



Fillmore and Piru Basins
Groundwater Sustainability Agency

Board of Directors Meeting
Thursday
March 18, 2021
5:00 p.m.

In accordance with the California Governor's Executive Stay at Home Order and the County of Ventura Health Officer Declared Local Health Emergency and Be Well at Home Order resulting from the novel coronavirus (COVID-19), the Fillmore City Hall is closed to the public. Therefore, the FPB GSA will be holding its Regular Board of Directors meeting virtually using the ZOOM video conferencing application.

If you are new to ZOOM video conferencing, please visit this help page in advance of the meeting date and time:
<https://support.zoom.us/hc/en-us/articles/201362193-How-Do-I-Join-A-Meeting->

To participate in the Board of Directors meeting via Zoom, please access:

<https://us02web.zoom.us/j/82477092074?pwd=SkJoa2hhZk5pUG1wZzJLa3V5dGZsQT09>

Meeting ID: **824 7709 2074**

Password: **FPBGSA**

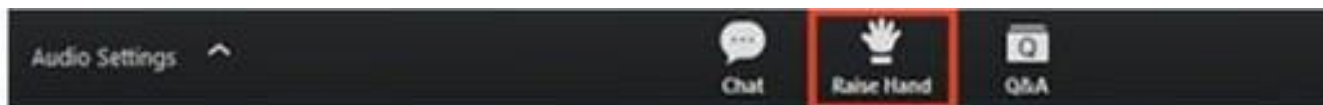
To hear just the audio portion of the meeting, phone into the toll-free number 877 853 5247

Meeting ID: **824 7709 2074**

All participants are asked to join the meeting at least five minutes in advance of the 5pm start time and be aware that all participants will be "muted" until recognized by the host. If your computer has a camera, please enable it so we can ensure better engagement between participants.

If you would like to address the Board with a question or offer a comment, please follow these simple instructions to engage the host (Clerk of the Board):

1. During a meeting, click on the icon labeled "Participants" at the bottom center of your computer screen.
2. At the bottom of the window on the right side of the screen, click the button labeled "Raise Hand."
3. Once you've been recognized by the Chair, please click on "Raise Hand" again to remove the signal.



Similarly, if you have a comment or question for the Board, you can use the "Chat" button to convey your question or comment to the HOST, who will put you in line to address the Board.

The Fillmore and Piru Basins GSA Board of Directors appreciates your participation and patience in using Zoom to conduct its public meeting.

AGENDA

1. CALL TO ORDER

1A Pledge of Allegiance

1B Directors Roll Cal

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 agendaized 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 meeting of February 18, 2021.

2C Legal Counsel Update Information Item

Legal Counsel will provide an informational update on Agency's legal issues and concerns since the previous Board meeting of February 18, 2021.

2D GSP Consultant Update
Information Item

Representatives from Daniel B Stephens & Associates and UWCD will provide an informational update on Agency's GSP development activities since the previous Board meeting of February 18, 2021.

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 Board Meeting of February 18, 2021.

3B Approval of Warrants

The Board will consider approving payment of outstanding vendor invoices

Daniel B. Stephens & Associates	\$119,477.76
Ventura County IT Services	\$686.50
Olivarez Madruga Lemeiux O'Neill LLP	\$1,983.50

3C Monthly Financial Report

The Board will receive the Agency's monthly profit and loss statement and balance sheet.

4. STAKEHOLDER WORKSHOP (Time Certain 5:30 p.m.)

4A Presentation on Groundwater Dependent Ecosystems

Informational

The Board will receive a presentation from Christian Braudrick, PhD, Fluvial Geomorphologist, with Stillwater Sciences, on the Groundwater Dependent Ecosystems Technical Memorandum.

4B Presentation on Draft Sustainable Management Criteria Matrix

Informational

The Board will receive a presentation from Tony Morgan, PG, CHG, with Daniel B. Stephens & Associates, on the draft Sustainable Management Criteria matrix.

4C Stakeholder Input and Discussions on Draft Sustainable Management Criteria Matrix

Informational

The Board and consultant team will receive stakeholder input on the draft Sustainable Management Criteria matrix.

- **Surface Water Depletion**
 - Review environmental community comment letter on Groundwater Dependent Ecosystems Technical Memorandum.
 - Stakeholder input and discussion
- **Land Subsidence**
 - Review Pumpers Associations' comment letter on Land Subsidence Technical Memorandum
 - Stakeholder input and discussion
- **Groundwater Levels**
 - Stakeholder input and discussion
- **Groundwater Storage**
 - Stakeholder input and discussion
- **Water Quality**
 - Stakeholder input and discussion

4D Summarize Workshop Stakeholder Input

5. MOTION ITEMS

5A Sustainable Management Criteria Development

Motion

The Board will consider approval of a Sustainable Management Criteria matrix for use in developing the draft Groundwater Sustainability Plans.

5B Special Board Meeting on Sustainable Management Criteria

Motion

The Board will select a date for a Special Board Meeting in late March 2021 or early April 2021 to consider approval of a Sustainable Management Criteria matrix, should the matrix not be approved during the current Board meeting.

FUTURE TOPICS FOR BOARD DISCUSSION

ADJOURNMENT

The Board will adjourn to the next **Regular Board Meeting** on Thursday, **April 15, 2021** 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) March 12, 2021 (time) 4:30 pm (attest) Eva Ibarra
At: <https://www.FPBGSA.org>

Posted: (date) March 12, 2021 (time) 4:45 pm (attest) Eva Ibarra
At: <https://www.facebook.com/FPBGSA/>

Posted: (date) March 12, 2021 (time) 5:00 pm (attest) Eva Ibarra
At: UWCD, 1701 N. Lombard Street, Oxnard CA 93030



Board of Directors Meeting

February 18, 2021

Via Zoom

MINUTES

Directors Present

Director Kelly Long, Chair
Director Ed McFadden, Vice Chair/Secretary
Director Gordon Kimball
Director Glen Pace
Director Christina Villaseñor

Directors Absent

Director Candice Meneghin

Staff Present

Anthony Emmert, executive director
Steve O'Neill, legal counsel
Eva Ibarra, clerk of the board

Public Present

Lisa Ballin, CSUS/DBS&A
Bryan Bondy, Fillmore and Piru Pumpers Associations
Maryam Bral, UWCD
Christian Brodrick, Stillwater Science
Katie Brokaw
Frank Brommenschenkel
Dan Detmer, UWCD
Burt Handy
Carol Hardison
Dr. Zachary Hanson, UWCD
Rachel Laenen
Murray McEachron, UWCD
Tim Moore
Tony Morgan, DBS&A
Bob Morris
Patrick O'Connell, DBS&A
Eddie Pech, DWR
Zachary Plummer, UWCD
George Reid

Dr. Jason Sun, UWCD
Jean Thirkettle
James Thurber
Gilead Wurman
Steven Zimmer

1. Call to Order – First Open Session 5:02 pm

Chair Long called the meeting to order at 5:02 pm

1A. Pledge of Allegiance

Vice Chair McFadden lead the group in the reciting of the Pledge of Allegiance.

1B. Directors Roll Call

Roll call: (Kimball, Chair Long, Vice Chair McFadden, Pace, Villaseñor); five present. One absent (Meneghin).

1C. Public Comments

Chair Long asked if there were any public comments; none were offered.

1D. Approval of Agenda

Motion

Motion to approve the agenda, Vice Chair McFadden; Second, Director Pace. Roll call vote: five ayes (Kimball, Chair Long, Vice Chair McFadden, Pace, Villaseñor), none opposed; one absent (Meneghin). Motion carries 5/0/1.

2. OATH OF OFFICE AND SELECTION OF OFFICERS

2A Board of Directors Oath of Office

Ceremonial

The Clerk of the Board administered the oath of office to Director Villaseñor.

2B Board of Directors Selection of Officers

Motion

Motion to nominate current roster of Officers for calendar year 2021, Director Kimball; Second, Director Villaseñor. Roll call vote: five ayes (Kimball, Chair Long, Vice Chair McFadden, Pace, Villaseñor); none opposed; one absent (Meneghin). Motion carries 5/0/1.

3. UPDATES

3A Director Announcements/Board Communications:

Oral Reports from the Board

Fillmore Pumpers Association Stakeholder Director Update

Director Kimball reported the Fillmore & Piru Pumpers Associations Board met for their monthly Board of Directors meeting on February 9. He stated that he and Director Pace will be splitting the report from the meeting, at which the pumpers discussed the Subsidence Technical Memo. Director Kimball stated the general consensus from the pumpers is that although the model predicts higher than historical water levels, and that using those predictions there is no chance of subsidence, the Pumpers Associations feel that the Groundwater Sustainability Plan still needs to have management criteria in place in the event that the modeling is not perfect, or if the groundwater levels go below historical levels. He also mentioned the Pumpers Association Board directed Mr. Bryan Bondy to prepare a comment paper that would address the Sustainable Management Criteria, including with minimum thresholds. He stated that the goal is to have the comment letter ready before the pumper's March Board meeting and submitted to the Agency for consideration during the March 18 Board of Directors meeting.

Piru Pumpers Association Stakeholder Director Update

Director Pace reported the Fillmore & Piru Pumpers Board of Directors Meeting was held on February 9 and stated the pumpers were notified that the sale of Warring Water is in process and a tentative date of September 2021 was provided for the final decision. Director Pace mentioned the pumpers had a discussion on Subsidence and other issues with Groundwater Dependent Ecosystems, as they feel they cannot lose focus on Surface Water Depletion, as it seems to be more critical than GDEs. He also wanted to reemphasize the importance of having the GDE Technical Memo for review as early as possible, in order to provide time for the Environmental groups to prepare comment letters, similar to what the Pumpers will be providing. He stated that the comment letters with specific recommendations will hopefully help the Agency come to some conclusion and then have a discussion as to implementation into the Management Criteria.

Environmental Stakeholder Director Update

Director Meneghin continues on leave.

City of Fillmore Member Director Update

Director Villaseñor reported the City of Fillmore water rates will remain the same with no increase, due to COVID. She also mentioned that she has been in contact with Public Works Director Dave Smallwood, as Director Villaseñor requested to learn more about the wells and the City's water system, which is scheduled to take place in March.

United Water Conservation District Member Director Update

Vice Chair McFadden stated he had nothing to report.

County of Ventura Member Director Update

Chair Long reported she has forwarded the Subsidence Technical Memo to County Water Resources Manager Kim Loeb and County Geologist Jim O'Tousa, and they are reviewing the memo and will be responding with a comment letter sometime next week. She stated that the fee schedule for the County is coming to the Board of Supervisors at the next Board Meeting. Chair Long also mentioned they are targeting the Farm Workers for vaccinations and noted that members of the public may go to venturacountyrecovers.org to obtain further information on the vaccine.

3B Executive Director Update

Information Item

Executive Director Anthony Emmert reported receivables are down for a third straight month. He stated that staff has submitted grant progress report number seven and the Agency is in compliance with the grant requirements. Mr. Emmert also mentioned the Groundwater Modeling staff is working to finish the documentation for the regional model expansion, as work on the documentation was stopped so that staff could complete the forward looking modeling, he stated that staff projecting completing the documentation by the end of the month. He also mentioned that staff are working on a presentation of the status on the Santa Clarita Valley Sanitation District's chloride removal project, which is under construction and hope to have that information for the Board soon. He also mentioned on the agenda tonight is proposed Bylaws change that would delegate the forgiveness of small late fees and interest to the Executive Director. He also stated that he and Legal Counsel are still working on language for a receivables and collection system.

3C Legal Counsel Update

Information Item

Mr. Steve O'Neill reported he is currently working with staff on a motion item for the wavier issue and on easement documentation related to the monitoring wells. Mr. O'Neill mentioned he worked with staff on the oath of office presented tonight, and on making changes to the bylaws related to election of officers to be moved to February of each year to make better sense with agency appointment schedules, and lastly stated as far as enforcement of non-payees, he is monitoring the Indian Wells Valley Groundwater Sustainability Agency on a filed complaint on a groundwater pumper who refuses to pay, and he will provide the Board information as it progresses.

3D GSP Consultant Update

Information Item

Consultant Mr. Tony Morgan started his update by saying he will provide information on the project schedule and mentioned he will discuss comments from Director Pace regarding the Groundwater Dependent Ecosystem Technical Memo. He also stated Stillwater is to release a draft by next week, and Groundwater Model documentation is to be released in mid-March. All other items to remain as scheduled. Mr. Morgan also mentioned Public Review draft of the Groundwater Sustainability Plans is still tentative for May.

He mentioned there was a Department of Water Resources webinar this morning and he wanted to share with the Board some information. He stated they had asked if DWR would extend the Groundwater Sustainability Plans due date past January 2022, due to difficulties with stakeholder outreach, and DWR replied that they do not have the statutory authority to change the GSP deadline, and it will have to go through the legislature to be changed.

Mr. Morgan stated there will be another set of inSAR data sets for Spring 2021, although it may not arrive in time to be incorporated into the public review draft. He also provided information about a program called Airborne Electromagnetics for basins in California, but the information is not available for the Fillmore and Piru basins.

Mr. Dan Detmer said he recently talked to Tim Ross and contactors from DWR, as they know the Agency has mapped the aquifers in detail in the Fillmore Piru Basins with geophysical digitized logs and they are interested in the Piru and Fillmore Basins as test basins or validation basins, although he is not sure how long before this will happen.

4. 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.

4A Approval of Minutes

The Board considered and approved the Minutes from the Board Meeting of January 21, 2021.

