Department staff recommend the GSA explicitly define the sustainability goal and explain how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon, as required by the GSP Regulations[238] (see Recommended Corrective Action 5).

Because the 2024 GSP describes the Subbasin's groundwater conditions as relatively stable, references guiding principles adopted by the GSA, and recognizes the requirement to operate the basin within its sustainability yield, Department staff conclude

[232] 23 CCR § 354.24.
[233] 2024 Piru GSP, Section 3.1, p. 110.
[234] 2024 Piru GSP, Section 3.1, p. 110.
[235] 2024 Piru GSP, Section 3.1, p. 109.
[236] 2024 Piru GSP, Section 2.2.3.7, p. 105; Section 2.2.3.3.3, pp. 98-99.
[237] 2024 Piru GSP, Section 3.5.1.4, p. 128.
[238] 23 CCR § 354.24.

that the sustainability goal section included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[239] at this time. Department staff have provided a recommended corrective action for this section which the GSA should consider and address by the next periodic evaluation.

5.3.2 Sustainability Indicators

Sustainability indicators are defined as any of the effects caused by groundwater conditions occurring throughout the basin that, when significant and unreasonable, cause undesirable results.[240] Sustainability indicators thus correspond with the six undesirable results – chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon, significant and unreasonable reduction of groundwater storage, significant and unreasonable seawater intrusion, significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies, land subsidence that substantially interferes with surface land uses, and depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water[241] – but refer to groundwater conditions that are not, in and of themselves, significant and unreasonable. Rather, sustainability indicators refer to the effects caused by changing groundwater conditions that are monitored, and for which criteria in the form of minimum thresholds are established by the agency to define when the effect becomes significant and unreasonable, producing an undesirable result.

GSP Regulations require that GSAs provide descriptions of undesirable results including defining what are significant and unreasonable potential effects to beneficial uses and users for each sustainability indicator.[242] GSP Regulations also require GSPs provide the criteria used to define when and where the effects of the groundwater conditions cause undesirable results for each applicable sustainability indicator. The criteria shall be based on a quantitative description of the combination of minimum threshold exceedances that cause significant and unreasonable effects in the basin.[243]

GSP Regulations require that the description of minimum thresholds include the information and criteria relied upon to establish and justify the minimum threshold for each sustainability indicator.[244] GSAs are required to describe how conditions at minimum thresholds may affect beneficial uses and users,[245] and the relationship between the minimum thresholds for each sustainability indicator, including an explanation for how the GSA has determined conditions at each minimum threshold will avoid causing undesirable results for other sustainability indicators.[246]

[239] 23 CCR § 354.24.
[240] 23 CCR § 351(ah).
[241] Water Code § 10721(x).
[242] 23 CCR §§ 354.26 (a), 354.26 (b)(c).
[243] 23 CCR § 354.26 (b)(2).
[244] 23 CCR § 354.28 (b)(1).
[245] 23 CCR § 354.28 (b)(4).
[246] 23 CCR § 354.28 (b)(2).

GSP Regulations require that GSPs include a description of the criteria used to select measurable objectives, including interim milestones, to achieve the sustainability goal within 20 years.[247] GSP Regulations also require that the measurable objectives be established based on the same metrics and monitoring sites as those used to define minimum thresholds.[248]

The following subsections thus consolidate three facets of sustainable management criteria: undesirable results, minimum thresholds, and measurable objectives. Information, as presented in the Plan, pertaining to the processes and criteria relied upon to define undesirable results applicable to the Subbasin, as quantified through the establishment of minimum thresholds, are addressed for each applicable sustainability indicator. A submitting agency is not required to establish criteria for undesirable results that the agency can demonstrate are not present and are not likely to occur in a basin.[249]

5.3.2.1 Chronic Lowering of Groundwater Levels

In addition to components identified in 23 CCR §§ 354.28 (a-b), for the chronic lowering of groundwater, the GSP Regulations require the minimum threshold for chronic lowering of groundwater levels to be the groundwater elevation indicating a depletion of supply at a given location that may lead to undesirable results that is supported by information about groundwater elevation conditions and potential effects on other sustainability indicators.[250]

In the Department's Incomplete Determination, the Department identified deficiencies related to the sustainable management criteria for the chronic lowering of groundwater levels. The GSA revised this portion of the 2022 Plan, and Department staff have evaluated this sustainability indicator in Section 4.1 of this Staff Report. As presented above, Department staff concluded that the GSA took sufficient action to correct this deficiency, but staff also provided recommended corrective actions based on the revised 2024 GSP.

In addition to the facets of sustainable management criteria evaluated in Section 4.1 of this Staff Report, the 2024 GSP establishes measurable objectives for the chronic lowering of groundwater levels at "average 2011 groundwater elevations, which represent 'basin full' conditions." [251] Department staff believe the measurable objectives are consistent with the 2024 GSP's basin setting which describes the Subbasin's hydrology to "exhibit a repetitive sequence of lower water levels during drought periods with recovery during subsequent wet periods," and "not exhibit evidence of chronic, long-term water level declines."[252] The 2024 GSP explains that water levels recovering to similar "basin full" conditions following a drought would indicate sustainable conditions in the

[247] 23 CCR § 354.30 (a).
[248] 23 CCR § 354.30 (b).
[249] 23 CCR § 354.26 (d).
[250] 23 CCR § 354.28(c)(1) *et seq*.
[251] 2024 Piru GSP, Section 3.4, p. 121; Tables 3.0-1 and 3.0-2, pp. 109-110.
[252] 2024 Piru GSP, Appendix J – Section 2.4, p. 1500.

Subbasin.[253] The measurable objectives are also supported by the 2024 GSP's model projection that the Subbasin's water levels would recover to similar "basin full" conditions even with significant increases in future pumping.[254] Therefore, Department staff consider it reasonable to establish the measurable objectives as the groundwater levels that occur at the "basin full" conditions.

