SMC	Undesirable Results	Metric	MT	MO	Comments
GW Elevation	Loss of ability to pump GW	GW elevation	WL declines below the base of well screens in more than 25% of representative wells	GW levels at 2011 high WL	maximizes range between MT and MO
GW Storage Reduction	inadequate GW storage to last through multi-year drought without GW extraction limitations	GW elevation	WL declines below the base of well screens in more than 25% of representative wells	GW levels at 2011 high WL	maximizes range between MT and MO
SW Depletion	Surface water flow declines due to GSP implementation that interfere with the beneficial use and users	Rising GW rates at the Fillmore-Piru basin boundary (Fish Hatchery) / Depth to GW at the Fillmore - Piru basin boundary	No DOM, MUNI, IRRIG or REC beneficial users or uses of surface water are materially impacted by implementation of the GSP. GDEs addressed through trigger program.	GW levels at 2011 high WL	The GSP does not propose projects or management actions that would change the operational regime of the basins. Therefore, implementation of the GSP does not cause significant and unreasonable effects.
Land Subsidence	Land subsidence amounts that interfere with infrastructure operations	Subsidence rates	Total inelastic subsidence of 1ft/yr or 1ft over 5 yrs	Inelastic subsidence rates within +/- 0.1 ft/yr as determined by InSAR	Monitor subsidence amount - InSAR data from DWR; study to identify susceptible infrastructure (e.g., long-span bridges, gravity sewage systems) for 5 yr GSP update
Degraded WQ	Water quality degradation that impairs the beneficial use of the resource	WQ values	Water quality parameters established in existing or future regulations	FPBGSA is not a water purveyor and lacks regulatory authority for WQ compliance, but will cooperate with appropriately empowered entities	
Seawater Intrusion	NA	NA	NA	NA	

Summary

Consultations and Meetings...

✓**Cienega / Fish Hatchery GDE -** SW Depletion and GW Elevation

- **Internal GSP Team**
  - **Stillwater Sciences**
  - **UWCD technical staff**
  - **DBS&A staff**
  - **Exec Director**
- **DWR**
  - **DWR - Tim Ross, Jack Tung**
  - **DBS&A staff**
  - **Exec Director**

Brainstorming sessions on possible approaches to set MTs, etc. focused on GDEs for (a) SW depletion due to GW pumping and (b) GW elevations due to GW pumping

Conclusions...

✓**Cienega / Fish Hatchery GDE -** SW Depletion and GW Elevation

- **Internal GSP Team**
  - ✓ **Focus on Cienega area, only**
  - ✓ **CWL is an appropriate MT for vegetation**
  - ✓ **Mitigation of CWL exceedance is appropriate - use pumped GW**
  - ✓ **Mitigation water used by CDFW at Cienega project**
  - ✓ **No documented occurrence of spawning or rearing in the isolated reaches**
  - ✓ **No readily identifiable way to mitigate loss of rising GW due to pumping or evaporation**
  - ✓ **No readily identifiable way to mitigate water temperature increases**

Conclusions...

✓**Cienega / Fish Hatchery GDE -** SW Depletion and GW Elevation

- **DWR Meeting**
  - ✓ **CWL is an appropriate MT for vegetation**
  - ✓ **Mitigation of CWL exceedance is permissible**
  - ✓ **Supports idea of CDFW being responsible for using mitigation water in most effective manner**
  - ✓ **Massive pumping reductions do not resolve issue and create other S&U effects**
  - ✓ **GSA not responsible for water evaporation or temperature rise**
  - ✓ **No documented occurrence of spawning or rearing in the isolated reaches**
  - ✓ **Rising GW depletions due to pumping in future approx. = past, therefore no need for MT**

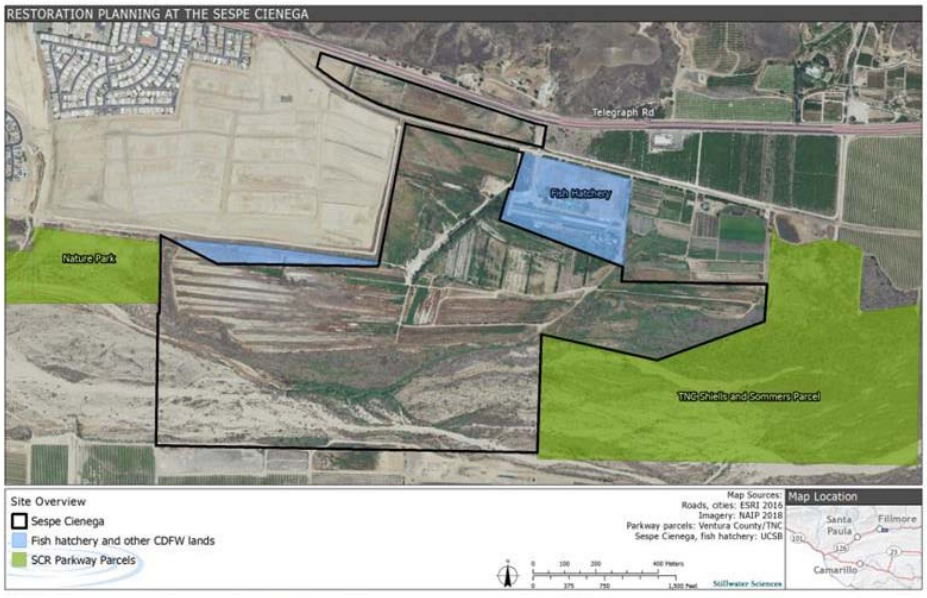
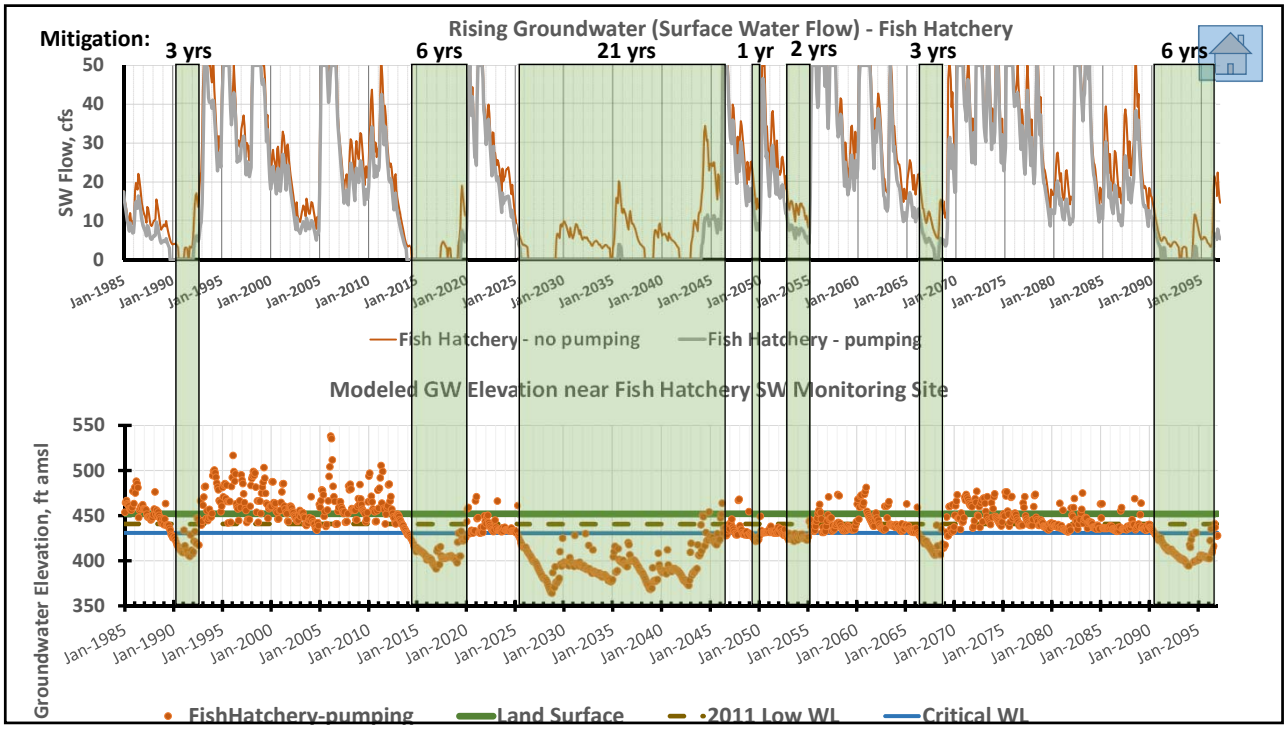


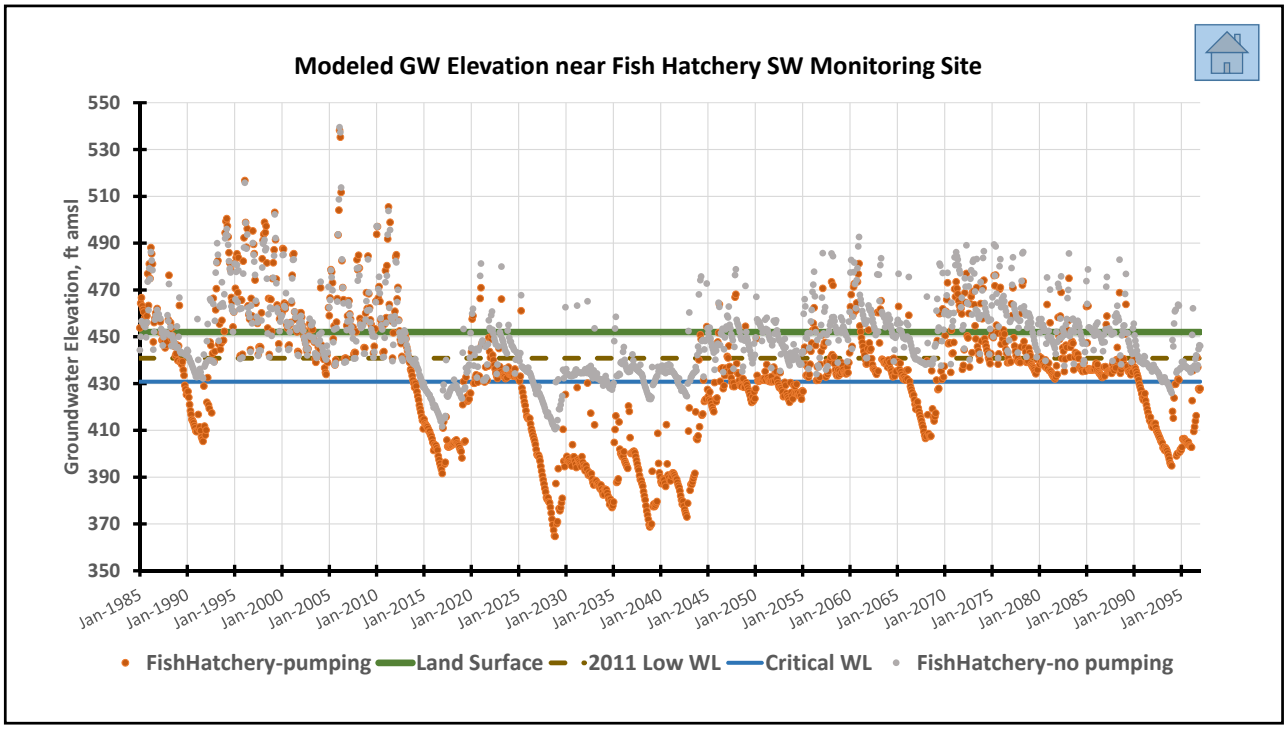
Figure 1-2. CSER project area and adjacent Santa Clara River Parkway Parcel and Fillmore fish hatchery.