4B Approval of Warrants

The Board considered and approved payments:

Daniel B. Stephens & Associates	\$40,720.63
United Water Conservation District	\$30,376.68
Olivarez Madruga Lemeiux O'Neill L	\$5,536.50
U.S. Postal Service	\$322.00
Somis Pacific Ag Mgt.	\$240.37
County of Ventura IT Services Dept.	\$219.60

4C Monthly Financial Report

The Board received the Agency's monthly profit and loss statement and balance sheet.

Motion approved Director Villaseñor; Second, Director Kimball. Roll call vote: five ayes (Kimball, Chair Long, Vice Chair McFadden, Pace, Villaseñor); none opposed; one absent (Meneghin). Motion carries 5/0/1.

5. MOTION ITEMS

5A Waiver of Late Fees and Interest on Groundwater Charges

Motion

The Board considered a proposed amendment to the Agency's bylaws authorizing the Executive Director to approve waiver of certain late fees and interest charges associated with groundwater pumping fees and provided comments and direction to staff.

Motion to authorize the Executive Director to approve a waiver of late fees and interests on groundwater charges for a dollar amount not to exceed \$250, Vice Chair McFadden; Second, Director Villasenor. Roll call vote: five ayes (Kimball, Chair Long, Vice Chair McFadden, Pace, Villaseñor); none opposed; one absent (Meneghin) Motion carries 5/0/1.

5B Sustainable Management Criteria Development

Motion

The Board will consider a draft Sustainable Management Criteria matrix and provide comments and direction to the consultant team.

Mr. Tony Morgan presented (see slides).

Vice Chair McFadden asked if a rise in groundwater level will be interpreted as an undesirable result that the GSA has to worry about. Mr. Morgan answered by saying, theoretically, if it rises too much there may be a problem with infrastructure and mentioned these operations have been going on for decades and no one has reported any issues.

Mr. Bryan Bondy asked, “based on this analysis will the recommendation be to screen out subsidence or is the consultant team thinking there should be a criteria established with the indicators?” Mr. Morgan replied that later in his presentation he will show that it will be necessary to have a criteria for subsidence.

Chair Long asked what does a moderate chance of subsidence mean to Department of Water Resources? Are they wanting the GSA to dive in deeper. Mr. Morgan stated he does not have a specific gauge for measurement for moderate. Chair Long requested that when doing the GSP there be clarification of what the GSA’s moderate is to avoid DWR interpreting it differently.

Vice Chair McFadden agreed with Chair Long and stated moderate here is inconsequential and sees it as a red flag in the context of a DWR review, as looking at the state as a whole. Mr. Morgan stated they will try and be more precise.

Director Kimball asked if for the groundwater elevation associated with the minimum threshold, can you estimate groundwater levels compared to historic levels for 25 percent of the representative wells, and can you relate that number of wells going dry to historical levels. Mr. Morgan replied that no production wells have gone dry, to the team’s

knowledge. Director Kimball asked is it possible to do that. Mr. Morgan said he has not done that with his analysis. Director Kimball also asked about water storage reduction, why would the GSA not use the historical minimum levels as opposed to the model minimum levels. Mr. Morgan stated that doing so would take the GSA to a historical period in which the groundwater levels data was scarce and discussed with Director Kimball different scenarios. Director Kimball finished the conversation by stating he was looking for a margin of safety on the model prediction by using historical and the modeling stress test.

Director Pace, Vice Chair McFadden and Mr. Morgan had an extensive discussion regarding measurable objective and subsidence on minimum thresholds.

Participant chat asked, “some small volume wells are really shallow so would we fall below the minimum threshold if based on those shallow wells?” Mr. Morgan answered that the GSA is only monitoring on the represented wells and not on all wells and explained other scenarios.

Participant chat stated a preference for more aggressive modeling (the 2070CF that Mr. Morgan presented). Stress test pumping scenarios were run to determine whether more aggressive pumping could be done during drought conditions, if needed based on historical data. After five years from the State's approval, the GSP could be amended if needed, correct?” Mr. Morgan answered with saying yes, and you can amend the GSP as often as every year, if desired by the Agency.

Chair Long stated she understands the GSA will provide DWR with a yearly update to show where the GSA is and any modifications should be easy to do, although she expressed concerned about constraints, and asked if the GSA should make it as broad as possible, knowing DWR is going to tighten things up. How does the GSA approach it so that we are good in all areas to avoid issues. Mr. Morgan stated we need to forecast what they might think and what they want to see, we know they like to see a broader rather than narrower between the measurable objectives and minimum thresholds and we need to be technically defensible in what we put forward.

Mr. Bryan Bondy shared his thoughts on how he feels the GSA should be updating the GSP and the Sustainable Management Criteria and how it should have data driven reasons for any changes made and

suggested the GSA be more aggressive. He also stated the GSA needs to be careful how it sets up thresholds. Mr. Morgan and a chat participant continued the conversation with a continued discussion of their views.

Director Kimball stated we have had great discussion of everything but surface water depletion and without Director Meneghin we do not have the input from Environmental but need to get them engaged. Chair Long agreed and mentioned an item to have a special meeting where the GSA can hopefully get Environmental involved.

Vice Chair McFadden stated that on MTs, groundwater evaluation and groundwater storage reduction, he would like the GSA to use a more aggressive MT, as we have always historically recovered. Mr. Morgan replied asking if Vice Chair McFadden wanted it set to the lowest water level? Vice Chair McFadden replied yes, and Chair Long agreed to use the lowest water levels, as well.

Director Pace stated that the GSA needs to settle the MTs on the historic lows if anything above that is arbitrary and unreasonable. Mr. Morgan said he will need help from the Directors in deciding for the lower water levels and mentioned it is not a fatal flaw if the GSA moves out to another month, if needed.

Mr. Bondy, Chair Long, Vice Chair McFadden, the other Directors and Mr. Morgan had a long discussion regarding water levels and interpretation of water levels and where they think the MTs should be set. They all agreed to push it to lower than the 2070 low.

Mr. Morgan and the Directors reviewed all of the criteria listed on the SMCs and provided Mr. Morgan with guidance.

Motion to receive and file, Director McFadden; Second, Director Pace. Roll call vote five ayes (Kimball, Chair Long, Vice Chair McFadden, Pace, Villaseñor); none opposed; one absent (Meneghin). Motion carries 5/0/1.

5C Special Board Meeting on Sustainable Management Criteria

Motion

The Board selected a date of March 3, 2021 at 5pm for a Special Board meeting to receive public comments on the draft Sustainable Management Criteria matrix.

Participant chat question, “is there a GDE technical report coming or is it just how people in the environmental groups feel?” Mr. Morgan stated the draft should be out by next week.

Motion to approve; Director Pace Second, Director Kimball. Roll call vote: five ayes (Kimball, Chair Long, Vice Chair McFadden, Pace, Villaseñor); none opposed; one absent (Meneghin) Motion carries 5/0/01.

FUTURE TOPICS FOR BOARD DISCUSSION

None mentioned.

ADJOURNMENT: 8:23pm

Chair Long adjourned the meeting at 8:23 p.m. to the next **Regular Board Meeting** on Thursday, **March 18, 2021** or call of the Chair.

ATTEST: _____
Kelly Long, Chair, FPB GSA Board of Directors

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 February 18, 2021.

ATTEST: _____
Eva Ibarra, Clerk of the Board

Item 5B - Sustainable Management Criteria

- Subsidence
- SW Depletion from GW Pumping - Stream Flow Cross Over Analyses
- SMC Matrix



DBS&A
Daniel B. Stephens & Associates, Inc.


Land Subsidence Evaluation

- Previous investigations and reports;
- Geodetic surveys;
- Interferometric Synthetic Aperture Radar (InSAR) data;
- Subsidence evaluations / potentials.

Draft

Fillmore and Piru Basins
Land Subsidence Evaluation
Technical Memorandum

Submitted to
Fillmore and Piru Basins Groundwater Sustainability
Agency

Prepared by
**DBS&A**
Daniel B. Stephens & Associates, Inc.
a Geo-Logic Company

3916 State Street, Garden Suite
Santa Barbara, CA 93105
www.dbsandassociates.com
Project # DB16-1004-00

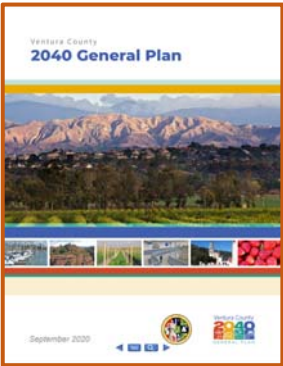
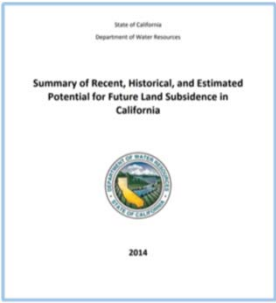
February 4, 2021

This is a DRAFT document for internal and stakeholder review. The FINAL document will be included in the Groundwater Sustainability Plan.

Previous Investigations

• **DWR 2014**

- ✓ Fillmore basin = low potential
- ✓ Piru basin = insufficient data

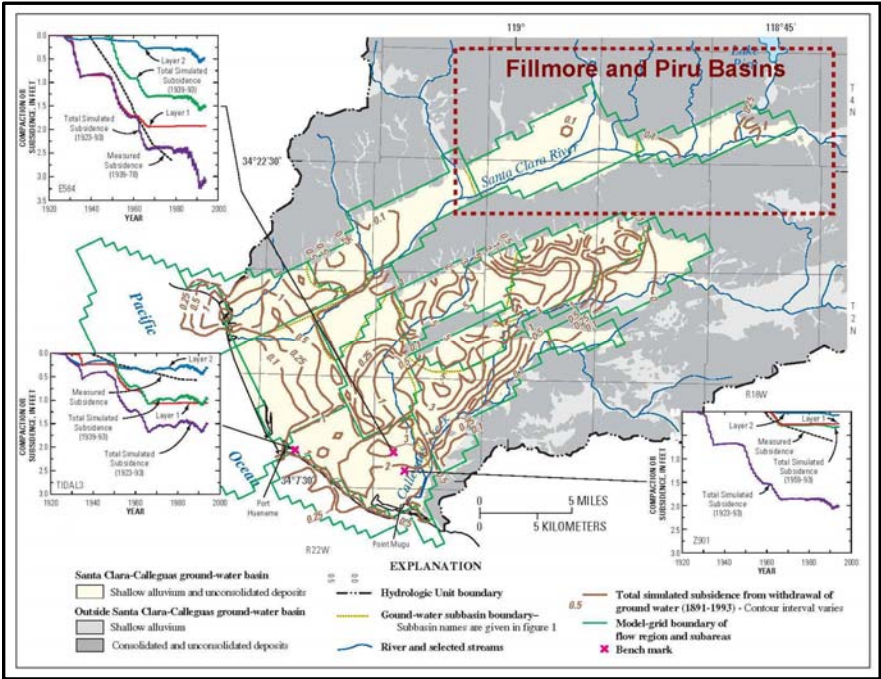


• **Ventura County General Plan 2013**

- ✓ Hazards Appendix largely reproduces 1973 General Plan map (not updated due to lack of geodetic data) - no technical data

• **Ventura County General Plan 2020**

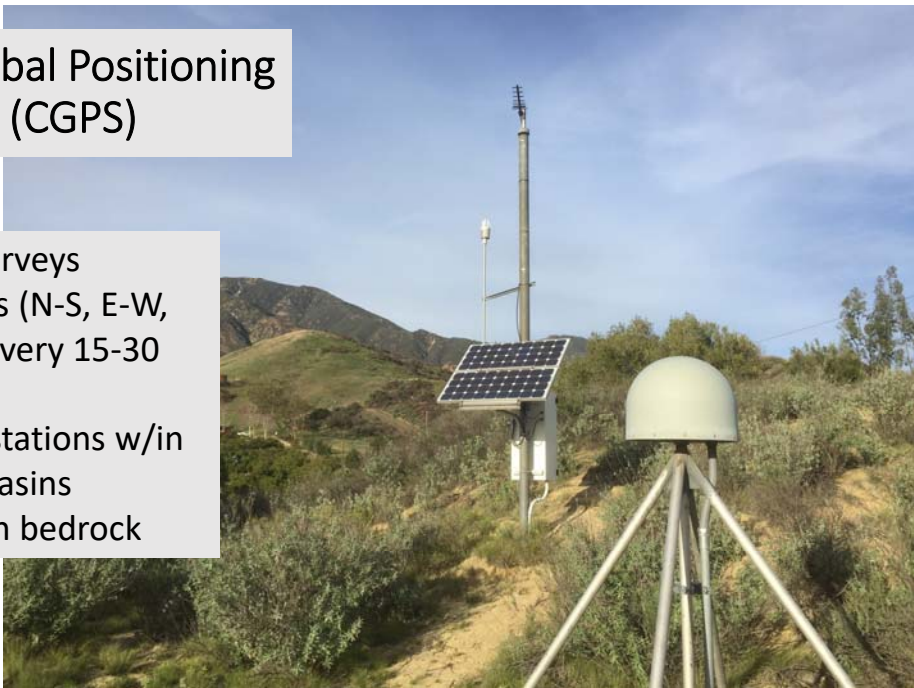
- ✓ Hazards Appendix - sediment loading & GW decline along SCR could lead to hydrocompaction (subsidence?), but does not present technical data