However, the 2024 GSP does not establish interim milestones for chronic lowering of groundwater levels and does not provide an explanation for why they were not established. Interim milestones allow GSA, the public (i.e., beneficial users of groundwater) and the Department to track the progress of the Plan, in increments of five years, to achieving the sustainability goal in the Subbasin. Department staff recommend that the GSA establish interim milestones for this sustainability indicator as required by the GSP Regulations.[255] Due to the relationship between the Subbasin's water levels and cycles of wet and dry periods as described above, staff further recommend that the GSA consider establishing interim milestones at the "basin full" conditions, the same as the measurable objectives.

The sustainable management criteria for chronic lowering of groundwater levels sustainability indicator included in the 2024 GSP substantially complies with the requirements outlined in the GSP Regulations[256] at this time. Department staff have provided recommended corrective actions for this sustainability indicator which the GSA should consider and address by the next periodic evaluation.

5.3.2.2 Reduction of Groundwater Storage

In addition to components identified in 23 CCR §§ 354.28 (a-b), for the reduction of groundwater storage, the GSP Regulations require the minimum threshold for the reduction of groundwater storage to be a total volume of groundwater that can be withdrawn from the basin without causing conditions that may lead to undesirable results. Minimum thresholds for reduction of groundwater storage shall be supported by the sustainable yield of the basin, calculated based on historical trends, water year type, and projected water use in the basin.[257]

The 2024 GSP describes the undesirable results from reduction of groundwater storage as "the loss of ability to pump groundwater,"[258] or "inadequate groundwater volume in storage to last through multi-year drought without pumping reductions."[259] The 2024 GSP uses groundwater levels as a proxy and establishes sustainable management criteria (i.e., undesirable results, minimum thresholds and measurable objectives) for reduction of groundwater storage as the same as those for the chronic lowering of groundwater

[253] 2024 Piru GSP, Appendix J – Section 3.3.4, p. 1518.
[254] 2024 Piru GSP, Appendix J – Section 2.4, p. 1500.
[255] 23 CCR § 354.30(e).
[256] 23 CCR § 354.22-30.
[257] 23 CCR § 354.28(c)(2).
[258] 2024 Piru GSP, Section 3.2.3.2, p. 114.
[259] 2024 Piru GSP, Tale 3.0-1, p. 108.

levels sustainability indicator in subbasin-wide areas outside of GDE areas (i.e. monitoring the ability to pumping groundwater from production wells).[260] The GSA explains that the amount of groundwater in storage is linked to groundwater levels and exhibit similar cyclic behaviors of decline during drought periods with recovery during wet periods.[261] Department staff largely agree with the GSA's assessment of the relationship between groundwater levels and storage, but recommend the GSA continue to evaluate and confirm this relationship in the Subbasin in annual reports and periodic evaluations of the Plan.

Department staff consider it reasonable to use the groundwater level sustainable management criteria for depletion of supply in production wells as a proxy to manage groundwater storage reduction. The GSA's descriptions of undesirable results for the two sustainability indicators are similar and, therefore, maintaining sustainable water levels for production wells would mean sustainable volume of groundwater storage. Staff conclude that the GSP substantially complies with this part of the GSP Regulations.

5.3.2.3 Seawater Intrusion

In addition to components identified in 23 CCR §§ 354.28 (a-b), for seawater intrusion, the GSP Regulations require the minimum threshold for seawater intrusion to be defined by a chloride concentration isocontour for each principal aquifer where seawater intrusion may lead to undesirable results.[262]

The 2024 GSP states that "undesirable results related to seawater intrusion are not applicable to this [Subbasin] due to the large horizontal and vertical distances separating groundwater levels from seawater."[263] The 2024 GSP details that the western boundary of the [Fillmore and Piru Subbasins] is approximately 15 miles inland and groundwater elevations have been at least 170 feet above mean sea level.[264] In addition, the 2024 GSP states that "seawater intrusion has not historically migrated beyond the coastal plain (e.g., Oxnard Basin) even during severe drought conditions."[265] Department staff agree with the GSA's rationale for not setting sustainable management criteria for seawater intrusion in the Subbasin.

5.3.2.4 Degraded Water Quality

In addition to components identified in 23 CCR §§ 354.28 (a-b), for degraded water quality, the GSP Regulations require the minimum threshold for degraded water quality to be the degradation of water quality, including the migration of contaminant plumes that impair water supplies or other indicator of water quality as determined by the Agency that may lead to undesirable results. The minimum threshold shall be based on the number

[260] 2024 Piru GSP, Section 3.3.2, p. 118; Section 3.2.4, pp. 114-115; Section 3.4, p. 121; Appendix J – Sections 3.4.3 and 3.4.4, p. 1519.
[261] 2024 Piru GSP, Appendix J – Sections 3.4, pp. 1518-1519.
[262] 23 CCR § 354.28(c)(3).
[263] 2024 Piru GSP, Section 3.2.2, p. 113.
[264] 2024 Piru GSP, Section 2.2.2.4, p. 68; Appendix J – Sections 3.1, p. 1504.
[265] 2024 Piru GSP, Appendix J – Sections 3.1, p. 1504.

of supply wells, a volume of water, or a location of an isocontour that exceeds concentrations of constituents determined by the Agency to be of concern for the basin. In setting minimum thresholds for degraded water quality, the Agency shall consider local, state, and federal water quality standards applicable to the basin.[266]

The 2024 GSP describes significant and unreasonable effects of water quality degradation as "water quality degradation beyond historical conditions."[267] The 2024 GSP also states that "significant and unreasonable water quality degradation would result if water quality exceeds Maximum Contaminant Levels (MCLs) (e.g., nitrate above the MCL can result in Blue Baby Syndrome) or water quality significantly exceeds historical concentrations."[268] The 2024 GSP gives examples of undesirable results that impair agricultural or domestic beneficial uses and users because of high concentrations of constituents, such as boron, chloride, nitrate, sulfate, TDS, and "constituents with a maximum contaminant level (MCL) listed in Title 22 of the CCR."[269]

Five primary COC (i.e., boron, chloride, nitrate, sulfate, TDS) were identified in the 2024 GSP, with presentations of their maximum contaminant levels (MCLs)[270] and/or water quality objectives (WQOs).[271] Although information in the 2024 GSP's basin setting section indicate that the five primary COC will be the focus of SGMA implementation,[272] the 2024 GSP has not specifically defined the COC in its water quality sustainable management criteria (e.g., no reference to COC in Chapter 3). Instead, the 2024 GSP's Appendix J states that "the proposed metrics are the water quality analyte values and units included in existing and future regulations…."[273] Department staff understand that the GSA intends to be thorough in its water quality evaluation but recommend that the GSA clearly identify which COC are included in its current sustainable management criteria for water quality and whether the minimum thresholds are established at the MCL or based on historical concentrations (see Recommended Corrective Action 6a).

