

Merced GSP Joint Meeting of Coordination Committee & Stakeholder Advisory Committee

September 18, 2023

Meeting will begin at 10 am or a few minutes after – thank you
for joining us!

Merced Irrigation-Urban GSA
Merced Subbasin GSA
Turner Island Water District GSA-1

Image courtesy: Veronica Adrover/UC Merced

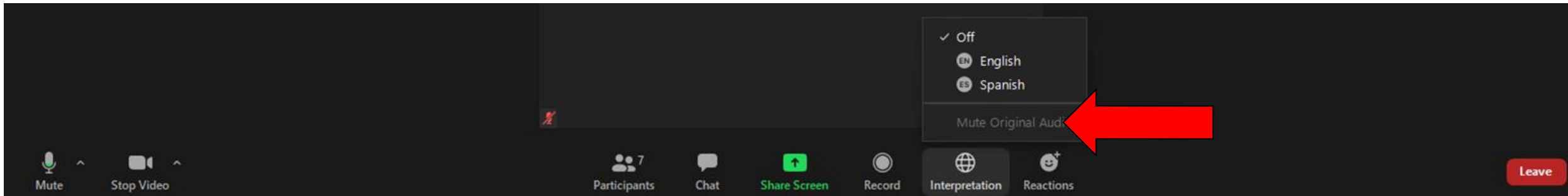
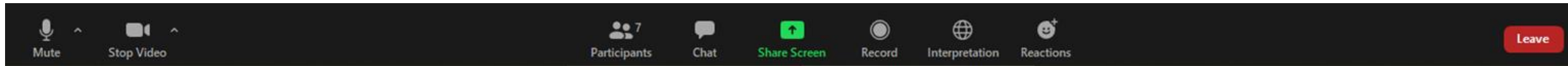


Welcome, Instructions for Zoom

Bienvenidos, Instrucciones para Zoom

We have two language audio channels available. English only speakers, please select English.

Si solamente habla español, debe seleccionar un canal de idioma



The meeting will have simultaneous interpreting, so you are welcome to comment in your native language.
La junta será interpretada simultáneamente, así que le invitamos a que haga comentarios en su lenguaje nativo.

Agenda

1. Call to Order and Welcome
2. Roll Call
 - a) Coordination Committee
 - b) Stakeholder Advisory Committee
3. Approval of May 24, 2023 Coordination Committee Meeting Minutes
4. Public Comment
5. Reports
6. Stakeholder Advisory Committee Membership Update
7. GSP 5-Year Update
8. Contracting Recommendations
9. Data Gaps Update
10. Next Steps and Adjourn

Image courtesy: Veronica Adrover/UC Merced

Coordination Committee Roll Call

Representative	GSA
Hicham ElTal	Merced Irrigation-Urban GSA
Stephanie Dietz	Merced Irrigation-Urban GSA
Justin Vinson	Merced Irrigation-Urban GSA
Daniel Chavez	Merced Irrigation-Urban GSA
Ken Elwin (<i>alternate</i>)	Merced Irrigation-Urban GSA
Mike Gallo	Merced Subbasin GSA
Nic Marchini	Merced Subbasin GSA
Eric Swenson	Merced Subbasin GSA
George Park (<i>alternate</i>)	Merced Subbasin GSA
Kel Mitchel	Turner Island Water District GSA #1
Tim Allan (<i>alternate</i>)	Turner Island Water District GSA #1

Image courtesy: Veronica Adrover/UC Merced

Stakeholder Advisory Committee Members

Committee Member	Interest/Affiliation	Alternate	Interest/Affiliation
Arlan Thomas	MIDAC member	Ben Migliazzo	Live Oak Farms
Bob Kelley	Stevinson Representative	Blake Nervino	Stevinson/Merquin
Breanne Ramos	MCFB		
Craig Arnold	Arnold Farms		
Darren Olguin	Resident of Merced County		
Dave Serrano	Serrano Farms - Le Grand		
David Belt	Foster Farms		
Emma Reyes	Martin Reyes Farm/Land Leveling		
Greg Olzack	Atwater Resident		
Jean Okuye	E Merced RCD		
Joe Sansoni	Sansoni Farms/MCFB		
Joe Scoto	Scoto Brothers/McSwain School Dist.		
Jose Moran	Livingston City Council		
Lacy Carothers	Cal Am Water		
Lisa Baker	Clayton Water District		
Lisa Kayser-Grant	Sierra Club		
Adam Malisch	UC Merced	Phillip Woods	UC Merced
Maxwell Norton	Unincorporated area		
Nav Athwal	TriNut Farms		
Olivia Gomez	Community of Planada		
Caitie Diemel	ESJWQC		
Darcy Brown	River Partners		
Rick Drayer	Merced/Mariposa Cattlemen		
Simon Vander Woude	Sandy Mush MWC		
Susan Walsh	City of Merced	Bill Spriggs	Resident City of Merced
Thomas Dinwoodie	Master Gardener/McSwain		
Trevor Hutton	Valley Land Alliance		
Wes Myers	Merced Grassland Coalition	Lou Myers	Benjamin Land LP



Approval of Meeting Minutes

Image courtesy: Veronica Adrover/UC Merced



Approval of Meeting Minutes

- May 24, 2023 (Coordination Committee)

Image courtesy: Veronica Adrover/UC Merced



Questions/Comments from Public:

For remote attendees, If you would like to make a comment, please type the comment in the chat or raise your hand to request to be taken off mute

Image courtesy: Veronica Adrover/UC Merced





Reports

Image courtesy: Veronica Adrover/UC Merced



GSA Reports

- Updates from each GSA on activities they are undertaking in their own jurisdiction:
 - Merced Subbasin GSA
 - Merced Irrigation-Urban GSA
 - Turner Island Water District GSA #1

