

# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

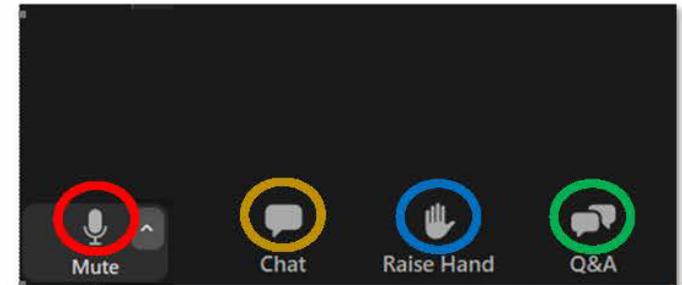
***GROUNDWATER  
SUSTAINABILITY  
PLAN  
WORKSHOP NO. 1***

***SEPTEMBER 3, 2020  
5 PM***



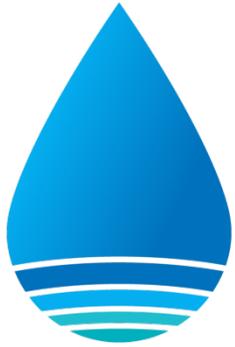
# WEBINAR FEATURES

- Workshop is being recorded and will be posted to **moundbasingsa.org** along with the presentations
- Attendees are **muted**
- Questions and comments:
  - Use “**Raise Hand**” to ask a question verbally
  - Use “**Q&A**” to type a question and/or comment to the panelists
  - Use “**Chat**” to type a question and/or comment to the panelists



# WORKSHOP AGENDA

No.	Time	Topic
1	5:00 – 5:05 pm	Meeting Call to Order, Roll Call, and Public Comments
2	5:05 – 5:10 pm	Welcome, Overview Webinar Features, and Agenda Review
3	5:10 – 5:15 pm	Get to Know the Audience (Attendee Poll Nos. 1 -3)
4	5:15 – 5:35 pm	Introduction to SGMA and GSPs <ul style="list-style-type: none"><li>• Presentation</li><li>• Q&amp;A</li></ul>
5	5:35 – 5:55 pm	Overview of Basin Setting <ul style="list-style-type: none"><li>• Presentation</li><li>• Q&amp;A</li></ul>
6	5:55 – 6:00 pm	Break
7	6:00 – 6:20 pm	Groundwater Model Summary <ul style="list-style-type: none"><li>• Presentation</li><li>• Q&amp;A</li></ul>
8	6:20 – 6:40 pm	Next Steps for GSP Development <ul style="list-style-type: none"><li>• Presentation</li><li>• Q&amp;A</li><li>• Attendee Poll No. 4</li></ul>
9	6:40 – 7:00 pm	<ul style="list-style-type: none"><li>• Stakeholder Questions and Feedback</li><li>• Attendee Poll Nos. 5 &amp; 6</li></ul>
10	7:00 – 7:10 pm	Mound Basin GSA Director Comments
11	7:10 – 7:15 pm	Wrap-up



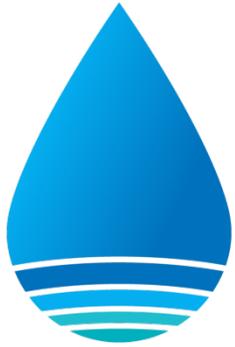
# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

# ATTENDEE

# POLL NOS. 1 - 3





# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

# INTRODUCTION TO SGMA & GSPS



# 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)

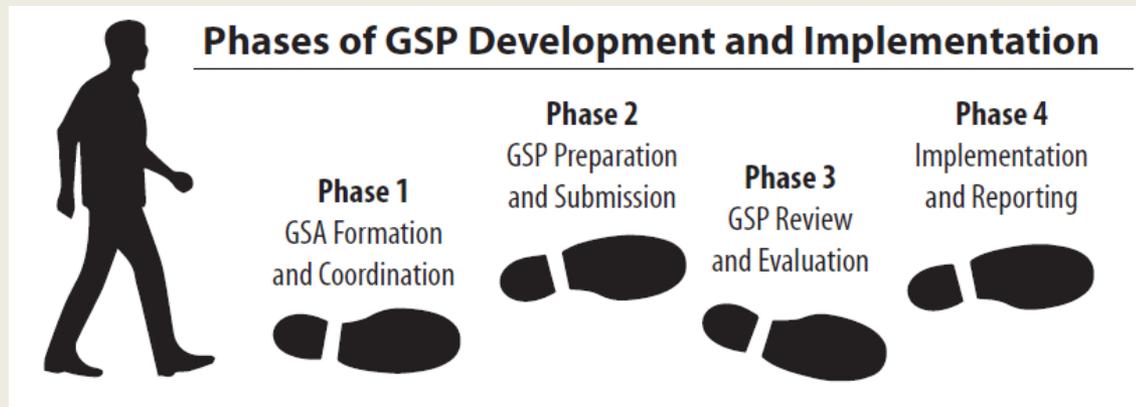
# SGMA LEGISLATIVE INTENT

- Avoid undesirable results
- Provide local authority to manage groundwater
- Extensive stakeholder outreach and engagement
- Establish minimum standards
- Assert State authority when necessary
- SGMA does not determine or alter water rights



# WHAT DOES SGMA REQUIRE?

1. Form a Groundwater Sustainability Agency (GSA)
2. Adopt a Groundwater Sustainability Plan (GSP)
  - Due January 31, 2022
3. Achieve Sustainable Groundwater Management
  - 20 years following GSP adoption



