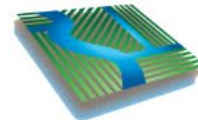




Madera Subbasin *Joint GSP Revisions*

*Madera County Board of
Supervisors*

March 21, 2023



DAVIDS
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Luhdorff & Scalmanini
Consulting Engineers

Agenda

- Recap of Technical Work Activities/Coordination
- Review of Madera Joint GSP Deficiencies
- Impact of Chowchilla Inadequate Determination
- Review of Technical Revisions Proposed
 - Groundwater Levels (GWLs)
 - Subsidence
 - Interconnected Surface Water (ISW)
 - Coordination
- Update on Other Groundwater Sustainability Agencies (GSAs) within the Madera Subbasin
- Next Steps
- Questions

Recap of Technical Work Activities/Coordination

- Direction provided by Joint GSP GSAs was to work with other GSA technical leads
 - Goal – try to get to “yes” from a technical perspective
- January 23, 2023 Coordination Workgroup meeting
 - All Madera GSAs reaffirmed their desire to get a set of revised GSPs submitted by the March 21, 2023 deadline
- GSA technical leads have been meeting weekly
- GSA technical leads have been engaged in frequent dialogue outside of the formal weekly meetings
- GSA technical leads feel as though we have made significant progress from a technical perspective
- All work covered by Department of Water Resources (DWR) grant

Review of Madera Joint GSP Deficiencies

- DWR Incomplete Determination on 9/22/22
- Four Deficiencies
 1. The Plan fails to demonstrate sufficient coordination between GSPs on the sustainability goal, water budget, and descriptions of undesirable results,
 2. The Plan does not provide sufficient information and consistent rationale related to establishment of minimum thresholds for chronic lowering of groundwater levels,
 3. The Plan does not sufficiently demonstrate that undesirable results related to land subsidence are not present and are not likely to occur in the Subbasin, and
 4. The Plan does not sufficiently demonstrate that interconnected surface water or undesirable results related to depletions of interconnected surface water are not present and are not likely to occur in the Subbasin.



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

September 22, 2022

John Davids
Madera Point of Contact
1772 Picasso Avenue, Suite A
Davis, CA 95618
john@davidsengineering.com

RE: "Incomplete" Determination of the 2020 Groundwater Sustainability Plans Submitted for the San Joaquin Valley – Madera Subbasin

Dear John Davids,

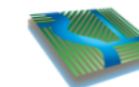
The Department of Water Resources (Department) has evaluated the four groundwater sustainability plans (GSPs) submitted for the San Joaquin Valley – Madera Subbasin (Subbasin), as well as the materials considered to be part of the required coordination agreement. Collectively, the four GSPs and the coordination agreement are referred to as the Plan for the Subbasin. The Department has determined that the Plan is "incomplete" pursuant to Section 355.2(e)(2) of the GSP Regulations.

The Department based its incomplete determination on recommendations from the Staff Report, included as an enclosure to the attached Statement of Findings, which describes that the Subbasin's Plan does not satisfy the objectives of the Sustainable Groundwater Management Act (SGMA) nor substantially comply with the GSP Regulations. The Staff Report also provides corrective actions which the Department recommends the Subbasin's 7 groundwater sustainability agencies (GSAs) review while determining how and whether to address the deficiencies in a coordinated manner.

The Subbasin's GSAs have 180 days, the maximum allowed by the GSP Regulations, to address the identified deficiencies. Where addressing the deficiencies requires modification of the Plan, the GSAs must adopt those modifications into their respective GSPs and all applicable coordination agreement materials, or otherwise demonstrate that those modifications are part of the Plan before resubmitting it to the Department for evaluation no later than March 21, 2023. The Department understands that much work has occurred to advance sustainable groundwater management since the GSAs submitted their GSPs in January 2020. To the extent to which those efforts are related or responsive to the Department's identified deficiencies, we encourage you to document that as part of your Plan resubmittal. The Department prepared a [Frequently Asked Questions](#) document to provide general information and guidance on the process of addressing deficiencies in an "incomplete" determination.