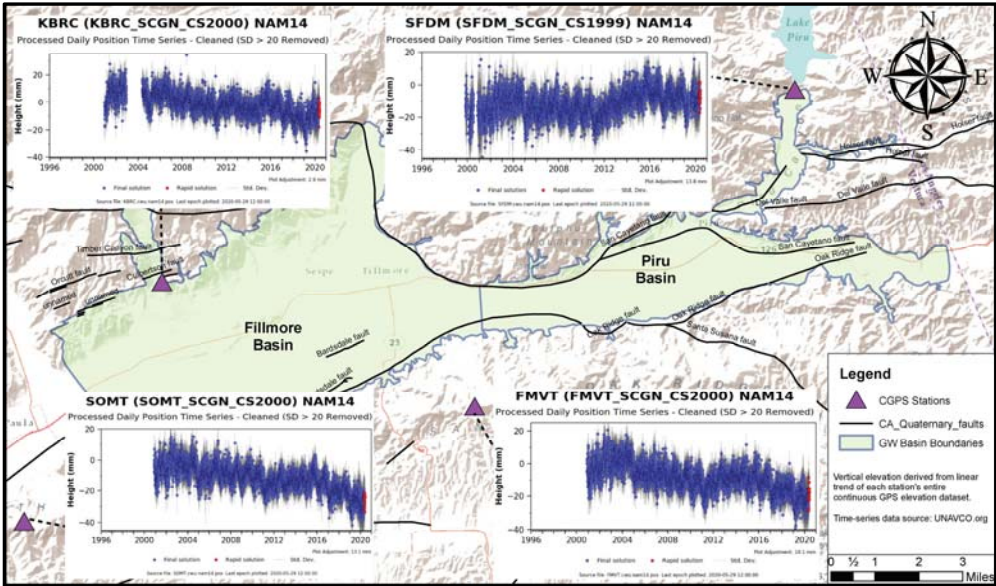
Simulated
Subsidence due
to Groundwater
Withdrawal from
1981 to 1993
(Hanson et al
2003)

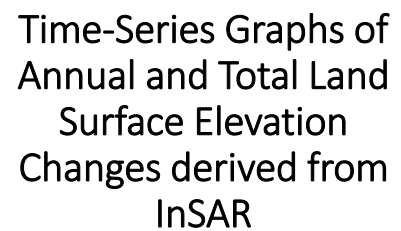
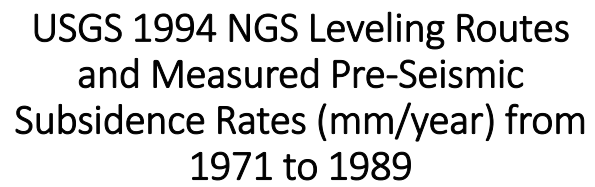
Continuous Global Positioning Systems (CGPS)

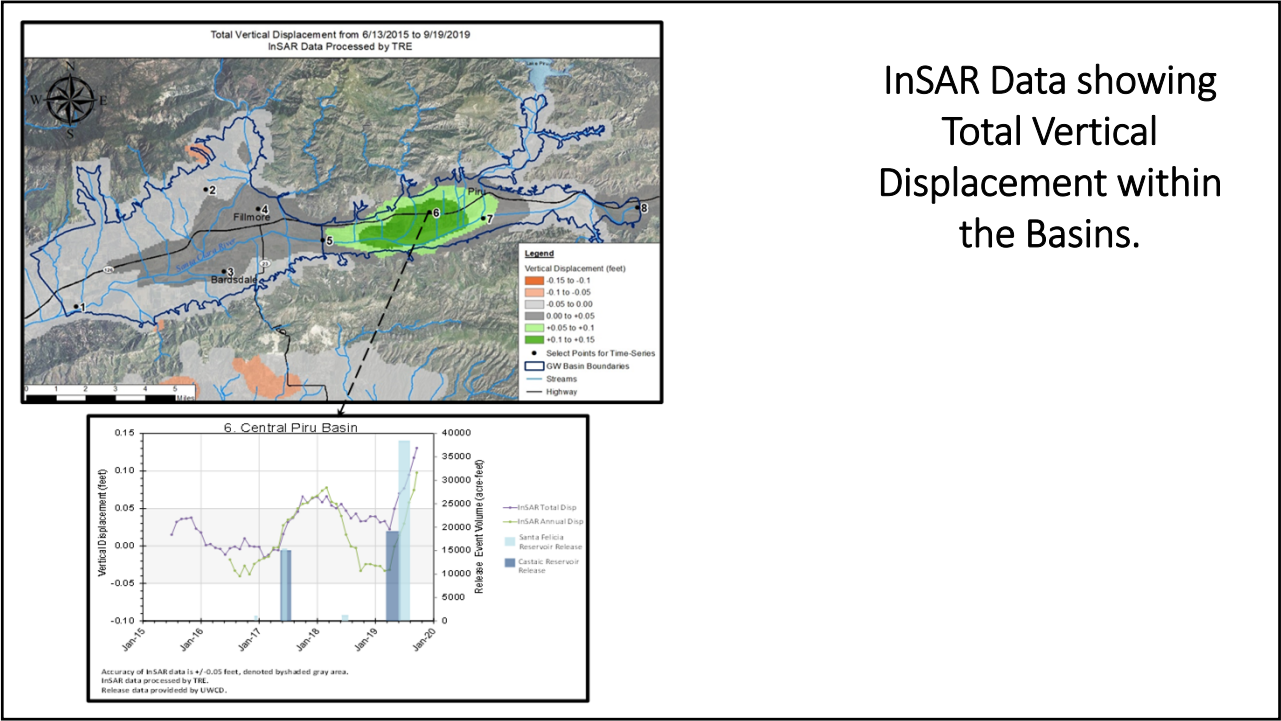
- Geodetic surveys
- 3D positions (N-S, E-W, Elevation) every 15-30 seconds
- Four CGPS stations w/in 5 miles of basins
- Mounted on bedrock



CGPS Locations and Vertical Movement Time-Series (UNAVCO)

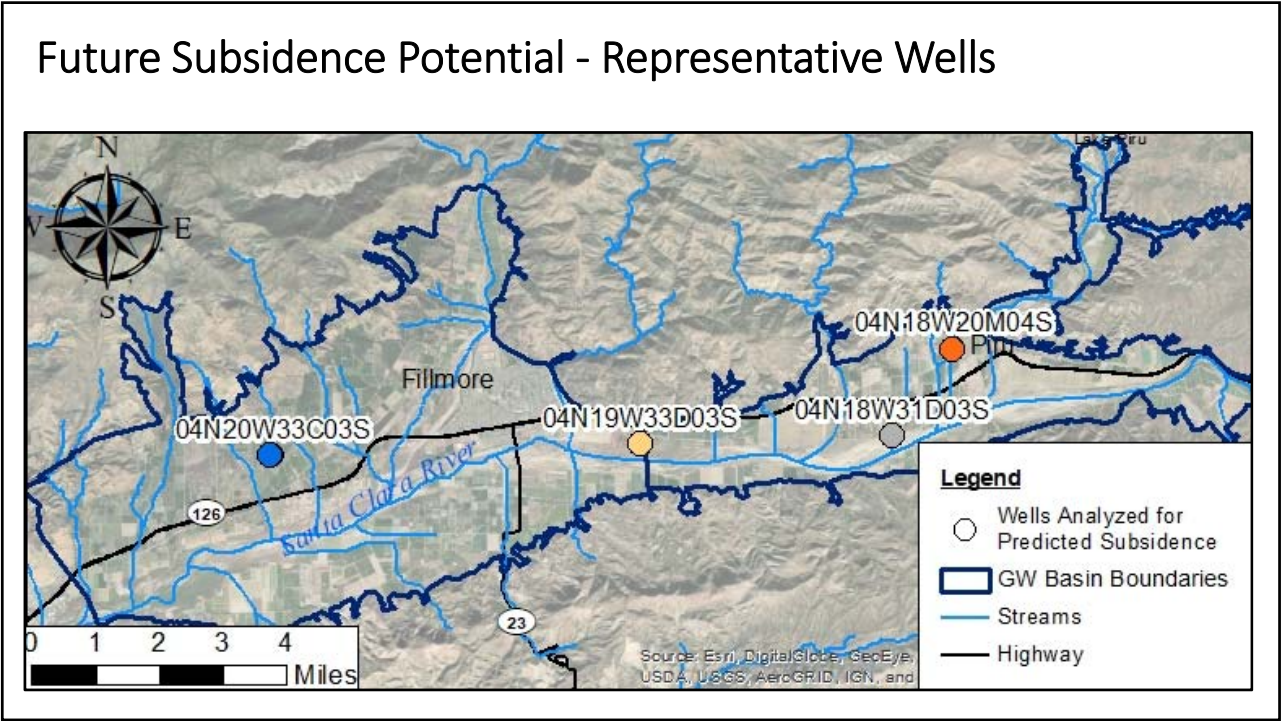


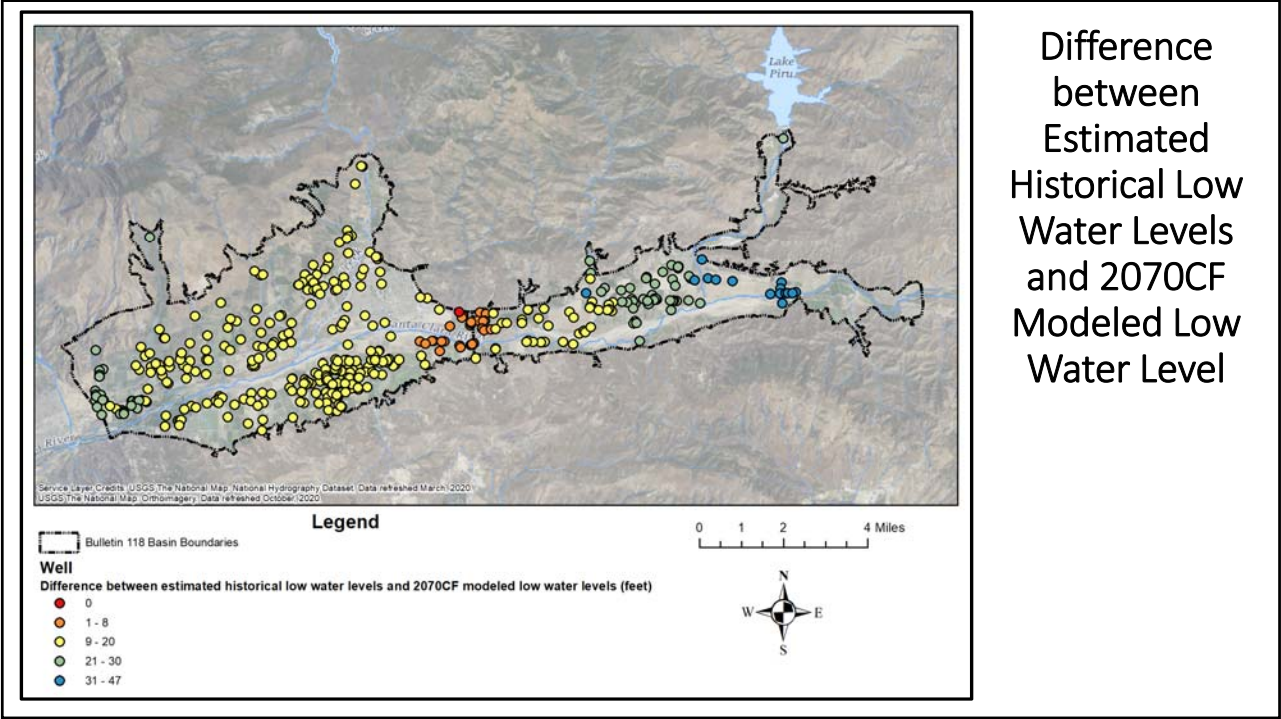
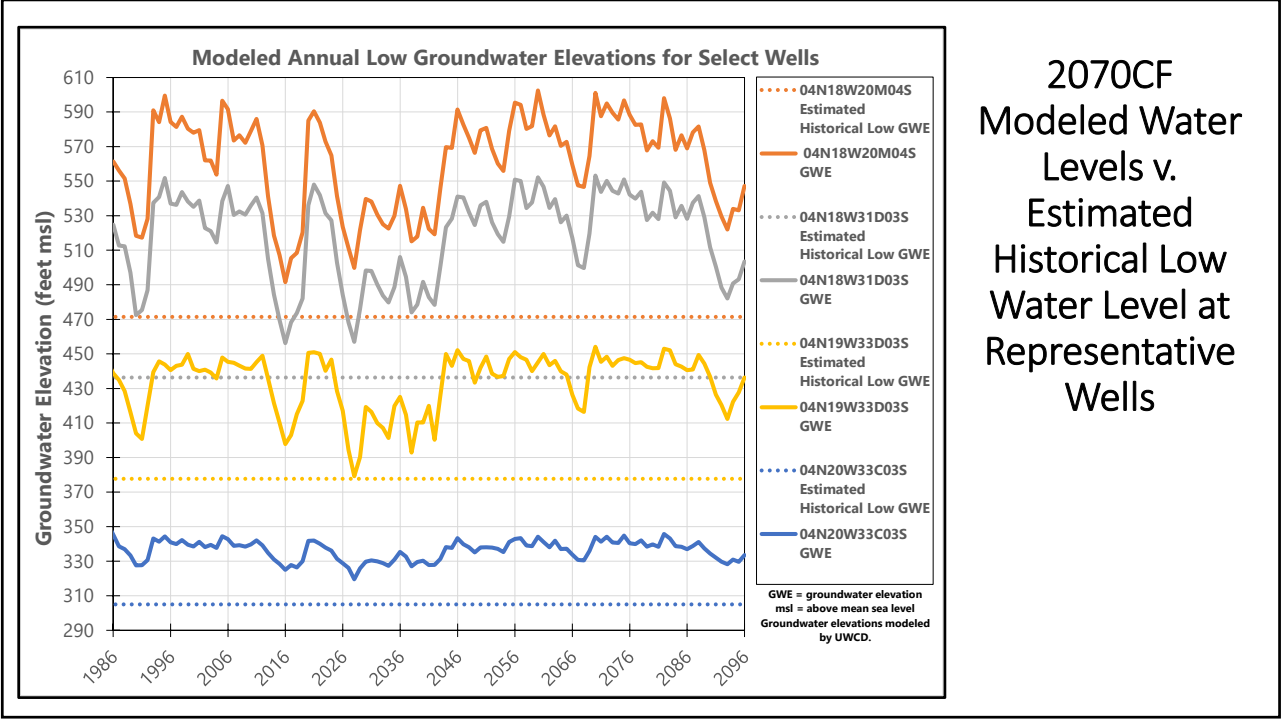




InSAR Data showing
Total Vertical
Displacement within
the Basins.