# MOUND BASIN GROUNDWATER SUSTAINABILITY AGENCY

## MBGSA Board of Directors:

*(from left to right in photo)*

Conner Everts  
Environmental Stakeholder  
[connere@gmail.com](mailto:connere@gmail.com)

Jim Chambers  
Agricultural Stakeholder  
[jameschambers0523@gmail.com](mailto:jameschambers0523@gmail.com)

Mike Mobley, Chair  
United Water Conservation  
District  
[mike@prolandman.com](mailto:mike@prolandman.com)

Susan Rungren, Vice Chair / Sec.  
Ventura Water  
[srungren@cityofventura.ca.gov](mailto:srungren@cityofventura.ca.gov)

Glenn Shephard, Treasurer  
Ventura County  
[Glenn.Shephard@ventura.org](mailto:Glenn.Shephard@ventura.org)

MBGSA was formed in 2017  
under a Joint Powers Authority  
agreement between:



# GSA AUTHORITIES

- Conduct studies
- Register and monitor wells
- Require reports of groundwater extraction
- Regulate groundwater extractions
- Assess fees
- Implement capital projects
- Some requirements do not apply to small groundwater users
- GSA DOES NOT determine water rights



*UWCD staff measuring the groundwater level in an agricultural Well*

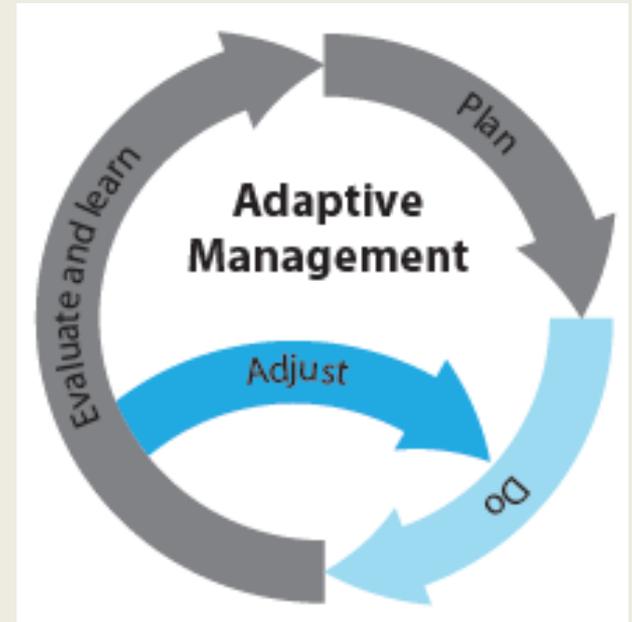
# GSA RESPONSIBILITIES

- Develop, adopt, and implement a GSP to achieve sustainable GW management
- Annual reporting to DWR
- Review and update GSP
- Stakeholder outreach and engagement

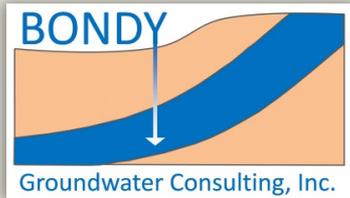


# WHAT IS A GSP?

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



# GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT TEAM



**Bryan Bondy, PG, CHG**

**MBGSA Executive Director & GSP Manager**

**GSP Contributor**



**United Water Conservation District**



**Abhishek Singh, PhD, PE & staff**

**GSP Contributor & Document Lead**

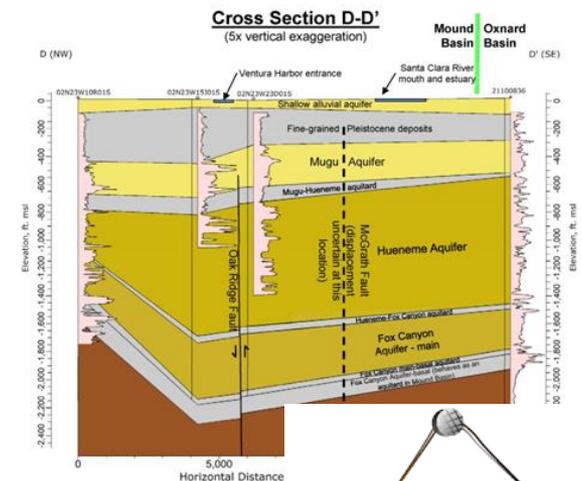
# WHAT MUST A GSP INCLUDE?

## ■ GSP Contents

- Administrative Information
- Basin Setting
- Sustainable Management Criteria
- Monitoring Networks
- Projects and Management Actions
- Implementation