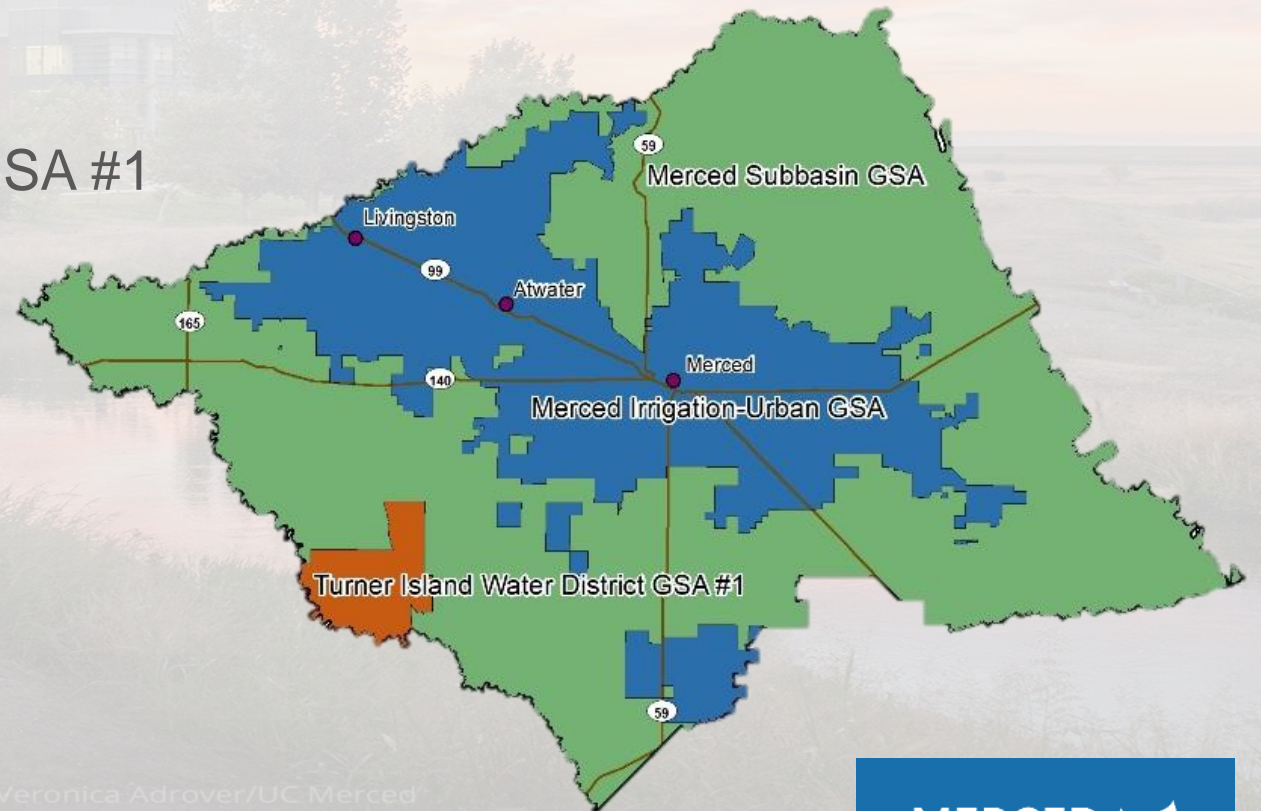


Image courtesy: Veronica Adrover/UC Merced

Current Conditions Report

(see separate companion slide deck)

