

Merced GSP Coordination Committee Meeting

January 24, 2024

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

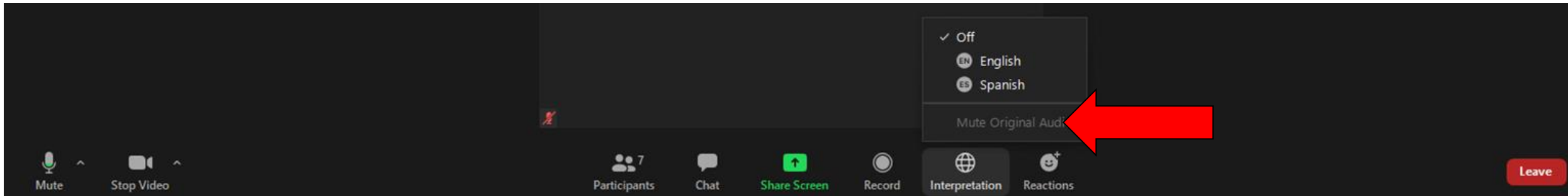
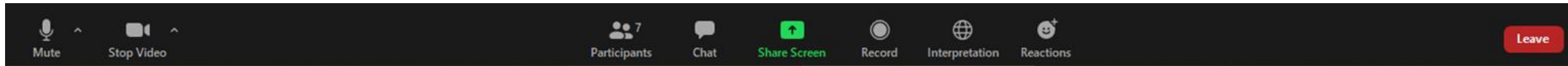


Welcome, Instructions for Zoom

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
3. Approval of Meeting Minutes
4. Public Comment
5. 2024 Rural Communities Water Managers Leadership Institute Introduction (Self-Help Enterprises)
6. Reports
7. Discussion about 1/23/24 Merced County Board of Supervisors Meeting Considering Amendment to Merced County's Groundwater Ordinance Export Policy
8. Inelastic Land Subsidence Discussion
9. Minimum Data Standards for Groundwater Levels
10. Next Steps and Adjourn

Image courtesy: Veronica Adrover/UC Merced

Coordination Committee Roll Call

Representative	GSA
Hicham ElTal	Merced Irrigation-Urban GSA
Scott McBride	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



Approval of Meeting Minutes

Image courtesy: Veronica Adrover/UC Merced

Approval of Meeting Minutes

- May 24, 2023
- September 18, 2023
- November 29, 2023

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



2024 Rural Communities Water Managers Leadership Institute Introduction (Self-Help Enterprises)

Image courtesy: Veronica Adrover/UC Merced



COMMUNITY ENGAGEMENT LEADERSHIP INSTITUTE 2024

Sue Ruiz
Adriana Becerra

SELF HELP ENTERPRISES

INTRODUCTION

SHE has been preparing and delivering Leadership Institutes in the Central Valley since 2013, increasing the capacity of rural community leaders to ensure their communities have safe and reliable water sources.

LI graduates are *ready* to more intentionally and effectively engage in regional water management decision making processes.

Water agencies are *required* to conduct “community engagement”.

It’s time to bridge the gap between community voices and their agencies.

Community Engagement Leadership Institute 2024 will provide tools, space, and place for this to take place.



*Learn with and from each other
Define our common goal
Achieve it*

LI GOALS

- Increase community leaders' knowledge about water sources and management in their region
- Increase water management agencies' knowledge and ability to connect with their communities
- Develop working relationships between communities and the agencies who manage their water
- Increase **sustained** community engagement in the water management decision making processes

COMMUNITY ENGAGEMENT LI 2024

	Spring	Summer	Fall
March 16 9:30-3:30	<u>Water Leaders Kick Off</u> The players, what they do, and why engage		
April 19 9:30-3:30	<u>Water 101</u> UC Merced Vernal Pools		
May 17 8:00-5:00	<u>Spring Watershed Tour</u> From the source to the Valley		
June thru August	<u>Focus Groups</u> Individual communities and agencies engaged		
September TBD 9:30-3:30			<u>Working together</u> Consensus Building toward a specific project or goal
October TBD 8:00 – 5:00			<u>Fall Watershed Tour</u> Water use in the Valley
November TBD			<u>Wrapping Up/Graduation</u> Agency & Community Plan

Define Community

Neighbors, friends, family

Not always geographic; can be around a specific topic or goal

Common lived experiences

The SJV!!!!

Define Engagement

Empowered voices in the space created

Putting yourself in others' shoes

Teaching and learning together

Working together for a common cause

Challenges

Communities:

Language barriers

Uncomfortable "formal" spaces

Lack of technical knowledge

Agencies:

Knowing who to connect with and how

Lack of data to provide real solutions

Getting people to respond/engage

Unrealistic guidelines imposed on available services

FROM THEIR VOICES.... COMMUNITY AND AGENCY MEMBERS.....

Potential Solutions

Communities:

Paid part time Community Navigators

Develop community member skills that already exist in the community

Create *informed* advocacy at the community level

Develop *partners* not just recipients of services and grants

Agencies:

Recognize this is something we have to do...and do it

Engage people early in the processes (before actions)

Create safe physical, less formal, spaces

Partner with other agencies

Fund Community Navigators; point persons within communities

THE PARTICIPANTS



Community
Members



Agency Staff



NGO Staff



YOU!

HOW TO BECOME INVOLVED

PROMOTING	SIGN UPS	COST & STIPENDS	COMMITMENT	LAUNCH
Flyers, Meetings, Word of mouth, Social Media	Individual community members and agency members register on SHE website.	No cost to participants. Funded by various Federal and Foundational funders. Community members can receive a Stipend.	Participants are expected to commit to ensure best relationship building, capacity building, and results.	Apply on SHE's website: https://bit.ly/SHELeadershipInstitute

SUMMARY



The majority of San Joaquin Valley residents desire to preserve the Agriculture based way of life we value. Rural community leaders want to engage with those making decisions about life sustaining water.