Department staff will work expeditiously to review the revised components of your Plan resubmittal. If the revisions sufficiently address the identified deficiencies, the Department will determine that the Plan is "approved". In that scenario, Department staff will identify additional recommended corrective actions that the GSAs should address early in implementing their GSPs (i.e., no later than the first required periodic evaluation). Among other items, those corrective actions will recommend the GSAs provide more detail on their plans and schedules to address data gaps. Those recommendations will call for significantly expanded documentation of the plans and schedules to implement specific projects and management

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Impact of Chowchilla Inadequate Determination

- Received on March 2, 2023
- Inadequate Determination
 - GWLs
 - Subsidence
 - ISW (ok for now)
- GWLs
 - Impacts of GWL MTs on subsidence
 - Modeled vs. actual data
 - Impact analysis for ag and municipal wells
 - Municipal wells and domestic well mitigation
- Subsidence
 - Residual + new = same bucket
 - SMC must be a rate
 - PMAs need to clearly note subsidence mitigation
 - Impact analysis for ag and municipal wells



CALIFORNIA DEPARTMENT OF WATER RESOURCES

SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE

715 P Street, 8th Floor | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

March 2, 2023

Doug Welch
Chowchilla Water District GSA
327 S. Chowchilla Blvd.
Chowchilla, CA 93610
dwelch@cwdwater.com

RE: Inadequate Determination of the Revised 2020 Groundwater Sustainability Plan
Submitted for the Chowchilla Subbasin

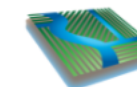
Dear Doug Welch,

The Department of Water Resources (Department) has evaluated the revised groundwater sustainability plan (GSP or Plan) for the Chowchilla Subbasin (Subbasin) in response to the Department's incomplete determination on January 28, 2022, and has determined that the actions taken to correct deficiencies identified by the Department were not sufficient (23 CCR § 355.2(e)(3)(C)).

The Department based its inadequate determination on recommendations from the Staff Report, included as an enclosure to the attached Statement of Findings, which explains why the Department believes that the Subbasin's Plan did not take sufficient actions to correct the deficiencies previously identified by the Department and, therefore, does not substantially comply with the GSP Regulations nor satisfy the objectives of the Sustainable Groundwater Management Act (SGMA).

Once the Department determines that a GSP is inadequate, primary jurisdiction shifts from the Department to the State Water Resources Control Board (State Board), which may designate the basin probationary (Water Code § 10735.2(a)). However, Department involvement does not end at that point; the Department may, at the request of the State Board, further assess a plan, including any updates, and may provide technical recommendations to remedy deficiencies to that plan. In addition, the responsibilities of the GSA do not end with an inadequate determination. Regardless of the status of a plan, a GSA remains obligated to continue collecting and submitting monitoring network data (Water Code Part 2.11; Water Code § 10727.2; 23 CCR § 353.40; 23 CCR § 354.40), submit an annual report to the Department (Water Code § 10728; 23 CCR § 356.2), conduct periodic updates to the plan at least every five years (Water Code § 10728.2; 23 CCR § 356.4), and submit this information to DWR's SGMA Portal (23 CCR § 354.40). The Department also encourages GSAs to continue implementation efforts on project and management actions that will support the Subbasin's progress towards achieving sustainability.