\*\*\* GSP Template Available On MBGSA Website \*\*\*

## Mound Basin Groundwater Sustainability Plan



# ADMINISTRATIVE INFORMATION

## ■ Agency Information



## ■ Description of Plan Area



## ■ Notice and Communication

**STAKEHOLDER ENGAGEMENT PLAN  
MOUND BASIN**

**(4-004.03) VENTURA COUNTY, CALIFORNIA**

**SUSTAINABLE GROUNDWATER MANAGEMENT ACT  
(SGMA) PROGRAM**

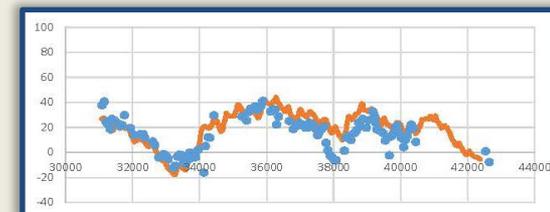
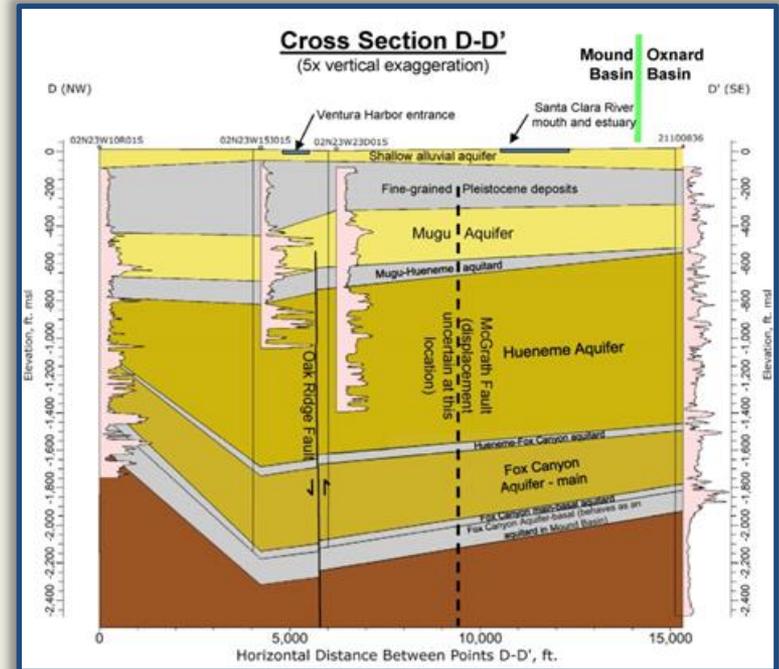
**PREPARED BY THE MOUND BASIN GROUNDWATER  
SUSTAINABILITY AGENCY**

**UPDATED AND ADOPTED OCTOBER 17, 2019**

# BASIN SETTING

- Drafts Completed:
  - Hydrogeologic Conceptual Model
  - Groundwater Conditions

- In Progress:
  - Water Budget
  - Management Areas



# SUSTAINABLE MANAGEMENT CRITERIA

- Sustainability Goal
- Sustainability Indicators



- Undesirable Results
  - Significant and unreasonable effect related to any of the six sustainability indicators (if applicable)
- Minimum Thresholds
  - Quantitative metrics indicating undesirable results exist
- Measureable Objectives
  - Quantitative metrics that reflect basin desired conditions

# DEFINING UNDESIRABLE RESULTS IS A CRITICAL STEP IN GSP DEVELOPMENT



Surface Water  
Depletion



Reduction  
of Storage



Degraded  
Quality



Seawater  
Intrusion



Land  
Subsidence



Lowering  
GW Levels

- Not all poor conditions are necessarily unreasonable
- Locally determined by GSA in consultation with stakeholders and public input
- Stakeholder input is key to determining undesirable results that reflect local values

# SUSTAINABLE MANAGEMENT CRITERIA

*The overarching goal of SGMA is to avoid undesirable results*

- Groundwater Levels
- Groundwater Storage
- Seawater Intrusion
- Water Quality
- Land Subsidence
- Interconnected Surface Water