Community Engagement Leadership Institute 2024 is a first-time opportunity for Community members and Agency members to come into a "safe place and space" to collectively identify common goals and a path to reach those goals.

Recruitment and engagement of the right participants is key.

Both community members and agency members must sacrifice and commit to make this happen. But it will be worth it.



THANK YOU

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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

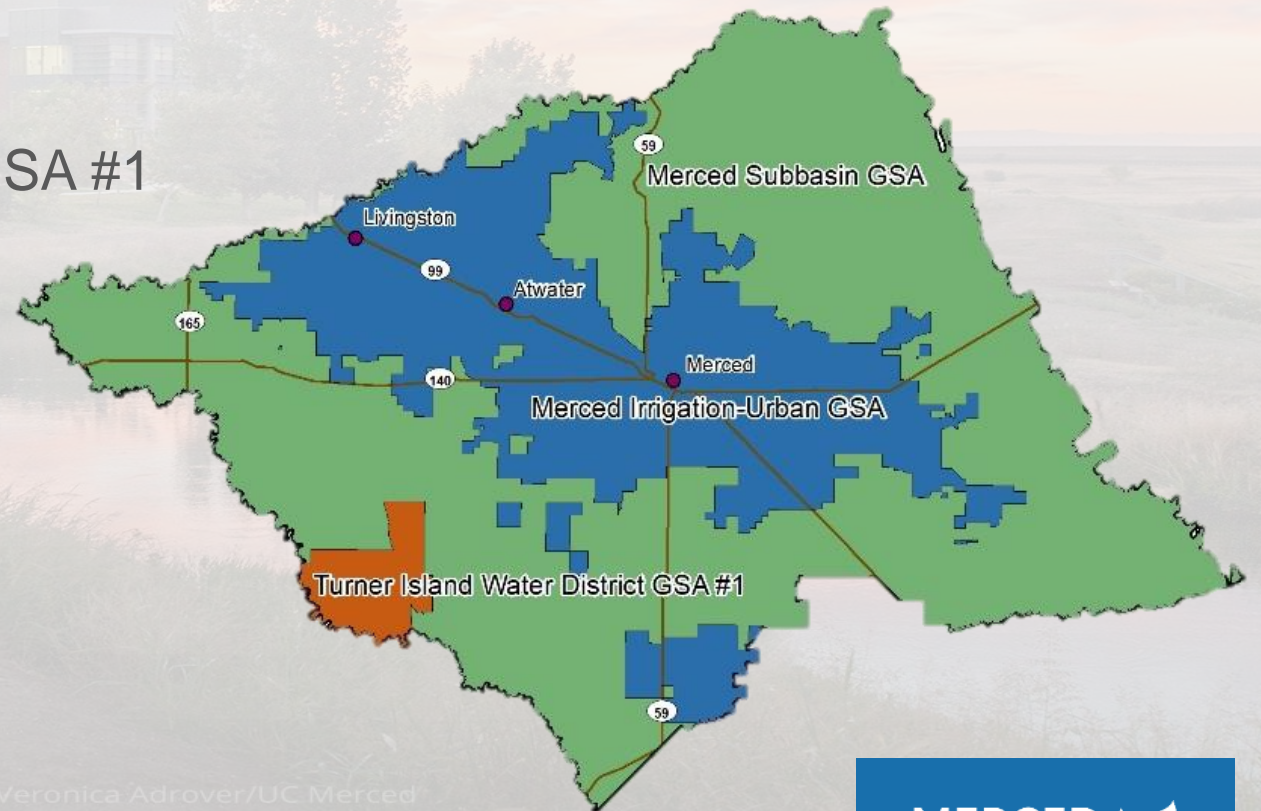


Image courtesy: Veronica Adrover/UC Merced

Current Conditions Report

See separate slide deck

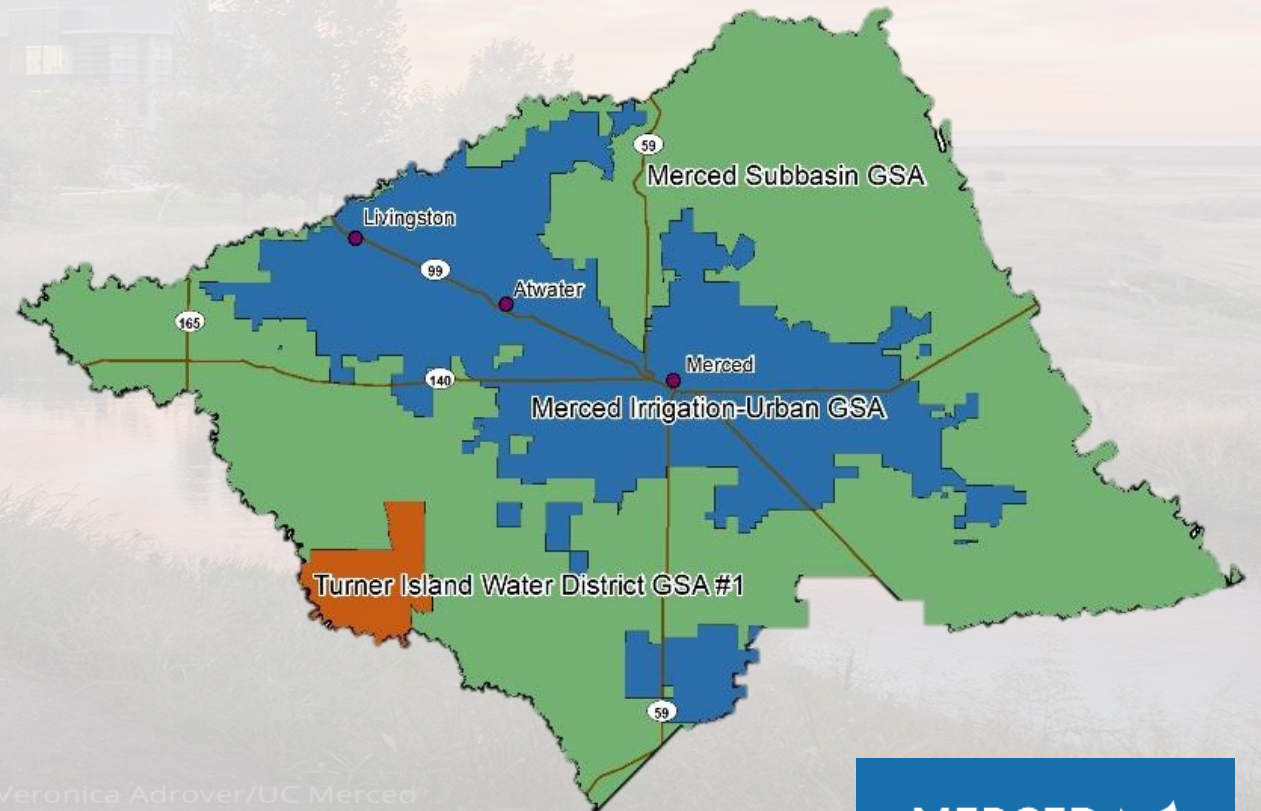


Image courtesy: Veronica Adrover/UC Merced



Discussion about 1/23/24 Merced County Board of Supervisors Meeting Considering Amendment to Merced County's Groundwater Ordinance Export Policy

Image courtesy: Veronica Adrover/UC Merced





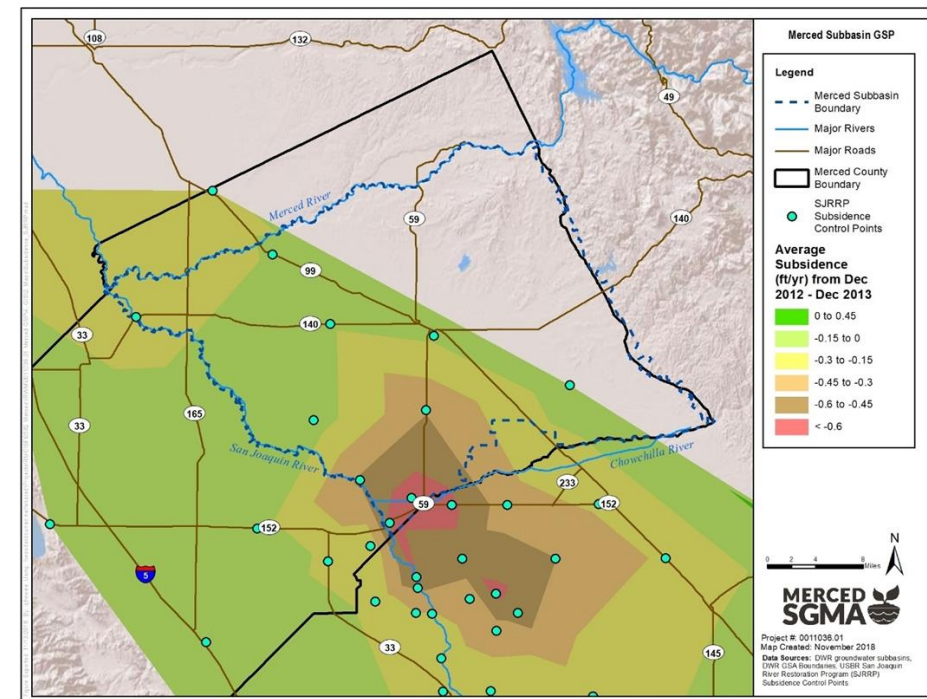
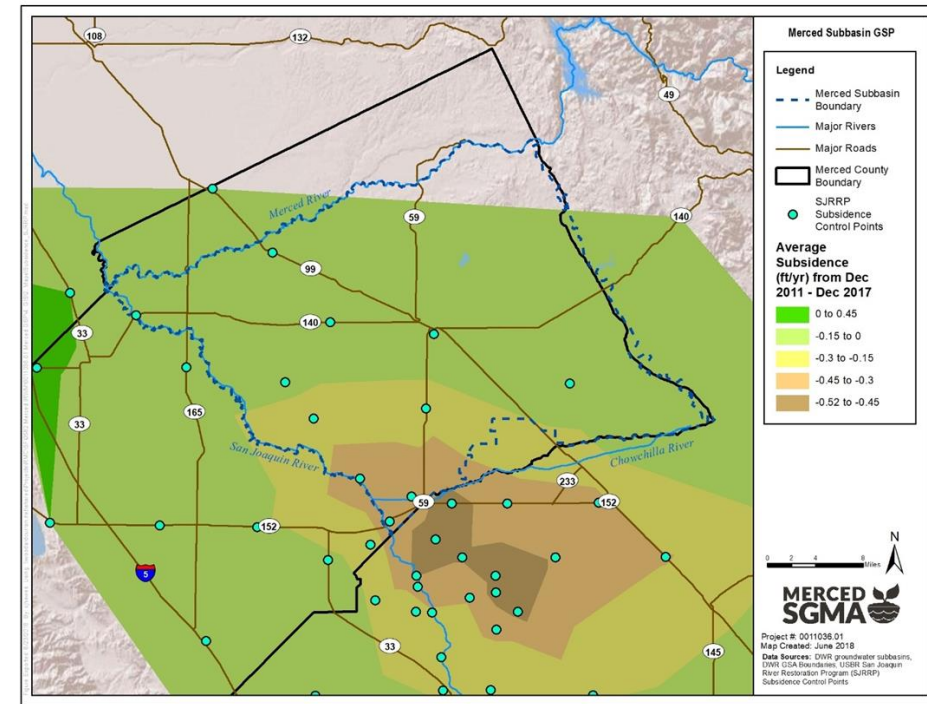
Inelastic Land Subsidence Discussion