Future Subsidence Potential - Representative Wells





Summary of Subsidence Evaluations

Study / Investigator	Fillmore Basin	Piru Basin	Comments
USGS, 1996	maximum subsidence of 0.03 feet (8 mm, 0.6 mm/yr) near City of Fillmore	maximum subsidence zone up to 0.05 feet (15 mm, ~1 mm/year) around the Town of Piru	1975-1989 study period
Hanson, 2003	maximum value of just over 0.1 feet (0.00098 ft/yr) of subsidence	0.25 feet (0.0024 ft/yr) in the eastern portion of Piru Basin	1891 to 1993 study period
Ventura County, 2013 and 2020	Lies within subsidence hazard zone	Lies within subsidence hazard zone	No technical analyses conducted.
DWR, 2014	Low potential	Insufficient data	
InSAR	Less than +/-0.05 ft	Generally, less than +/-0.05 ft except during periods of artificial recharge, then up to +0.14 ft of rebound in Piru basin	June 2015 – Sept 2019 study period
2070 Climate Change Modeling by UWCD	No subsidence anticipated	No subsidence anticipated	1986 to 2096 model timeframe


Summary of (Inelastic) Subsidence Potential

Basin	Hydro-stratigraphic Setting Susceptibility	Chronic Declines in Groundwater Levels	Geodetic / Extensometer / Tiltmeter Evidence of Subsidence	InSAR Evidence of Subsidence	Subsidence Susceptibility Ranking
Fillmore	Low to Moderate	No	No	No	Low
Piru	Low	No	No	No	Low

Item 5B - Sustainable Management Criteria

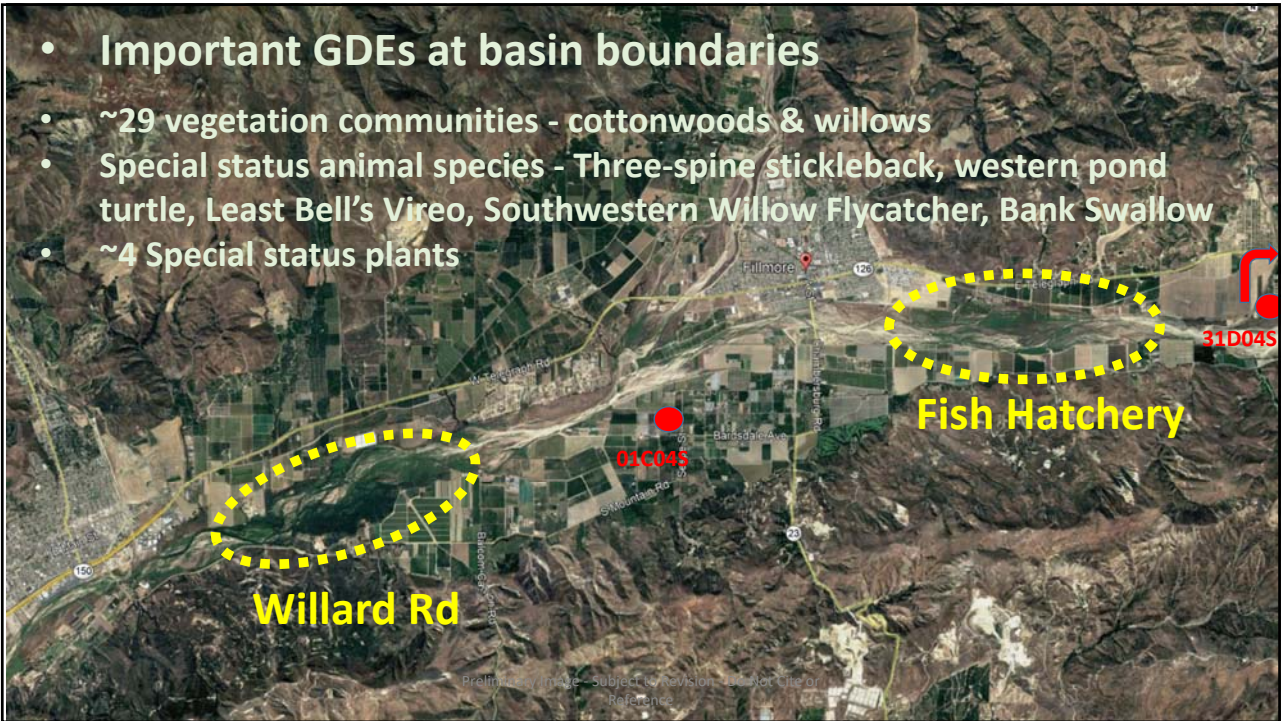
Water Level - Stream Flow Cross Over Analyses

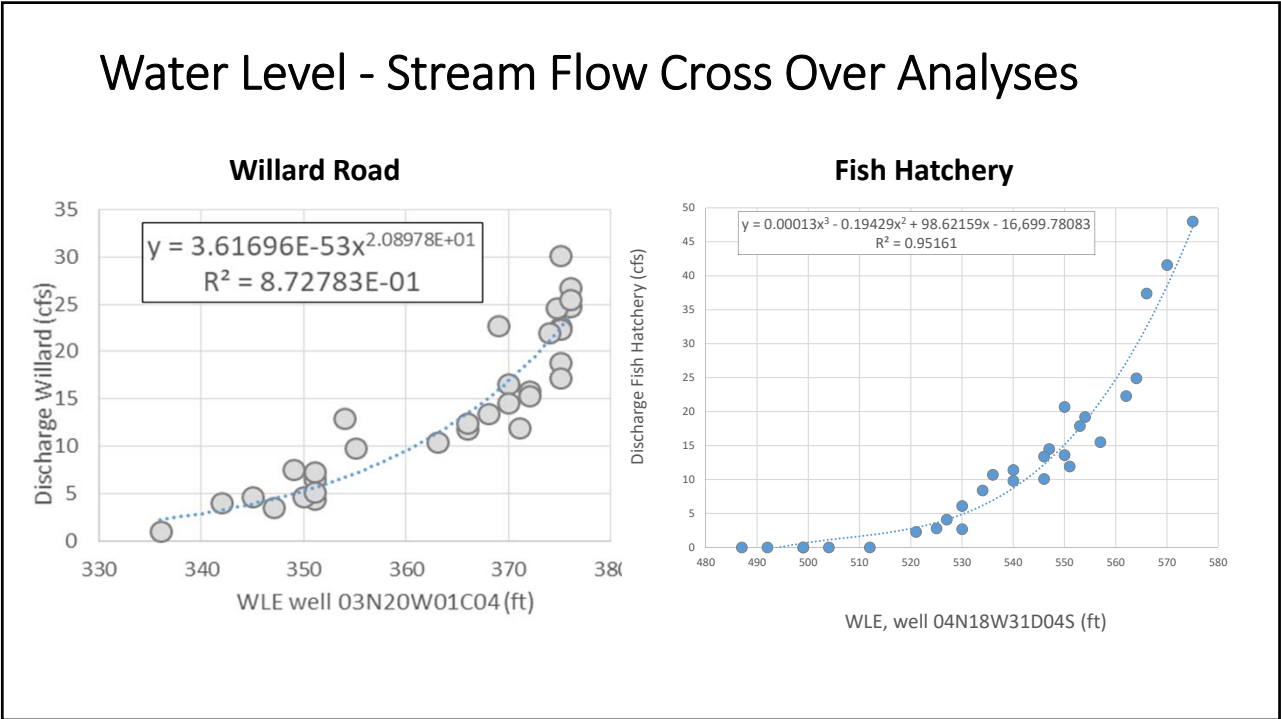
- Updated relationship(s) between WLs in wells near rising GW areas and measured SW flow
- Impact of climate change on SW flows

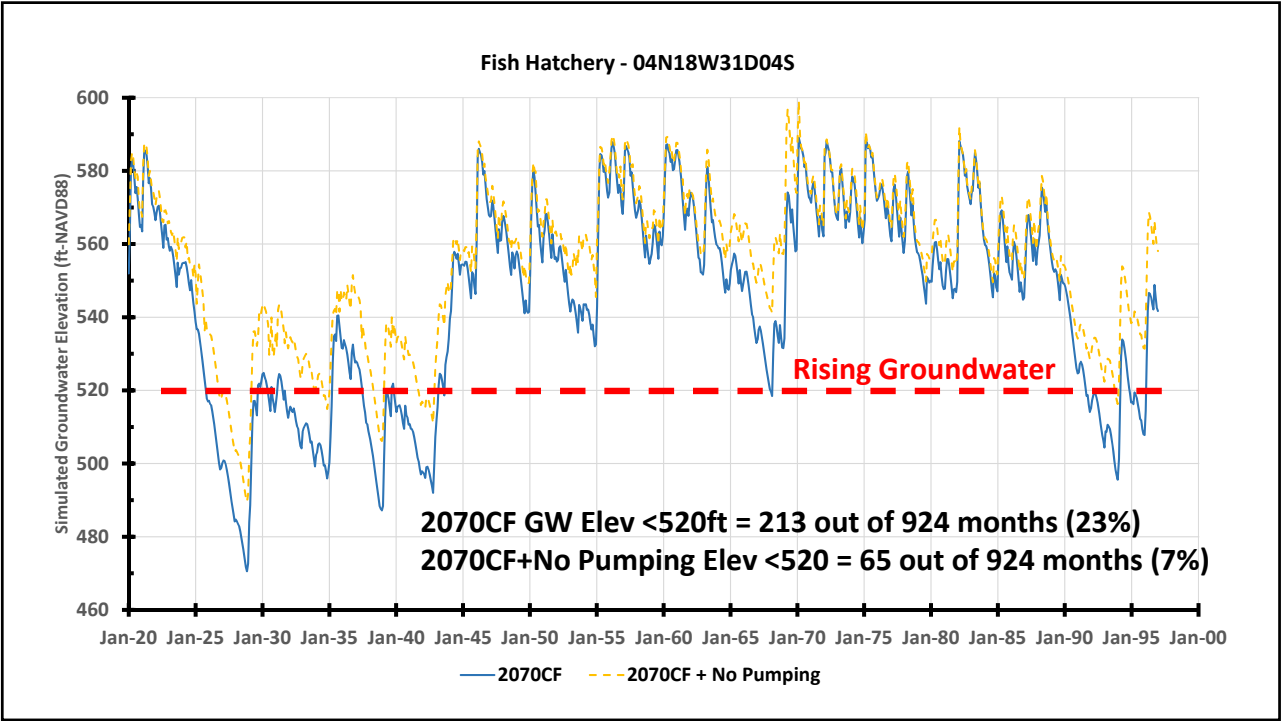
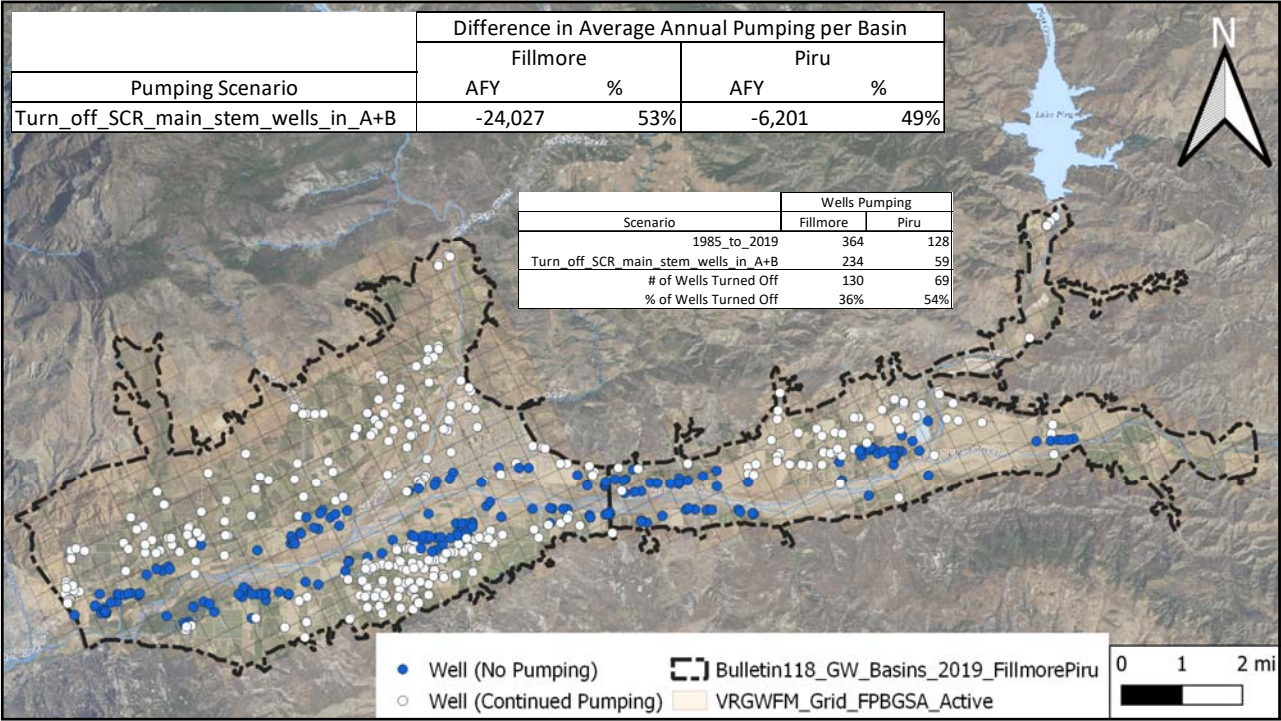