Sustainability Indicator

IM #1

IM #2

IM #3

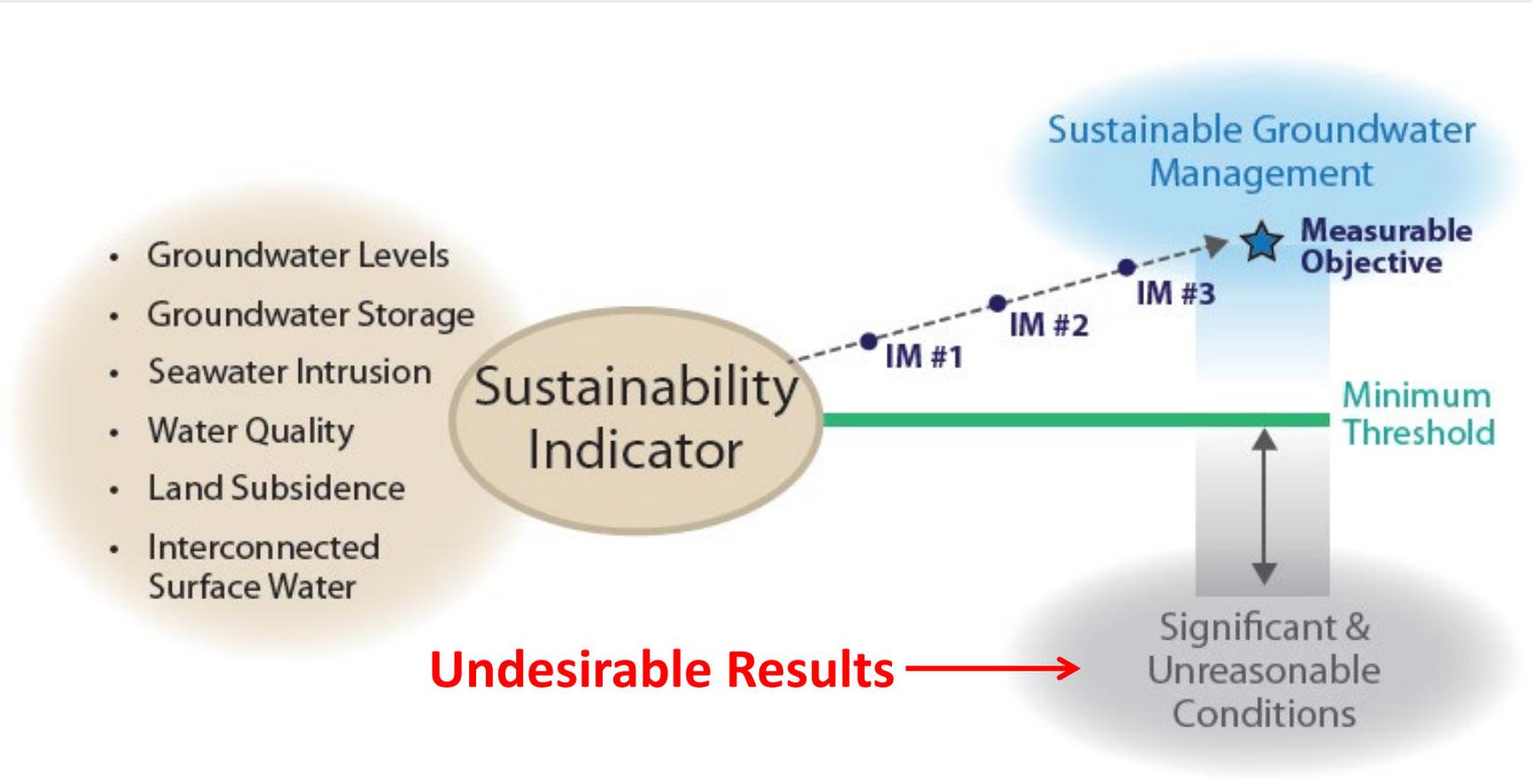
Sustainable Groundwater Management

Measurable Objective

Minimum Threshold

**Undesirable Results** →

Significant & Unreasonable Conditions



# MONITORING NETWORKS

- SGMA requires a monitoring network to demonstrate sustainable groundwater management

- Groundwater Levels
- Groundwater Quality
- Seawater Intrusion
- Subsidence



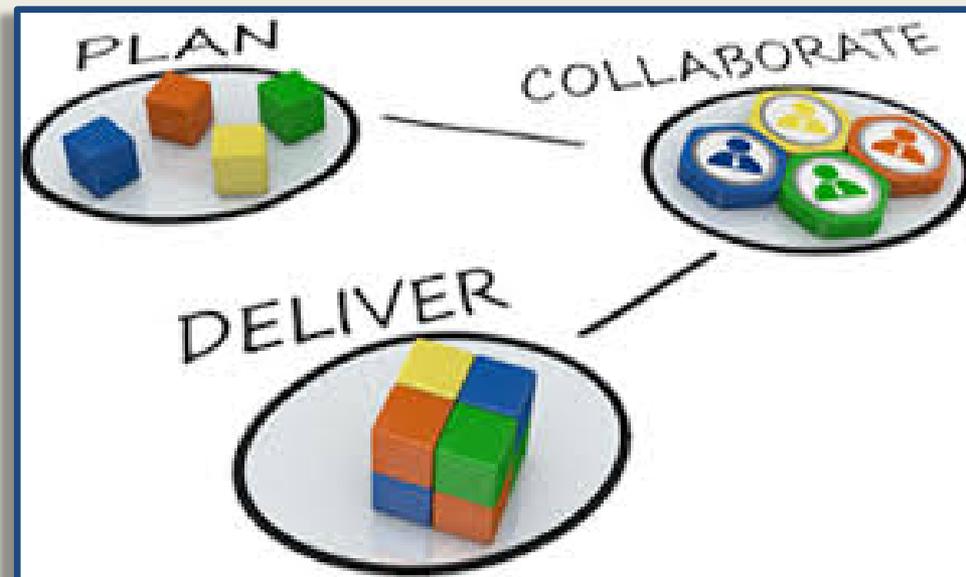
*UWCD staff measuring the groundwater level in the Kimball Park monitoring well*



*Groundwater sample collection from the Marina Park monitoring well*

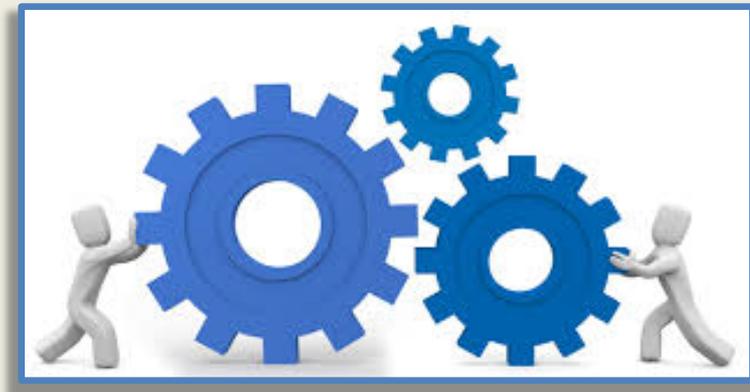
# PROJECTS AND MANAGEMENT ACTIONS

- Projects and/or management actions will be identified to achieve sustainable management, if necessary



# GSP IMPLEMENTATION

- Sustainable management must be achieved within 20 years of GSP adoption
- The GSP will include an implementation plan to address data gaps and further develop projects and management actions, as needed