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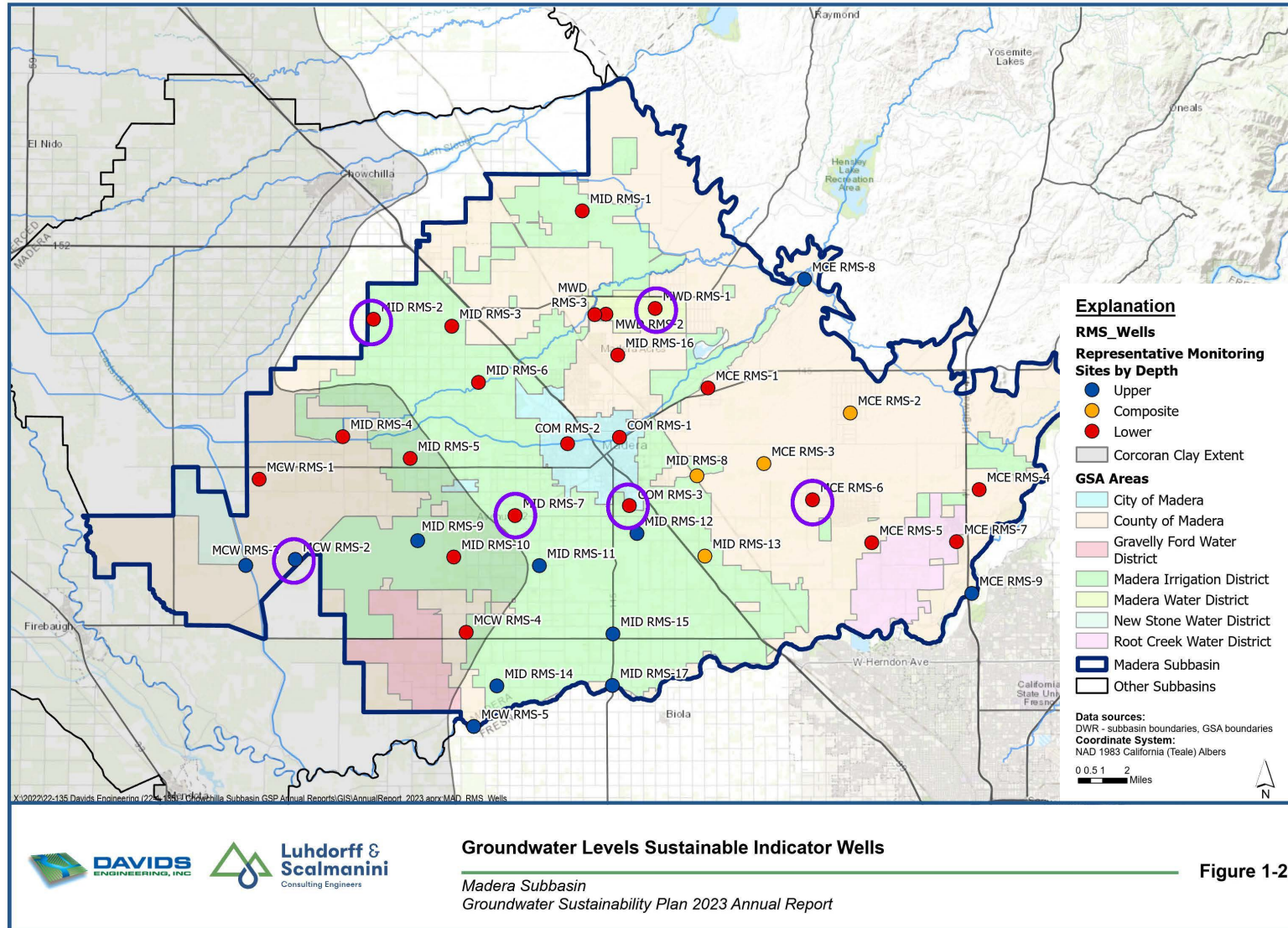
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Impact of Chowchilla Inadequate Determination (Cont.....)

- Significant impact to the revisions in Madera
- Have reviewed GSPs determined to be adequate
- Have pivoted to an “adequate” approach for proposed revisions
 - Using predominately the Merced methodology
 - Operating on the premise that the GSAs want to strive for a revised set of GSPs that might be determined adequate (notwithstanding the practical implementation side of things and the desire to focus on PMA implementation)
- Enormous lift very late in the game