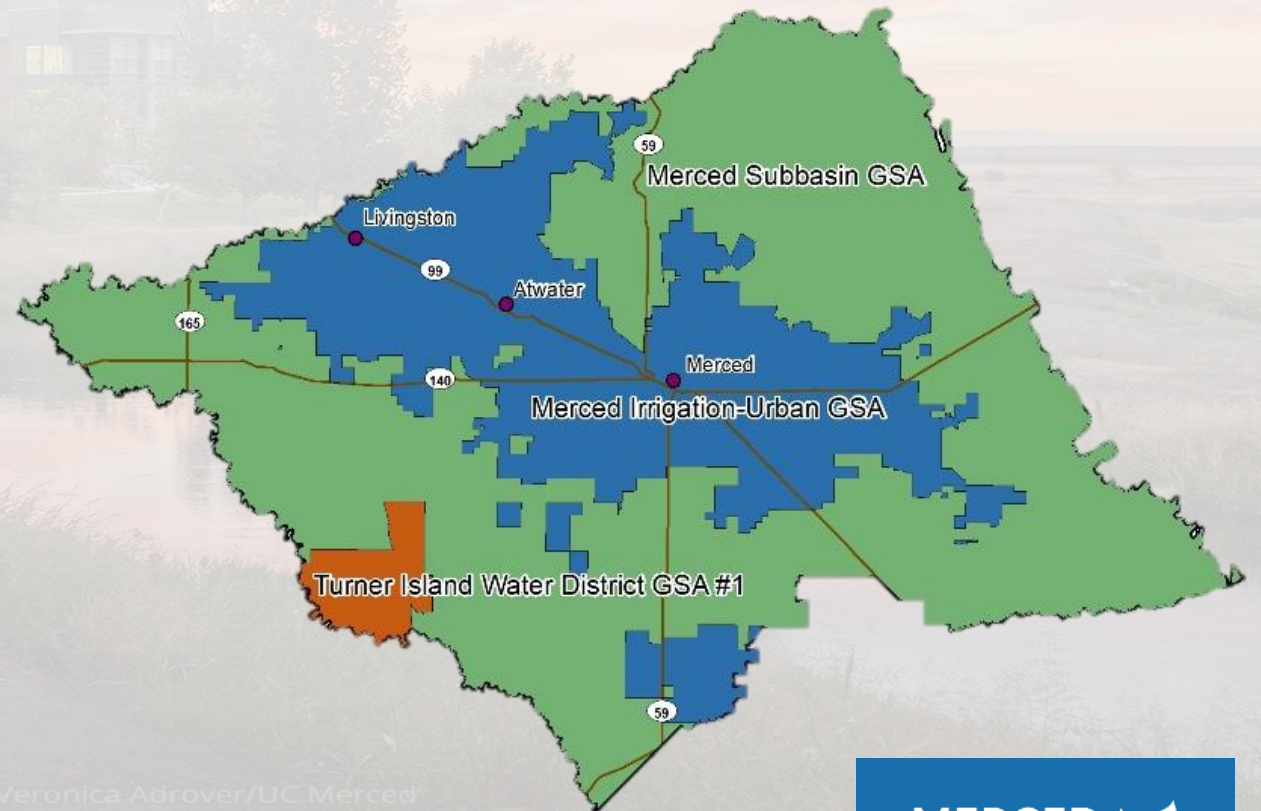


Image courtesy: Veronica Adrover/UC Merced



Stakeholder Advisory Committee Membership Update

Image courtesy: Veronica Adrover/UC Merced





GSP 5-Year Update

Image courtesy: Veronica Adrover/UC Merced



Periodic Evaluation – Required by Regulation

- § 356.4 Periodic Evaluation by Agency
 - “Each Agency shall evaluate its Plan at least every five years...and describe whether the Plan implementation, including implementation of projects and management actions, are meeting the sustainability goal in the basin...”
 - Groundwater conditions
 - Implementation of projects/management actions & effect on groundwater conditions
 - Evaluation of basin setting in light of significant new information or changes in water use
 - Update on data gaps
 - (and more)
- § 355.6 Periodic Review of Plan by Department
 - Periodic review to ensure remains consistent with SGMA and is being implemented in a manner that will likely achieve the sustainability goal for the basin.

Image courtesy: Veronica Adrover/UC Merced

Timeline Overview

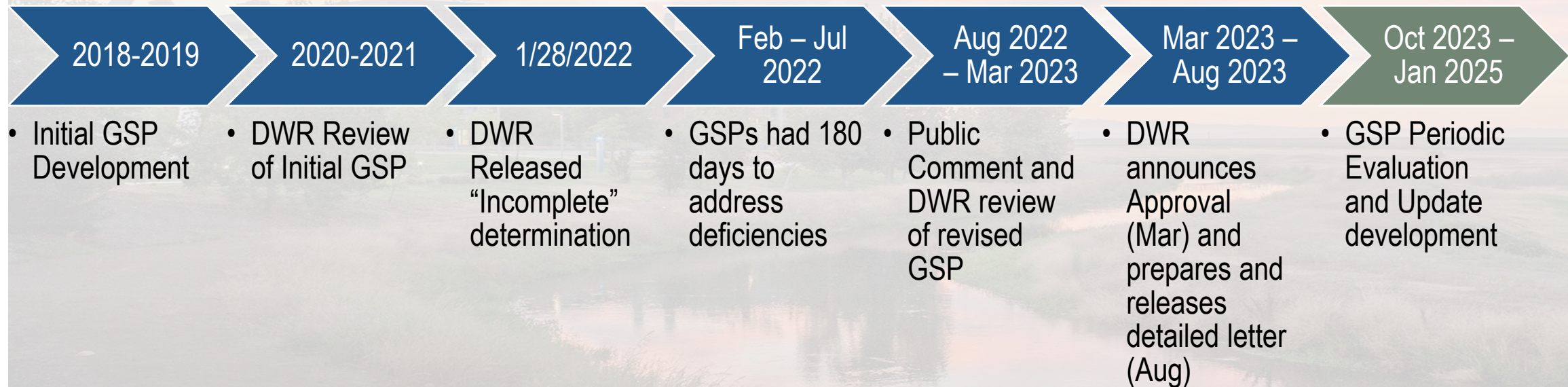


Image courtesy: Veronica Adrover/UC Merced

Summary of Recommended Corrective Actions

- Actions DWR “believes will enhance the GSP and facilitate future evaluation” by DWR.
- “Strongly encourages [that they] be given due consideration and suggests incorporating all resulting changes to the GSP in the future.”

1. Implement Domestic Well Mitigation Program and evaluate water quality impacts from continued overdraft
2. Evaluate potential domestic wells impacts from continued overdraft
3. Identify total cumulative subsidence tolerable by critical infrastructure; revise definition of level of uncertainty
4. Investigate wells pumping from below the bottom of the basin
5. Establish SMC for groundwater storage
6. Explain/justify selection of SMC for WQ
7. Work towards SMC for interconnected surface waters
8. Fill data gaps for groundwater levels monitoring network
9. Explain how the timing and benefits of PMAs will reach sustainability by 2040

1 - Implement Domestic Well Mitigation Program and evaluate water quality impacts from continued overdraft

- More details to be added about implementation of Domestic Well Mitigation Program (e.g., programs implemented by other subbasins)
- Evaluation of impacts of groundwater quality due specifically to lowering of groundwater levels through the interim milestones