Image courtesy: Veronica Adrover/UC Merced

Land Subsidence Conditions

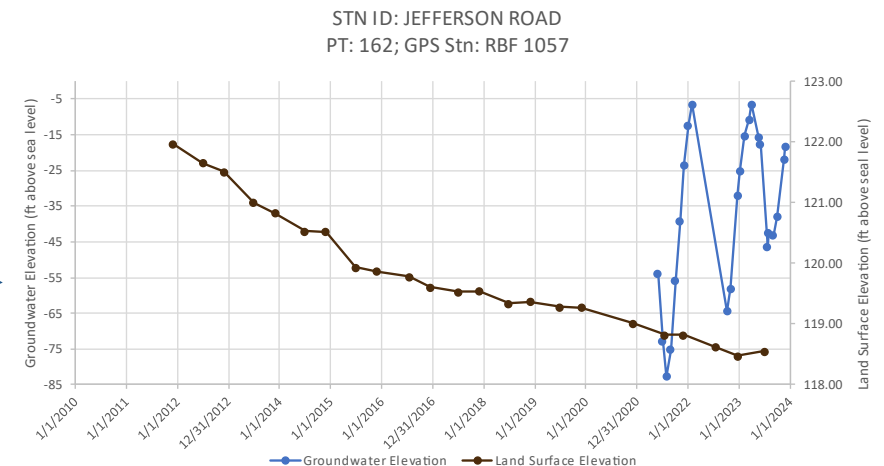
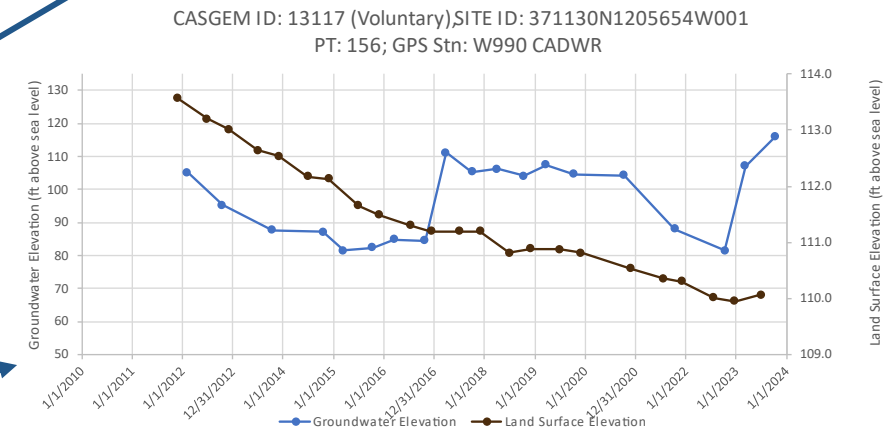
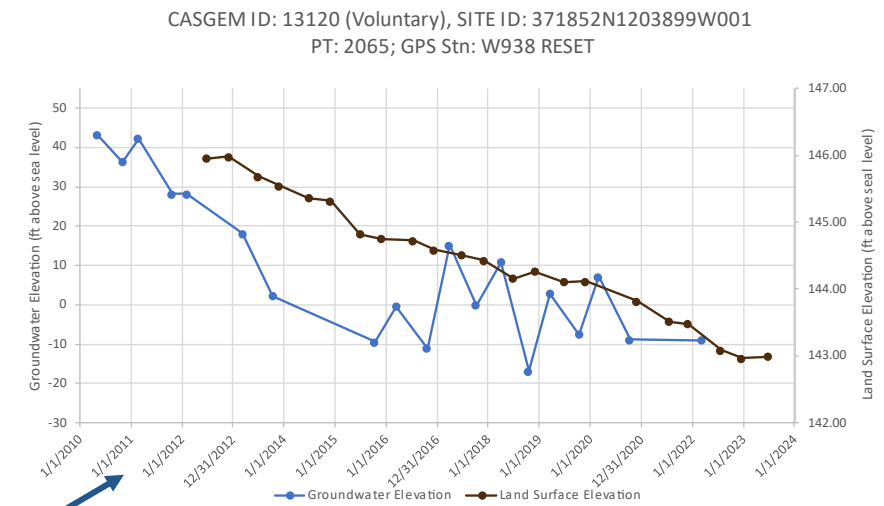
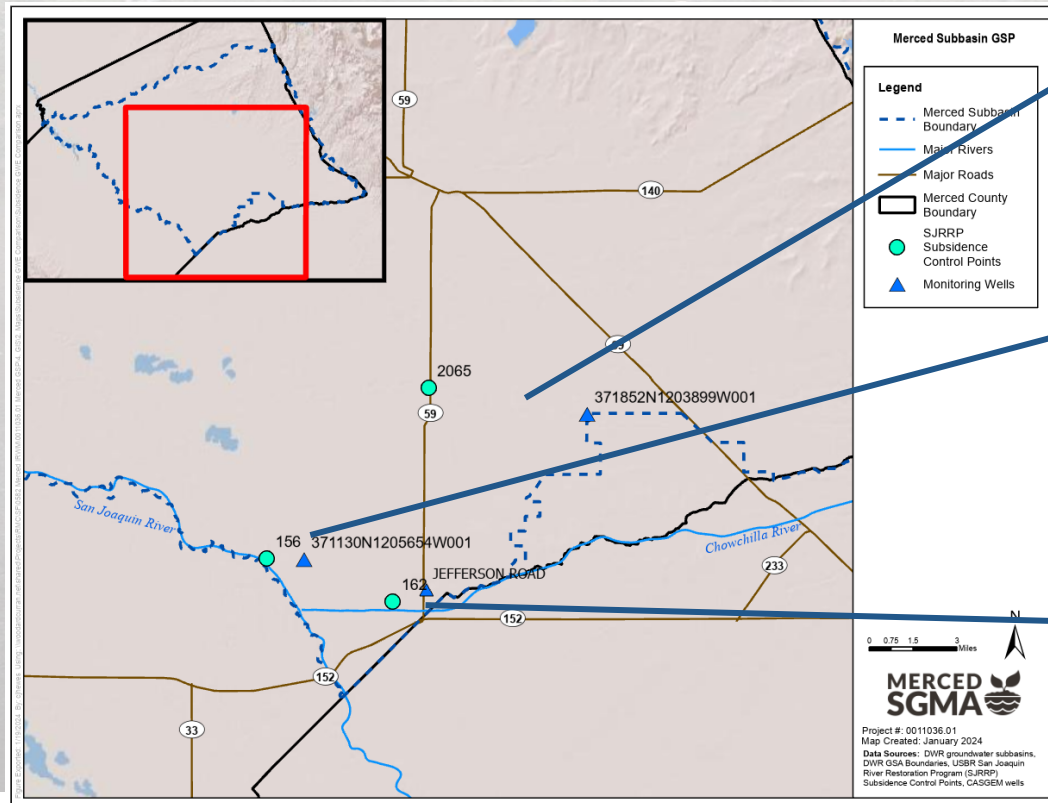
- Subsidence has been observed in the southwestern portion of the Subbasin near the San Joaquin River
- Subsidence averaged 0.45 feet annually (December 2011 – December 2017), with the greatest rates observed during periods of drought
- MORE RECENT SUBSIDENCE
 - Dec 2017 – Dec 2022: 0.28 ft/year
 - Dec 2021 – Dec 2022: 0.42 ft
 - July 2022 – July 2023: 0.08 ft
- No undesirable results have been reported; however, impacts were observed along the Eastside Bypass and within El Nido