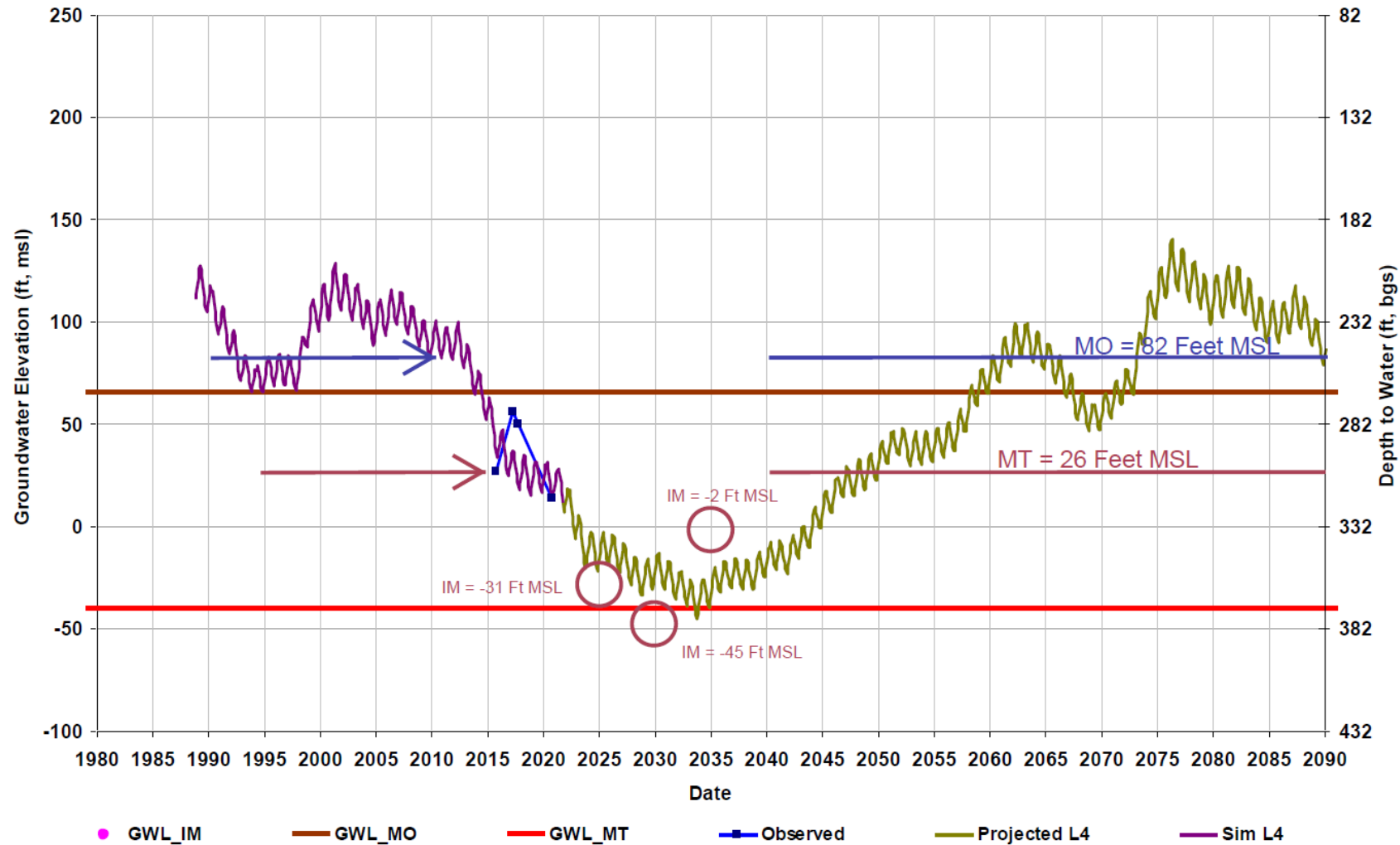
Review of Technical Revisions Proposed

- GWL SMC Recommendations
 - Fall 2015 as MTs
 - IMs dipping below MT in 5-year increments until 2035
 - Lowest in 2030
 - 60% back in 2035
 - Back to MTs (fall 2015 levels) in 2040
- Significantly higher MTs than original Joint GSP
- Retain ability to change SMC as part of the 5-year update
- Nexus with Subsidence
- Review hydrographs



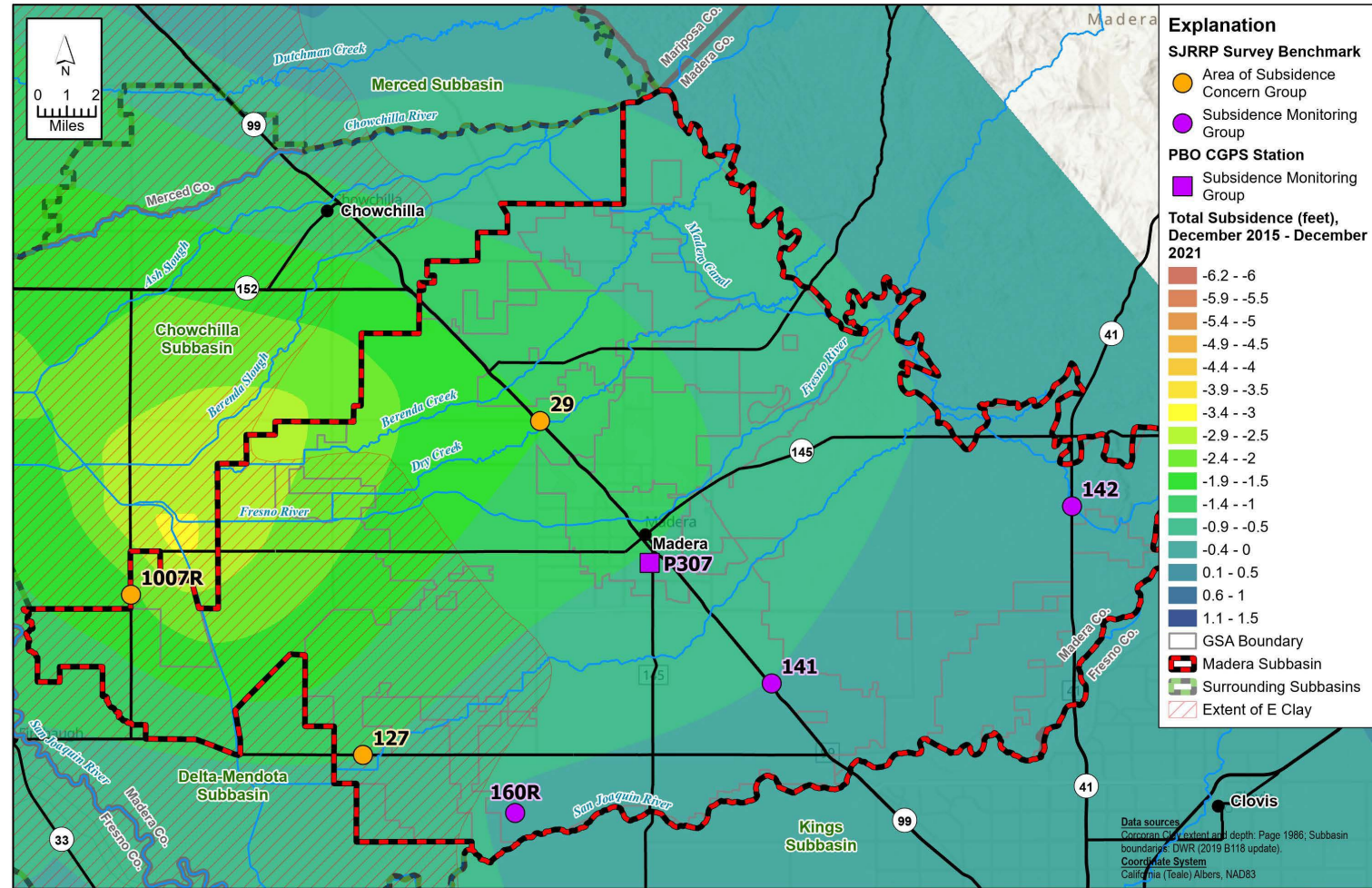
Well Name: MCE RMS-1
Depth Zone: Lower
Subbasin: Madera
GSE (ft, msl): 332