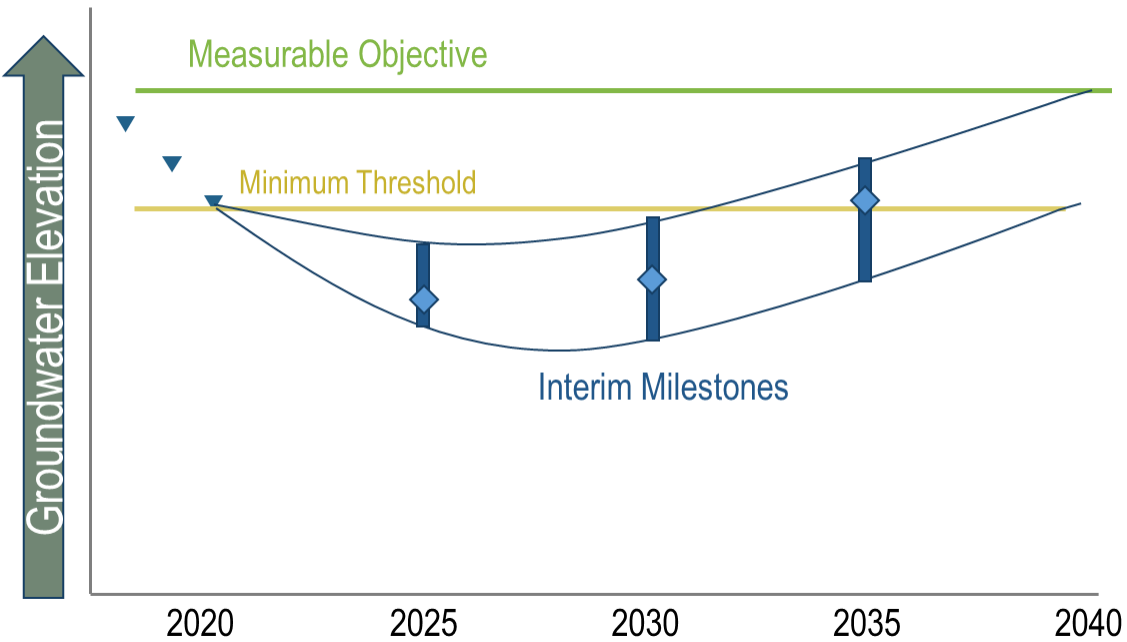
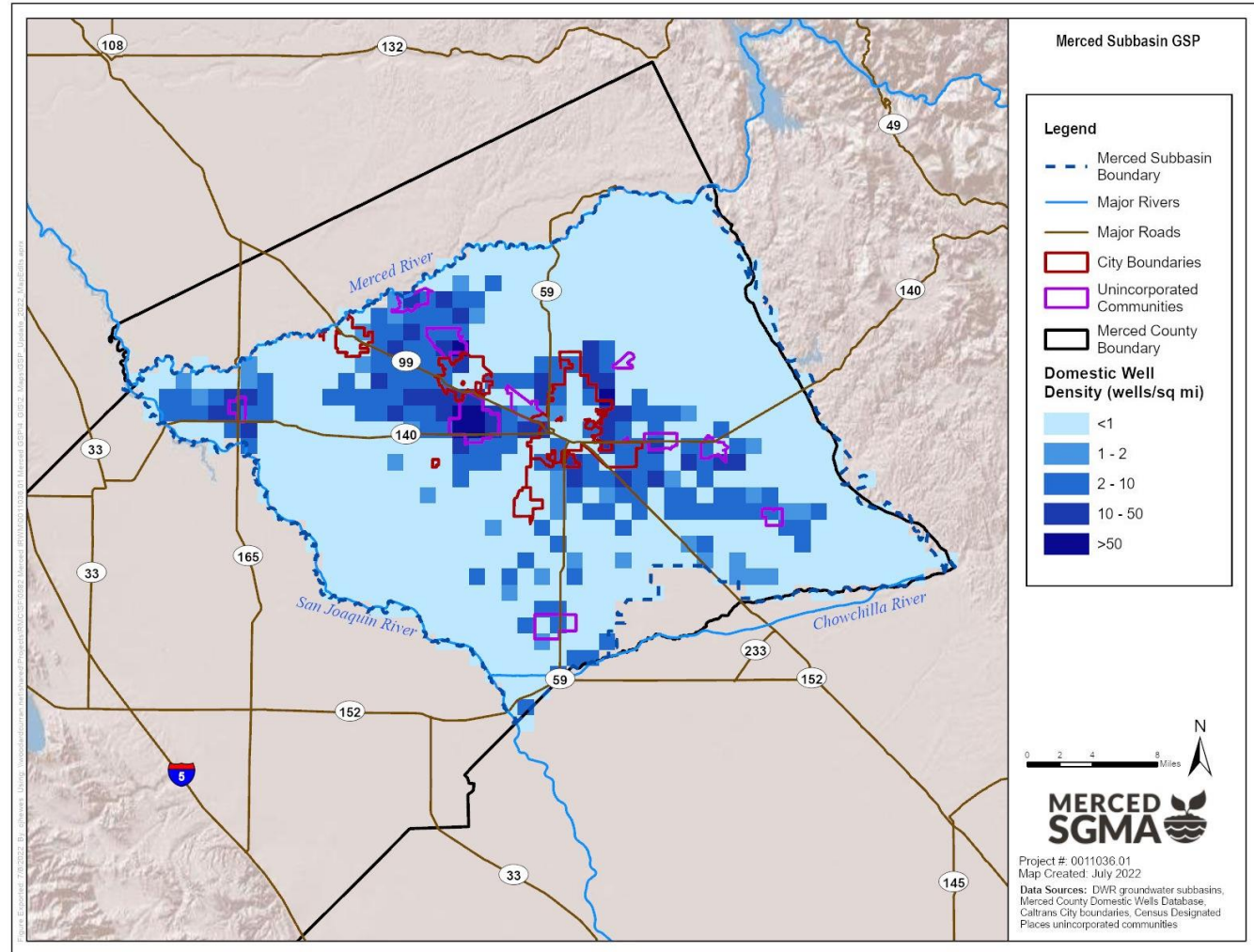


Image courtesy: Veronica A

2 - Evaluate potential domestic wells impacts from continued overdraft

- Look at potential impacts to domestic wells due to lowering groundwater levels at each interim milestone

GSP Figure 1-9: Density of Domestic Wells per Square Mile



3 - Identify total cumulative subsidence tolerable by critical infrastructure; revise definition of level of uncertainty

- Develop additional text outlining the impacts of subsidence on land uses and groundwater beneficial uses and users
- Consider modifications to components of the sustainability management criteria related to uncertainty

Current GSP:

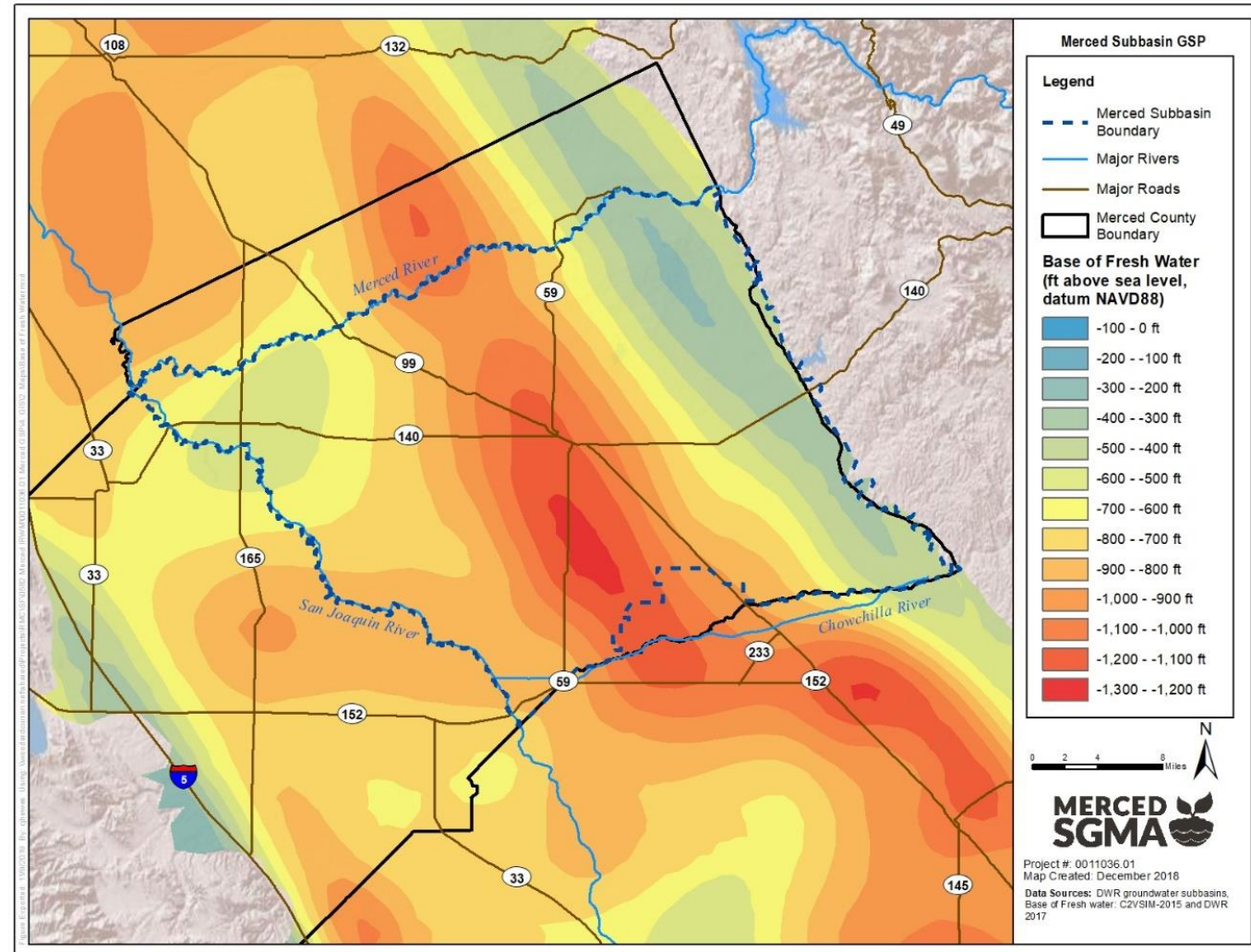
The land subsidence minimum threshold is set at a rate of 0 ft/year. However, compliance with this threshold will take into consideration the level of uncertainty in the measurements. The survey measurements have a vertical accuracy of +/-2.5 centimeters (Reclamation, 2011). With two measurements (before and after), the total uncertainty in the subsidence value is 5 centimeters, or approximately -0.16 ft/year. Subsidence of less than -0.16 ft/year (values that are less negative) are within the uncertainty of the measurement and would be considered compliant with the minimum threshold of 0 ft/year.

4 - Investigate wells pumping from below the bottom of the basin

From GSP:

- *“A well depth analysis...found that, based on information in Merced County’s well permit database, 56 wells (approximately 4% of wells with data) extended below the bottom of the basin...primarily located along the central portion of the County just east of the San Joaquin River...The quality of water produced from these wells is not known, and no data are available to show that the wells are actively used.”*

GSP Figure 2-28: Base of Fresh Water



5 - Establish sustainable management criteria for groundwater storage

SGMA does not require criteria if undesirable results “are not present and are not likely to occur”

Current GSP:

- *45 million acre-feet (MAF) of fresh groundwater storage as of 2015*
- *Long-term cumulative change in storage (including representative dry and wet years) reflects a rate of overdraft of approximately 0.3% per year.*
- *“It is not reasonable to expect that the available groundwater in storage would be exhausted.”*

Proposed approach for GSP 5-Year Update:

- Discuss possibility of adding groundwater levels a proxy for groundwater storage at a future meeting or proceeding with current approach.