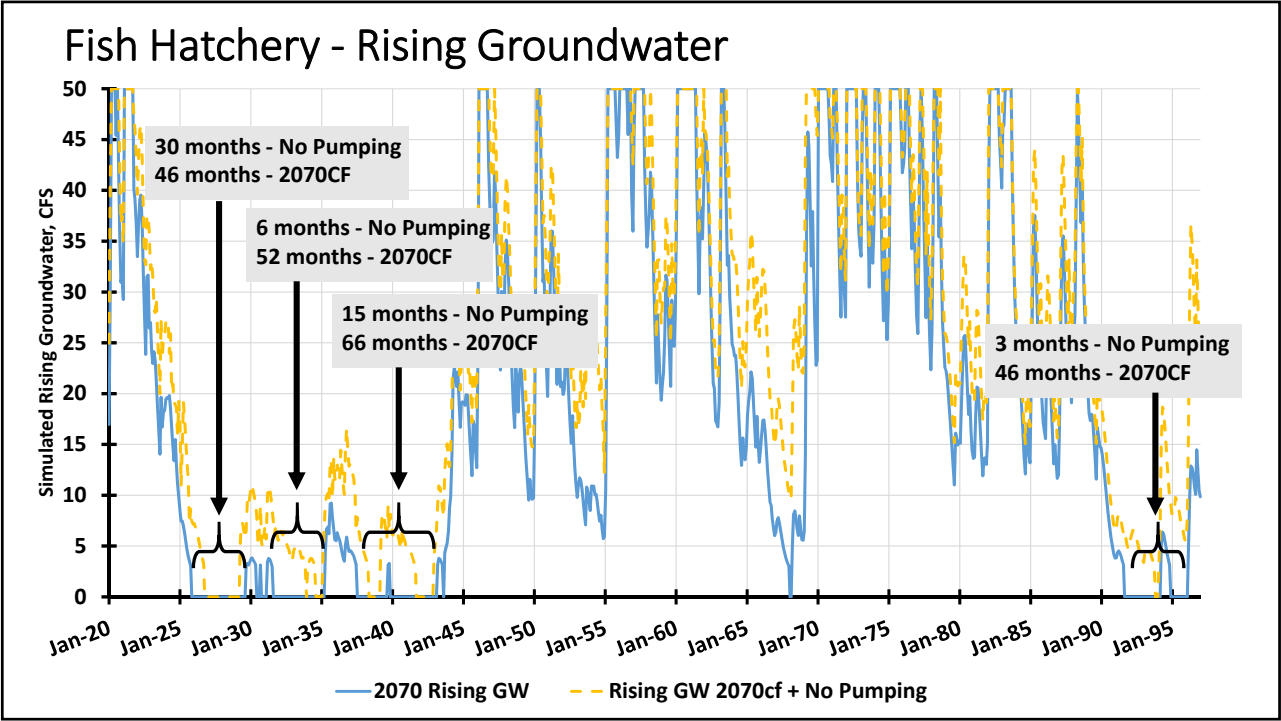
DBS&A
Daniel B. Stephens & Associates, Inc.

- Important GDEs at basin boundaries
- ~29 vegetation communities - cottonwoods & willows
- Special status animal species - Three-spine stickleback, western pond turtle, Least Bell's Vireo, Southwestern Willow Flycatcher, Bank Swallow
- ~4 Special status plants









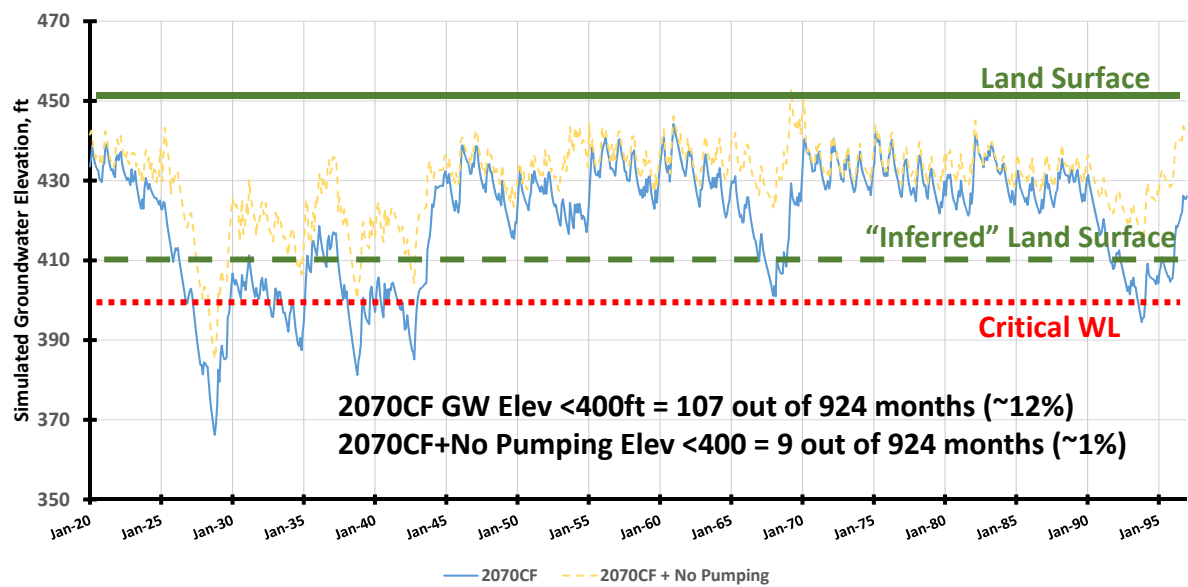
Item 5B - Sustainable Management Criteria

Groundwater Level - Rising Groundwater

- Updated relationship(s) between simulated WLs near the Fish Hatchery under the 2070CF conditions
- Impact of groundwater pumping on groundwater levels

DBS&A
Daniel B. Stephens & Associates, Inc.

2070CF & 2070CF(No Pumping) Hydrographs



Item 5B - Sustainable Management Criteria

Minimum Thresholds & Measurable Objectives

- Updated SMC matrices

SMCs - General Framework



- **Lowering GW Levels** - no chronic decline in water levels
- **Reduction of GW Storage** - no chronic decline in GW storage
- **Seawater Intrusion** - not applicable
- **Degraded Water Quality** - no regulatory authority over WQ / work with existing agencies with appropriate regulatory authority
- **Land Subsidence** - not anticipated during future climate & pumping conditions
- **Surface Water Depletion** - no chronic decline in SW flows (rising GW areas); GDEs - in droughts multi-month periods with zero rising GW with or w/o pumping & GW levels below critical WL in severe droughts

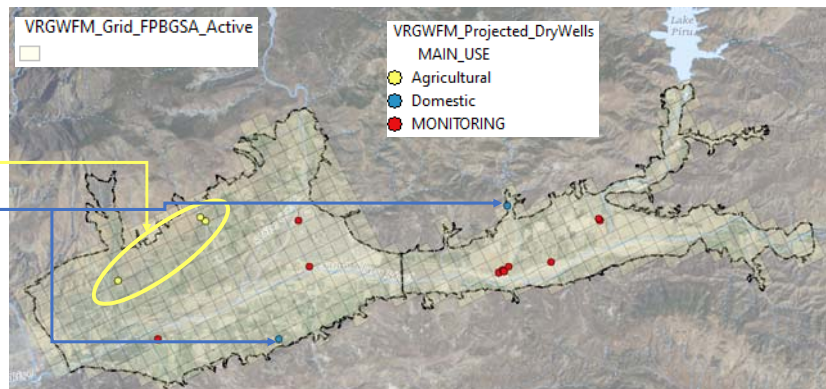
Lowering of Groundwater Levels

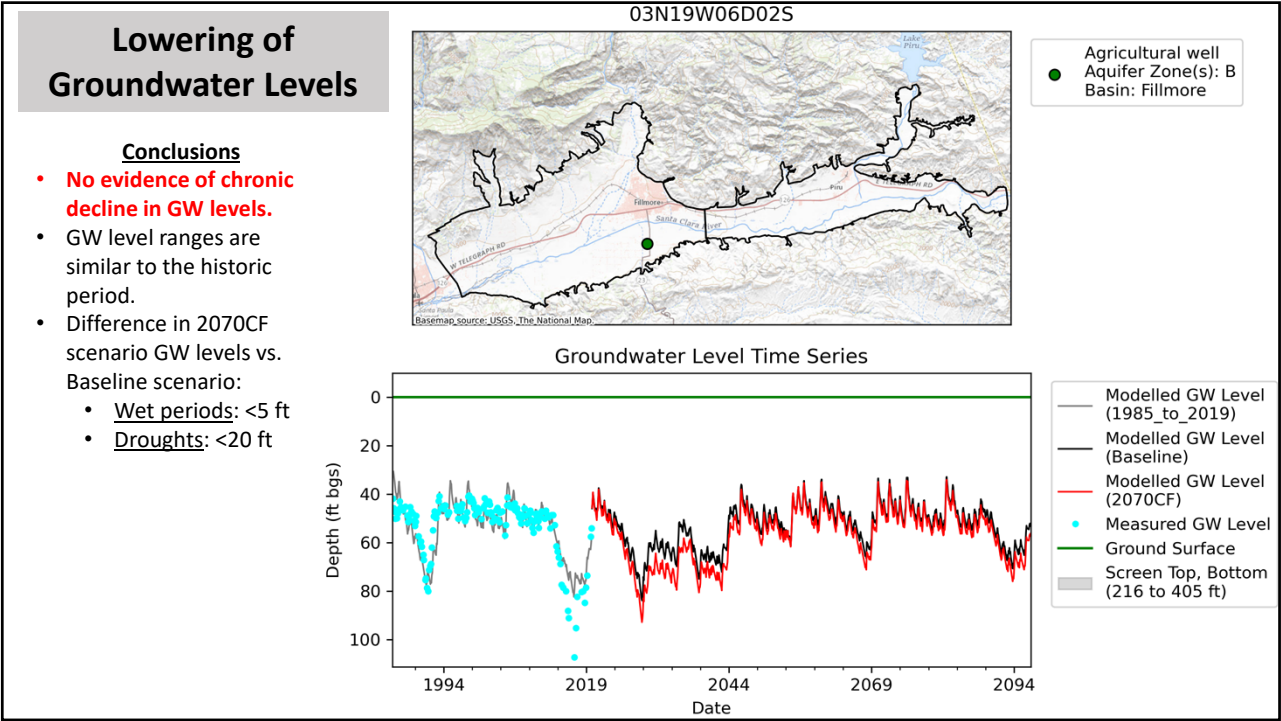
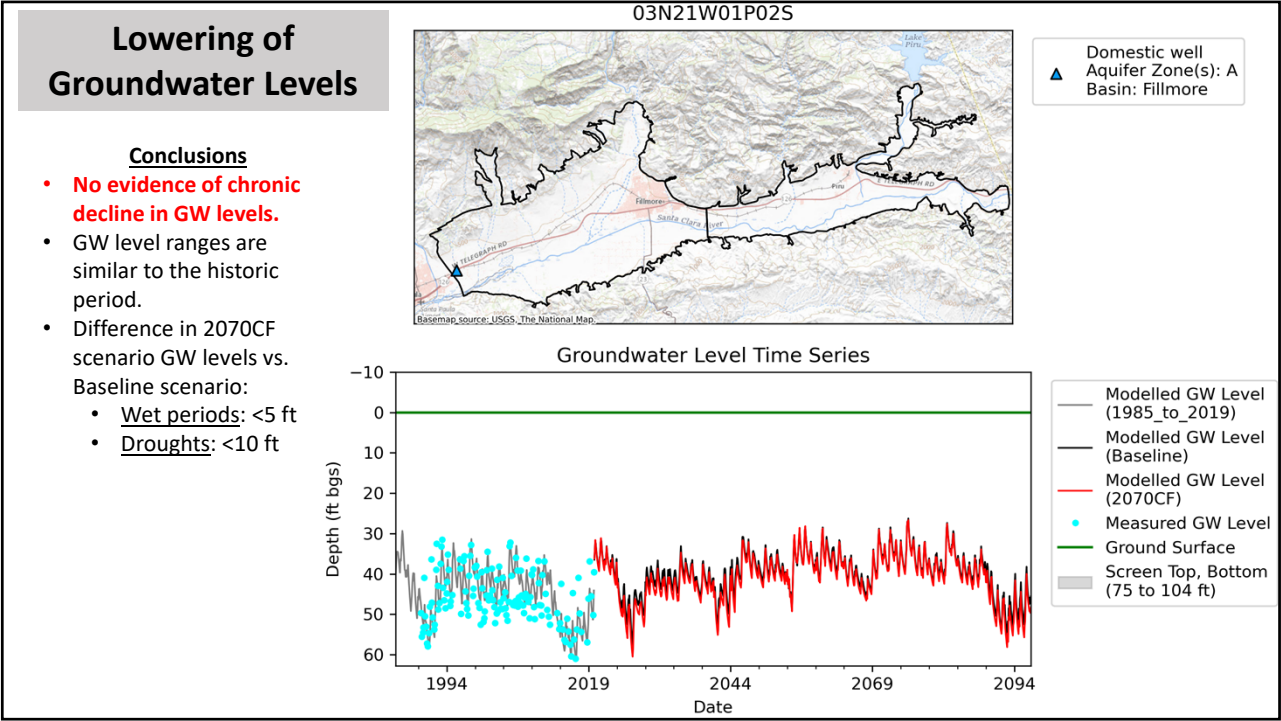
Dry Wells Evaluation (2070CF Future Scenario)

