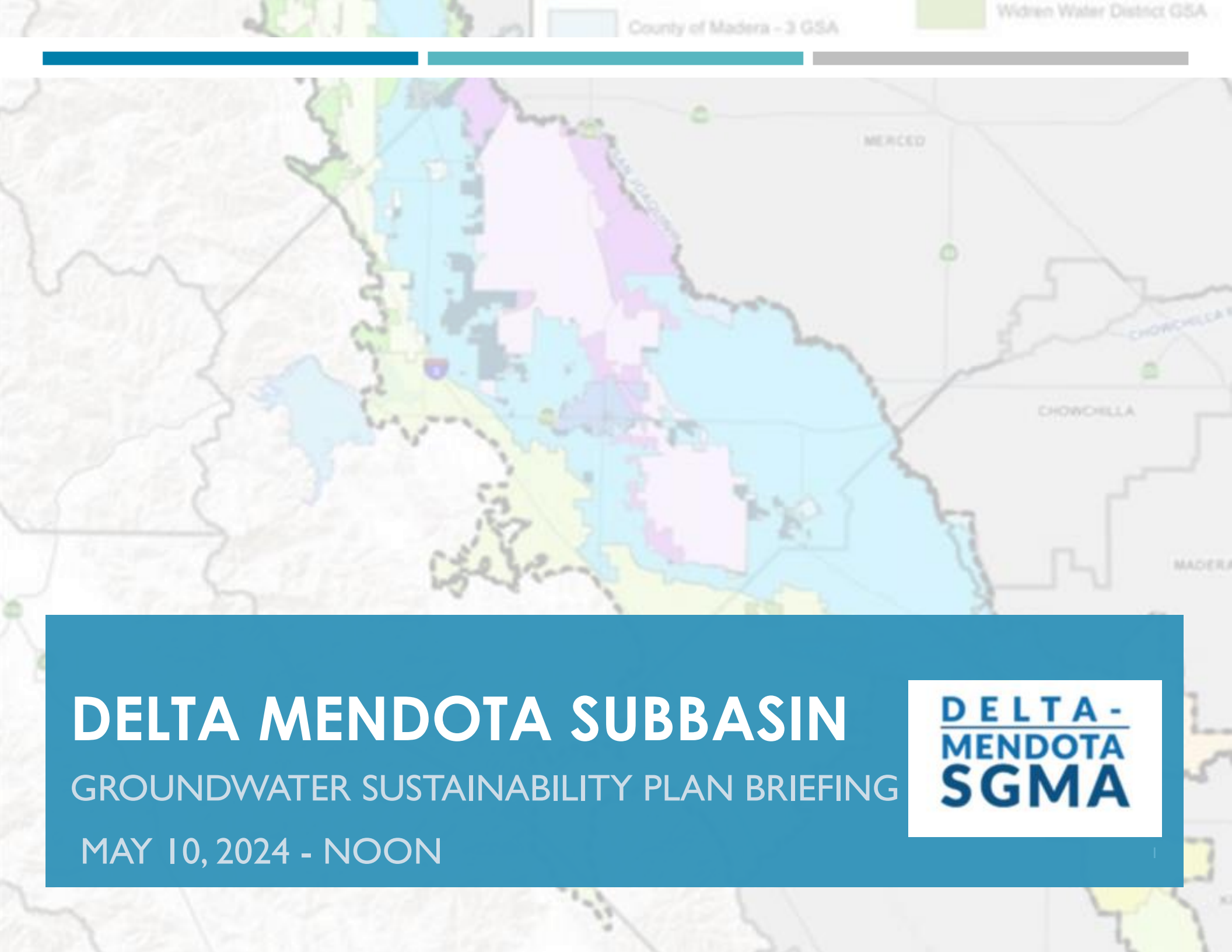


DELTA MENDOTA SUBBASIN

GROUNDWATER SUSTAINABILITY PLAN BRIEFING

MAY 10, 2024 - NOON

DELTA-MENDOTA SGMA

WELCOME AND GREETINGS

Briefing on the early release drafts of the Delta Mendota Subbasin Single Groundwater Sustainability Plan