Image courtesy: Veronica Adrover/UC Merced



Land Subsidence Conditions (cont.)

- Mixed relationship between groundwater levels and subsidence
- Groundwater level rise is expected to minimize subsidence, however it is not anticipated to fully prevent subsidence



Subbasin Land Subsidence Conditions – Sustainable Management Criteria

- Undesirable Result Definition: *Significant and unreasonable reduction in the viability of the use of infrastructure over the planning and implementation horizon of this GSP. Land subsidence that substantially interferes with surface land uses causes damage to public and private infrastructure (e.g., roads and highways, flood control, canals, pipelines, utilities, public buildings, residential and commercial structures).*
- Minimum threshold: *0 ft/yr (uncertainty measurement of ± 0.16 ft/yr would be compliant)*
- Measurable Objective: *0 ft/yr*
- Interim Milestones:
 - *2025: 0.75 ft/yr*
 - *2030: 0.5 ft/yr*
 - *2035: 0.25 ft/yr*

Image courtesy: Veronica Adrover/UC Merced

DWR Evaluation of Approved GSP - Recommended Corrective Actions

- (3a) The GSAs should identify the **total cumulative subsidence tolerable by critical infrastructure**. The Plan should also include additional details describing measures that **consider and disclose the current and potentially lasting impacts of subsidence** on land uses and groundwater beneficial uses and users.
- (3b) The GSAs should **revise its application of the level of uncertainty** as it relates to subsidence measurements according to standard professional practices. Establishment of sustainable management criteria should not allow for subsidence in perpetuity.

Image courtesy: Veronica Adrover/UC Merced

Considerations for SMC Modifications

- GSP was approved.
- Recommended Corrective Actions are important; however, we feel the approach in the GSP satisfies SGMA requirements and revisions to the Amended GSP are expected to be relatively minor
- Build upon previous work where possible. Avoid dramatic changes in approach unless warranted to allow focus on implementation rather than planning
- Chose simplicity where possible, complexity when necessary
- Push back where appropriate, based on local planning needs and SGMA regulations