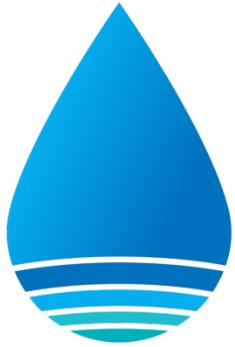
# KEY SGMA CONCEPTS

- Overarching goal is to avoid undesirable results
- Undesirable results and actions to prevent them are defined by the GSA, not the State with stakeholder input
- SGMA requires data-driven management:
  - GSP must be developed with best available science
  - Data gaps that affect sustainability goal must be filled
  - Sustainability demonstrated with monitoring data
- SGMA requires adaptive management
  - GSP will be a starting point for a 20 yr. journey to sustainability
  - GSP reevaluation and updates (req. min. every 5-yrs)

# SGMA & GSP OVERVIEW QUESTIONS



*View looking north from Olivas Park Drive*



# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

# BASIN SETTING OVERVIEW



# BASIN SETTING CONTENTS

## ■ Hydrogeologic Conceptual Model ✓

## ■ Groundwater Conditions

- Groundwater Levels ✓
- Groundwater Storage Change (*pending model*)
- Groundwater Quality ✓
- Land Subsidence ✓
- Interconnected Surface Water ✓
- Groundwater Dependent Ecosystems ✓



## ■ Water Budget

- Historical, current, and future (*pending model*)

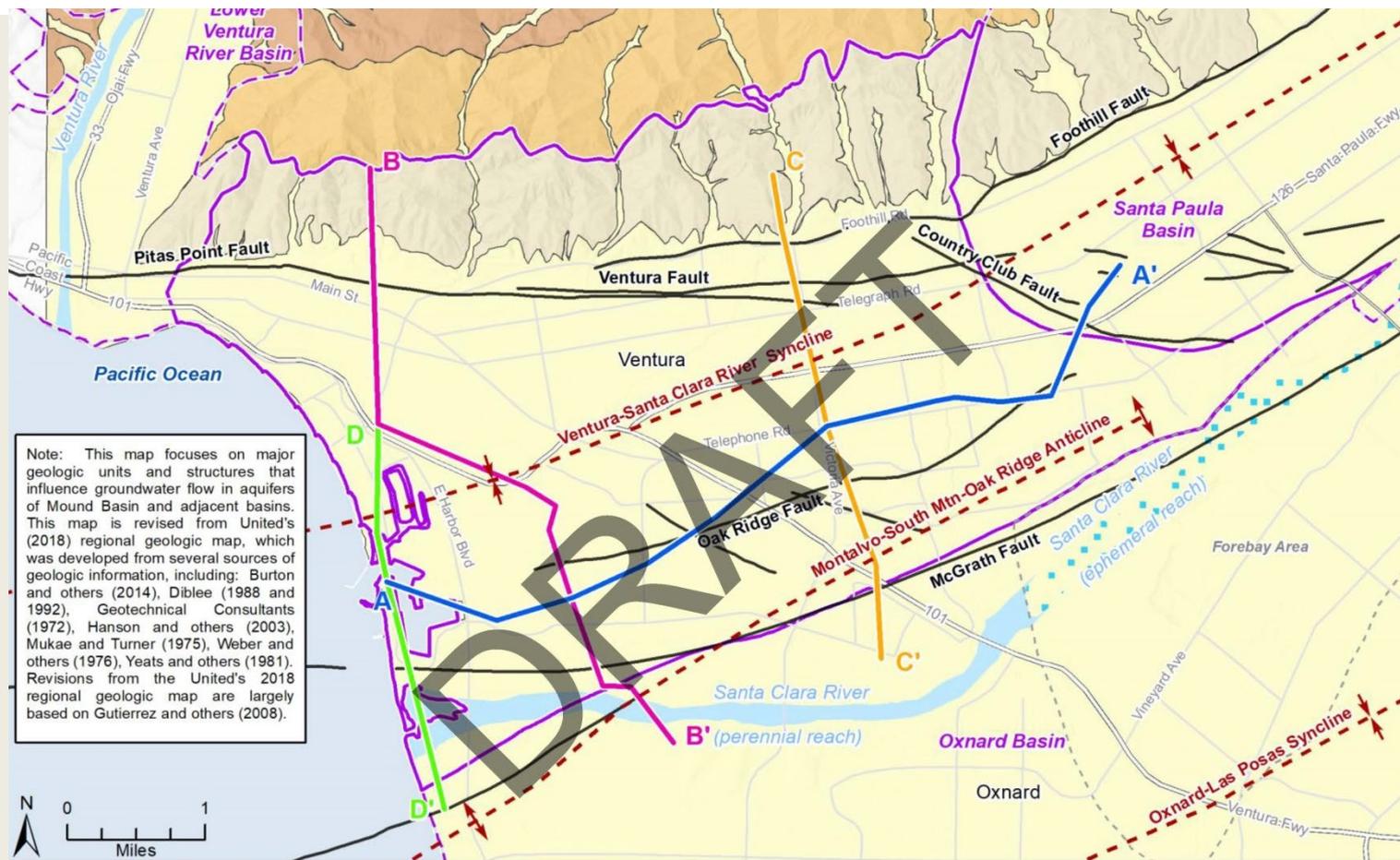


## ■ Management Areas (TBD)

# HYDROGEOLOGIC CONCEPTUAL MODEL

- Describes basin's physical characteristics
  - Geologic Setting ✓
  - Aquifer characteristics ✓
    - Geometry (lateral and vertical extents) ✓
    - Hydraulic Properties ✓
  - Hydrology ✓
- Provides conceptual understanding of groundwater behavior and cause and effect relationships and foundation for developing sustainable management criteria

# BASIN MAP



Note: This map focuses on major geologic units and structures that influence groundwater flow in aquifers of Mound Basin and adjacent basins. This map is revised from United's (2018) regional geologic map, which was developed from several sources of geologic information, including: Burton and others (2014), Diblee (1988 and 1992), Geotechnical Consultants (1972), Hanson and others (2003), Mukae and Turner (1975), Weber and others (1976), Yeats and others (1981). Revisions from the United's 2018 regional geologic map are largely based on Gutierrez and others (2008).