With

John Brodie, Plan Manager

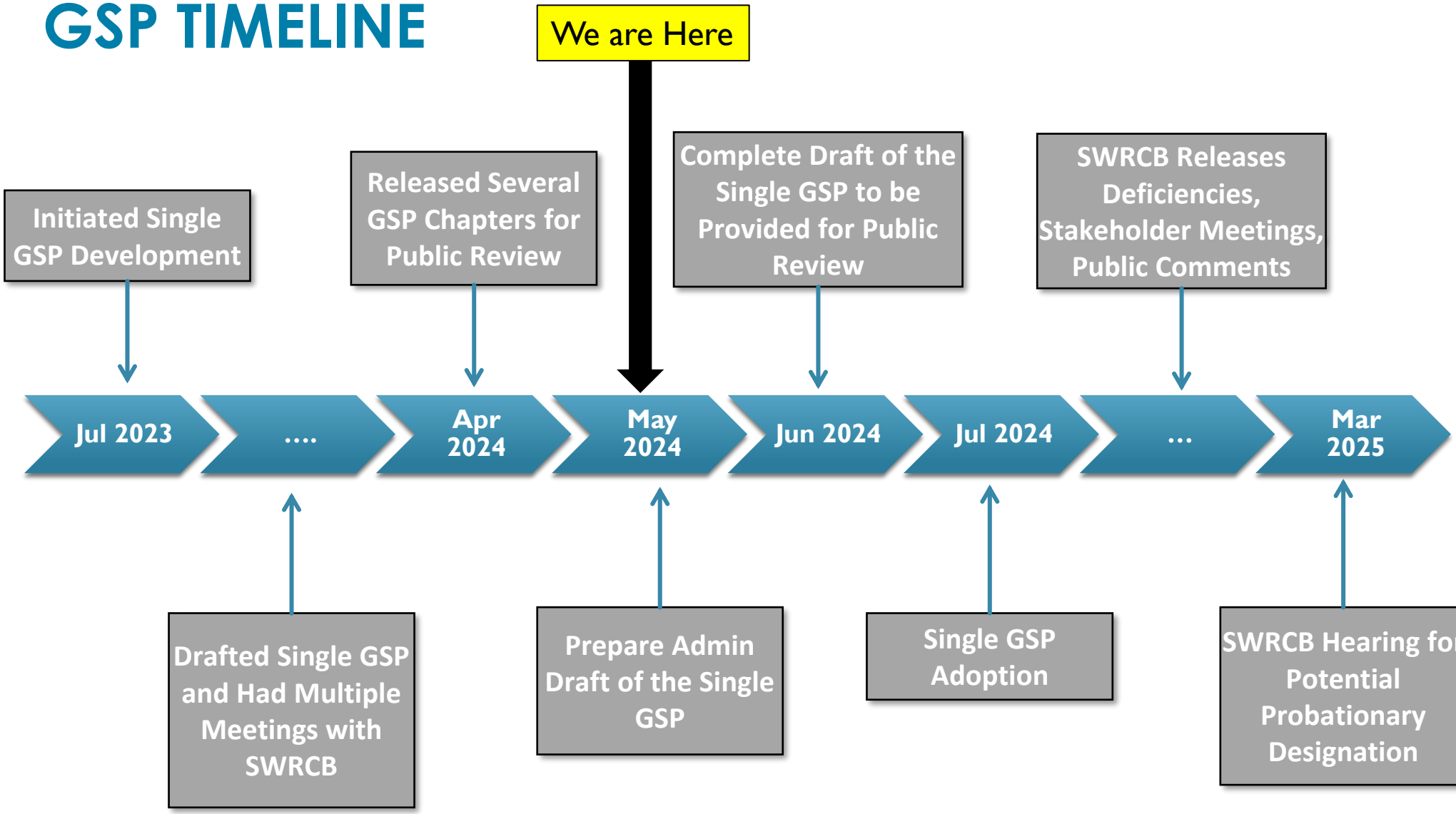
Lisa Beutler, Moderator

Anona Dutton, Technical Consultant (EKI)

MEETING PURPOSE

- Support public involvement in the Single Delta Mendota Subbasin (Basin) revised Groundwater Sustainability Plan (GSP)
- Provide an opportunity for an early review and suggestions on GSP drafts
- Provide a Summary of GSP corrective actions and important revisions

GSP TIMELINE



Regular meetings of CC and TWG on Technical and Policy Issues are conducted throughout the GSP development process

AGENDA

- Welcome and Greetings
- Session Purpose, Timeline
- Agenda Review
- The Job of the GSP and Public Review
- GSP Overview and How to Review the Plan
- Chapters 1-5
- Chapters 6-7
- Chapter 8
- Chapter 14
- Next Steps

THE GSP HAS A JOB

WORKING DOCUMENT

THE GSP HAS A JOB

1. Meet the Requirements of SGMA
2. Meet the Regulatory Requirements of the SGMA
3. Address the Deficiencies Identified in Previous Delta Mendota Subbasin GSP Submissions
4. Inform Tribes, Local Jurisdictions, the Beneficial Uses and Users of Subbasin Groundwater, and the Public About the Plan and its Contents

MEETING THE STATUTORY REQUIREMENTS OF SGMA

Meet the regulatory requirements set forth in the three-bill legislative package* known as the Sustainable Groundwater Management Act (SGMA).

- SGMA defines sustainable groundwater management as the "management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results."
- GSAs are responsible for achieving long-term sustainable management of their groundwater basins within 20 years (in this case 2040).

*Assembly Bill (AB) 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley)

UNDESIRABLE RESULTS

Undesirable Results (URs) are any of the following effects caused by groundwater conditions occurring throughout a basin:

- **C**hronic lowering of groundwater levels indicating a significant and unreasonable depletion of **supply**
- **S**ignificant and unreasonable reduction of **groundwater storage**
- **S**ignificant and unreasonable **seawater intrusion**
- **S**ignificant and unreasonable degraded **water quality**
- **S**ignificant and unreasonable **land subsidence**

and/or

- **D**epletions of **interconnected surface water** that have significant and unreasonable adverse impacts on beneficial uses of the surface water

MEETING THE REGULATORY REQUIREMENTS

Under Water Code Section 10733.2, the California Department of Water Resources adopted regulations for the evaluation and implementation of GSPs and coordination agreements. This included specific topics that must be included in the plans.

§ 354.4. General Information.
23 CA ADC § 354.4
Barclays Official California Code of Regulations

‹ Term ›

Barclays California Code of Regulations
Title 23. Waters
Division 2. Department of Water Resources
Chapter 1.5. Groundwater Management
Subchapter 2. Groundwater Sustainability Plans
Article 5. Plan Contents
Subarticle 1. Administrative Information

23 CCR § 354.4

§ 354.4. General Information.

Currentness

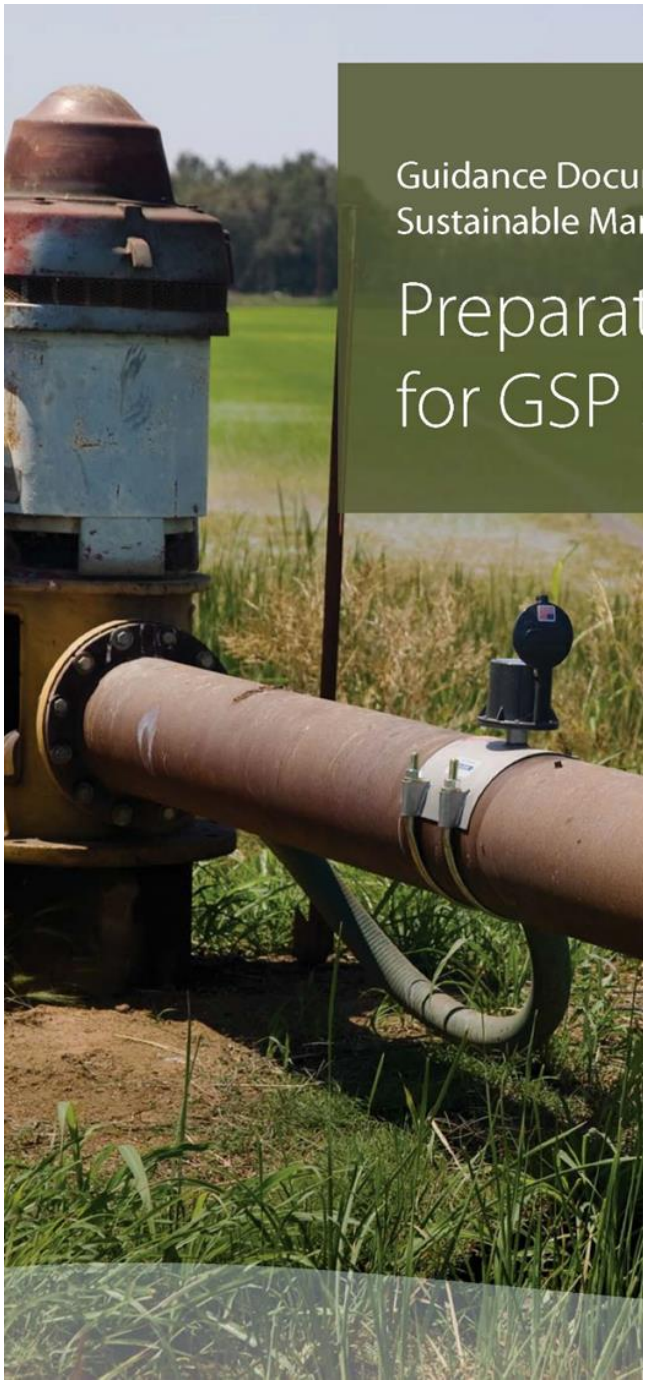
Each Plan shall include the following general information:

(a) An executive summary written in plain language that provides an overview of the Plan and description of groundwater conditions in the basin.