The 2024 GSP does not describe the combination of minimum threshold (i.e., MCL or WQO, as discussed below) exceedances among the 24 representative monitoring wells used to define when and where the effects of groundwater conditions cause undesirable results for degraded water quality in the Subbasin. The GSA plans to depend on the existing groundwater quality monitoring programs of United and Ventura County Watershed Protection District (VCWPD) for GSP implementation.[274] Exceedances of MCL or WQO for each of the primary COC have been reported in some monitoring wells in 2015.[275] Increasing concentration trends have also been observed in some monitoring

[266] 23 CCR § 354.28(c)(4).
[267] 2024 Piru GSP, Section 3.2.2, p. 113.
[268] 2024 Piru GSP, Section 3.2.3.2, p. 114.
[269] 2024 Piru GSP, Appendix J – Section 3.2.1, p. 1506.
[270] 2024 Piru GSP, Table 2.2-3, p. 71, Appendix K – Table 4-2, p. 1676.
[271] 2024 Piru GSP, Section 2.2.2.5.2, pp. 71-78.
[272] 2024 Piru GSP, Section 2.2.2.5.4, p. 81.
[273] 2024 Piru GSP, Appendix J – Section 3.2.2, p. 1506.
[274] 2024 Piru GSP, Sections 3.5.1.2 – 3.5.1.2.1, pp. 125-126; Figure 2.1-9, p. 175; Figure 3.5-2, p. 219.
[275] 2024 Piru GSP, Section 2.2.2.5.2, pp. 71-78.

wells.[276] In its discussions of "Multiple Minimum Thresholds Used to Determine Undesirable Results," the 2024 GSP appears to suggest that the GSA's responsibility is limited to evaluating water quality parameters against the minimum thresholds associated with water quality standards and to "not implement projects or management actions that further degrade water quality beyond historical conditions."[277] However, The GSP Regulations require the criteria to be a quantitative description of the combination of minimum threshold exceedances.[278] Furthermore, Department staff note that SGMA specifies undesirable results as "caused by groundwater conditions occurring throughout the basin" not just from projects or management actions of groundwater sustainability agencies. Degraded water quality caused by groundwater pumping, changes in groundwater levels, changes in the direction of groundwater flow, or changes in horizontal or vertical movement of groundwater within the Subbasin should be considered in the assessment of undesirable results. Additionally, the 2024 GSP does not describe the time interval or frequency of sample collection to evaluate the occurrence of water quality undesirable results even as the monitoring programs by United and VCWPD differ in sampling frequencies. The GSA considers semiannual sampling necessary to assess seasonal trends but identifies as a data gap that VCWPD samples its 10 monitoring wells only in the fall.[279] Therefore, Department staff recommend that the GSA develop a method or rationale to quantify what it considers as "water quality [that] significantly exceeds historical concentrations" for each COC and remove any limitation to specific activities the GSA is engaged in to define the quantitative criteria of water quality undesirable results as required by the GSP Regulations[280] (see Recommended Corrective Action 6b).

The 2024 GSP establishes minimum thresholds for water quality degradation as "WQOs [Water Quality Objectives] and MCLs established by the LARWQCB [Los Angeles Regional Water Quality Control Board] Basin Plan and California DDW [Water Board Division of Drinking Water], respectively."[281] Department staff consider it reasonable to use federal and state water quality standards as minimum thresholds to protect beneficial uses and users of groundwater. However, it is unclear how the 2024 GSP applies the two standards to establish minimum thresholds when their values differ. In addition, WQO may vary among the four management areas as designated in the LARWQCB Basin Plan.[282] Therefore, Department staff recommend that the GSP clearly convey the numeric values of minimum thresholds for each constituent of concern at each representative monitoring well and present the information in a tabular format (i.,e., the minimum thresholds, measurable objectives, and interim milestones for each constituent of concern

[276] 2024 Piru GSP, Section 2.2.2.5.2, pp. 71-78; Appendix K – Section 4.1.2, pp. 1675-1691.
[277] 2024 Piru GSP, Section 3.2.4, p. 115.
[278] 23 CCR § 354.26(b)(2).
[279] 2024 Piru GSP, Section 3.5.4.2.2, p. 140; Section 2.2.2.5.4, p. 81; Section 3.5.1.2.1, pp. 125-126.
[280] 23 CCR § 354.26(b)(2).
[281] 2024 Piru GSP, Section 3.3.4, p. 118.
[282] 2024 Piru GSP, Section 2.2.2.5.2, pp. 71-78.

at each representative monitoring sites) as required by the GSP Regulations[283] (see Recommended Corrective Action 6c).

The 2024 GSP establishes measurable objectives for degraded water quality the same as the minimum thresholds (i.e., MCLs and WQOs) for each constituent of concern.[284] Department staff believe these measurable objectives meet the GSP Regulations' requirement of using the same matrix and monitoring sites as minimum thresholds[285] and are protective of drinking water and agricultural beneficial uses of groundwater by using the federal and state water quality standards. However, the GSP does not establish water quality interim milestones in five-year increments as required by the GSP Regulations.[286] Department staff recommend that the GSA establish interim milestones for water quality.

Overall, the 2024 GSP has established minimum thresholds and measurable objectives of degraded water quality that are consistent with federal and state water quality standards and protective of drinking water and agricultural uses of groundwater. The recommended corrective actions do not preclude Plan approval at this time. Department staff expect the GSA to address the recommended corrective actions by the next periodic evaluation of the Plan.