- Mound Basin
- Other Groundwater Basin

- Major Geologic Units**
- Alluvium (includes Pleistocene to Holocene alluvial and terrace deposits)
  - San Pedro Formation
  - Santa Barbara Formation
  - Pico Formation

- Axis of anticline, dashed where approximate
- Axis of syncline, dashed where approximate
- Approximate Trace of Fault

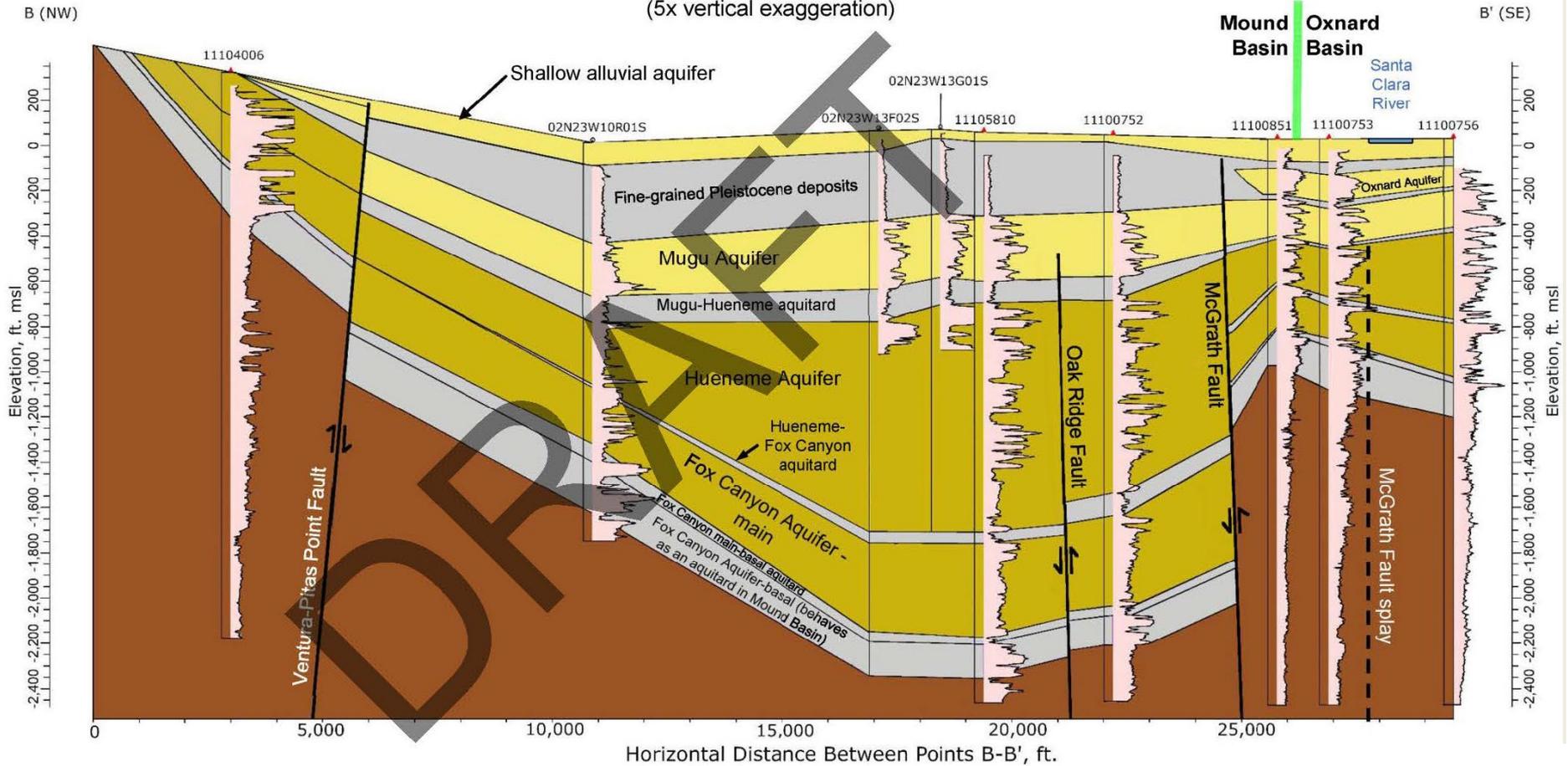
- Cross Section A-A'
- Cross Section B-B'
- Cross Section C-C'
- Cross Section D-D'