(b) A list of references and technical studies relied upon by the Agency in developing the Plan. Each Agency shall provide to the Department electronic copies of reports and other documents and materials cited as references that are not generally available to the public.

Credits
NOTE: Authority cited: Section 10733.2, Water Code. Reference: Sections 10733.2 and 10733.4, Water Code.

CALIFORNIA CODE OF REGULATIONS



REQUIRED SECTIONS

- Introduction and Plan Area
- Hydrogeological Conceptual Model (HCM)
- Groundwater Conditions Assessment
- Water Budget
- Sustainable Management Criteria (SMCs)
- Monitoring Network
- Projects & Management Actions (P&MAs)
- Plan Implementation

ADDRESSING DEFICIENCIES

SUMMARY OF DWR DETERMINED DEFICIENCIES

Deficiency #1: *"The GSPs do not use the same data and methodologies"*

Deficiency #2: *"The GSPs have not established common definitions of undesirable results in the Subbasin"*

Deficiency #3: *"The GSPs in the Subbasin have not set sustainable management criteria in accordance with the GSP regulations"*

Deficiency #4: *"The management areas established in the Plan have not sufficiently addressed the requirements specified in 23 CCR § 354.20"*

STATE BOARD IDENTIFIED THE COCs THEY WANTED TO THE BASIN TO ADDRESS

Constituent of Concern	Screening Level	Screening Level Type
Arsenic	10 ug/L	Primary Maximum Contaminant Level (MCL)
Nitrate as Nitrogen	10 mg/L	Primary MCL
Nitrate and Nitrite as Nitrogen	10 mg/L	Primary MCL
1,2,3-TCP	0.005 ug/L	Primary MCL
Gross Alpha Radioactivity	15 pCi/L	Primary MCL
TDS	1000 mg/L	Upper Secondary MCL
Chromium VI	20 ug/L	Health Based Screening Level

GSP OVERVIEW - CHAPTER STRUCTURE*

Section 1. Purpose of the Groundwater Sustainability Plan

Section 2. Sustainability Goal

Section 3. Agency Information

Section 4. GSP Organization

Section 5. Description of the Plan Area

Section 6. Introduction to Basin Setting

Section 7. Hydrogeologic Conceptual ModelS

ection 8. Current and Historical Groundwater Conditions Section 9.Water Budget Information

Section 10. Management Areas

Section 11. Introduction to Sustainable Management Criteria

Section 12. Sustainability Goals

Section 13. Sustainability Indicators

Section 14. Monitoring Network Section 15. Projects and Management Actions

Section 16. Plan Implementation

* *This information is also in Section 4*

GSP REVIEWERS TIPS

The Sections released for early review largely provide a recap of **existing** information on:

- Subbasin governance
- Hydrology & geology
- Monitoring locations

Feedback on the following items would be particularly helpful:

1) Accuracy of information
2) Readability [Ways of making the information easier to understand or areas when the GSP is not clear]
3) Compliance with requirements

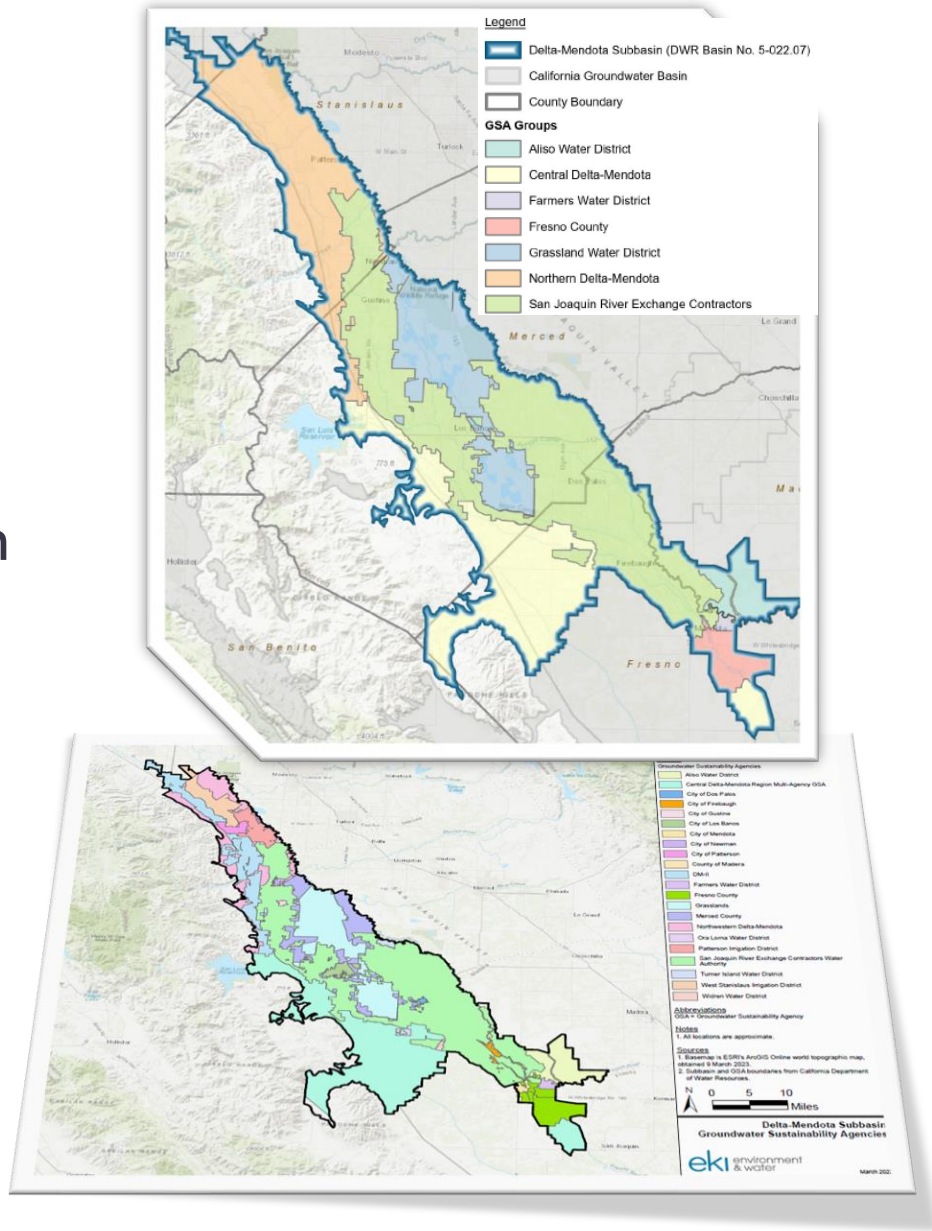
Provide comments on GSP Drafts at:
DMSGMA@sldmwa.org

SECTIONS 1-4, INTRODUCTION

Sections 1 through 4 comprise the Introduction, including the following sections:

SECTION 1 - BACKGROUND

- 23 GSAs formed by 2017
- 6 GSPs submitted January 2020
- DWR issued Incomplete letter January 23, 2022
- 6 Revised GSPs submitted July 2022
- DWR issued Inadequate Determination on March 2, 2023
- State Board intervention process triggered



SECTION 2 – SUSTAINABILITY GOAL

§ 354.24 Sustainability Goal

Each Agency shall establish in its Plan a sustainability goal for the basin that culminates in the absence of undesirable results within 20 years of the applicable statutory deadline. The Plan shall include a description of the sustainability goal, including information from the basin setting used to establish the sustainability goal, a discussion of the measures that will be implemented to ensure that the basin will be operated within its sustainable yield, and an explanation of how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon.

"The Delta-Mendota Subbasin will manage groundwater resources for the benefit of all users of groundwater in a manner that allows for operational flexibility, ensures resource availability under drought conditions, and does not negatively impact surface water diversion and conveyance and delivery capabilities. This goal will be achieved through the implementation of the proposed projects and management actions to reach identified measurable objectives and milestones through the implementation of the GSP(s), and through continued coordination with neighboring subbasins to ensure the absence of undesirable results by 2040."

3 GSP SECTION ON AGENCY DESCRIPTION

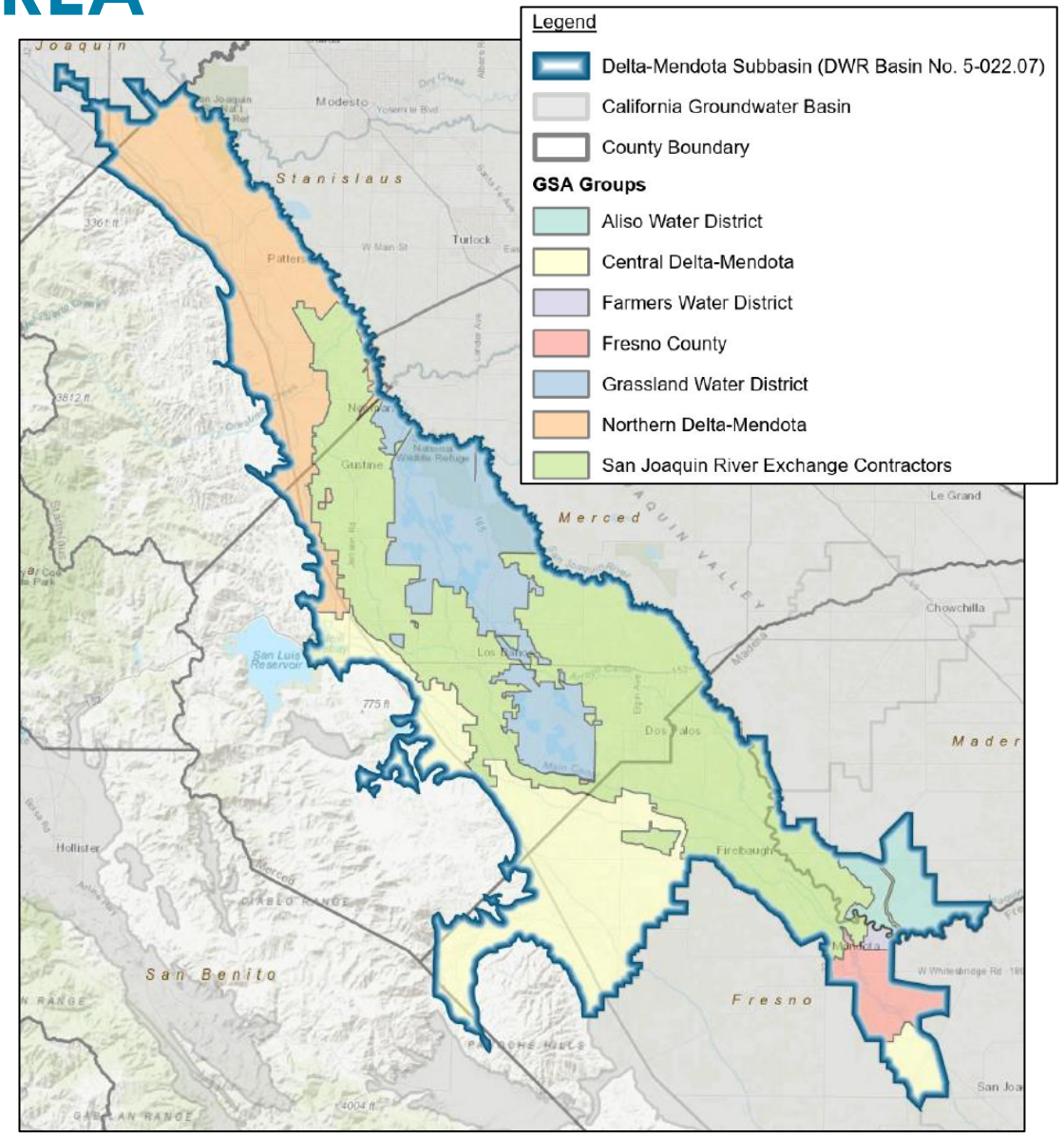
4 GSP SECTION ORGANIZATION (see earlier slide)

REFERENCES

§ 354.4. General Information
Each Plan shall include the following general information:
(b) A list of references and technical studies relied upon by the Agency in developing the Plan. Each Agency shall provide to the Department electronic copies of reports and other documents and materials cited as references that are not generally available to the public

CHAPTER 5 - PLAN AREA

- Defined 7 GSA Groups
- Summary of jurisdictional areas
- Existing water resources and management programs
- Existing and anticipated land use
- Summary of stakeholder engagement



SECTIONS 6-8

Sections 6 through 10 present the Basin Setting, including the following sections:

- Section 6. Introduction to Basin Setting
- Section 7. Hydrogeologic Conceptual Model
- Section 8. Current and Historical Groundwater Conditions
- *Section 9. Water Budget Information*
- *Section 10. Management Areas*

6 INTRODUCTION TO BASIN SETTING

§ 354.12. Introduction to Basin Setting
This Subarticle describes the information about the physical setting and characteristics of the basin and current conditions of the basin that shall be part of each Plan, including the identification of data gaps and levels of uncertainty, which comprise the basin setting that serves as the basis for defining and assessing reasonable sustainable management criteria and projects and management actions. Information provided pursuant to this Subarticle shall be prepared by or under the direction of a professional geologist or professional engineer.

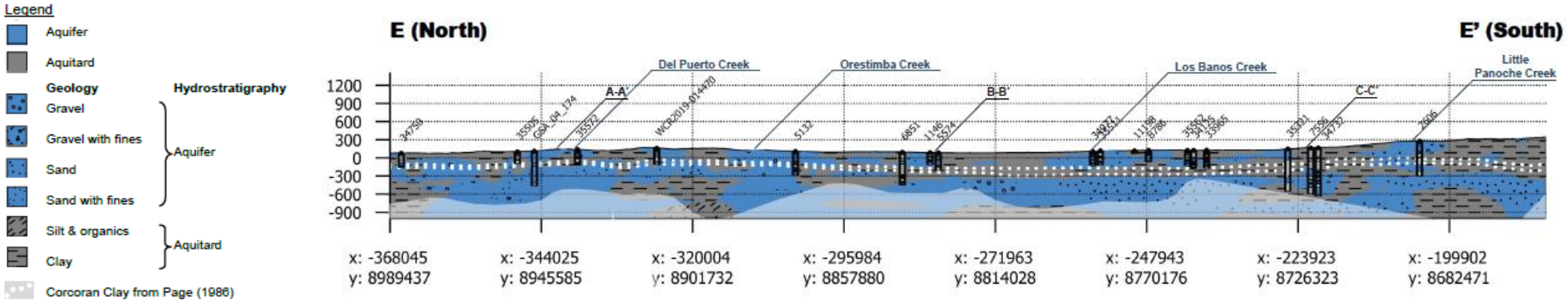
☑ **23 CCR § 354.12**

This section presents information on the Basin Setting for the Delta-Mendota Subbasin. Basin Setting information includes the Hydrogeologic Conceptual Model, Groundwater Conditions, and Water Budget.

CHAPTER 7 - HYDROGEOLOGIC CONCEPTUAL MODEL

- Developed 3-D HCM model of the Basin using Leapfrog
- Defined two Principal Aquifers – Upper Aquifer and Lower Aquifer
- Developed 6 representative cross-sections depicting major stratigraphic and structural features of the Basin

3-D Model of the Basin



Cross section E-E' of the Basin

SECTION 8

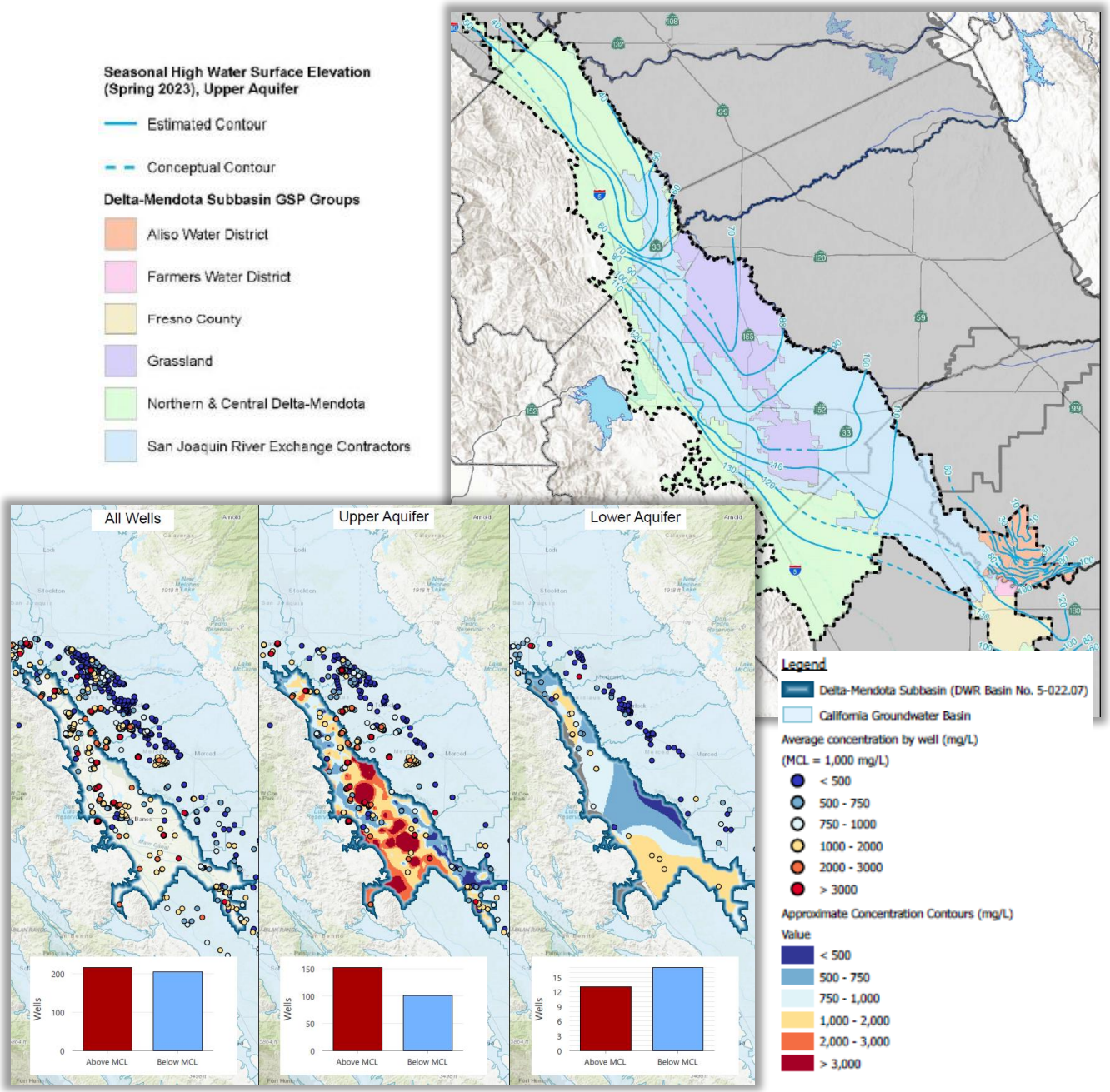
Table of Contents
Delta Mendota Subbasin GSP

DELTA-MENDOTA SGMA

TABLE OF CONTENTS

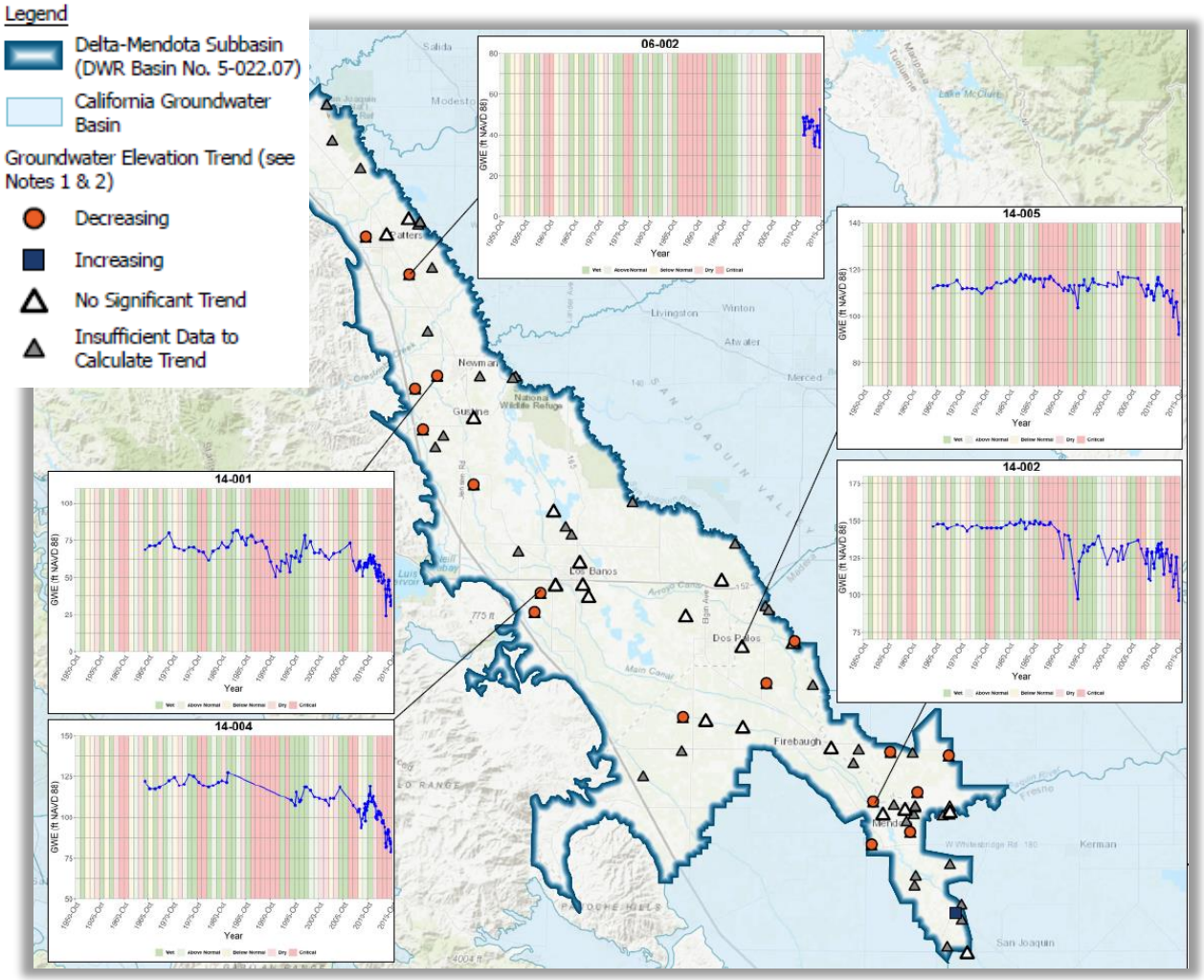
SECTION 8 - GROUNDWATER CONDITIONS

- Described current (Water Year 2023) and historical groundwater conditions
- Assessed groundwater elevations, groundwater storage, groundwater quality, land subsidence, interconnected surface water (ISW), and groundwater dependent ecosystems (GDE)



GROUNDWATER CONDITIONS – GROUNDWATER ELEVATIONS AND STORAGE

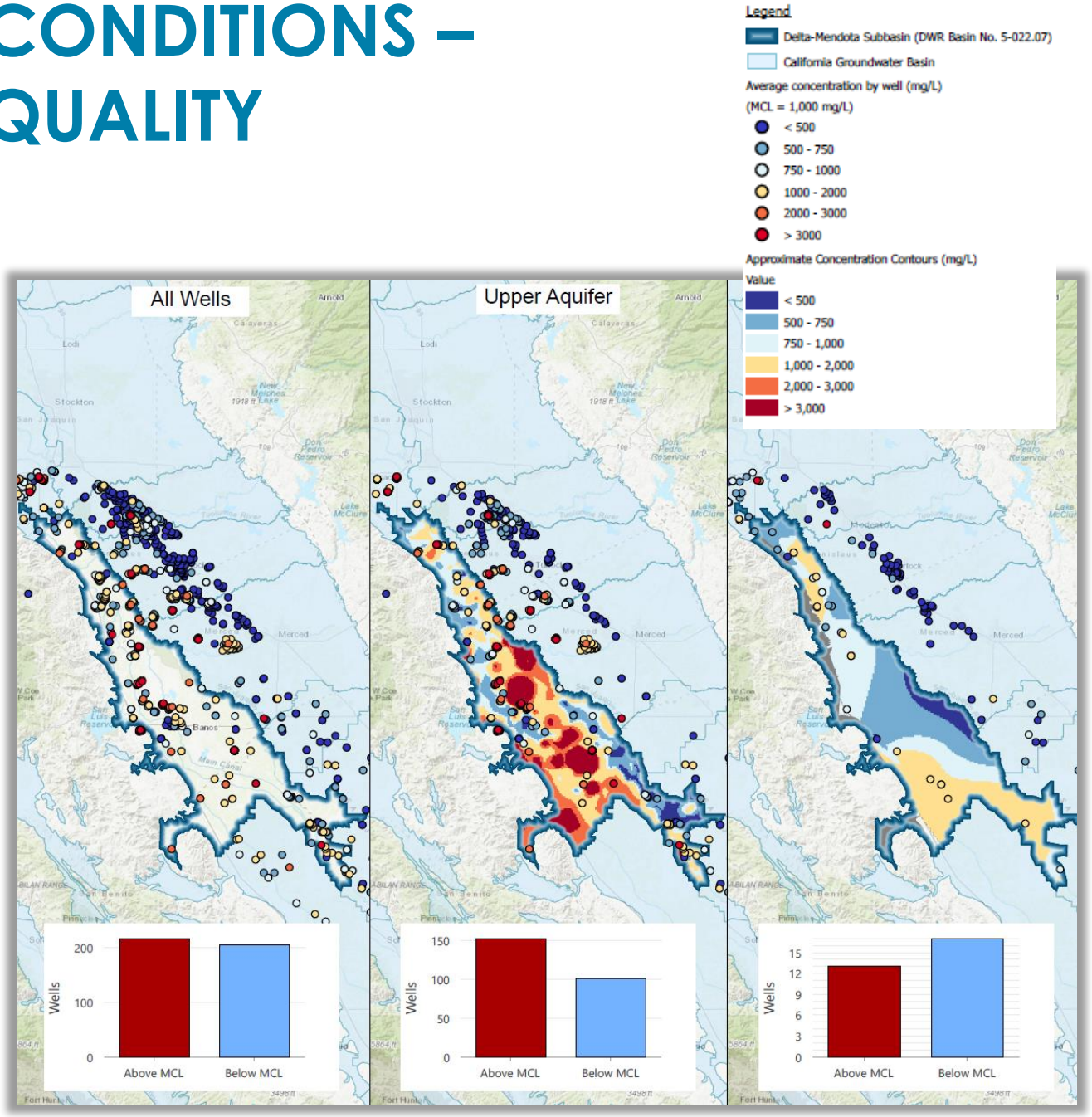
- Groundwater generally flows northeastward toward neighboring basins
- Water levels have become more stable in the recent years; however, there are areas of the Basin, especially in the Lower Aquifer, with localized groundwater declines
- Groundwater conditions in adjacent basins have a big influence on Basin conditions



Long-term hydrograph for the Upper Aquifer

GROUNDWATER CONDITIONS – GROUNDWATER QUALITY

- Four of the six COCs (TDS, As, CR+6, Gross Alpha) are present due to the geology of the Basin aquifers as documented in studies dating back to the early 1900s
- These COCs are either very widespread (TDS) or have very limited occurrence pre-2015 and minimal change post-SGMA

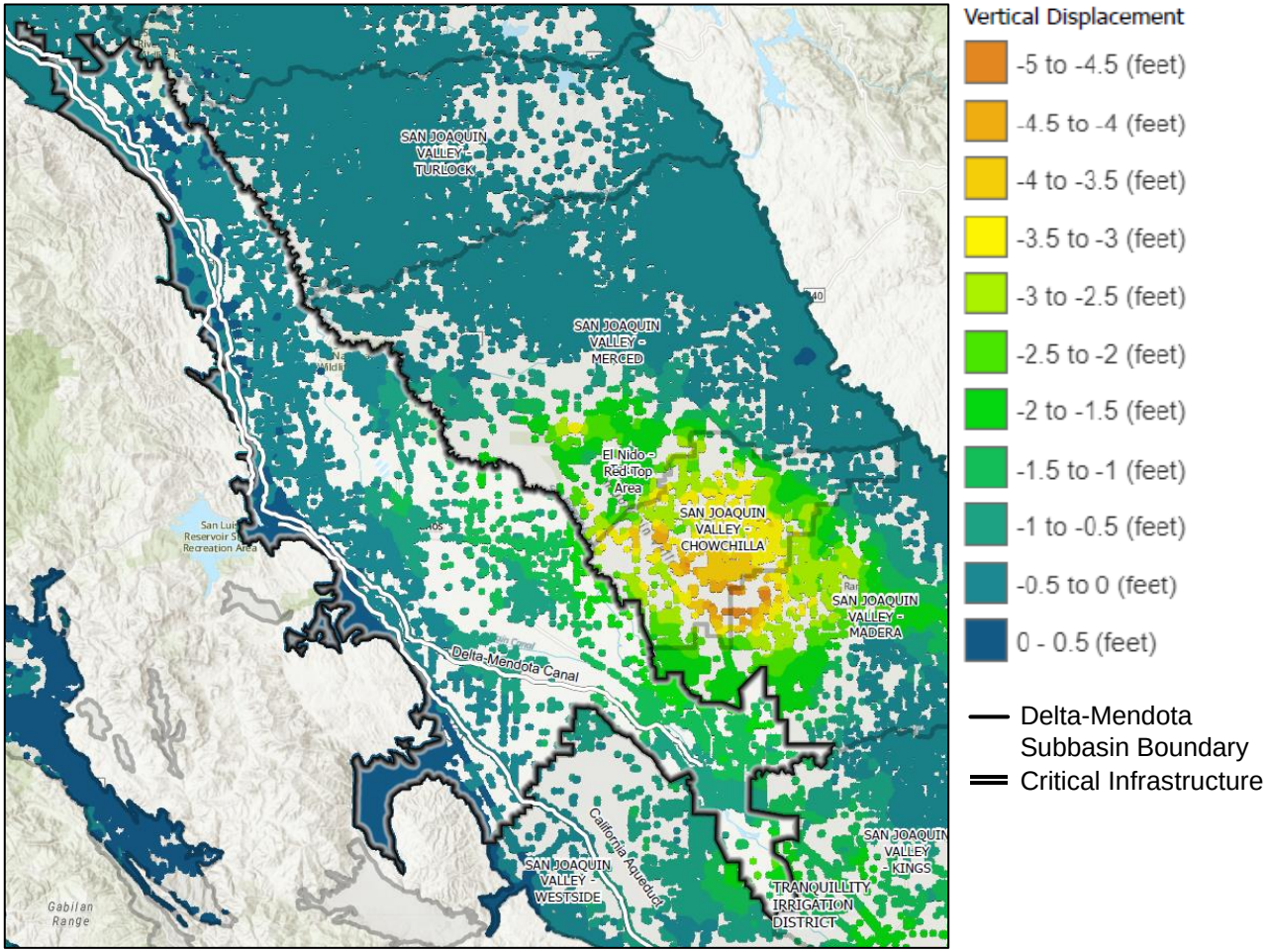


Pre-SGMA TDS Concentration (2005-2014)

GROUNDWATER CONDITIONS – LAND SUBSIDENCE

- Subsidence hotspots are located outside of the Basin and is impacting conditions in the Basin
- GSAs have done extensive work to understand causes and identify actions to mitigate subsidence in the Basin

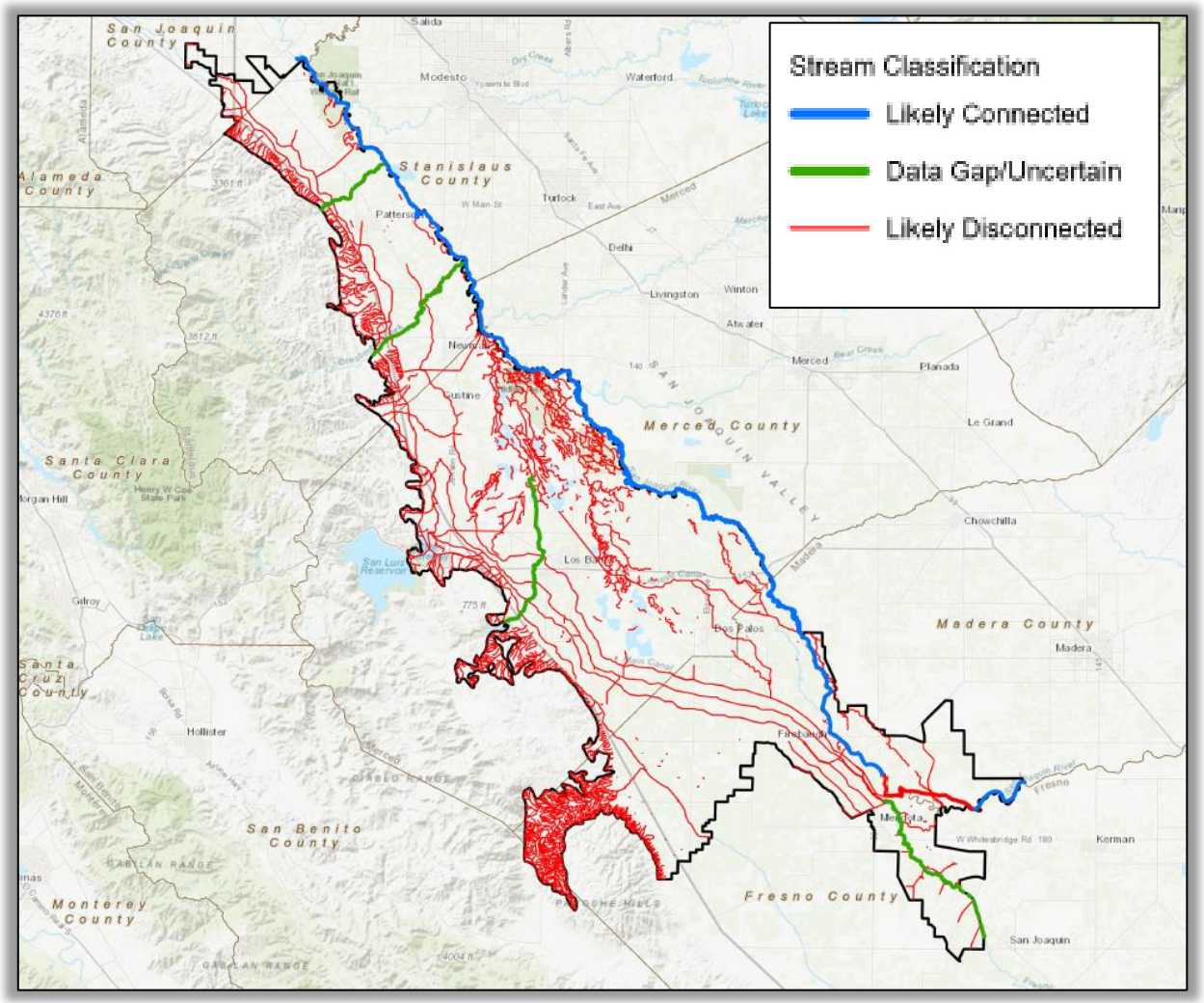
Vertical displacement June 2015 – June 2023



TRE Altamira InSAR

GROUNDWATER CONDITIONS – ISW

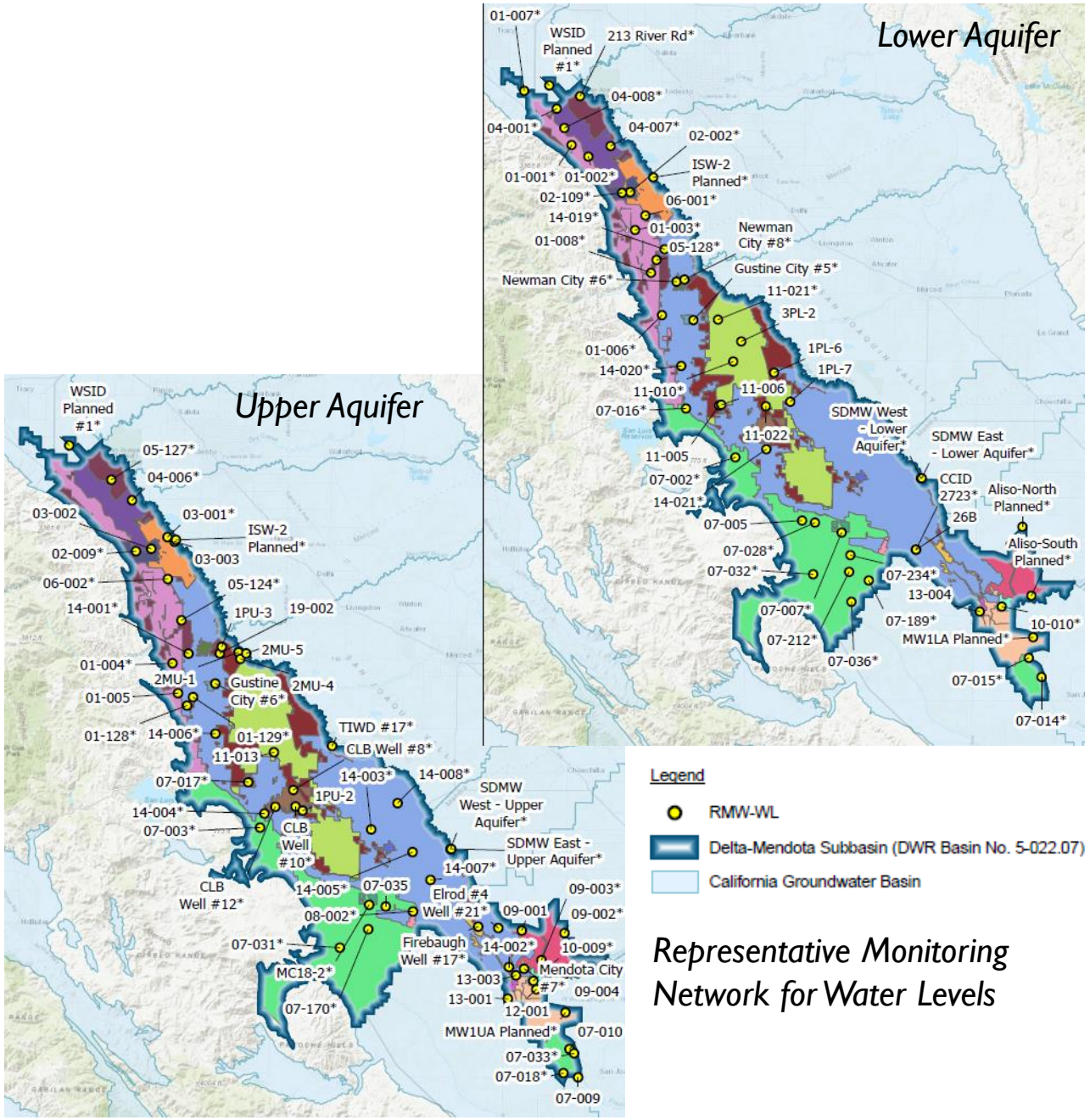
- Sections of San Joaquin River are identified as "likely ISW"
- Fresno Slough, Los Banos Creek, Orestimba Creek, and Del Puerto Creek are identified as "potential ISW"



Identified ISW within the Basin

CHAPTER 14 -REPRESENTATIVE MONITORING NETWORK

- 110 water level Representative Monitoring Sites (RMS)
- 91 water quality RMSs
- 35 land subsidence RMSs, alongside with InSAR monitoring
- 25 ISW RMSs



Representative Monitoring Network for Water Levels

HOW TO ENGAGE

- Attend regular public meetings hosted by GSAs and/or CC
- Attend the stakeholder workshops (webinar) on revised GSP
- Review the draft chapters posted on the SLDMWA website
- Provide comments on GSP Drafts at: DMSGMA@sldmwa.org

PUBLIC COMMENT DETAILS

The Delta-Mendota Subbasin is receiving public comments on the Draft Delta-Mendota Subbasin Single GSP

Public comments can be submitted by email to:
DMSGMA@sldmwa.org

QUESTIONS