5.3.2.5 Land Subsidence

In addition to components identified in 23 CCR §§ 354.28 (a-b), the GSP Regulations require the minimum threshold for land subsidence to be the rate and extent of subsidence that substantially interferes with surface land uses and may lead to undesirable results.[287] Minimum thresholds for land subsidence shall be supported by identification of land uses and property interests that have been affected or are likely to be affected by land subsidence in the basin, including an explanation of how the Agency has determined and considered those uses and interests, and the Agency's rationale for establishing minimum thresholds in light of those effects and maps and graphs showing the extent and rate of land subsidence in the basin that defines the minimum thresholds and measurable objectives.[288]

The 2024 GSP states that the Fillmore and Piru Subbasins have a low risk of subsidence based on previous studies and evaluation of recent InSAR datasets.[289] Numerical modeling suggests just over 0.1 foot of subsidence in the historical period of 1891-1993, and recent InSAR observations show insignificant changes in land elevations from 2015 to 2019.[290] The 2024 GSP explains that "the [Subbasin] is composed largely of coarse-grained aquifer material, making it resistant to inelastic land subsidence."[291] Additionally,

[283] 23 CCR § 354.36(a).
[284] 2024 Piru GSP, Section 3.4, p. 121.
[285] 23 CCR § 354.30(b).
[286] 23 CCR § 354.30(a).
[287] 23 CCR § 354.28(c)(5).
[288] 23 CCR §§ 354.28(c)(5)(A-B).
[289] 2024 Piru GSP, Section 2.2.2.6, p. 82.
[290] 2024 Piru GSP, Section 2.2.2.6, p. 82.
[291] 2024 Piru GSP, Section 2.2.2.6, p. 82.

the GSA's updated subsidence evaluation concluded that "there has not been any measurable net subsidence in the [Fillmore and Piru Subbasins] since [InSAR] measurements started in June 2015."[292] The GSA monitors land subsidence in the entire Piru Subbasin with InSAR datasets provided by TRE Altimira and the Department.[293]

The 2024 GSP describes significant and unreasonable effects of land subsidence as "inelastic land subsidence that damages critical infrastructure (water distribution systems, roads, railways, bridges, etc.),"[294] and describes "loss of aquifer storage (i.e., compaction of pore spaces)" as another potential effect of inelastic land subsidence.[295] Although the 2024 GSP does not identify the infrastructures or areas of concern, the GSA's updated subsidence evaluation examined InSAR data at 8 infrastructure locations (i.e., railways and bridges), and 8 additional locations with geographical or hydrogeological characteristics that may be susceptible to subsidence.[296]

However, the 2024 GSP has not described the quantitative criteria used to determine when and where the effects of land subsidence cause undesirable results in the Subbasin as required by the GSP Regulations.[297] It is unclear when InSAR data will be evaluated and whether minimum threshold exceedances at one or multiple locations will lead to the determination of undesirable results occurring in the Subbasin. Department staff recommend that the GSP include the quantitative criteria of undesirable results for land subsidence (see Recommended Corrective Action 7a).

The 2024 GSP establishes the minimum thresholds for inelastic land subsidence as "1 foot per year or 1 foot cumulative displacement over 5 years,"[298] and the measurable objectives as "the InSAR measurement error of ± 0.07 foot."[299] However, the 2024 GSP does not explain the process, criteria or rationale used to justify the decision on the minimum thresholds. More specifically, the 2024 GSP does not explain why avoiding "1 foot per year or 1 foot cumulative change over 5 years" would prevent the long-term, cumulative effects of subsidence on critical infrastructures in the Subbasin throughout the SGMA planning and implementation horizon. For example, the GSA has not presented analysis of the total amount of land subsidence that the Subbasin's infrastructures can tolerate. Furthermore, Department staff note that it was the intention of the legislature that the implementation of SGMA would avoid or minimize subsidence[300] once basins achieve their sustainability goal. Because land subsidence has been historically insignificant in the Subbasin, Department staff recommend that the GSA establish conservative

[292] Technical Memorandum - Fillmore and Piru Basins Subsidence Update, DBS&A, Feb. 10, 2023, p. 6.
[293] 2024 Piru GSP, Section 3.5.1.7, p. 131.
[294] 2024 Piru GSP, Section 3.2.2, p. 113.
[295] 2024 Piru GSP, Section 3.2.3.2, p. 114.
[296] Technical Memorandum - Fillmore and Piru Basins Subsidence Update, DBS&A, Feb. 10, 2023, pp. 2-3.
[297] 23 CCR § 354.26(b)(2).
[298] 2024 Piru GSP, Section 3.3.5, p. 119.
[299] 2024 Piru GSP, Section 3.4, p. 121.
[300] Water Code § 10720.1(e).

minimum thresholds (e.g., close to InSAR measurement error) to avoid future land subsidence (see Recommended Corrective Action 7b).

Overall, the 2024 GSP has presented sufficiently detailed information to demonstrate that land subsidence due to groundwater pumping has not been observed historically in the Subbasin. Because the Subbasin's groundwater levels are relatively stable, Department staff do not anticipate land subsidence occurring soon. Department staff expect the GSA to address the recommended corrective actions related to the sustainable management criteria of land subsidence by the next periodic evaluation of the Plan.

5.3.2.6 Depletions of Interconnected Surface Water

SGMA defines undesirable results for the depletion of interconnected surface water as those that have significant and unreasonable adverse impacts on beneficial uses of surface water and are caused by groundwater conditions occurring throughout the basin.[301] The GSP Regulations require that a Plan identify the presence of interconnected surface water systems in the basin and estimate the quantity and timing of depletions of those systems.[302] The GSP Regulations further require that minimum thresholds be set based on the rate or volume of surface water depletions caused by groundwater use, supported by information including the location, quantity, and timing of depletions, that adversely impact beneficial uses of the surface water and may lead to undesirable results.[303]

In the Department's Incomplete Determination, the Department identified deficiencies related to the sustainable management criteria of depletions of interconnected surface water. The GSA revised this portion of the 2022 Plan and Department staff provide evaluation for this sustainability indicator in Section 4.2 of this Staff Report. As presented above, Department staff concluded the GSAs had taken sufficient actions to correct the deficiencies and provided additional recommended corrective actions based on the changes the Agency has made to the sustainable management criteria for this sustainability indicator.