# NORTH TO SOUTH CROSS SECTION

North

South

## Cross Section B-B' (5x vertical exaggeration)



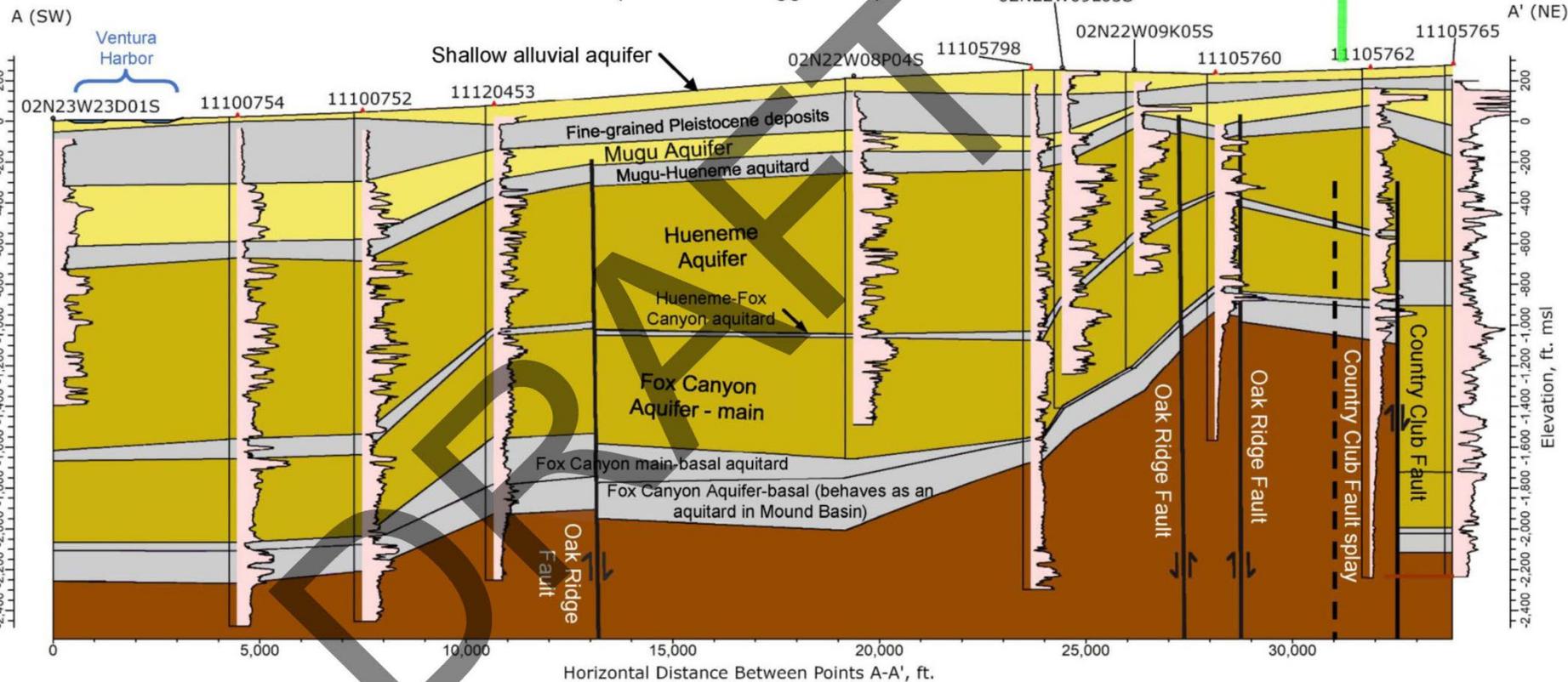
# WEST TO EAST CROSS SECTION

West  
(Pacific Ocean)

East  
(SP Basin)