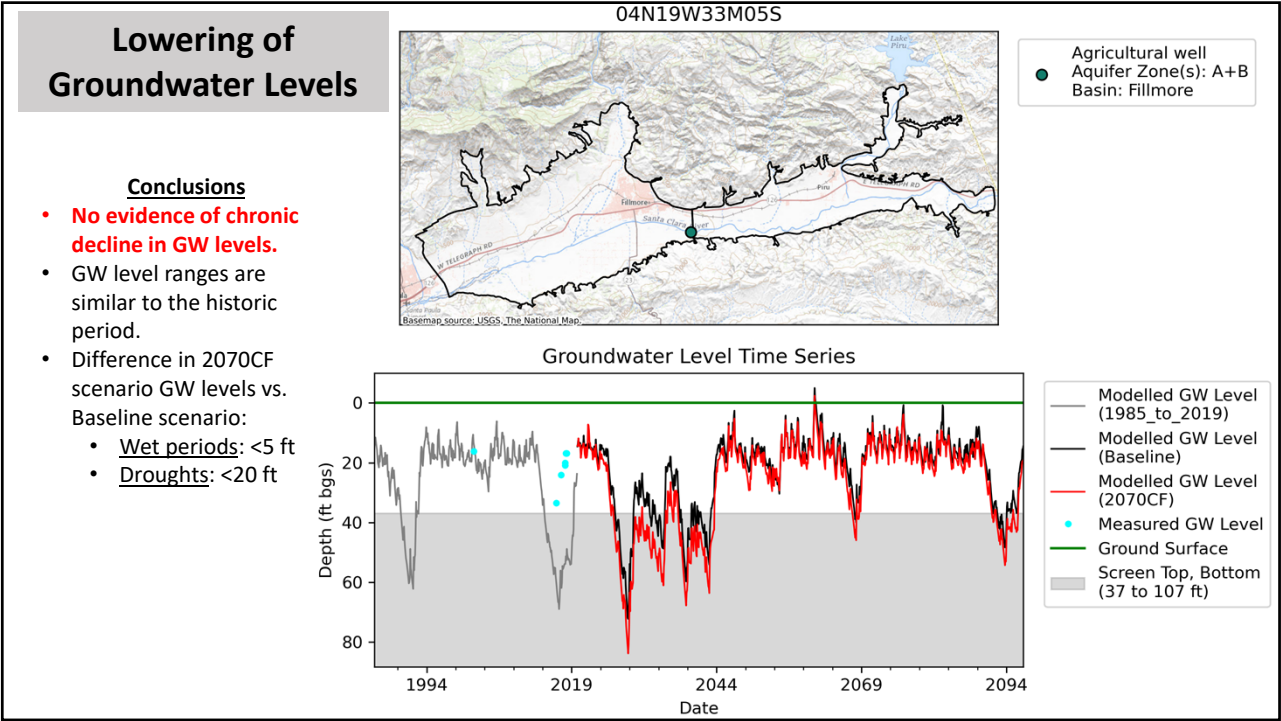
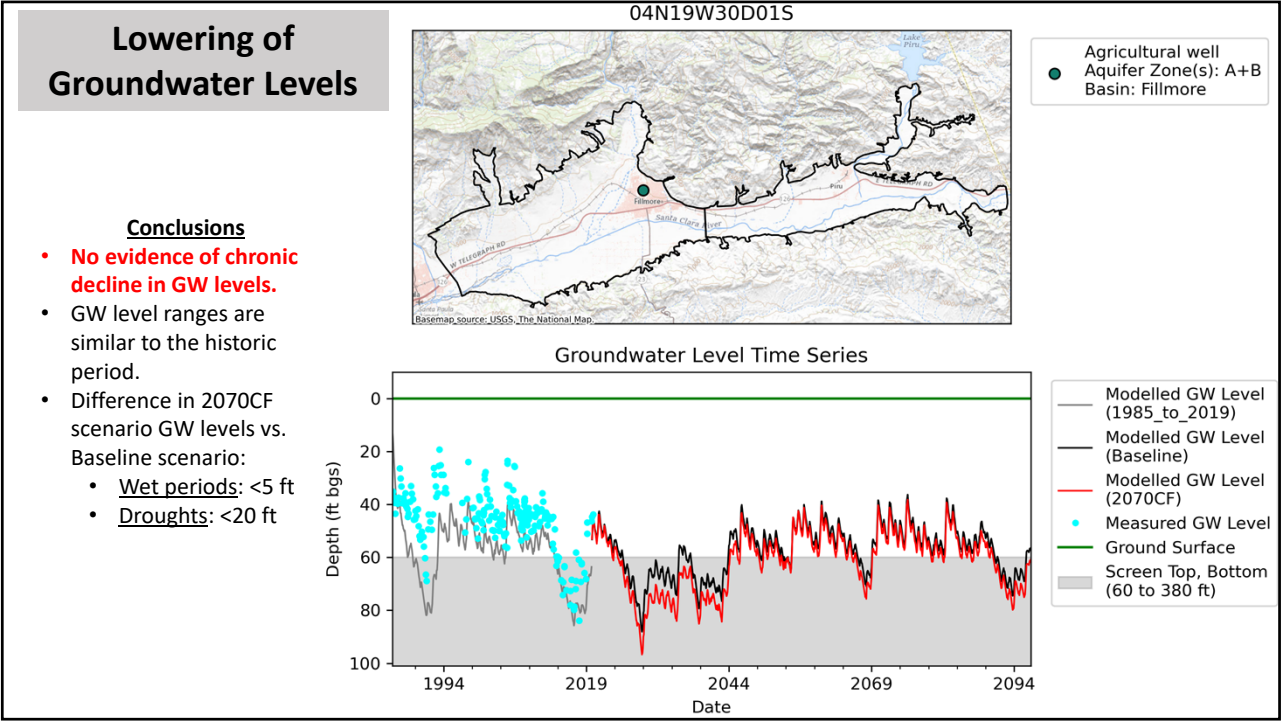
Bottom line: No potable water production wells & *minimal number of Ag wells* are predicted to go dry based on GW model

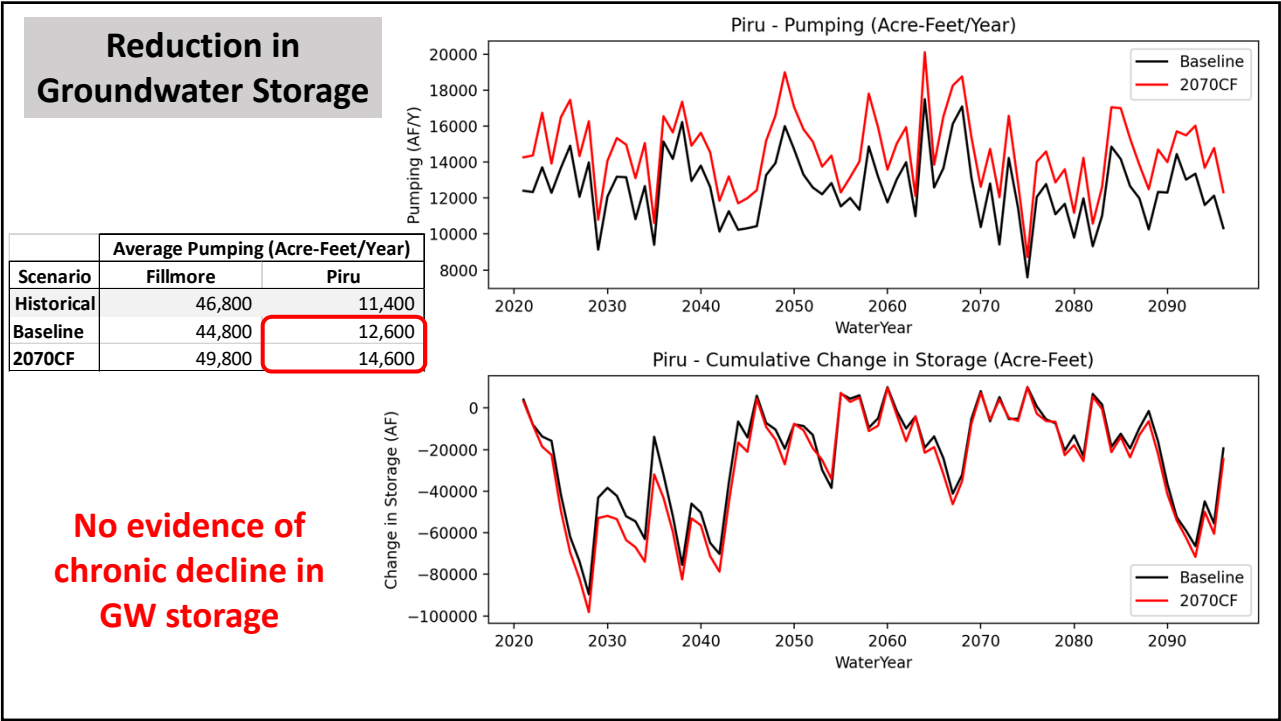
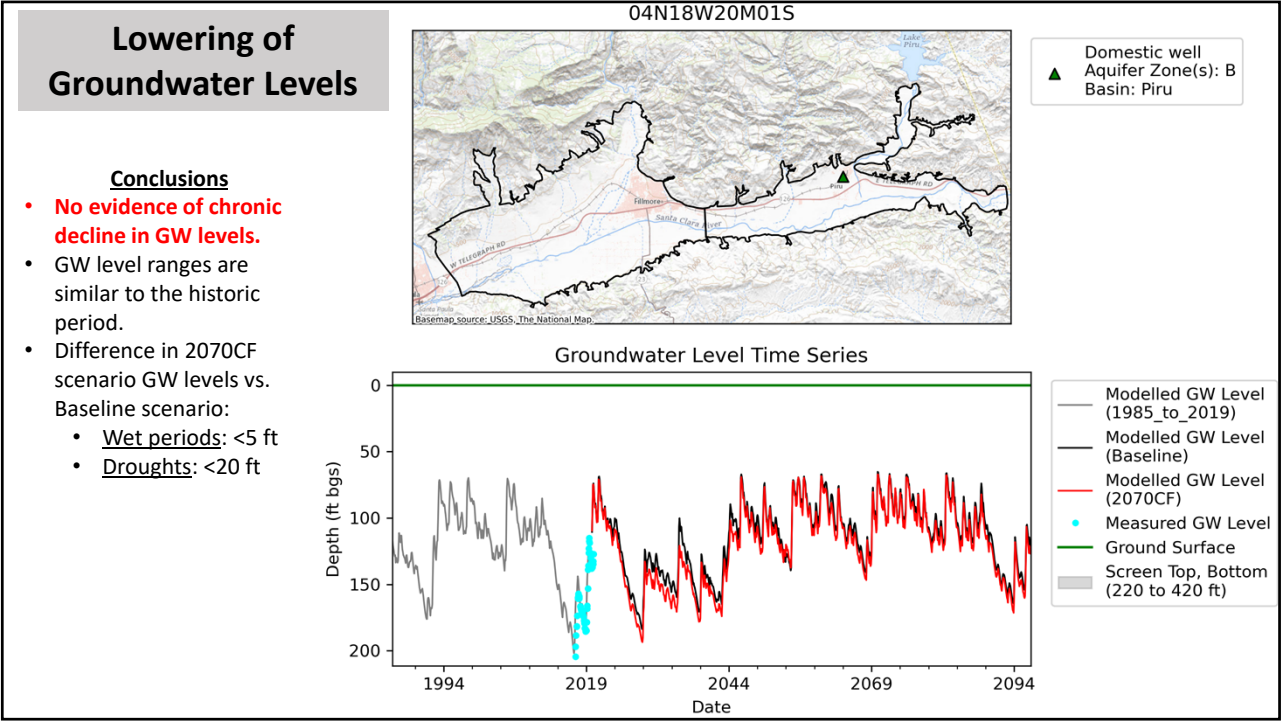
Notes:

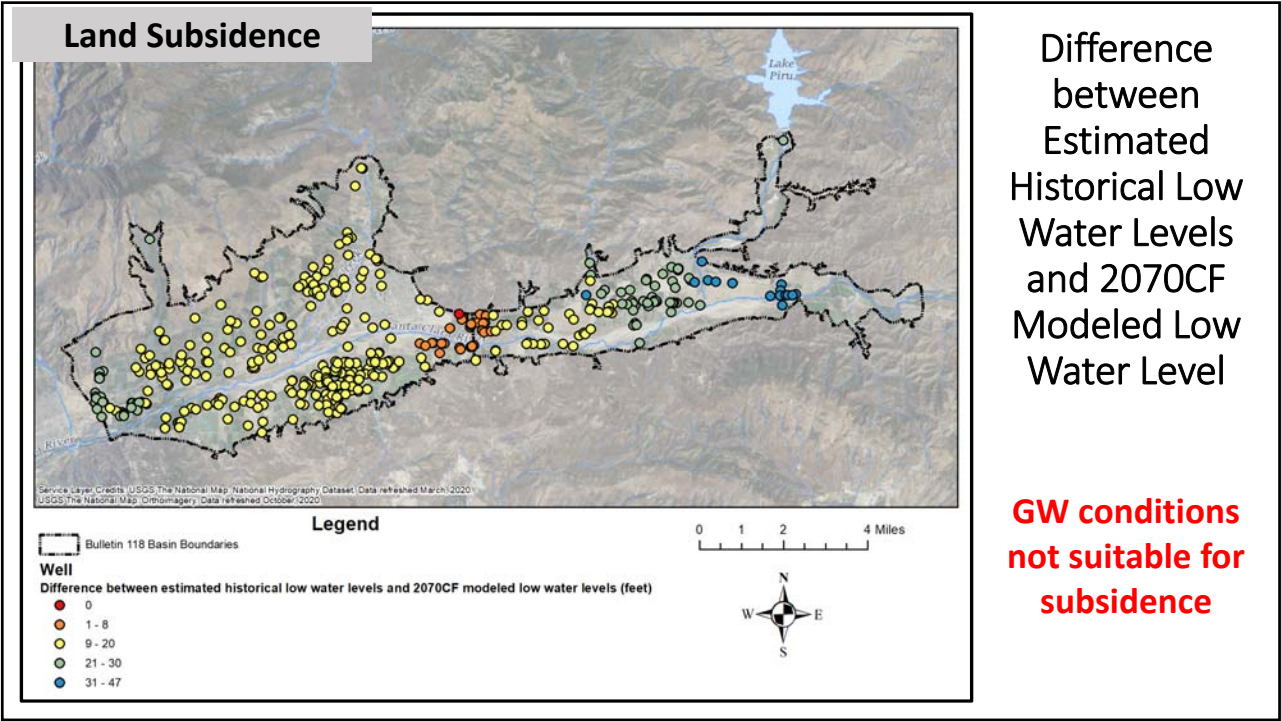
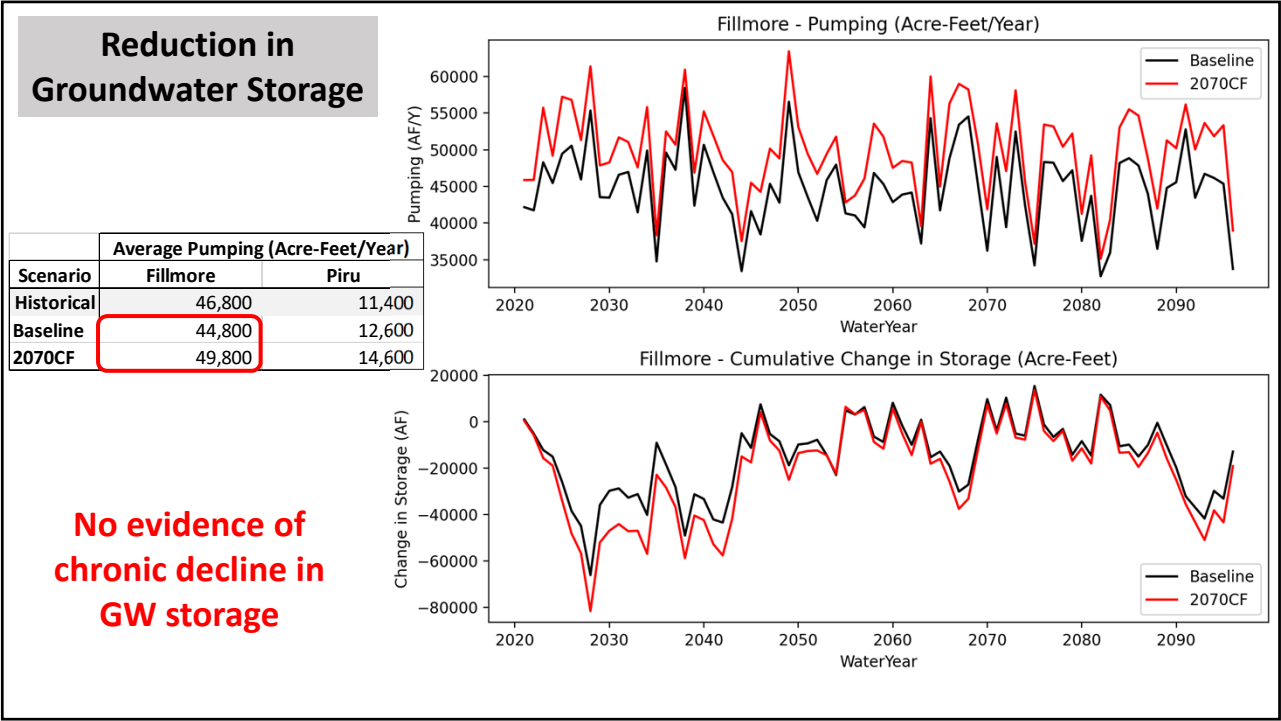
- Based on comparison of modelled GW levels vs. bottom of screen...
- Some shallow monitoring wells (with screen <100 ft deep) will go dry during droughts.
- Manually inspected 3 agricultural wells and 2 domestic wells that modelled GW levels indicate would go dry:
 - Unlikely to go dry based on measured GW levels.
- Biases in modelled GW levels tends to underestimate measured GW levels - making this a cautious/conservative evaluation.









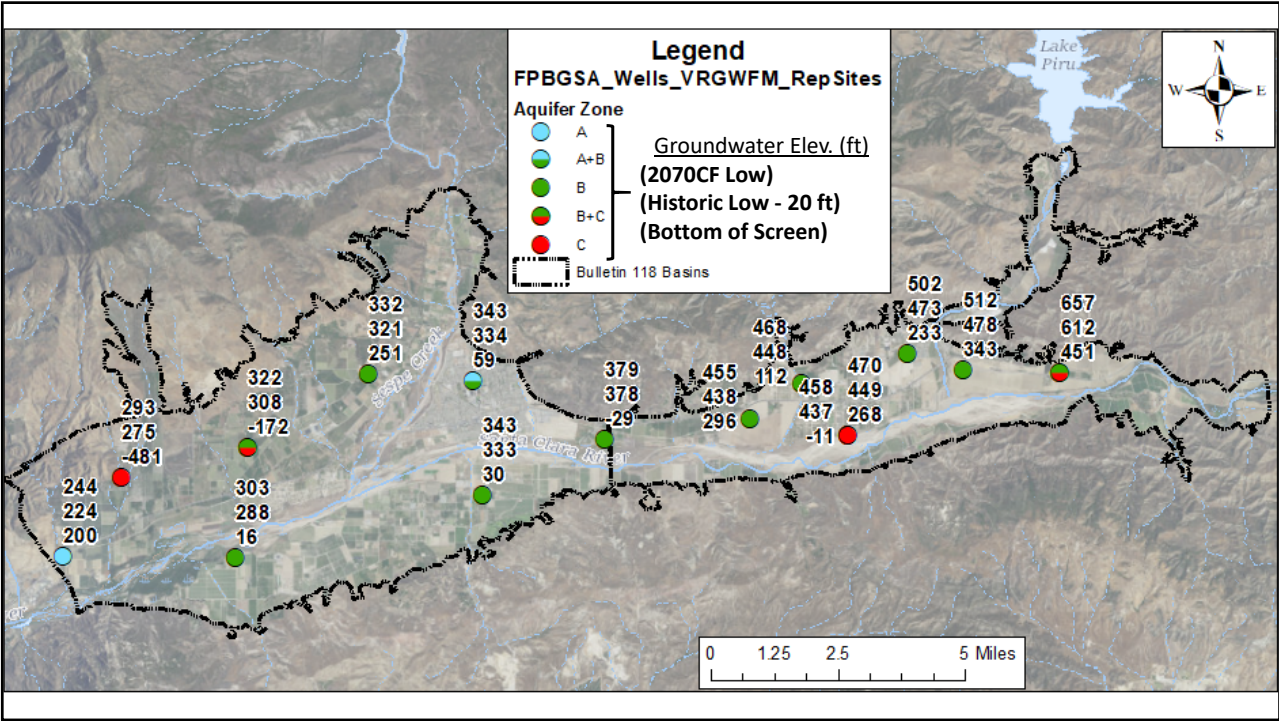
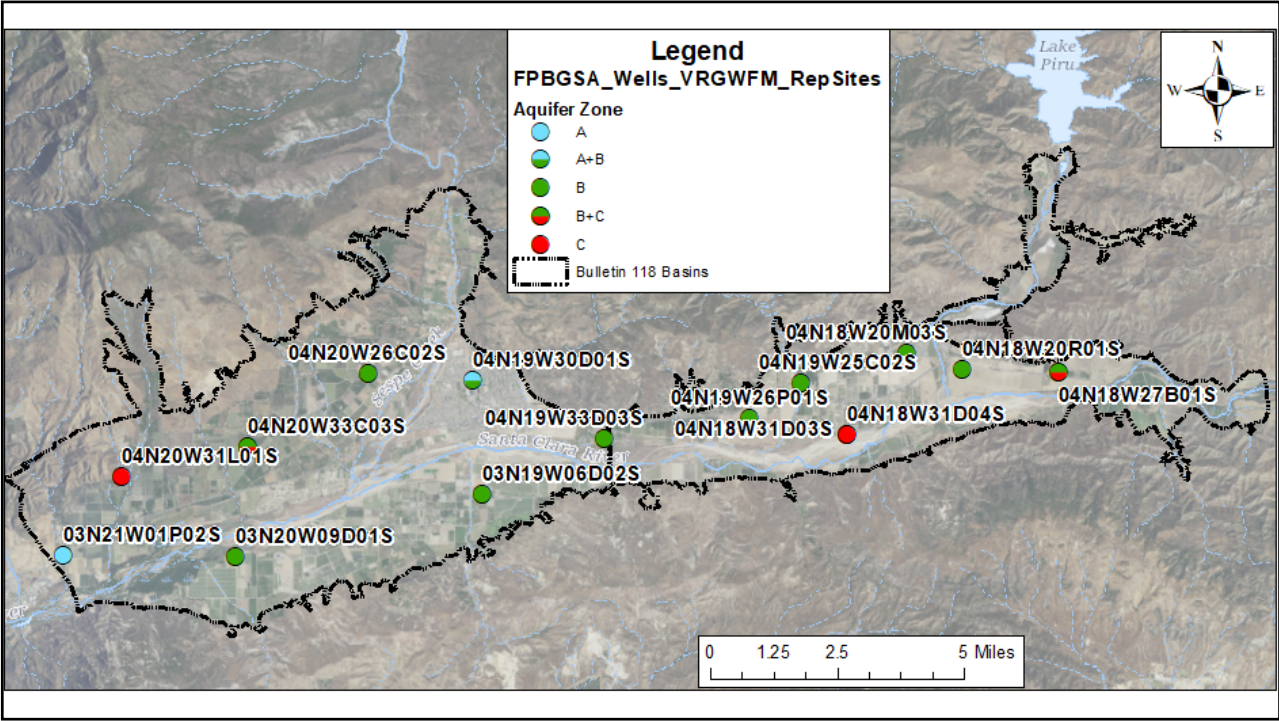


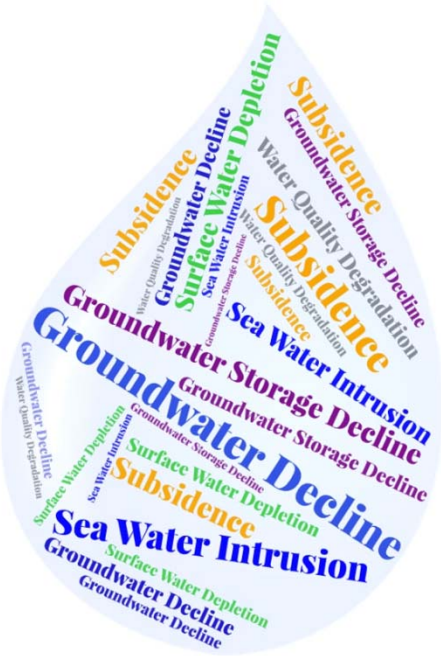
Surface Water - Groundwater Interaction / SW Depletion

- SMC focused on reaches of the Santa Clara River at the F-P & SP-F basin boundaries with rising GW
- No or limited beneficial uses and users of the SW in these areas
- GDEs present along those reaches → Birds - Amphibians - Vegetation
 - ✓ Drought periods create multi-month sequences with no rising GW with or without GW pumping
 - ✓ Drought periods create multi-month sequences with GW level declines greater than the critical water level decline of ~10 ft


Does the FPBGSA have a responsibility to mitigate drought impacts if those impacts are not any more severe than pre-Jan 2015 impacts?