5.4 Monitoring Network

The GSP Regulations describe the monitoring network that must be developed for each sustainability indicator including monitoring objectives, monitoring protocols, and data reporting requirements. Collecting monitoring data of a sufficient quality and quantity is necessary for the successful implementation of a groundwater sustainability plan. The GSP Regulations require a monitoring network of sufficient quality, frequency, and distribution to characterize groundwater and related surface water conditions in the basin and evaluate changing conditions that occur through implementation of the Plan.[304] Specifically, a monitoring network must be able to monitor impacts to beneficial uses and

[301] Water Code § 10721(x)(6).
[302] 23 CCR § 354.16 (f).
[303] 23 CCR § 354.28 (c)(6).
[304] 23 CCR § 354.32.

users,[305] monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds,[306] capture seasonal low and high conditions,[307] include required information such as location and well construction and include maps and tables clearly showing the monitoring site type, location, and frequency.[308] Department staff encourage GSAs to collect monitoring data as specified in the GSP, follow SGMA data and reporting standards,[309] fill data gaps identified in the GSP prior to the first periodic evaluation,[310] update monitoring network information as needed, follow monitoring best management practices,[311] and submit all monitoring data to the Department's Monitoring Network Module immediately after collection including any additional groundwater monitoring data that is collected within the Plan area that is used for groundwater management decisions. Department staff note that if GSAs do not fill their identified data gaps, the GSA's basin understanding may not represent the best available science for use to monitor basin conditions.

The 2024 GSP includes monitoring networks for chronic lowering of groundwater levels, reduction of groundwater storage, degraded water quality, land subsidence, and depletions of interconnected surface water sustainability indicators. The 2024 GSP proposes to use the chronic lowering of groundwater levels monitoring network as a proxy for the reduction of groundwater storage sustainability indicator. The 2024 GSP also proposes to use groundwater levels as a proxy to monitor the depletions of interconnected surface water sustainability indicator.

The Subbasin's existing groundwater level monitoring network includes 30 wells, with 8 wells monitored by VCWPD on a quarterly basis, and 23 wells monitored by United on monthly, bimonthly, semiannual, or event-based schedules.[312] These wells include 20 in the principal aquifer, 1 in the non-principal aquifer, 5 screened across multiple zones, and 4 with unknown construction; Department staff recommend the GSA continue to pursue methods to verify screen intervals for the 4 wells with unknown construction.[313] The 2024 GSP selects a total of 10 wells as representative monitoring sites (RMS) for the chronic lowering of groundwater levels monitoring network.[314] The proposed density of groundwater level monitoring wells exceeds the range (0.2 – 10 wells per 100 square miles) recommended by the Department's Best Management Practices.[315] Department staff note that well construction information is missing at the two representative monitoring sites (RGW-002 and RGW-003) in the Del Valle GDE area "where monitoring wells are

[305] 23 CCR § 354.34(b)(2).
[306] 23 CCR § 354.34(b)(3).
[307] 23 CCR § 354.34(c)(1)(B).
[308] 23 CCR §§ 354.34(g-h).
[309] 23 CCR § 352.4 *et seq*.
[310] 23 CCR § 354.38(d).
[311] Department of Water Resources, 2016, Best Management Practices and Guidance Documents.
[312] 2024 Piru GSP, Section 3.5.1.1, p. 125; Figure 3.5-1, p. 218.
[313] 2024 Piru GSP, Table 3.5-1, p. 124.
[314] 2024 Piru GSP, Table 3.0-2, p. 109; Figure 3.5-4, p. 221.
[315] 2024 Piru GSP, Section 3.5.1.1.3, p. 124.

believed to be present"[316] and recommend the GSP provide related information by the next Periodic evaluation of the Plan. Additionally, public comments submitted to the Department express concern that the Cienega Springs GDE area within the Piru Subbasin boundary lacks sufficient monitoring.

The 2024 GSP proposes to use the chronic lowering of groundwater levels monitoring network as a proxy for the reduction of groundwater storage monitoring network which Department staff consider reasonable.[317]

The 2024 GSP states seawater intrusion is not applicable to this Subbasin; therefore, no monitoring network is proposed for this sustainability indicator.[318] Department staff agree the sustainability indicator for seawater intrusion is not present in this Subbasin and does not require a monitoring network at this time.

The 2024 GSP identifies 24 wells in the degraded water quality monitoring network, including 14 monitoring and production wells that are sampled by United in both spring and fall and 10 production wells that are sampled by VCWPD in the fall only.[319] The 2024 GSP identifies five primary COC that have historically been analyzed by the monitoring programs, including total dissolved solids (TDS), sulfate, chloride, nitrate, and boron.[320] The 2024 GSP states both United and VCWPD have traditionally reported on the trends of these analytes in annual or biennial reports, except for boron, for which only United has systematically sampled and reported.[321] As discussed in Section 5.3.2.4, Department staff have noted areas of improvement in the monitoring frequency and provided a related recommended corrective action.

The 2024 GSP proposes to monitor land elevations related to the undesirable results of land subsidence through InSAR datasets provided by TRE Altimira and the Department.[322] Department staff note the InSAR datasets largely cover the entire Subbasin and consider it appropriate to use the InSAR datasets for subsidence monitoring.