Image courtesy: Veronica Adrover/UC Merced

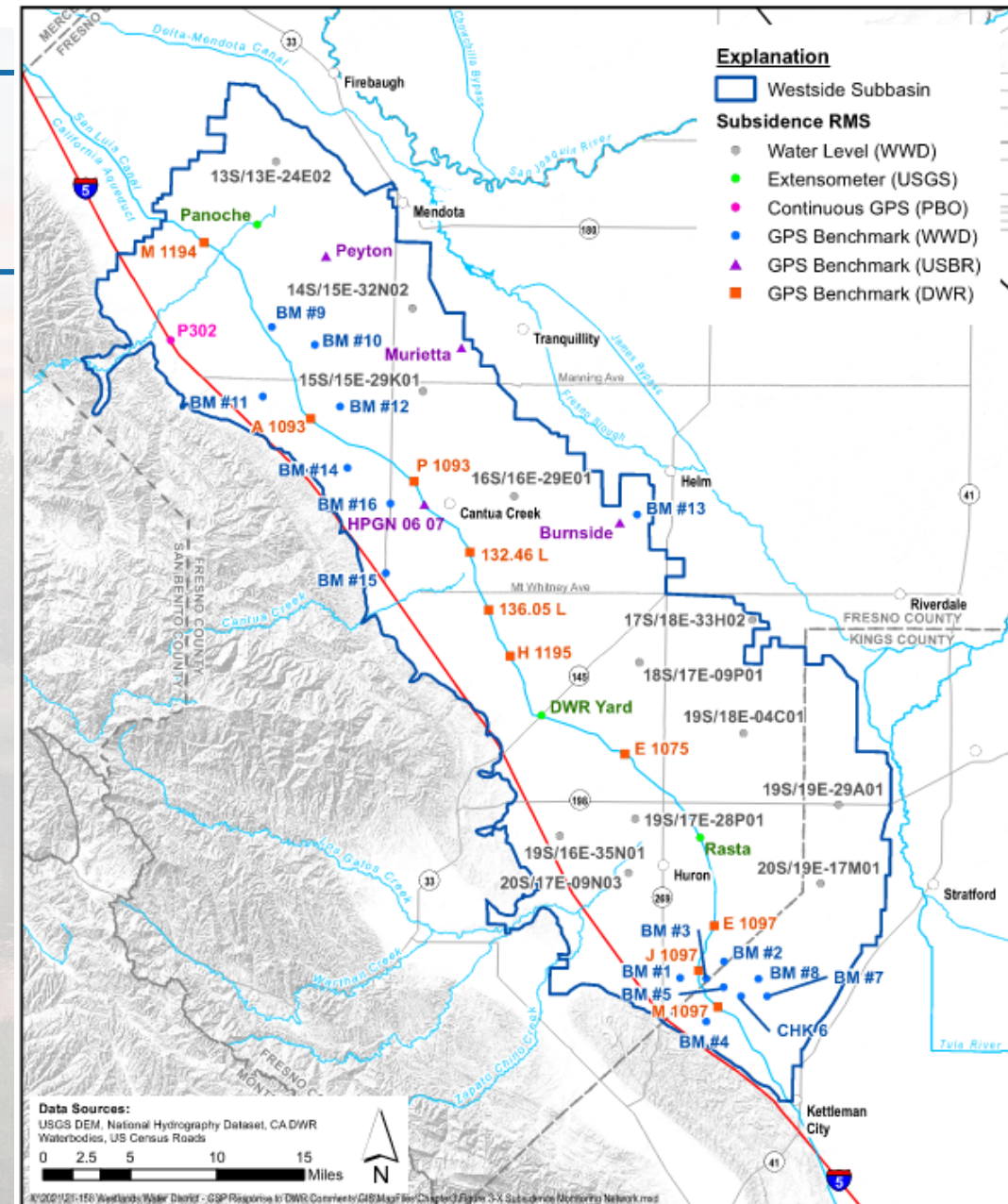
Subsidence SMC Options

- Use existing approach, refined to clarify potential impacts of subsidence and treatment of uncertainty
- Modify approach, considering approaches from other subbasins. Examples today:
 - Westside Subbasin
 - Kings Subbasin
- Regardless of SMC approach, action will be required to stop subsidence

Image courtesy: Veronica Adrover/UC Merced

Westside Subbasin Approach

- Split approach
 - Areas near sensitive San Luis Canal vs other areas
 - Subsidence monitoring and groundwater level monitoring
 - Subsidence rates and cumulative subsidence



Representative Monitoring Sites for Land Surface Subsidence

Figure 3-3

Westside Subbasin Approach

■ Undesirable Result Definitions

- *Adjacent to SLC: The annual rate of subsidence or compaction at three GPS benchmarks or extensometers exceeds the annual rate minimum threshold for two or more consecutive years and the cumulative total amount of subsidence or compaction at any GPS benchmark or extensometer exceeds the cumulative minimum threshold.*
- *Outside SLC: The annual rate of subsidence or compaction or water level at three GPS benchmarks, extensometers, or groundwater wells exceed the annual rate or water level minimum threshold for two or more consecutive years and The cumulative total amount of subsidence or compaction at three GPS benchmarks or extensometers exceeds the cumulative minimum threshold.*

■ Minimum thresholds

- Extensometers
 - Adjacent to SLC: 0.3 feet per year, 1.5 feet total
 - Outside SLC: 0.3 feet per year, 2.5 feet total
- Groundwater Levels
 - Adjacent to SLC: Lowest fall GW elevation during 2012-2016 drought
 - Outside SLC: Seasonal low (summer) GW elevation during 2012-2016*

Image courtesy: Veronica Adrover/UC Merced

Westside Subbasin Approach

■ Measurable Objectives

■ Subsidence

- Adjacent to SLC: 0 ft/yr, 0 feet total
- Outside SLC: 0.1 ft/yr, 0.5 feet total

■ Groundwater Levels

- Adjacent to SLC: Not used
- Outside SLC: Equal to GWL sustainability indicator measurable objective for the same monitoring site