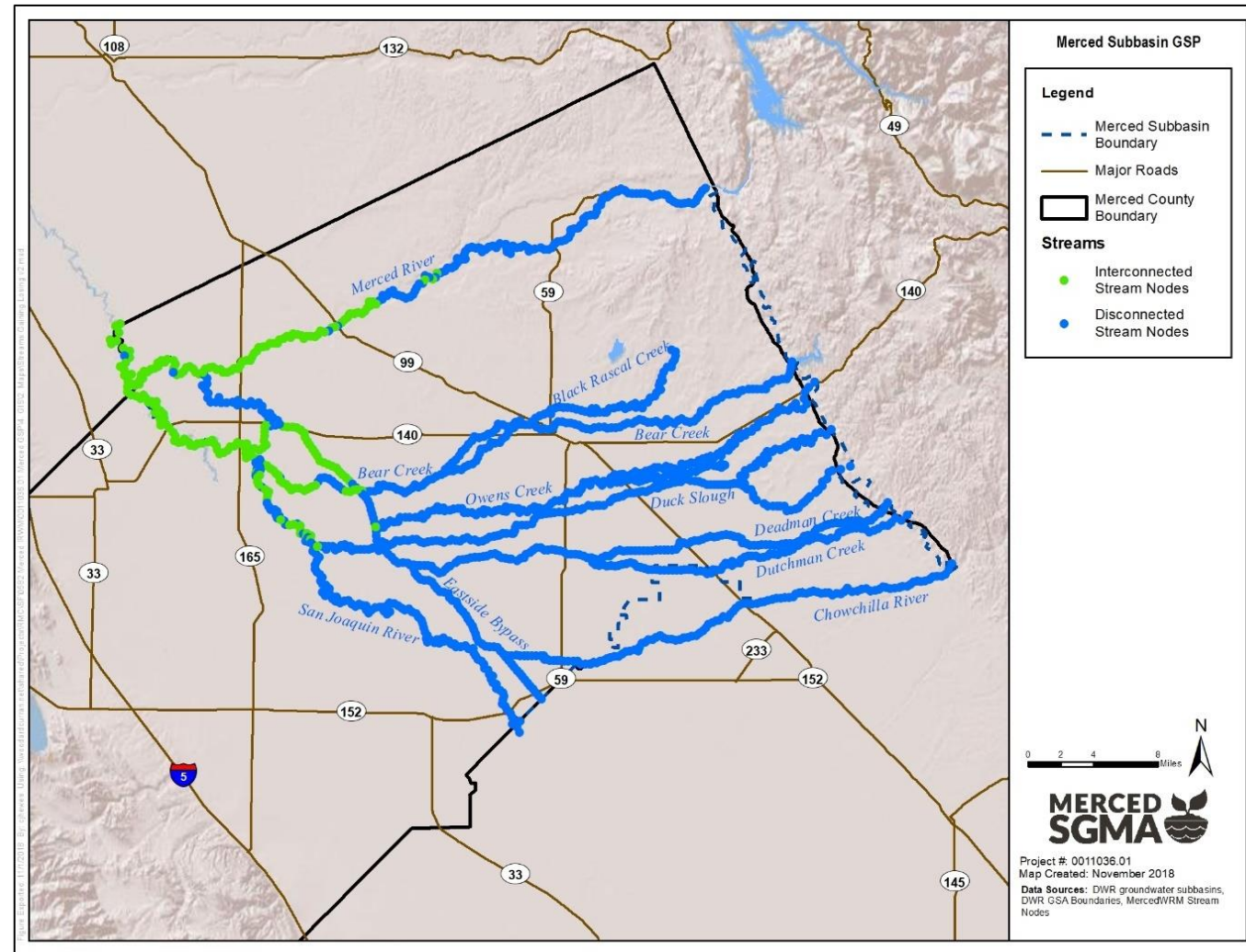
6 - Explain/justify selection of sustainable management criteria for water quality

- Develop contour or point maps of the latest (likely 2018-2023 observations) groundwater quality constituents (Current Conditions Section of GSP)
- Compare to treatment of water quality in neighboring subbasins for CC/SAC background
- Will provide additional justification and explanation for how water quality constituents of concern, other than TDS, will be managed and monitored and if impacts to beneficial uses and users will be addressed.
- Will develop additional detail related to selection of existing TDS water quality SMC.

7 - Work towards SMC for interconnected surface waters

- DWR anticipated to release guidance on establishment of sustainable management criteria for interconnected surface water depletions
- Hold facilitated meeting with individuals from agencies like California Department of Fish and Wildlife, US Fish and Wildlife Service, NOAA Fisheries, Department of Water Resources, US Bureau of Reclamation, The Nature Conservancy, and Audubon Society.

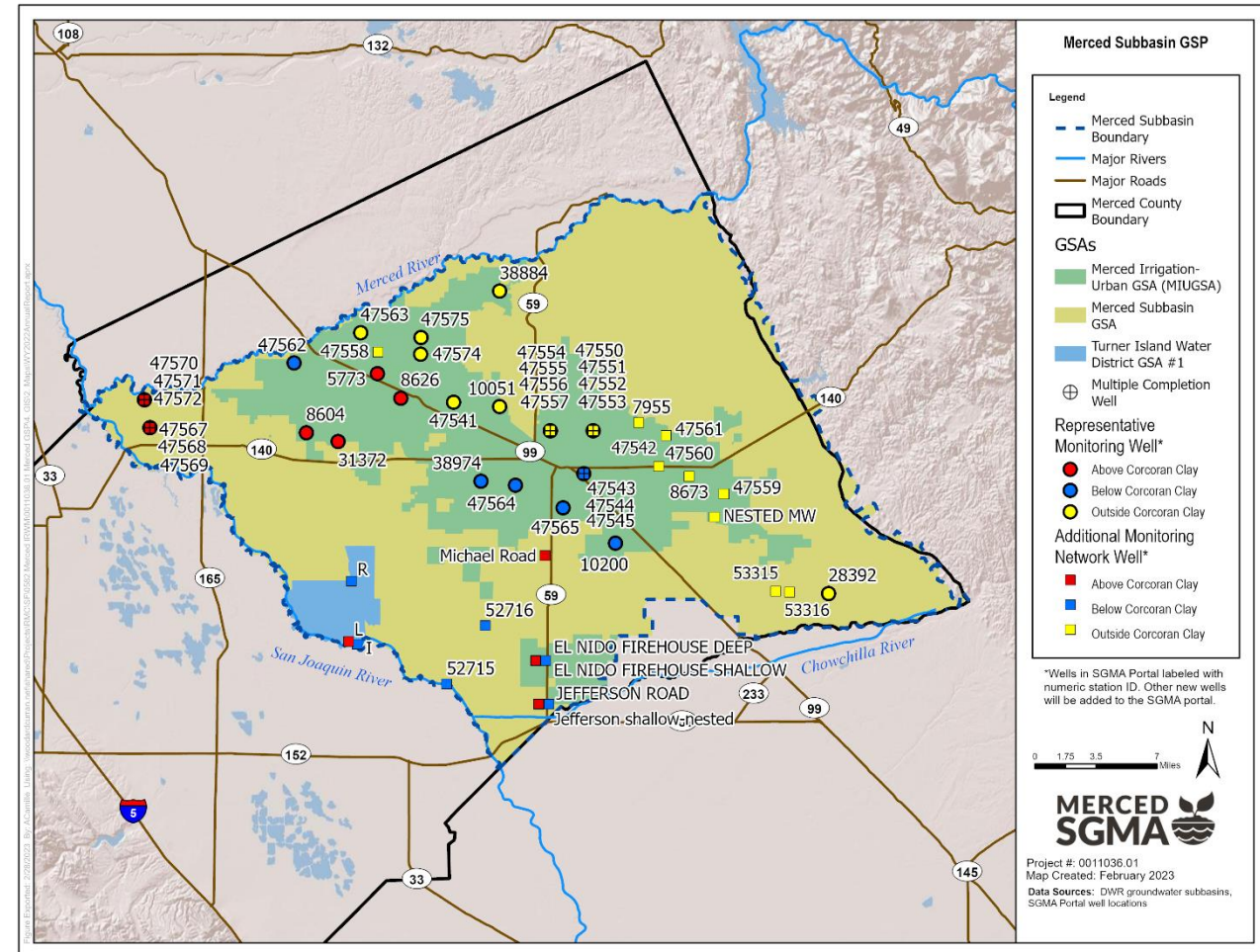
GSP Figure 2-10: Interconnected and Disconnected Streams