The 2024 GSP proposes to use groundwater levels at a key well location as a proxy for depletions of interconnected surface water monitoring.[323] The 2024 GSP also describes additional monitoring sites currently in the Subbasin but these sites are not designated as part of the monitoring network for the depletions of interconnected surface water sustainability indicator. The additional monitoring sites in the Subbasin include a streamflow monitoring network of 7 manual stream gaging locations operated by United

[316] 2024 Piru GSP, Table 3.0-2, p. 109; Figure 3.5-4, p. 221; Appendix J – Sections 3.3.3.2, p. 1518.
[317] 2024 Piru GSP, Section 3.3.2, p. 118; Section 3.2.4, pp. 114-115; Section 3.4, p. 121; Appendix J – Sections 3.4.3 and 3.4.4, pp. 1518-1519.
[318] 2024 Piru GSP, Section 3.2.2, p. 113.
[319] 2024 Piru GSP, Section 3.5.1.2, pp. 125-126; Figure 2.1-9, p. 175; Figure 3.5-2, p. 219.
[320] 2024 Piru GSP, Section 2.2.2.5.1, pp. 69-71.
[321] 2024 Piru GSP, Section 2.2.2.5.1, p. 70.
[322] 2024 Piru GSP, Section 3.5.1.7, p. 131.
[323] 2024 Piru GSP, Section 3.3.6, p. 120.

and 2 recording stream gages operated by USGS or VCWPD, along the Santa Clara River, Piru Creek, and Hopper Creek.[324] The 2024 GSP identifies and proposes to address data gaps in shallow groundwater levels near streams by adding shallow monitoring wells near GDE areas.[325] As discussed in Section 4.2.2, Department staff recommend the GSA follow the Department's future guidance to develop methods and approaches to evaluate the location, quantity, and timing of depletions of interconnected surface water (see Recommended Corrective Action 2). Staff further recommend that the GSP establish a dedicated monitoring network for depletions of interconnected surface waters that includes surface water monitoring sites and shallow groundwater level monitoring sites.

Overall, the 2024 GSP's descriptions of monitoring networks appear supported by the best available information and substantially comply with the requirements outlined in the GSP Regulations.

5.5 Projects and Management Actions

The GSP Regulations require a description of the projects and management actions the submitting Agency has determined will achieve the sustainability goal for the basin, including projects and management actions to respond to changing conditions in the basin.[326] Each Plan's description of projects and management actions must include details such as: how projects and management actions in the GSP will achieve sustainability, the implementation process and expected benefits, and prioritization and criteria used to initiate projects and management actions. [327]

The 2024 GSP presents eight projects and management actions to enhance the Subbasin's water resources and help reach desired future conditions.[328] If implemented, these projects and management actions will improve monitoring, address data gaps, provide supplemental water, plan for drought mitigation, and evaluate land subsidence.

The 2024 GSP indicates that some of the projects described are already being implemented; these projects are referred to as Projects 1 - 3.[329] Project 1 involves supporting the Cienega Springs Restoration Project by providing supplemental groundwater to GDE areas to mitigate GDE impacts of multi-year droughts.[330] Project 2 and Project 3 consist of the construction of monitoring wells in the Cienega Springs or other areas of the Fillmore Subbasin to improve monitoring and address data gaps in shallow groundwater levels.[331] The GSA's water year 2022 Annual Report shows that

[324] 2024 Piru GSP, Section 3.5.1.5, p. 129; Figure 2.1-10, p. 176.
[325] 2024 Piru GSP, Section 2.2.1.6, p. 64; Table 3.0-2, p. 109; Figure 3.5-4, p. 221; Appendix J - Figure 3-21, p. 1557.
[326] 23 CCR § 354.44 (a).
[327] 23 CCR § 354.44 (b) *et seq.*
[328] 2024 Piru GSP, Section 4, p. 144.
[329] 2024 Piru GSP, Section 5.2, p. 153.
[330] 2024 Piru GSP, Section 4.1, pp. 144-146.
[331] 2024 Piru GSP, Sections 4.2-4.3, p. 146.

Project 2 and Project 3 have been completed, with the installation of three shallow monitoring wells at Cienega Springs and four nested monitoring wells in a single borehole at East Grove of the Fillmore Subbasin.[332]

According to the 2024 GSP, Projects 4 through 7 are not necessarily needed to maintain a sustainable condition in the Subbasin but could provide water resource benefits.[333] These four projects encompass purchasing supplemental water when available, enhancing the water quality monitoring network in the Pole Creek Fan vicinity just west of the Fillmore-Piru boundary, removing non-native vegetation species that are intensive water users, and evaluating infrastructure subsidence vulnerability.[334] The 2024 GSP states that additional details of these projects are continuing to be developed.[335] The GSA's water year 2023 Annual Report suggests that the GSA has decided not to conduct further evaluation of subsidence infrastructure vulnerability based on the results of an updated subsidence evaluation in 2023.[336] Department staff understand that many details will be developed when the GSA elects to implement the projects; but identifying details and a process would allow the GSA to be more prepared when implementation does occur. Department staff recommend the GSA include water budget benefits of supplemental water and/or non-native vegetation removal in future annual reports and Plan periodic evaluations if the GSA decides to implement the two projects.

The GSA added Project 8 in the 2024 GSP.[337] Project 8 involves conducting drought vulnerability assessments for all wells within the Subbasin and developing a drought mitigation program to assist well owners if warranted by results of the assessment. The 2024 GSP does not specify the initiation date of Project 8, but the assessment is expected to span a two-year period to collect well construction information from well owners and revise the groundwater flow model. Department staff recommend that the GSA initiate Project 8 in the early stage of Plan implementation to be better prepared for climate change and drought impacts.

Overall, the 2024 GSP provides a reasonable discussion of how the projects and management actions are related to the Subbasin's sustainability. The projects and management actions are developed to monitor basin conditions, maintain sustainability or mitigate potential undesirable results. The 2024 GSP describes projects and management actions in a manner that substantially complies with the GSP Regulations.