■ Interim Milestones

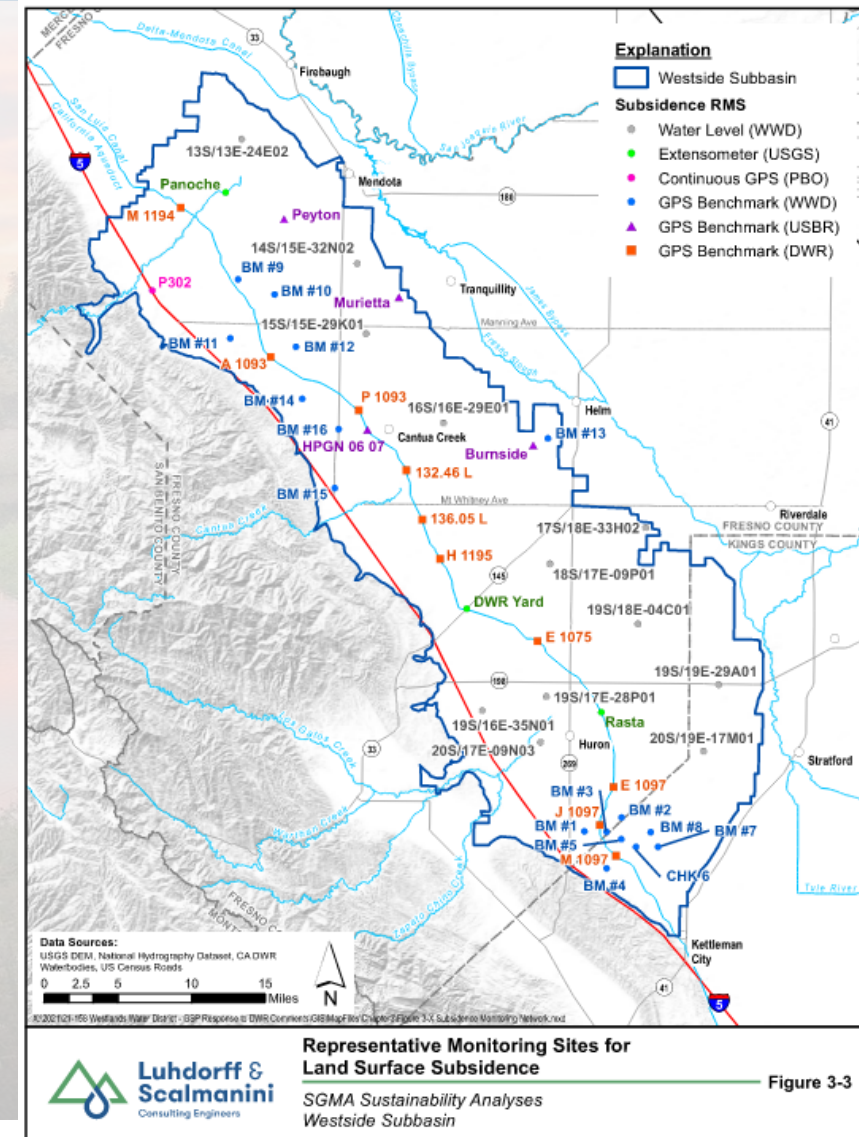
■ Subsidence

- Adjacent to SLC: 0 ft/yr, 0 feet total
- Outside SLC: 0.1 ft/yr, 0.5 feet total

■ Groundwater Levels

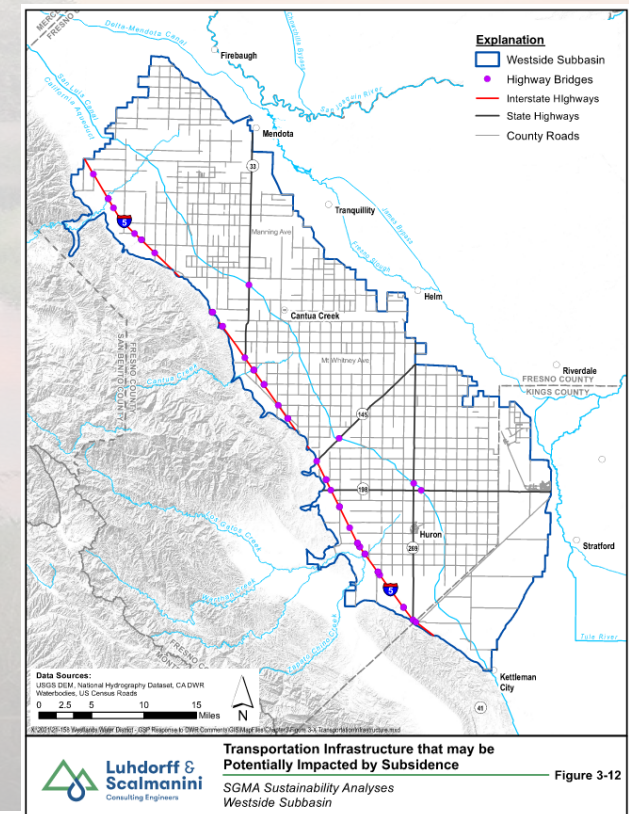
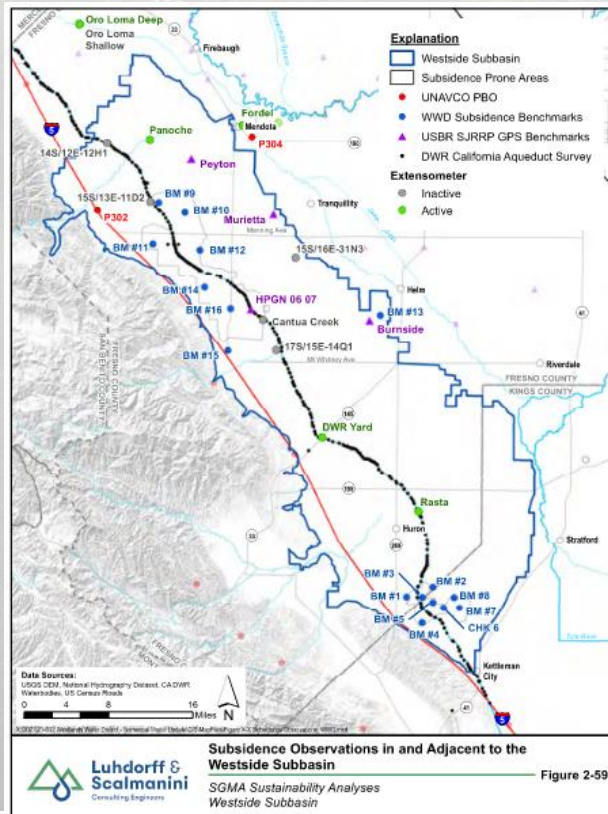
- Adjacent to SLC: Not used
- Outside SLC: Equal to GWL sustainability indicator interim milestone for the same monitoring site

Image courtesy: Veronica Adrover/UC Merced



Additional Actions Needed – Westside

- Additional actions recommended by DWR:
 - Revise the definitions of undesirable results related to subsidence rates to improve the spatial and temporal granularity to ensure that any localized increased rate of subsidence is identified
 - Add a discussion of the specific impacts to well casings, turnout structures, and roads and bridges because of subsidence that would constitute undesirable results.