8 - Fill data gaps for groundwater levels monitoring network

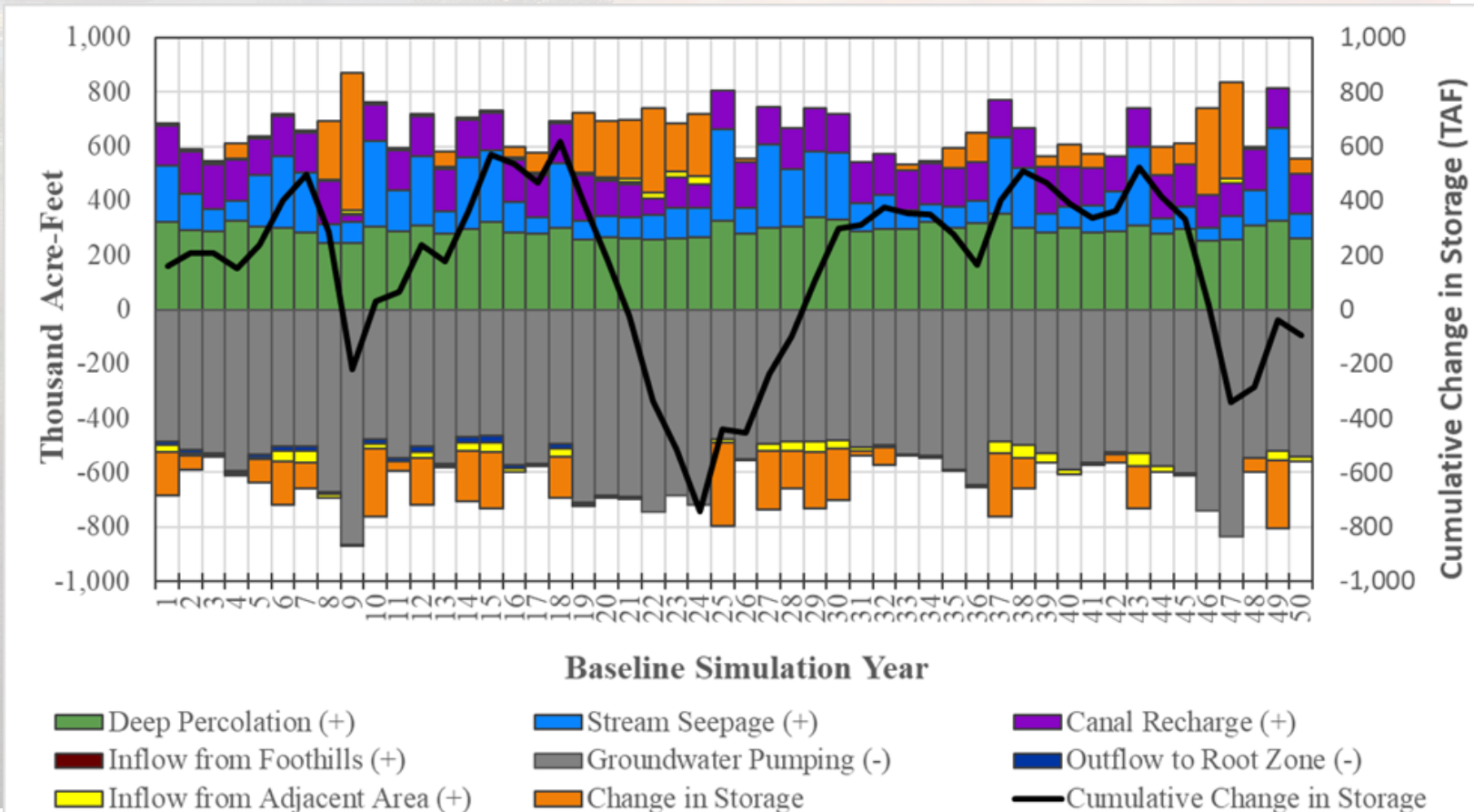
- Update the monitoring network with newest set of existing identified and newly installed wells
- Currently working on re-running the data gaps plan model for spatial well distribution to identify additional remaining targeted sites

Groundwater level monitoring network from Water Year 2022 Annual Report



9 - Explain how the timing and benefits of Projects & Management Actions (PMAs) will reach sustainability by 2040

- Merced Water Resources Model (MercedWRM) will be used to simulate the impact of PMAs on their proposed timeline



GSP Figure 2-108: Groundwater Water Budget under Sustainable Groundwater Management Conditions Long-Term (50-Year Annual)

6 CC/SAC Meetings Planned for late 2023 – mid/late 2024

1. Updates to sustainable management criteria (SMC), including consideration of the storage sustainability indicator, consideration of revision of the groundwater quality SMC, and consideration of additional representative monitoring wells for the groundwater level sustainability indicator.
2. Updates to basin conditions, including, as appropriate, incorporation of AEM data, recently collected groundwater level data, recently performed groundwater quality sampling, and consideration of refinement of the characterization of depletions of interconnected surface water.
3. Second meeting on SMCs. Updates to water budgets and sustainable yield.
4. Second meeting on water budgets and sustainable yield. Outcomes of the with-PMAs modeling scenario.
5. Updates to project and management actions and implementation, including development of a living-list of PMAs with an approach for submittal and approval.
6. Review of draft GSP

Image courtesy: Veronica Adrover/UC Merced



Contracting Recommendations

Image courtesy: Veronica Adrover/UC Merced

Merced GSP 5-Year Update

Includes:

- Periodic Evaluation
- GSP 5-Year Update
- 1 year of CC/SAC meetings
- 2 public workshops
- MercedWRM update
- Water Year 2023 Annual Report
- Optional:

- Additional analysis for GDEs, Interbasin Conditions, and Aquifer Systems
- Data Management System Upgrade

Total Budget (without optional tasks): \$891,900

Total Budget (with optional tasks): \$1,007,945

Schedule:

- Oct 2023 – Sept 2024: Plan update and ongoing outreach
- Oct – Nov 2024: Public comment
- Dec 2024 – Jan 2025: GSA Adoption

Image courtesy: Veronica Adrover/UC Merced

Merced GSP 5-Year Update

Recommendation: Negotiate and enter into contract with W&C for completing work related to the Merced GSP 5-Year Update

Image courtesy: Veronica Adrover/UC Merced

Merced Subbasin Integrated Managed Aquifer Recharge Evaluation Tool (MercedMAR)

- Grant Funded, under 2021 SGMA Implementation Round 1 (\$725,000)

Tasks and Schedule:

- Enhance MercedWRM: October 2023-December 2024
- Expand GRAT to the Merced Subbasin: October 2023-August 2024
- Integrate GRAT and MercedWRM and Build a Data Visualization Platform: April 2024-April 2025

Recommendation: Negotiate and enter into contract with W&C for completing work related to the Merced Subbasin Integrated Managed Aquifer Recharge Evaluation Tool

Image courtesy: Veronica Adrover/UC Merced

Monthly Groundwater Level Monitoring

- MIUGSA solicited bids from local contractors to collect groundwater level measurements for a period of one year at existing monitoring sites.
- Received 5 responses.
- Bids ranged from \$18,460 - \$50,300.

Recommendation: MIUGSA to provide notice of award, and to negotiate and enter into contract with lowest bidder.

Image courtesy: Veronica Adrover/UC Merced

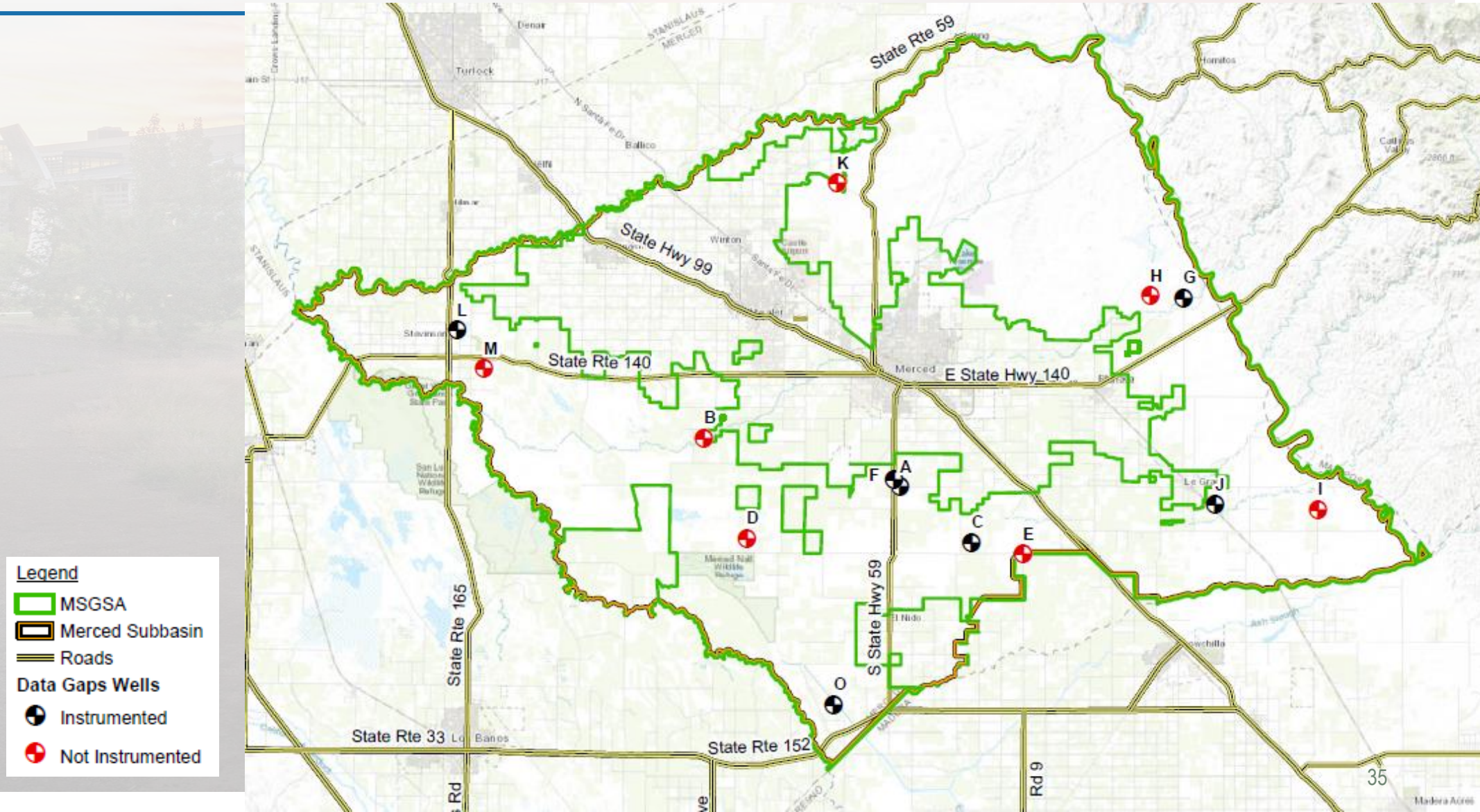


Data Gaps Update

Image courtesy: Veronica Adrover/UC Merced



MSGSA Newly Instrumented Wells





Next Steps

Image courtesy: Veronica Adrover/UC Merced



What's coming up next?

- Begin developing periodic evaluation and update
- Coordinate on locations for filling data gaps (including current funding and TSS service request)
- Continue implementing grant-funded projects
- Continue implementing GSP
- Adjourn to next meeting: date to be determined

Image courtesy: Veronica Adrover/UC Merced

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