5.6 Consideration of Adjacent Basins/Subbasins

SGMA requires the Department to "…evaluate whether a groundwater sustainability plan adversely affects the ability of an adjacent basin to implement their groundwater

[332] Piru Groundwater Subbasin Annual Report Water Year 2022, Sections 7.2 and 7.3, pp. 24-25.
[333] 2024 Piru GSP, Section 5.2, p. 153.
[334] 2024 Piru GSP, Sections 4.4-4.7, pp. 146-149.
[335] 2024 Piru GSP, Section 5.2, p. 153.
[336] Piru Groundwater Subbasin Annual Report Water Year 2023, Section 7.2, p. 24.
[337] 2024 Piru GSP, Section 4.8, pp. 149-151.

sustainability plan or impedes achievement of sustainability goals in an adjacent basin."[338] Furthermore, the GSP Regulations state that minimum thresholds defined in each GSP be designed to avoid causing undesirable results in adjacent basins or affecting the ability of adjacent basins to achieve sustainability goals.[339]

The Piru Subbasin has two adjacent subbasins that are hydrologically connected to it through the Santa Clara River and subsurface flows – the upgradient Santa Clara River Valley East Subbasin and the downgradient Fillmore Subbasin. Both adjacent subbasins are high priority subbasins and require GSPs. The Fillmore and Piru Subbasins are managed by the same GSA and have sustainable management criteria established using similar methods and in coordination across the subbasins. Though the 2024 GSP does not explicitly discuss how the Piru Subbasin's Plan may impact the adjacent subbasins, based on information available, Department staff have no reason to believe that the Piru Subbasin's GSP will adversely affect the adjacent subbasins' ability to implement their GSPs or reach their sustainability goals, or negatively impact the adjacent subbasins' sustainability.

5.7 Consideration of Climate Change and Future Conditions

The GSP Regulations require a GSA to consider future conditions and project how future water use may change due to multiple factors including climate change.[340]

Since the GSP was adopted and submitted, climate change conditions have advanced faster and more dramatically. It is anticipated that the hotter, drier conditions will result in a loss of 10% of California's water supply. As California adapts to a hotter, drier climate, GSAs should be preparing for these changing conditions as they work to sustainably manage groundwater within their jurisdictional areas. Specifically, the Department encourages GSAs to:

1. Explore how their proposed groundwater level thresholds have been established in consideration of groundwater level conditions in the basin based on current and future drought conditions.
2. Explore how groundwater level data from the existing monitoring network will be used to make progress towards sustainable management of the basin given increasing aridification and effects of climate change, such as prolonged drought.
3. Take into consideration changes to surface water reliability and that impact on groundwater conditions.
4. Evaluate updated watershed studies that may modify assumed frequency and magnitude of recharge projects, if applicable, and

[338] Water Code § 10733(c).
[339] 23 CCR § 354.28(b)(3).
[340] 23 CCR § 354.18.

5. Continually coordinate with the appropriate groundwater users, including but not limited to domestic well owners and state small water systems, and the appropriate overlying county jurisdictions developing drought plans and establishing local drought task forces to evaluate how their Plan's groundwater management strategy aligns with drought planning, response, and mitigation efforts within the basin.

6 STAFF RECOMMENDATION

Department staff believe sufficient action has been taken by the GSAs to address the deficiencies identified. Department staff recommend **APPROVAL** of the Plan with the required and recommended corrective actions listed below. The Plan conforms with Water Code Sections 10727.2 and 10727.4 of SGMA and substantially complies with the GSP Regulations. Implementation of the Plan will likely achieve the sustainability goal for the Piru Subbasin. The GSA have identified several areas for improvement of its Plan and Department staff concur that those items are important and should be addressed as soon as possible. Department staff have also identified additional recommended corrective actions that should be considered by the GSA for the first periodic evaluation of its GSP. Addressing these recommended corrective actions will be important to demonstrate that implementation of the Plan is likely to achieve the sustainability goal. The recommended corrective actions include:

RECOMMENDED CORRECTIVE ACTION 1

Department staff recommend the following as it relates to chronic lowering of groundwater levels:

a) Revise the quantitative description of undesirable results[341] for wells going dry to be based on seasonal low groundwater levels to ensure potential impacts to beneficial uses and users are considered.

b) Revise the quantitative description of undesirable results[342] for vegetation die-off to be specific about the location (i.e., GDE areas) and number of the representative monitoring sites with minimum threshold exceedances that would constitute an undesirable result for that GDE area.

c) Revise the GSP to include a discussion of the relationship between the minimum thresholds for chronic lowering of groundwater levels and the other sustainability indicators.[343]

RECOMMENDED CORRECTIVE ACTION 2

Department staff understand that estimating the location, quantity, and timing of stream depletion due to ongoing, Subbasin-wide pumping is a complex task and that developing suitable tools may take additional time; however, it is critical for the Department's ongoing and future evaluations of whether GSP implementation is on track to achieve sustainable groundwater management. The Department plans to provide guidance on methods and approaches to evaluate the rate, timing, and volume of depletions of interconnected

[341] 23 CCR § 354.26(b)(2).
[342] 23 CCR § 354.26(b)(2).
[343] 23 CCR § 354.28(b)(2).

surface water and support for establishing specific sustainable management criteria in the near future. This guidance is intended to assist GSAs to sustainably manage depletions of interconnected surface water.

In addition, the GSA should work to address the following items by the first periodic evaluation:

a) Describe the undesirable results of depletions of interconnected surface water that the Agency aims to avoid.

b) Consider utilizing the interconnected surface water guidance, as appropriate, when issued by the Department to establish quantifiable minimum thresholds, measurable objectives, and management actions.

c) Continue to fill data gaps, collect additional monitoring data, and implement the current strategy to manage depletions of interconnected surface water and define segments of interconnectivity and timing.

d) Prioritize collaborating and coordinating with local, state, and federal regulatory agencies as well as interested parties to better understand the full suite of beneficial uses and users that may be impacted by pumping induced surface water depletion within the GSA's jurisdictional area.