Kings Subbasin Approach

- Undesirable Result Definition: *The exceedance of the minimum threshold within a 36 square-mile area*
- Minimum threshold: *No more than 3 feet of cumulative subsidence*
- Measurable Objective: *1 inch per year over 36 square-mile area*
- Interim Milestones: *1 foot of subsidence over a 5-year period*

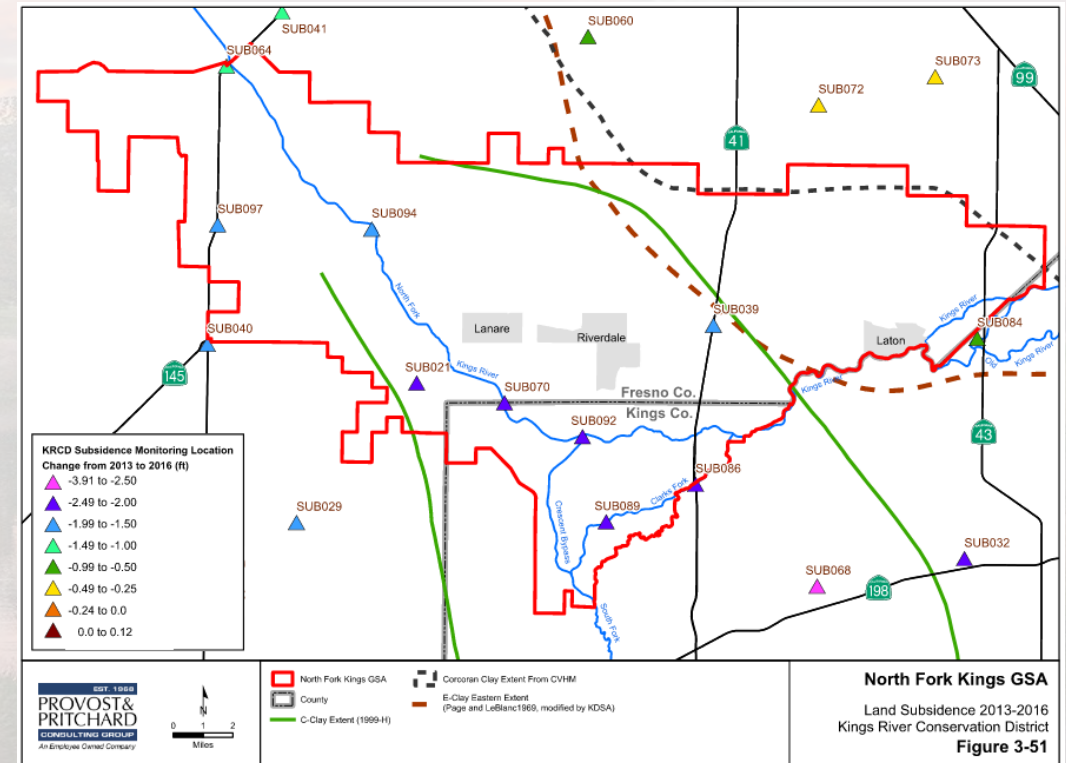


Image courtesy: Veronica Adrover/UC Merced

Additional Actions Needed – Kings

- Additional actions recommended by DWR:
 - Better identify land uses and property interests that are likely to be affected by land subsidence and how these uses are incorporated into the minimum thresholds
 - Specify the infrastructure involved, demonstrate that 3 feet (or some other amount) of freeboard currently exists, and confirm that these users would not consider the loss of the existing freeboard would not substantially impact infrastructure use.
 - Justify how one feet of subsidence over a 36 square-mile area is an adequate trigger considering critical infrastructure is commonly impacted by subsidence occurring over a smaller area.

Image courtesy: Veronica Adrover/UC Merced

Considerations for SMC Modifications

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- Build upon previous work where possible. Avoid dramatic changes in approach unless warranted to allow focus on implementation rather than planning
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Image courtesy: Veronica Adrover/UC Merced

Considerations for Merced – Recommended Corrective Action 3a

The GSAs should identify the **total cumulative subsidence tolerable by critical infrastructure.**

The Plan should also include additional details describing measures that **consider and disclose the current and potentially lasting impacts of subsidence** on land uses and groundwater beneficial uses and users.

Image courtesy: Veronica Adrover/UC Merced

Considerations for Merced – Recommended Corrective Action 3a

The GSAs should identify the **total cumulative subsidence tolerable by critical infrastructure.**

- *Reiterate previous outreach to Reclamation. Reach out to Reclamation and other flood managers and transportation managers for comment.*

The Plan should also include additional details describing measures that consider and disclose the current and potentially lasting impacts of subsidence on land uses and groundwater beneficial uses and users.

Image courtesy: Veronica Adrover/UC Merced

Considerations for Merced – Recommended Corrective Action 3a

The GSAs should identify the **total cumulative subsidence tolerable by critical infrastructure**.

- *Reiterate previous outreach to Reclamation. Reach out to Reclamation and other flood managers and transportation managers for comment.*

The Plan should also include additional details describing measures that consider and disclose the current and potentially lasting impacts of subsidence on land uses and groundwater beneficial uses and users.

- *Include additional information on the observed impacts of subsidence on the Eastside Bypass (and El Nido, if information is available). Discuss potential future subsidence impacts.*
- *Provide further discussion on how groundwater level SMC will reduce long-term subsidence.*

Image courtesy: Veronica Adrover/UC Merced

Considerations for Merced – Recommended Corrective Action 3b

The GSAs should **revise its application of the level of uncertainty** as it relates to subsidence measurements according to standard professional practices. Establishment of sustainable management criteria should not allow for subsidence in perpetuity.

Image courtesy: Veronica Adrover/UC Merced

Considerations for Merced – Recommended Corrective Action 3b

The GSAs should **revise its application of the level of uncertainty** as it relates to subsidence measurements according to standard professional practices. Establishment of sustainable management criteria should not allow for subsidence in perpetuity.

- *Provide additional information on the Plan's rationale for establishing the measurement uncertainty as 0.16 ft/yr*
- *Include examples in amended Plan demonstrating how the uncertainty is incorporated into the minimum threshold*

Image courtesy: Veronica Adrover/UC Merced



Minimum Data Standards for Groundwater Levels

Image courtesy: Veronica Adrover/UC Merced



Next Steps

Image courtesy: Veronica Adrover/UC Merced



What's coming up next?

- Adjourn to next meeting, proposed March 20, 2024 at 1:30pm
- Anticipated topics:
 - 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.
 - Continued discussion on SMCs.

Image courtesy: Veronica Adrover/UC Merced

Merced GSP Coordination Committee Meeting

January 24, 2024

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