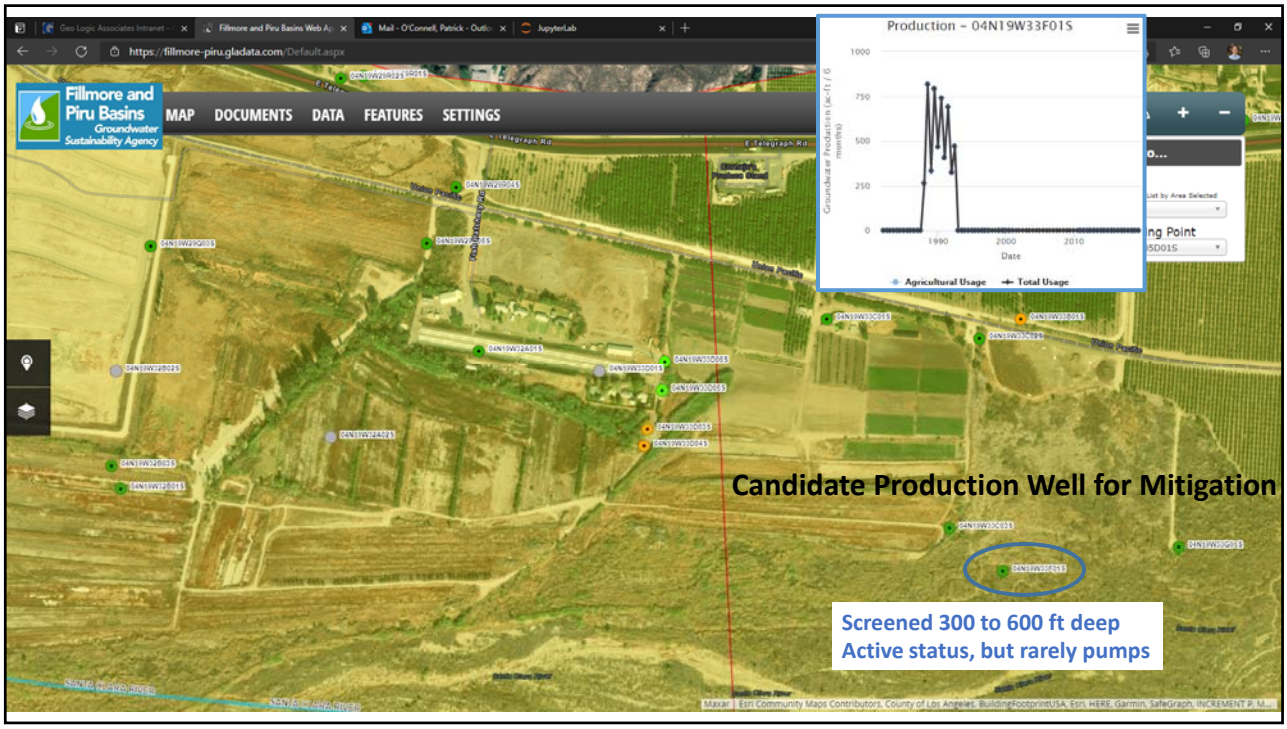
October 2020 *Stillwater Sciences*

"Cienega Springs" project area

SMC	Undesirable Results	Metric	MT	MO	Comments
GW Elevation	Loss of ability to pump GW	GW elevation	WL declines below the base of well screens in more than 25% of representative wells	GW levels at 2011 high WL	maximizes range between MT and MO
	Significant and unreasonable GDE vegetation die-off due to GSP implementation	Depth to GW at the Fillmore - Piru basin boundary	WL declines below the Critical Water Level defined as 10 ft lower than 2011 low WL*	GW levels at 2011 high WL	*when the CWL is exceeded, mitigation water (e.g., pumped GW) will be provided to CDFW for use at the Cienega Springs restoration project site, if the WL has not recovered to CWL by the subsequent May 1st
SW Depletion	Surface water flow declines due to GW extractions that interfere with the beneficial use and users	Rising GW rates at the Fillmore-Piru basin boundary (Fish Hatchery area)	A MT is not applicable for this sustainability indicator.	GW levels at 2011 high WL	**Future rising GW conditions are not expected to be materially different from historical conditions.** The GSP does not propose projects or management actions that would change the operational regime of the basins. Therefore, implementation of the GSP does not cause significant and unreasonable effects.

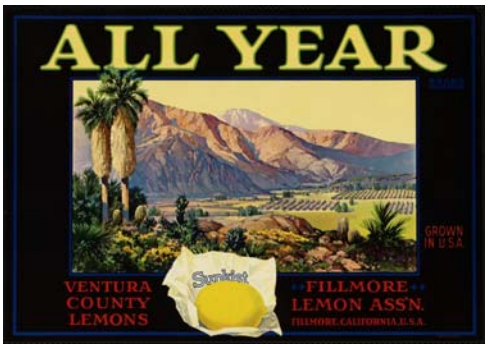



Modeled GW Elevation near Fish Hatchery SW Monitoring Site
Groundwater Elevation, ft amsl
550
530
510
490
470
450
430
410
390
370
350
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Jan-2025
Jan-2030
Jan-2035
Jan-2040
Jan-2045
Jan-2050
Jan-2055
Jan-2060
Jan-2065
Jan-2070
Jan-2075
Jan-2080
Jan-2085
Jan-2090
Jan-2095
FishHatchery-pumping
Land Surface
2011 Low WL
Critical WL
FishHatchery-no pumping


Fillmore and Piru Basins Groundwater Sustainability Agency
MAP
DOCUMENTS
DATA
FEATURES
SETTINGS
Production - 04N19W33F01S
Agricultural Usage
Total Usage
Candidate Production Well for Mitigation
Screened 300 to 600 ft deep
Active status, but rarely pumps


Subsidence
Groundwater Decline
Surface Water Depletion
Groundwater Storage Decline
Water Quality Degradation
Sea Water Intrusion
Subsidence
Groundwater Storage Decline
Groundwater Decline
Sea Water Intrusion
Groundwater Storage Decline
Surface Water Depletion
Subsidence
Sea Water Intrusion
Surface Water Depletion
Groundwater Decline
Groundwater Decline

Questions


ALL YEAR
GROWN IN U.S.A.
VENTURA COUNTY LEMONS
FILLMORE LEMON ASSN.
FILLMORE, CALIFORNIA, U.S.A.