RECOMMENDED CORRECTIVE ACTION 3

Develop and disclose the estimated cost of implementing the Plan, including projects and management actions deemed likely to be required by GSA, along with a general description of how the GSA plans to meet those costs.[344]

RECOMMENDED CORRECTIVE ACTION 4

Provide further justification for the exclusion of Aquifer Zone C from the principal aquifer given the uncertainty regarding the quantity of groundwater extracted from this zone. If additional justification is not possible, identify the pumping originating from Aquifer Zone C as a data gap in the hydrogeologic conceptual model, develop a plan and schedule to address the data gap, and include Aquifer Zone C as part of the principal aquifer until such a time that its removal can be justified with more certainty.[345]

RECOMMENDED CORRECTIVE ACTION 5

Define the sustainability goal[346] and explain how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon by the next periodic evaluation of the Plan.

[344] 23 CCR § 354.6(e).
[345] 23 CCR § 354.14(b)(4).
[346] 23 CCR § 354.24.

RECOMMENDED CORRECTIVE ACTION 6

Department staff recommend the following as it relates to degraded water quality:

a) Clarify the constituents of concern that are included in the GSP's current sustainable management criteria for degraded water quality.[347]

b) Provide quantitative descriptions of what the GSA considers as significant and unreasonable effects of "water quality degradation beyond historical conditions" for each constituent of concern in the Subbasin, including quantitative descriptions of historical conditions (e.g., number of representative monitoring sites with exceedances of water quality standards). Describe the criteria used to define when and where the effects of degraded water quality cause undesirable results of the constituent of concern in the Subbasin.[348] The criteria shall be based on quantitative descriptions of the combination of minimum threshold exceedances that cause significant and unreasonable effects in the Subbasin. The definition of the undesirable result quantitative criteria should not be limited to minimum threshold exceedances directly caused by GSA activity.

c) Identify the method (e.g., MCL, WQO), numeric value and unit, and sampling frequency for each constituent of concern at each representative monitoring site in descriptions of minimum thresholds for degraded water quality.[349] Present in a tabular format the minimum threshold, measurable objective, and interim milestone for each constituent of concern at each representative monitoring site.

RECOMMENDED CORRECTIVE ACTION 7

Department staff recommend the following as it relates to land subsidence:

a) Describe the criteria[350] used to define when and where the effects of the groundwater conditions cause undesirable results for land subsidence. More specifically, describe how InSAR datasets will be used to determine the occurrence of undesirable results of land subsidence.

b) Revise the minimum thresholds to minimize or avoid future land subsidence in the Subbasin.[351]

[347] 23 CCR § 354.26 *et seq.*
[348] 23 CCR § 354.26(b)(2).
[349] 23 CCR § 354.36(a).
[350] 23 CCR § 354.26(b)(2).
[351] Water Code § 10720.1(e).

DWR RECOMMENDED CORRECTIVE ACTIONS				
			PIRU	FILLMORE
Chronic Lowering of Groundwater Levels	1a	Revise the quantitative description of undesirable results for wells going dry to be based on seasonal low groundwater levels to ensure potential impacts to beneficial uses and users are considered.	X	X
	1b	Revise the quantitative description of undesirable results for vegetation die-off to be specific about the location (i.e., GDE areas) and number of the representative monitoring sites with minimum threshold exceedances that would constitute an undesirable result for that GDE area.	X	X
	1c	Revise the GSP to include a discussion of the relationship between the minimum thresholds for chronic lowering of groundwater levels and the other sustainability indicators.	X	X
Interconnected Surface Waters	2a	Describe the undesirable results of depletions of interconnected surface water that the Agency aims to avoid.	X	X
	2b	Consider utilizing the interconnected surface water guidance, as appropriate, when issued by the Department to establish quantifiable minimum thresholds, measurable objectives, and management actions.	X	X
	2c	Continue to fill data gaps, collect additional monitoring data, and implement the current strategy to manage depletions of interconnected surface water and define segments of interconnectivity and timing.	X	X
	2d	Prioritize collaborating and coordinating with local, state, and federal regulatory agencies as well as interested parties to better understand the full suite of beneficial uses and users that may be impacted by pumping induced surface water depletion within the GSA's jurisdictional area.	X	X
GSP Implementation Costs	3a	Develop and disclose the estimated cost of implementing the Plan, including projects and management actions deemed likely to be required by GSA, along with a general description of how the GSA plans to meet those costs.	X	X
Aquifer Delineation	4a	Provide further justification for the exclusion of Aquifer Zone C from the principal aquifer given the uncertainty regarding the quantity of groundwater extracted from this zone.	X	X
	4b	If additional justification is not possible, identify the pumping originating from Aquifer Zone C as a data gap in the hydrogeologic conceptual model, develop a plan and schedule to address the data gap, and include Aquifer Zone C as part of the principal aquifer until such a time that its removal can be justified with more certainty.3	X	X
Sustainability Goals	5a	Define the sustainability goal	X	X
	5b	Explain how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon by the next periodic evaluation of the Plan.	X	X
Degraded Water Quality	6a	Clarify the constituents of concern that are included in the GSP's current sustainable management criteria for degraded water quality	X	X
	6b-1	Provide quantitative descriptions of what the GSA considers as significant and unreasonable effects of "water quality degradation beyond historical conditions" for each constituent of concern in the Subbasin, including quantitative descriptions of historical conditions (e.g., number of representative monitoring sites with exceedances of water quality standards).	X	X
	6b-2	Describe the criteria used to define when and where the effects of degraded water quality cause undesirable results of the constituent of concern in the Subbasin. The criteria shall be based on quantitative descriptions of the combination of minimum threshold exceedances that cause significant and unreasonable effects in the Subbasin.	X	X
	6c-1	Identify the method (e.g., MCL, WQO), numeric value and unit, and sampling frequency for each constituent of concern at each representative monitoring site in descriptions of minimum thresholds for degraded water quality	X	X
	6c-2	Present in a tabular format the minimum threshold, measurable objective, and interim milestone for each constituent of concern at each representative monitoring site.	X	X
Subsidence	7a	Describe the criteria used to define when and where the effects of the groundwater conditions cause undesirable results for land subsidence. More specifically, describe how InSAR datasets will be used to determine the occurrence of undesirable results of land subsidence.	X	X
	7b	Revise the minimum thresholds to minimize or avoid future land subsidence in the Subbasin	X	X