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	WLs equivalent to the 2070CF low	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	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. No beneficial users or uses are impacted by implementation of the GSP.		
Land Subsidence	land subsidence amounts that interfere (total inelastic subsidence of 0.5ft/yr or 0.5ft over 5 yrs) with infrastructure operations	GW elevation	GW elevation lower than the estimated historical low	GW levels at 2011 high WL	maximizes range between MT and MO; Monitor subsidence amount - InSAR data from DWR
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	





Questions





Fillmore and Piru Basins GSA
Check Detail
March 10, 2021

Type	Num	Date	Name	Account	Original Amount
Bill Pmt -Check	11114	03/10/2021	County of Ventura IT Services Department	10000 · Bank of the Sierra	-686.50
Bill Pmt -Check	11115	03/10/2021	Daniel B Stephens & Associates, Inc.	10000 · Bank of the Sierra	-119,477.76
Bill Pmt -Check	11116	03/10/2021	Olivarez Madruga Lemeiux O'Neill LLP	10000 · Bank of the Sierra	-1,983.50
					-122,147.76



Fillmore and Piru Basins
Groundwater Sustainability Agency

Item No. **3C Consent Calendar**

DATE: **March 18, 2021**

TO: **Board of Directors**

SUBJECT: Monthly Financial Report

SUMMARY

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

BACKGROUND

UWCD accounting staff has prepared financial reports based on the Agency revenue and expenses for the month of February 2021.

FISCAL IMPACT

None

Attachments: February 28, 2021 P/L Budget Performance
 February 28, 2021 Balance Sheet

Fillmore and Piru Basins GSA
Profit & Loss Budget Performance
July through February 2021

	Jul - Feb 21	Annual Budget	Budget
Income			
40001 · Groundwater Extraction Charge	0.00	540,000.00	
41000 · Grant Revenue			
41001 · State Grants	122,926.26	698,246.00	17.61%
Total 41000 · Grant Revenue	122,926.26	698,246.00	
47000 · Other Revenue			
47001 · Late Fees	3,532.67	0.00	
47012 · Returned Check Charges	20.00	0.00	
Total 47000 · Other Revenue	3,552.67	0.00	
Total Income	126,478.93	1,238,246.00	
Gross Profit	126,478.93	1,238,246.00	10.21%
Expense			
52200 · Professional Services			
52240 · Prof Svcs - IT Consulting	1,125.70	980.00	114.87%
52250 · Prof Svcs - Groundwtr/GSP Prep			
52251 · Prof Svcs - UWCD GW Services	2,490.67	50,000.00	4.98%
52252 · Prof Svcs - GSP Consultant	348,748.58	350,814.00	99.41%
Total 52250 · Prof Svcs - Groundwtr/GSP Prep	351,239.25	400,814.00	87.63%
52270 · Prof Svcs - Accounting	9,654.92	10,000.00	96.55%
52275 · Prof Svcs - Admin/Clerk of Bd	16,728.87	10,000.00	167.29%
52280 · Prof Svcs - Executive Director	21,271.54	40,000.00	53.18%
52290 · Prof Svcs - Other	0.00	1,000.00	
Total 52200 · Professional Services	400,020.28	462,794.00	86.44%
52500 · Legal Fees			
52501 · Legal Counsel	18,081.10	20,000.00	
Total 52500 · Legal Fees	18,081.10	20,000.00	90.41%
53000 · Office Expenses			
53010 · Public Information	0.00	1,000.00	
53020 · Office Supplies	47.48	500.00	9.50%
53026 · Postage & Mailing	855.85	2,000.00	42.79%
53040 · Membership Dues	0.00	0.00	
53060 · Computer Software	0.00	0.00	
53110 · Travel & Training	11.91	4,000.00	
Total 53000 · Office Expenses	915.24	7,500.00	12.20%
53500 · Insurance			
53510 · Liability Insurance	2,115.73	2,500.00	84.63%
Total 53500 · Insurance	2,115.73	2,500.00	
70000 · Interest & Debt Service			
70120 · Interest Expense	0.00	0.00	
Total 70000 · Interest & Debt Service	0.00	0.00	
70130 · Bank Service Charges	20.00	0.00	
80000 · AR Write-Offs - Bad Debt Exp.	0.00	0.00	
81000 · Capital Expenditures	0.00	200,000.00	
Total Expense	421,152.35	692,794.00	60.79%
Net Income	-294,673.42	545,452.00	-54.02%

Fillmore and Piru Basins GSA

Balance Sheet

As of February 28 2021

	<u>Feb 28, 21</u>
ASSETS	
Current Assets	
Checking/Savings	
10000 · Bank of the Sierra	437,724.51
Total Checking/Savings	<u>437,724.51</u>
Accounts Receivable	
11000 · Accounts Receivable	140,500.15
Total Accounts Receivable	<u>140,500.15</u>
Total Current Assets	<u>578,224.66</u>
TOTAL ASSETS	<u><u>578,224.66</u></u>
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
20000 · Accounts Payable	122,147.76
Total Accounts Payable	<u>122,147.76</u>
Total Current Liabilities	<u>122,147.76</u>
Total Liabilities	<u>122,147.76</u>
Equity	
32000 · Retained Earnings	750,750.32
Net Income	-294,673.42
Total Equity	<u>456,076.90</u>
TOTAL LIABILITIES & EQUITY	<u><u>578,224.66</u></u>



Item No. **4 Informational Item**

DATE: **March 11, 2021 (for March 18, 2021 meeting)**

TO: **Board of Directors**

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

SUBJECT: **Stakeholder Workshop**

RECCOMENDATION:

The Board will receive presentations on Groundwater Dependent Ecosystems Technical Memorandum and draft Sustainable Management Criteria matrix, receive comments from stakeholders, and provide input and recommendations to Agency's staff and consultants.

STAKEHOLDER WORKSHOP

The Board will hold a stakeholder workshop that will include the following:

A. Presentation on Groundwater Dependent Ecosystems

The Board will receive a presentation from Christian Braudrick, PhD, Fluvial Geomorphologist, with Stillwater Sciences, on the Groundwater Dependent Ecosystems Technical Memorandum.

B. Presentation on Draft Sustainable Management Criteria Matrix

The Board will receive a presentation from Tony Morgan, PG, CHG, with Daniel B. Stephens & Associates, on the draft Sustainable Management Criteria matrix.

C. Stakeholder Input and Discussions on Draft Sustainable Management Criteria Matrix

The Board will receive stakeholder input on the draft Sustainable Management Criteria matrix.

- Surface Water Depletion
- Land Subsidence
- Groundwater Levels
- Groundwater Storage
- Water Quality

D. Summarize Workshop Stakeholder Input

The Board, consultant team, and staff will summarize stakeholder input received during the workshop.

SUPPORTING DOCUMENTS

The following supporting documents can be found on the Agency's website at: www.fpbgsa.org

- Groundwater Dependent Ecosystems Technical Memorandum
- Presentation on Groundwater Dependent Ecosystems
- Presentation on Draft Sustainable Management Criteria Matrix
- Comment Letter from the Fillmore Basin Pumpers Association and Piru Basin Pumpers Association on the Subsidence Technical Memorandum
- Comment Letter from the Environmental Organizations on the Groundwater Dependent Ecosystems Technical Memorandum (Pending)



Item No. **5A Motion Item**

DATE: March 11, 2021 (for March 18, 2021 meeting)

TO: Board of Directors

FROM: Anthony Emmert, Executive Director

SUBJECT: **Sustainable Management Criteria**

SUMMARY:

The Agency will continue to develop its Sustainable Management Criteria with the assistance of its Daniel B. Stephens and Associates consultant team. The focus of the discussion will be review of an updated draft Sustainable Management Criteria matrix, with the objective of finalizing the matrix during the March 18, 2021 meeting or a future special meeting.

RECOMMENDATION:

The Board will consider approval of a draft Sustainable Management Criteria matrix for use in developing the draft Groundwater Sustainability Plans.

BACKGROUND

At the November 4, 2020 special meeting, the Daniel B. Stephens & Associates (DBS&A) team provided a presentation on the “Straw Man” Sustainable Management Criteria (SMC), with emphasis on the sustainability indicators: 1) chronic lowering of groundwater levels, 2) land subsidence, 3) degradation of water quality, and 4) reduction of groundwater storage. The Board agreed that the seawater intrusion sustainability indicator is not applicable to the Fillmore Basin or Piru Basin. The Board and stakeholders provided feedback to the DBS&A team regarding the Undesirable Results and Sustainability Goals and recommended that staff and DBS&A revise the groundwater sustainability planning schedule to lengthen the time that the Board and stakeholders can develop the SMC in a public process.

At the November 19, 2020 meeting, the DBS&A team provided a presentation on the “Stress-Test” model scenarios, illustrating the effects of potential future pumping increases during severe droughts and recoveries during subsequent wetter periods. The DBS&A team also presented a summary of the future conditions that it recommends including in the plans. The Board and stakeholders provided feedback to staff and consultants from presentations from the November 4 and November 19, 2020 meetings. DBS&A staff also provided the Board with an updated planning schedule that removed the administrative draft milestone and lengthened the stakeholder engagement period for development of the SMC.

During the December 17, 2020 meeting, DBS&A staff provided additional findings from the “Stress-Test” model scenarios, including correlation of observed stream flow with observed water levels in wells adjacent to rising groundwater areas; and provided a presentation on the

groundwater dependent ecosystems and impacts from recent drought periods and impacts of scouring from large flood events.

During the January 21, 2021 meeting, DBS&A staff presented observations from the recent 2070 future model run, using the California Department of Water Resources' (DWR) climate change factors. The observations included impacts of future droughts. Comparison of modeled water levels to bottom of well screen data indicated that no production water wells are projected to go dry during future droughts. Water level-stream flow cross over analysis showed that future droughts are projected to lead to reduction or cessation of rising groundwater in the Piru basin-Fillmore basin boundary zone within a relatively short time period. Water level-stream flow cross over analysis showed that future droughts are projected to lead to reduction of rising groundwater in the Fillmore basin-Santa Paula basin boundary zone over several years, but flows are unlikely to completely cease. DBS&A staff also presented a conceptual project to pump groundwater to augment stream flow in the Piru basin-Fillmore basin boundary area and associated riparian zone during multi-year droughts.

During the February 18, 2021 meeting, DBS&A reviewed the findings of the Land Subsidence Technical Memorandum, which is available for review on the Agency's website. The DBS&A team reviewed previous studies and information regarding subsidence and also used the recently completed 2070 groundwater model run that incorporated the DWR climate change factors. DBS&A's conclusion was that the risk of subsidence in the Piru and Fillmore basins is low. The DBS&A team also provided an update on its findings regarding water level-stream flow analysis, including a scenario in which shallow wells near the Santa Clara River were not pumped during severe drought periods, as a simulation of a potential management action that could be taken by the Agency during severe drought periods. The finding was that pumping of shallow wells near the river did have an impact on stream flow in the rising groundwater zones. However, DBS&A also found that not pumping those wells during projected future drought periods would delay but not prevent water level declines that would likely lead to cessation of rising groundwater stream flow at the Piru basin-Fillmore basin boundary zone and likely die-off of riparian plants. DBS&A also provided an updated matrix of Sustainable Management Criteria.

On March 10, 2021, Stillwater Sciences completed the Assessment of Groundwater Dependent Ecosystems for the Fillmore and Piru Basins Groundwater Sustainability Plans Technical Memorandum (GDE TM), and on March 11, 2021, the Agency posted the document on its website. During the March 18, 2021 Agency Board meeting stakeholder workshop (Agenda Item 4), a presentation will be made by Stillwater Sciences and DBS&A summarizing the findings of the GDE TM, and stakeholders will have an opportunity to comment on the document. Also, during the stakeholder workshop portion of the meeting, DBS&A will review the draft SMC matrix and receive feedback from stakeholders.

For the Agency to maintain its groundwater sustainability planning schedule and produce Sustainable Groundwater Management Act (SGMA) compliant groundwater sustainability plans by December 2021, the Agency must finalize its draft SMCs by early April 2021.

FISCAL IMPACT

None.

ATTACHMENTS

None.

Proposed Motion:

1st: Director _____ 2nd: Director _____

Voice/Roll call vote: Director Kimball: Director Long: Director McFadden Director Meneghin:
Director Pace: Director Villasenor:



Fillmore and Piru Basins
Groundwater Sustainability Agency

Item No. 5B Motion

DATE: March 11, 2021 (for March 18, 2020 meeting)

TO: Board of Directors

FROM: Anthony A. Emmert, Executive Director

SUBJECT: **Special Board Meeting for Sustainable Management Criteria**

RECOMMENDED ACTION

The Board will select a date for a Special Board Meeting in late March or early April 2021 to adopt the Sustainable Management Criteria matrix.

BACKGROUND

The Agency Board, stakeholders, the Agency's consultant team and staff have worked for several months to develop a Sustainable Management Criteria (SMC) matrix, which will serve as the basis for preparing the Sustainable Management Plans. The purpose of the Special Board Meeting will be to receive comments from stakeholders, leading toward approval of a SMC matrix in March or early April 2021. Approval of the SMC in March or early April is critical to meeting the SGMA deadlines.

FISCAL IMPACT

There are no fiscal impacts.

ATTACHMENTS

Proposed Motion:

1st: Director _____

2nd: Director _____

Voice/Roll call vote: Director Kimball:

Director Long:

Director McFadden:

Director Meneghin:

Director Pace:

Director Villasenor: