



MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

GROUNDWATER SUSTAINABILITY PLAN PERIODIC EVALUATION WORKSHOP NO. 1

DECEMBER 18, 2025



WORKSHOP COMPONENTS

- 1. Brief SGMA Background**
- 2. GSP Periodic Evaluation (PE) Overview**
- 3. GSP Highlights & PE Focus Areas**
- 4. GSP Recommended Corrective Actions (RCAs)**
- 5. Shallow Groundwater Monitoring Results**
- 6. Questions and Feedback**



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BRIEF SGMA BACKGROUND

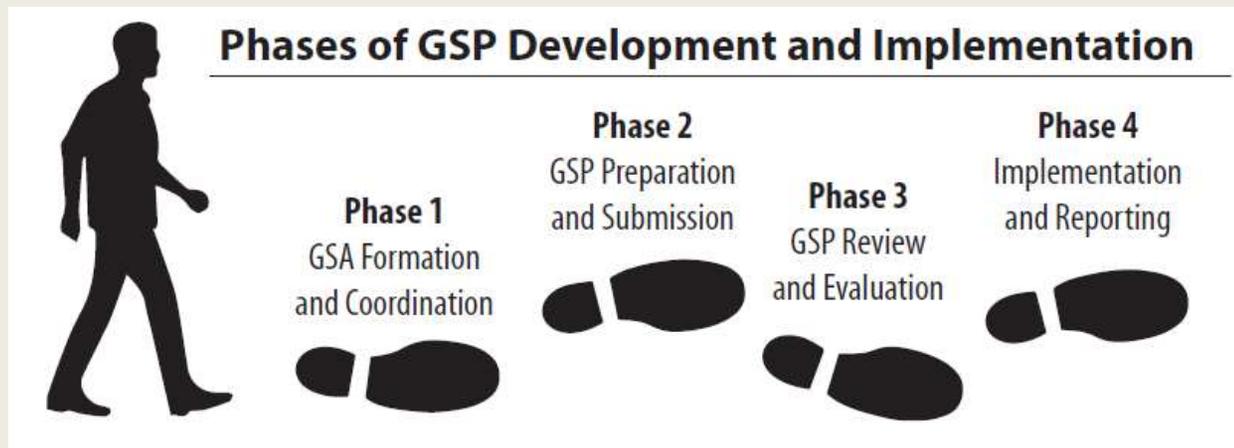


WHAT IS SGMA?

- Sustainable Groundwater Management Act
 - Three bill package signed into CA law in late 2014
 - Provides a statewide framework for long-term sustainable groundwater management in CA
 - Requires basins subject to the act to be managed sustainably 20 years after adopting a Groundwater Sustainability Plan (GSP) by a local Groundwater Sustainability Agency (GSA)

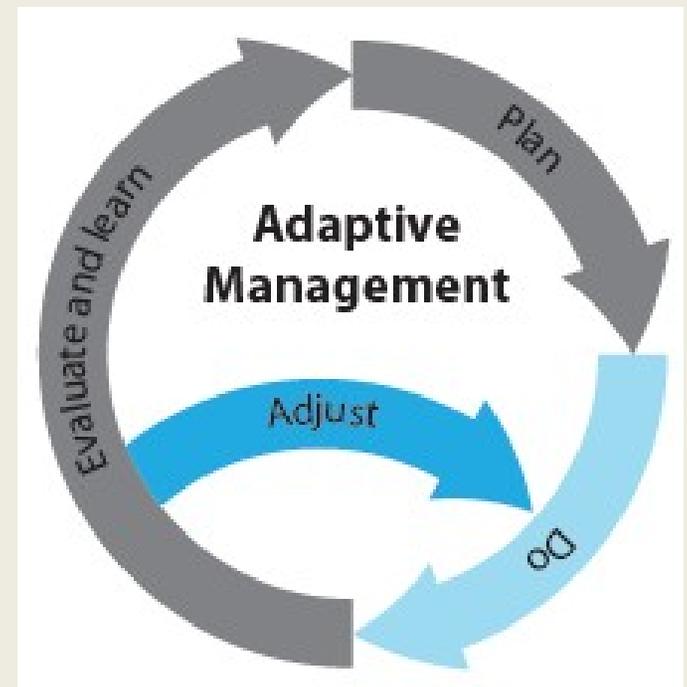
SGMA REQUIREMENTS

1. Form a Groundwater Sustainability Agency (GSA)
 - Completed 2017
2. Adopt a Groundwater Sustainability Plan (GSP)
 - Completed November 2021
3. Achieve Sustainable Groundwater Management
 - 20 years following GSP adoption



WHAT IS A GSP?

The GSP is a flexible road map for how a groundwater basin will achieve long term sustainability by avoiding undesirable results through data-driven adaptive management



PURPOSE OF THE GSP IS TO AVOID “UNDESIRABLE RESULTS”

- Overarching goal of SGMA is to avoid Undesirable Results for each of the six SGMA sustainability indicators:



- Minimum Thresholds for Undesirable Results
- Measurable Objectives goals to provide flexibility
- Monitoring networks track progress



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GSP PERIODIC EVALUATION OVERVIEW



GSP PERIODIC EVALUATION

■ What?

- Written periodic evaluation report
- Communicate progress on GSP implementation

■ Why?

- It's required...GSP Emergency Regulations
- Prudent for ensuring the basin is managed sustainably

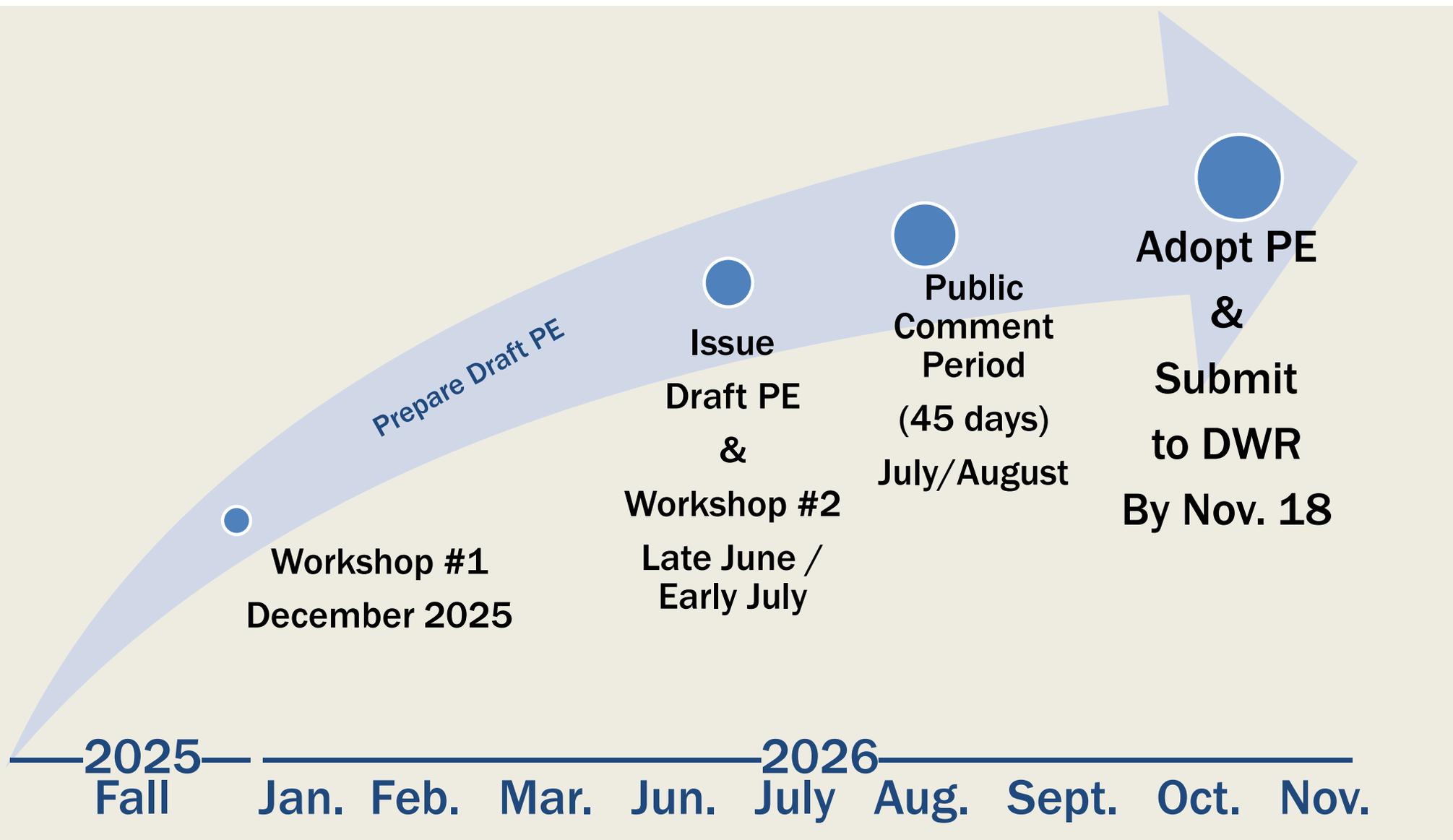
■ When?

- At least once every five years

GSP PERIODIC EVALUATION SCOPE

- Describe new information collected.
- Describe current groundwater conditions for each sustainability indicator.
- Describe status & changes to any GSP sections.
- Explain how have actions taken by GSA have informed changes in basin management.
- Describe whether there is a need to change any GSP section that would lead to a GSP Amendment.
- Address DWR recommended corrective actions

GSP PE SCHEDULE





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GSP RECAP &

PE FOCUS AREAS

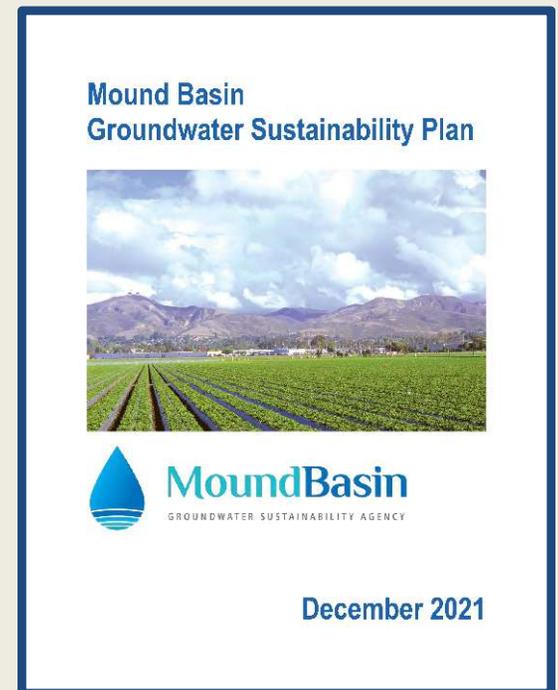


GSP CONTENTS

GSP Contents are per GSP Emergency Regulations:

➤ **Executive Summary**

- 1. Introduction to Plan Contents**
- 2. Administrative Information**
- 3. Basin Setting**
- 4. Sustainable Management Criteria**
- 5. Monitoring Networks**
- 6. Projects and Management Actions**
- 7. GSP Implementation**



SECTION 1

INTRO TO PLAN CONTENTS

GSP

- **Contents**
 - SGMA Background
 - GSP Overview

- **Key Conclusions**
 - N/A

- **Actions**
 - N/A

Periodic Evaluation

- No new information
- No new information

SECTION 2

ADMINISTRATIVE INFORMATION

GSP

- **Contents**
 - GSA Description
 - Plan Area Description
 - Water Resource Programs
 - Land Use Info
 - Communications Plan

- **Key Conclusions**
 - N/A

- **Actions**
 - N/A

Periodic Evaluation

- No new information
- No new information
- Update City water supplies
- City 2050 General Plan
- Stakeholder Engagement plan updates

SECTION 3

BASIN SETTING

GSP

- **Contents**
 - Hydrogeologic Conceptual Model
 - Historical Basin Conditions
 - Water Budgets

- **Key Conclusions**
 - Pumping from principal aquifers does not materially impact surface water
 - No historical land subsidence
 - No seawater intrusion
 - Basin has been and is projected to remain in balance

- **Actions**
 - Drill MW-A and B

Periodic Evaluation

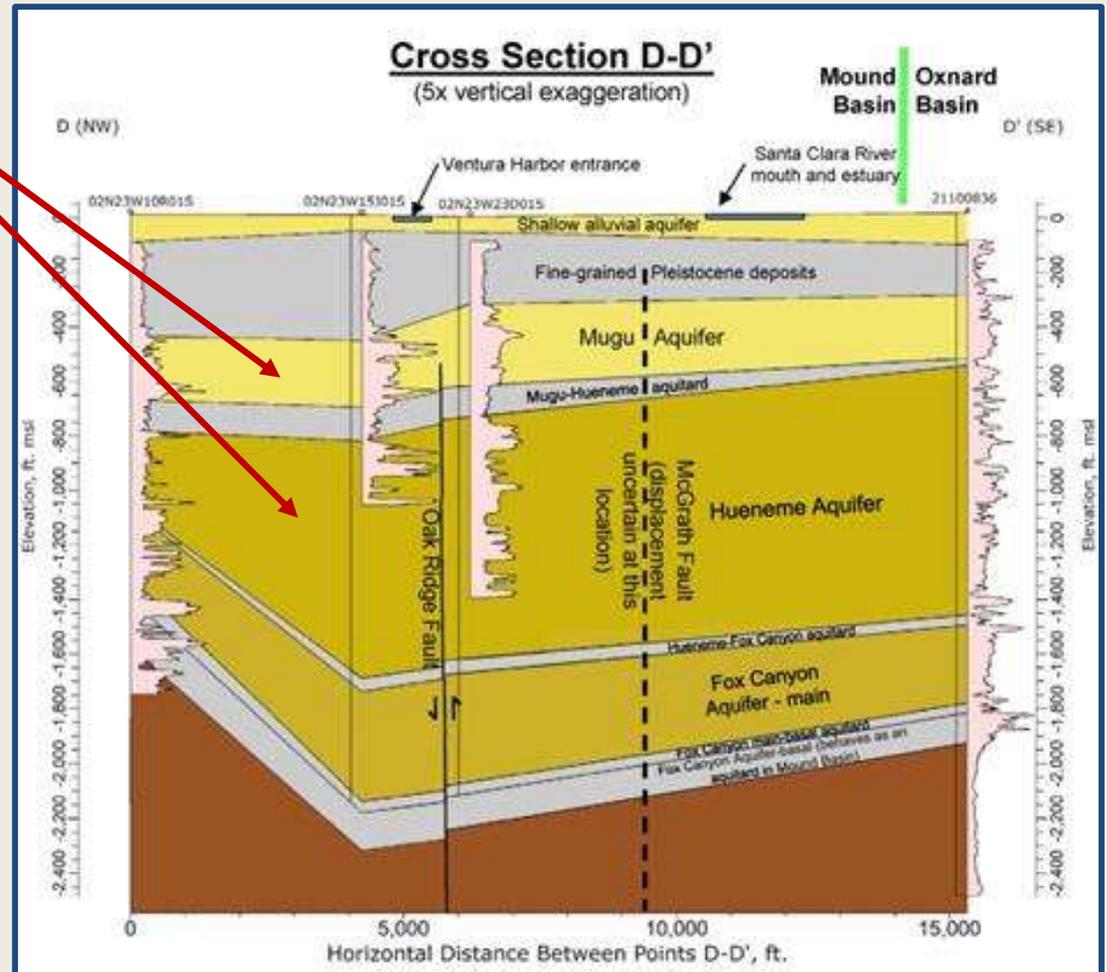
- New data from MW-A
- More recent monitoring data
- Updated water use projections

- Lack of surface water impact further confirmed with additional monitoring data
- Land subsidence not observed
- MW-A seawater not observed
- Less pumping forecasted, further supporting basin balance projection

- MW-A drilled; MW-B pending

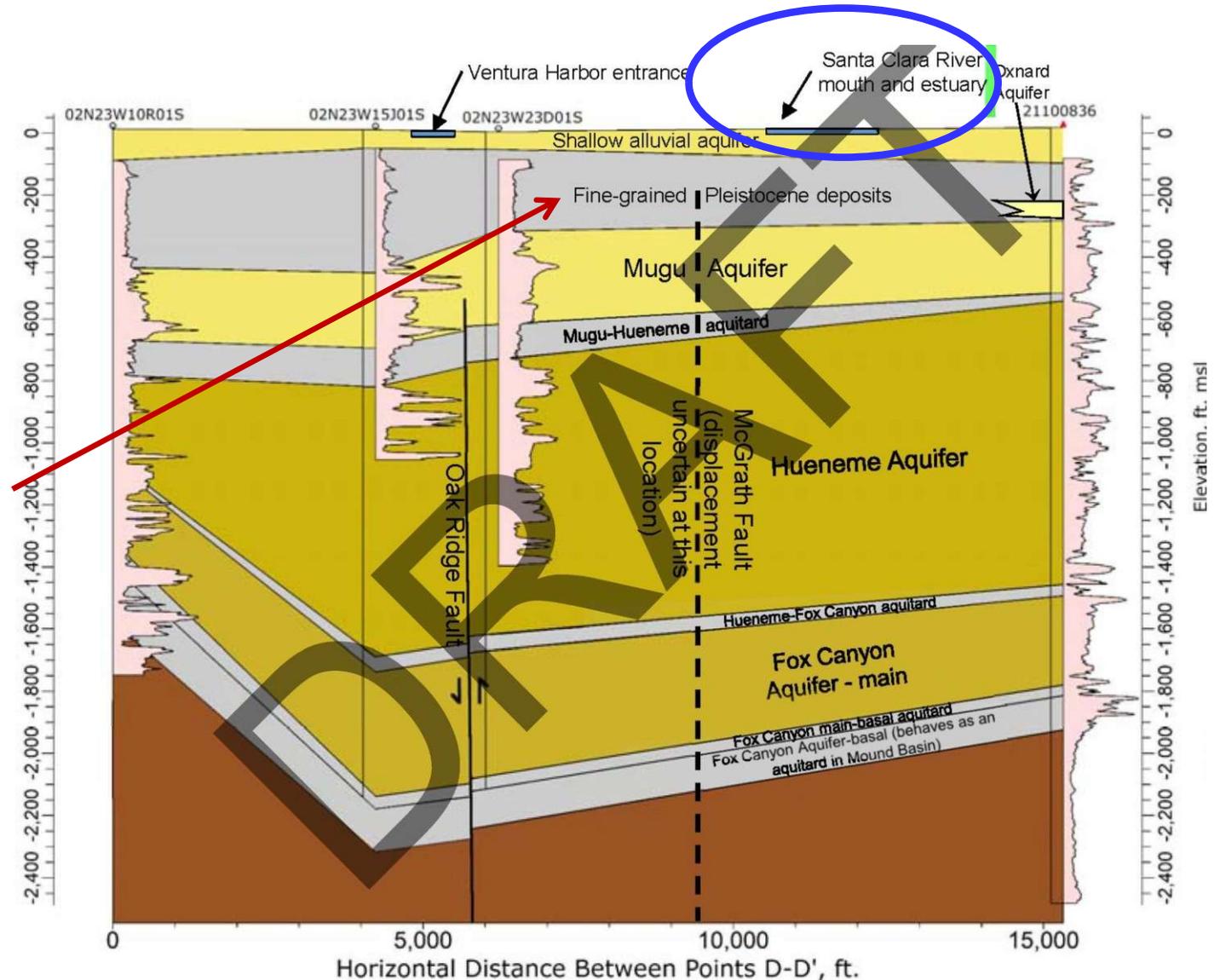
REVIEW OF HCM KEY INFO: AQUIFERS

- Two “principal” aquifers:
 - Deep
 - Confined
- Other units do not provide significant quantities of water to wells and will not be managed by MBGSA



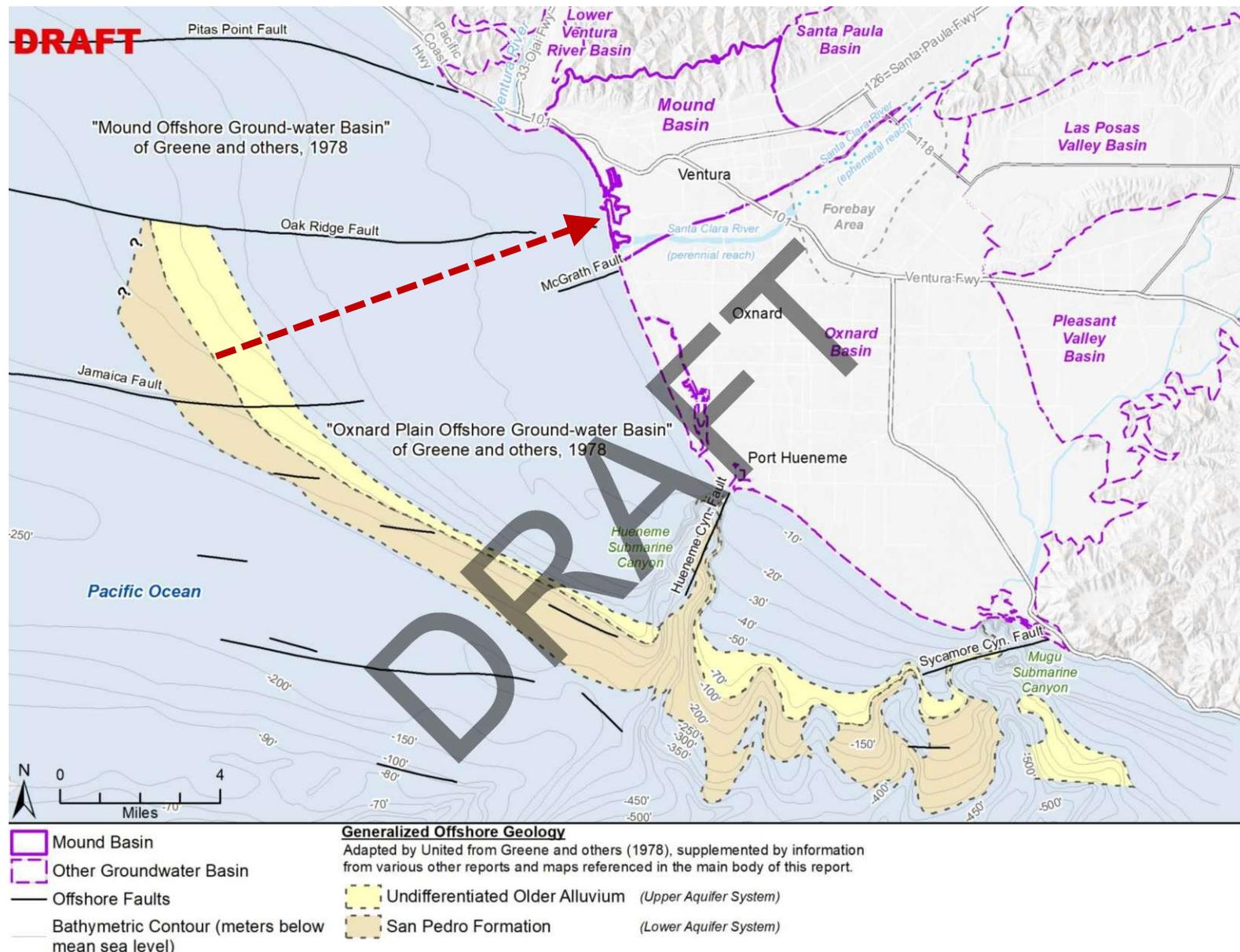
INTERCONNECTED SURFACE WATER

- **Shallow GW likely interconnected with river, however, there is no pumping from shallow aquifer.**
- **Surface water and principal aquifers are separate by thick aquitards. Pumping in principal aquifers is not believed to materially affect surface water (i.e., no measurable depletion of surface water by pumping).**



SEAWATER INTRUSION

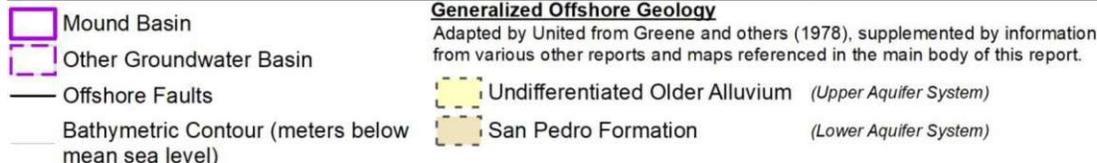
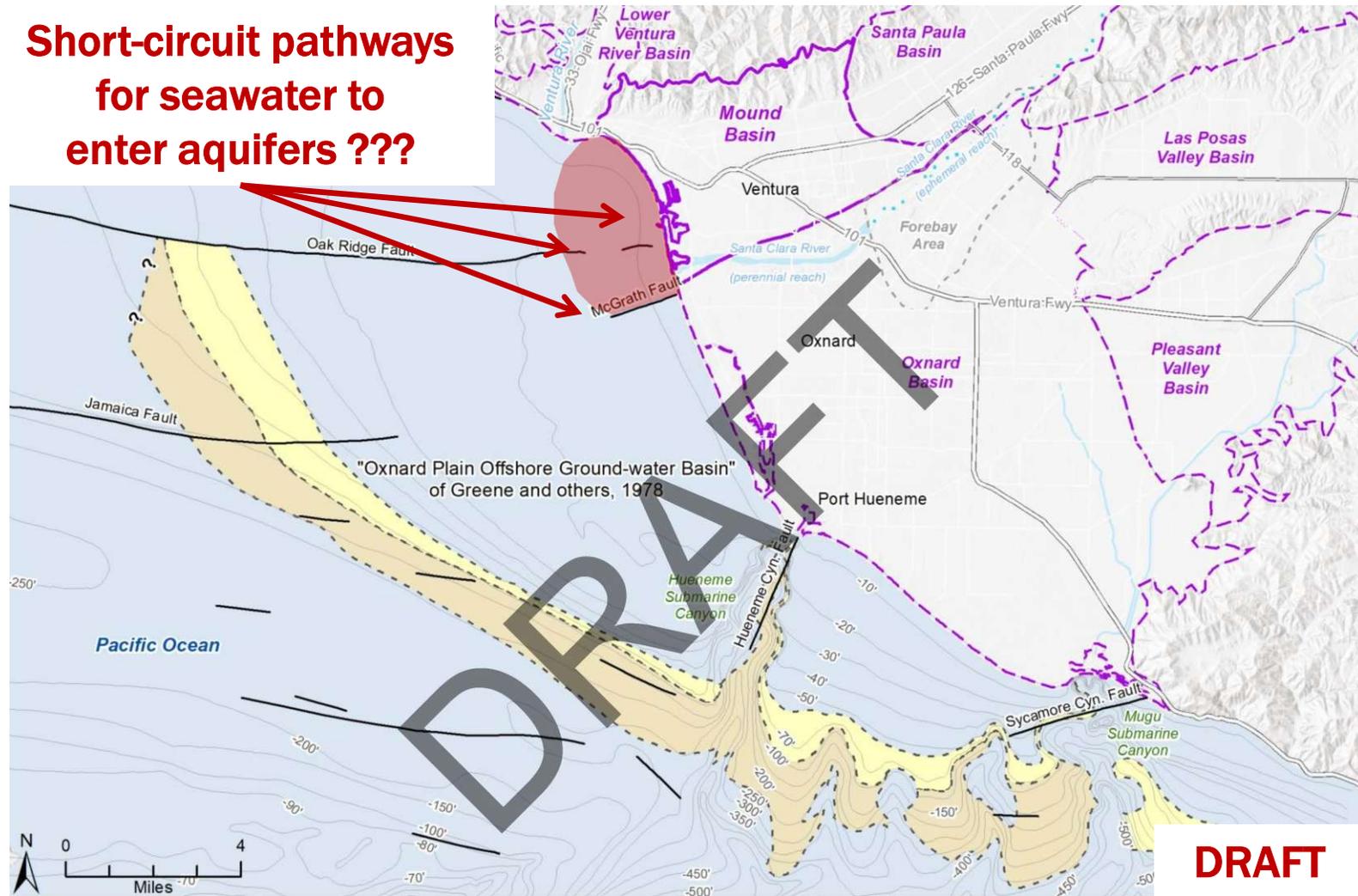
Seawater would need to flow approximately 10 miles within the aquifer to reach the shoreline, which would require hundreds of years at a consistently low groundwater level condition in the basin. Such a timeframe extends past the GSP planning horizon.



SEAWATER INTRUSION (CONTINUED)

Potential gaps in the confining layer above the aquifers and/or faulting could possibly provide short-circuit pathways for seawater intrusion near the shoreline. If such short-circuit pathways exist, seawater could reach the shoreline within the GSP implementation period.

Short-circuit pathways for seawater to enter aquifers ???



Note: Area depicted in red is conceptual and provided for discussion purposes only.

DRAFT

LAND SUBSIDENCE

Note: InSAR accuracy for the period shown is 0.0525 feet. InSAR results less than this value are not considered to be evidence of actual subsidence.

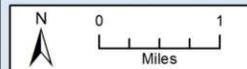
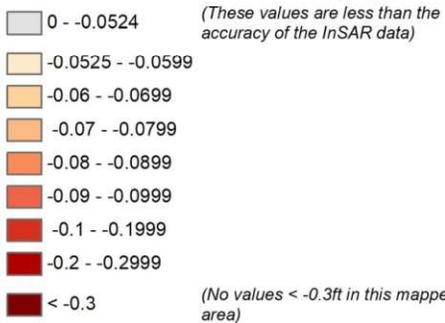
LAND SUBSIDENCE IS BELIEVED TO BE PRIMARILY THE RESULT OF TECTONIC ACTIVITY, NOT GROUNDWATER WITHDRAWAL

Areas outside of the InSAR point data grid do not have raw data. The raster values shown are interpolated from surrounding areas and are significantly influenced by a subsidence hot spot located in the Oxnard Basin that is coincident with a landfill. Therefore the elevated subsidence values shown in this area are not considered to be representative of actual subsidence in the Mound Basin.

InSAR Subsidence Layers

□ Vertical Displacement Point Data Locations 2019

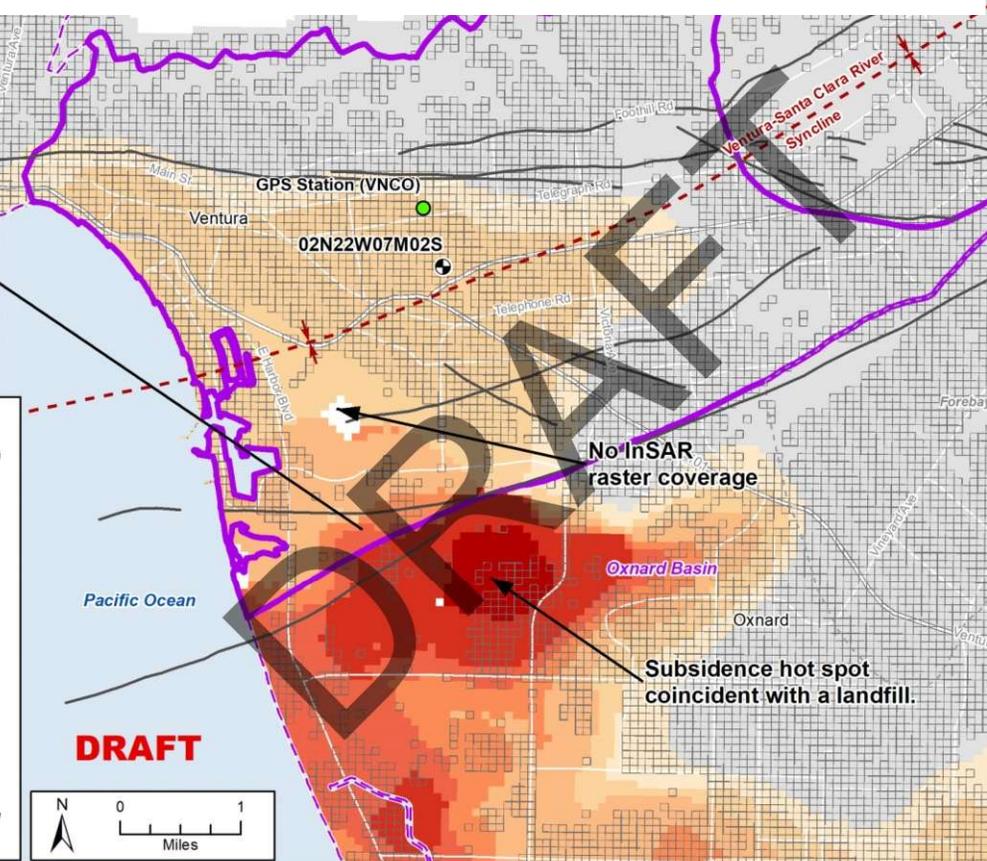
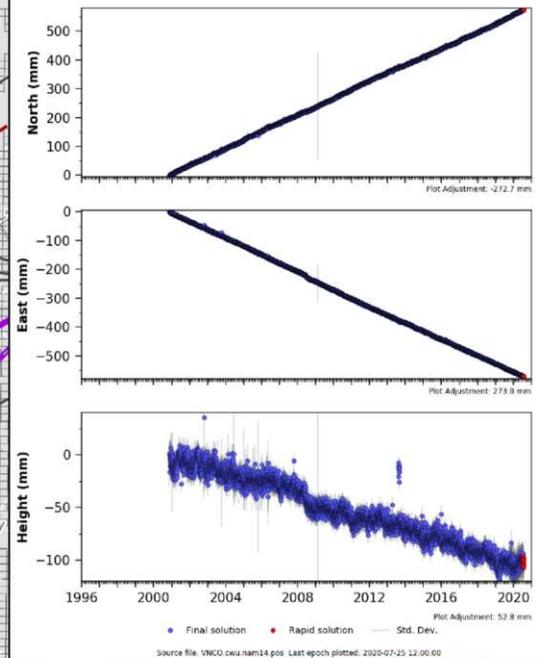
Interpolated InSAR Raster of Cumulative Displacement, 6/13/2015 - 9/19/2019 (feet)



DRAFT

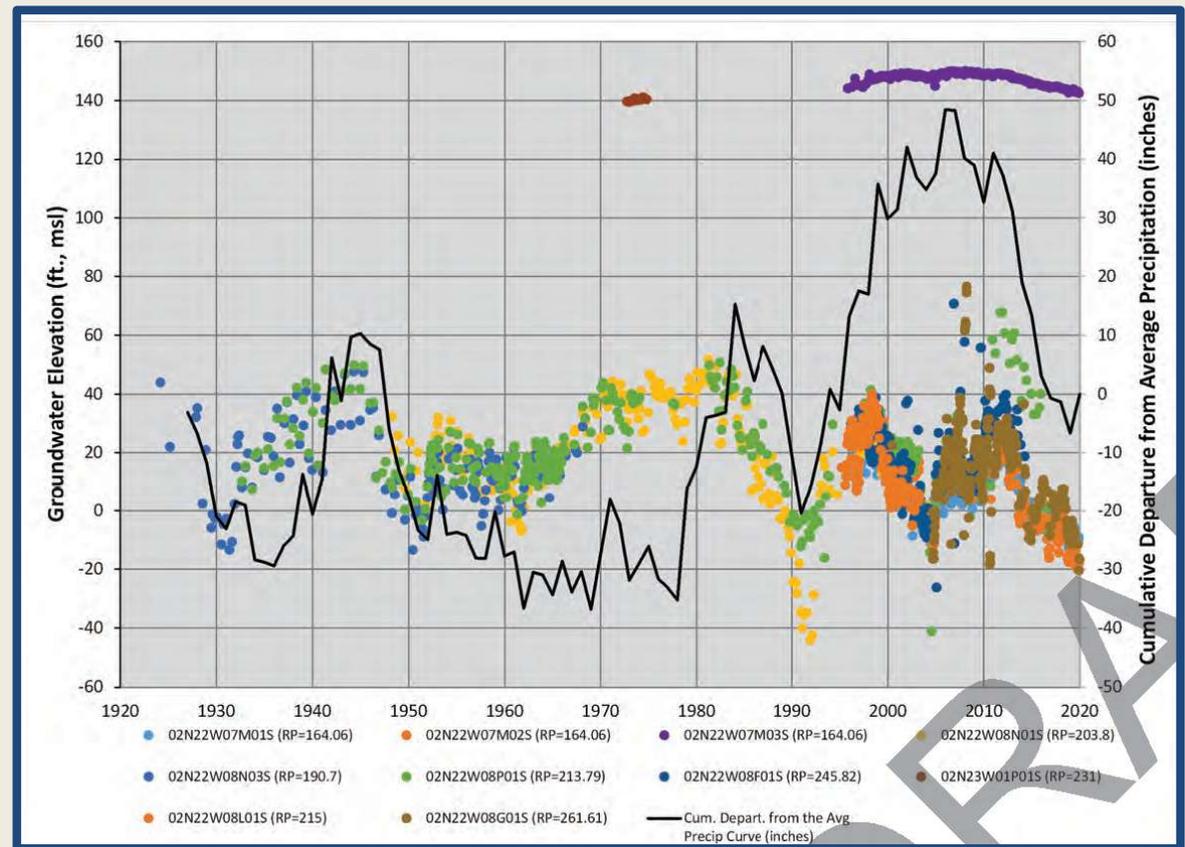
- Mound Basin
- Approximate Trace of Fault
- Other Groundwater Basin
- Axis of syncline, dashed where approximate

VNCO (VNCO_SCGN_CS2000) NAM14
Processed Daily Position Time Series



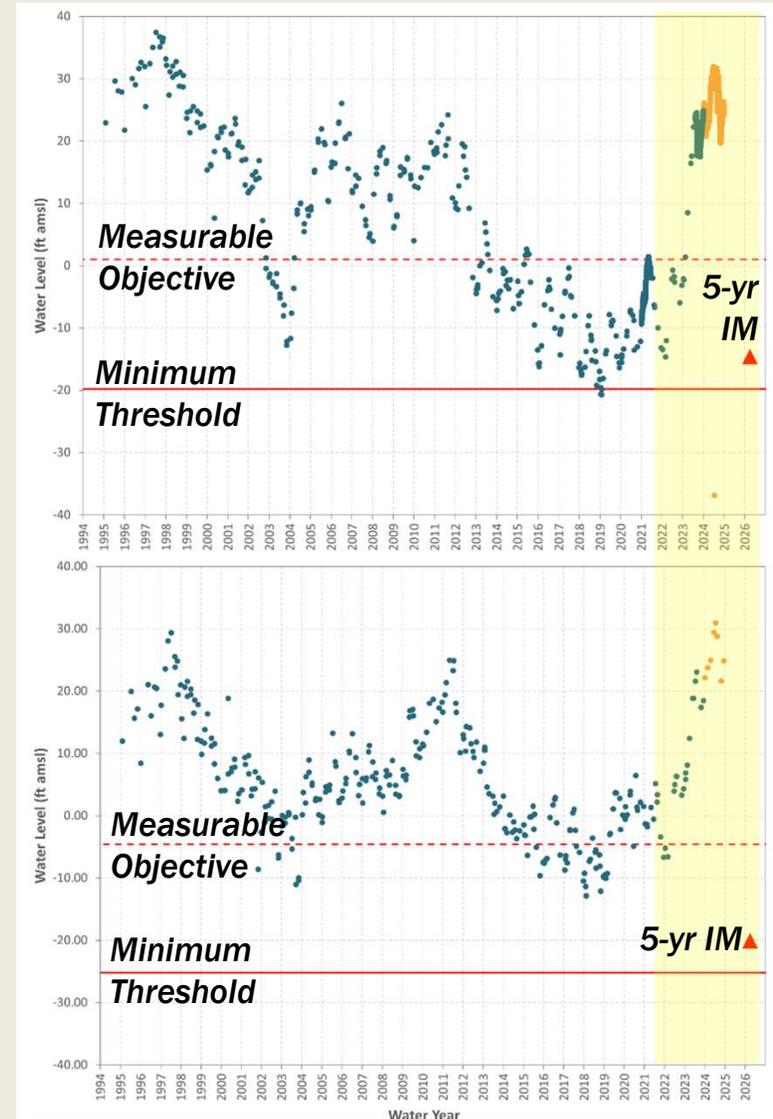
GROUNDWATER ELEVATIONS SUGGEST BASIN IS IN BALANCE

- *Groundwater levels have historically risen and fallen in sync with climatic trends.*
- *Chronic lowering of groundwater levels or long-term reduction of groundwater storage has not been observed.*

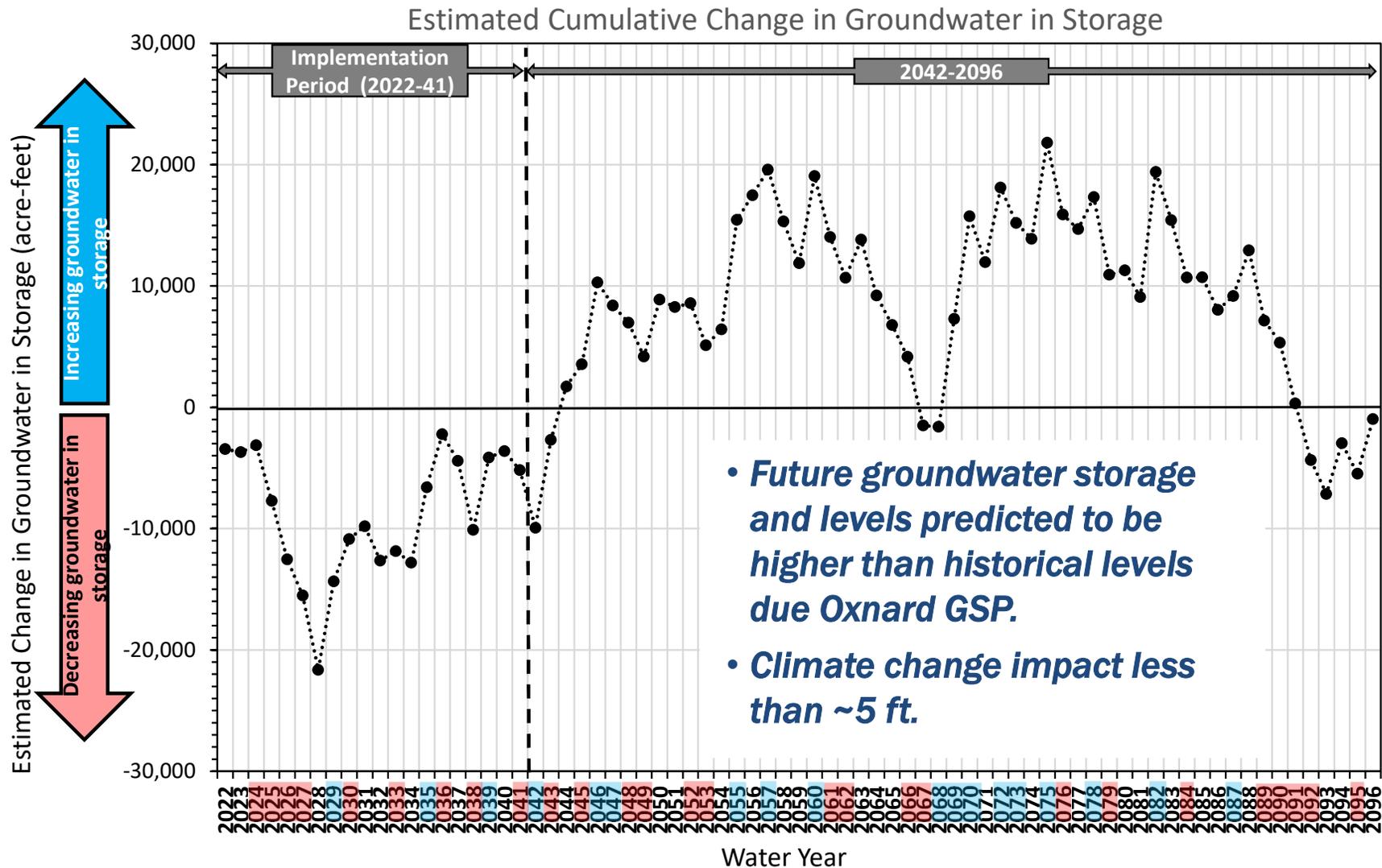


GROUNDWATER ELEVATIONS POST-GSP

- *Groundwater levels recovered from drought that existed during GSP development.*
- *Supports basin balance conclusion.*
- *Measurable Objective and 5-YR Interim Milestones Met*



GSP PROJECTED BASIN STORAGE WITH CLIMATE CHANGE



UPDATED PUMPING PROJECTIONS

- Projected groundwater pumping 29% to 62% less than GSP.
- Basin was already projected to be in balance.
- Updated modeling not necessary for this periodic evaluation.

Type	GSP Average Pumping (AFY)	Updated Projection (AFY)
City	4,000	0 - 2,462
Ag	3,300	2,700
Other	161	106
Total	7,461	2,806 - 5,268

SECTION 5

MONITORING NETWORKS

GSP

■ Contents

- Groundwater Level Monitoring Network
- Groundwater Quality & Seawater Intrusion Monitoring Network
- Land Subsidence Monitoring Network

■ Actions

- Implement monitoring
- Drill MW-A and MW-B
- Optional MW-C

Periodic Evaluation

- No changes anticipated
- No changes anticipated
- No changes anticipated

- Monitoring implemented
- MW-A drilled; MW-B pending
- Applied for grant

SECTION 6

PROJECTS / MANAGEMENT ACTIONS

GSP

■ Contents

- Drill New Monitoring Wells
- Shallow GW Level Monitoring
- Seawater Contingency Plan
- Land Subsidence Contingency Plan
- Groundwater Quality Protection Measures

Periodic Evaluation

- MW-A drilled; MW-B in progress
- Shallow GW monitoring implemented
- Optional actions deferred due to rising GW levels & decreased pumping

SECTION 7

GSP IMPLEMENTATION

GSP

- **Contents**
 - **GSP Implementation Costs**
 - **GSP Implementation Schedule**

Periodic Evaluation

- **Update costs and schedule based on latest information**



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DWR GSP RECOMMENDED CORRECTIVE ACTIONS



GSP RECOMMENDED CORRECTIVE ACTION NO. 1

RCA

Investigate the hydraulic connectivity of the Santa Clara River, the shallow alluvial deposits, and the principal aquifers. Update discussion of the potential for management of the principal aquifers to address interconnected surface water (ISW) depletion.

Status

GSP included a shallow groundwater monitoring program and construction of two monitoring wells.

Shallow groundwater monitoring ongoing and 1/2 monitoring wells completed.

GSP RECOMMENDED CORRECTIVE ACTION NO. 2

RCA

Clarify projected water budgets with respect to availability of surface water and impact on groundwater pumping.

Status

Additional context will be provided in PE report concerning City of Ventura's water supply portfolio. City unlikely to increase pumping due to WaterPure project and Mound Basin water quality.

GSP RECOMMENDED CORRECTIVE ACTION NO. 3

RCA

Provide further justification for water quality undesirable results definition or amend.

Status

To be addressed during PE development.

GSP RECOMMENDED CORRECTIVE ACTION NO. 4

RCA

Provide further justification for groundwater levels undesirable results definition or amend.

Status

To be addressed during PE development.

GSP RECOMMENDED CORRECTIVE ACTION NO. 5

RCA

Develop sustainable management criteria for depletions of ISW.

Use DWR ISW guidance, as appropriate.

Status

To be addressed during PE development.

DWR ISW guidance not finalized.

GSP RECOMMENDED CORRECTIVE ACTION NO. 5 (CONTINUED)

RCA

Continue filling data gaps & monitoring of ISW.

Collaborate with regulatory agencies and interested parties concerning identification of surface water beneficial uses.

Status

Monitoring was proposed in GSP and is being implemented.

Stakeholder engagement plan was updated.

Targeted outreach was performed in early December.



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SHALLOW GROUNDWATER MONITORING RESULTS





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Q&A & FEEDBACK



PLEASE STAY ENGAGED!

- Track status at:

<https://www.moundbasingsa.org/>

- Join the MBGSA Interested Parties List:

<https://www.moundbasingsa.org/contact-us/>

- Email inquiries to: Jackie Lozano

admin@moundbasingsa.org