Total Depth (ft bgs): 500
Perf. Top (ft bgs): 420
Perf. Bottom (ft bgs): 500
Top Model Layer: 4
Bottom Model Layer: 4



Review of Technical Revisions Proposed (Cont.....)

- Subsidence SMC Recommendations
 - MT = 0 (0.16 ft/yr measurement error)
 - Break Subbasin into 2 areas – West/East
 - IMs dipping below MT in 5-year increments until 2040
 - West – 0.6'/year (2025), 0.4'/year (2030), 0.2'/year (2035), "0'/year" (2040)
 - East – 0.2'/year (2025), 0.13'/year (2030), 0.07'/year (2035), "0'/year" (2040)
- Initial rate based on maximum annual rate of subsidence (2014/2015)
- SMCs across the entirety of the Subbasin
- Retain ability to change SMC as part of the 5-year update
- Nexus with GWLs
- Review monitoring locations



X:\2022\22-020 Davids Engineering (22-1-020) - Madera Subbasin GSP DWR Consultation Letter\GIS\MAD_GSP_UPDATE\MAD_GSP_UPDATE.aprx; SUBS Proposed RMS



FIGURE X-X
Proposed Subsidence Sustainability Indicator
Representative Monitoring Sites
Madera Subbasin
Groundwater Sustainability Plan

Review of Technical Revisions Proposed (Cont.....)

- ISW SMC Recommendations
 - Metric: Percent of Time GWL Connected (above stream Thalweg)
 - MT/MO: Maintain Historical Percent of Time Connected into the Future
 - Annual Assessment Based on 5-Year Rolling Average
- Retain ability to change SMC as part of the 5-year update

Review of Technical Revisions Proposed (Cont.....)

- Coordination Recommendations
 - Included addendum to the coordination agreement in the Revised GSP related to:
 - Sustainability goal
 - Sustainable yield
 - Current and projected water balances
 - Domestic well mitigation MOU
 - Establishment by 2025, follows Merced approach
 - No details on funding and/or proportionate responsibility
 - More formal than a PMA
 - Include Revised GSP and 5-year update timeline in correspondence to DWR
 - Include specific reference to quarterly meetings of coordination workgroup in correspondence to DWR
 - Potential for one GSP as part of 5-year update

Update on Other GSAs within the Madera Subbasin

- Joint GSP GSAs
- Gravelly Ford
- Root Creek
- New Stone

Next Steps

- Submit Revised Joint GSP today
- Start on required 2025 Update
- Quarterly Coordination Workgroup
- Continue to explore one GSP as part of 2025 Update



Questions?