**Cross Section A-A'**  
(5x vertical exaggeration)

Mound Basin  
Santa Paula Basin

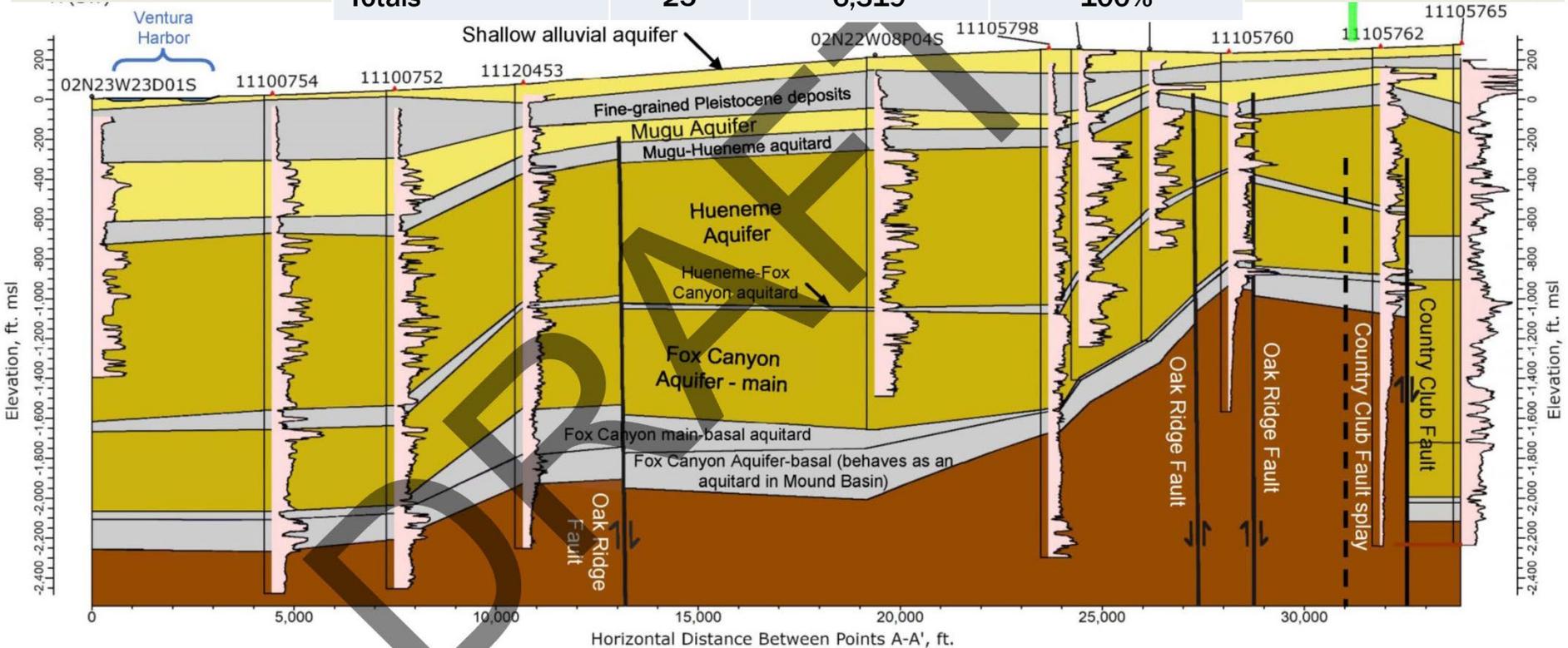


# PUMPING BY AQUIFER (2019)

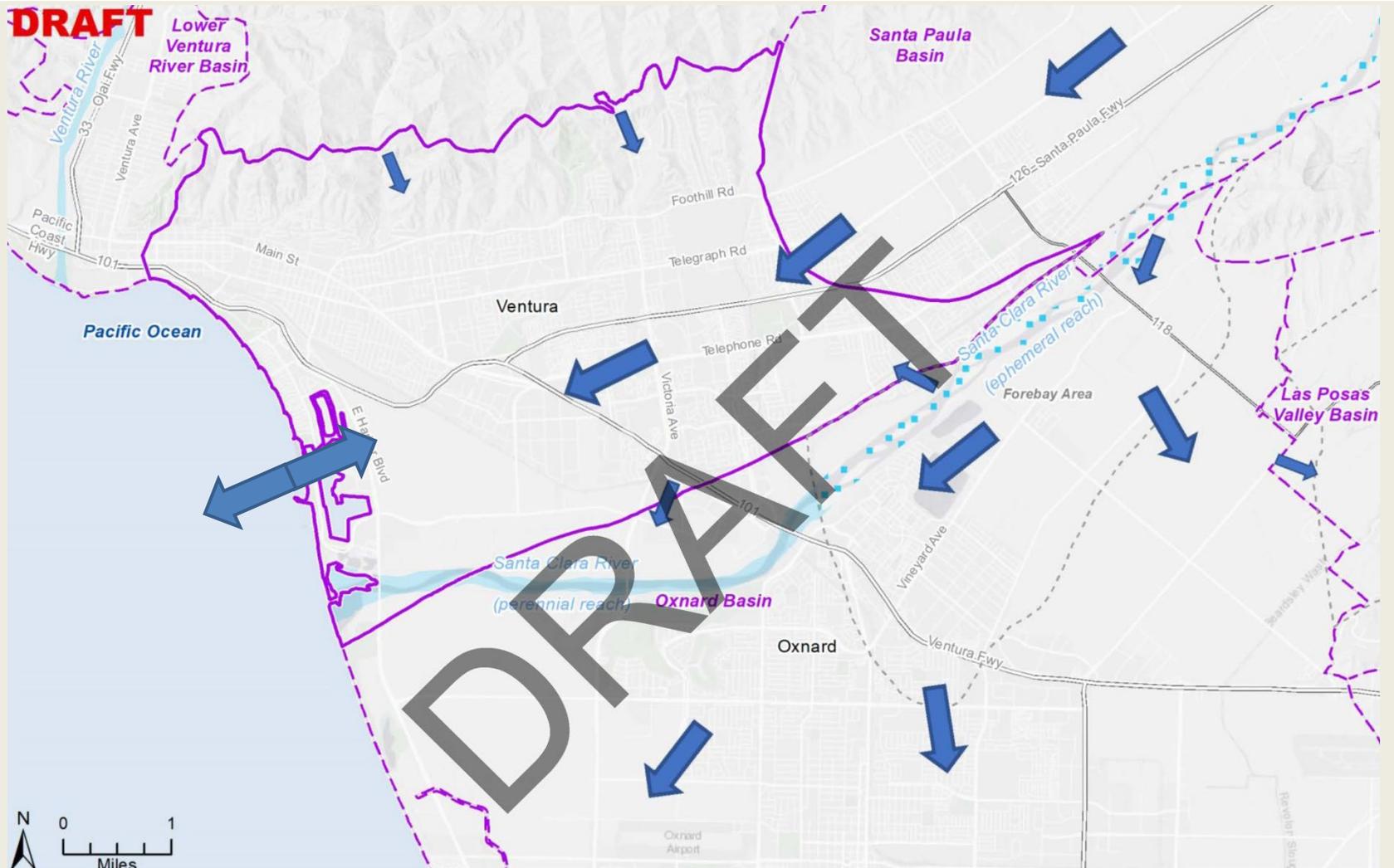
Aquifer	Wells	Pumping (AFY)	% of Pumping
Shallow or FGPD	0	0	0%
Mugu	4	1,071	17%
Mugu-Hueneme	5	289	5%
Hueneme	11	4,296	68%
Hueneme-Fox	2	191	3%
Fox	0	0	0%
Unknown	3	472	7%
<b>Totals</b>	<b>25</b>	<b>6,319</b>	<b>100%</b>

Pacific Ocean

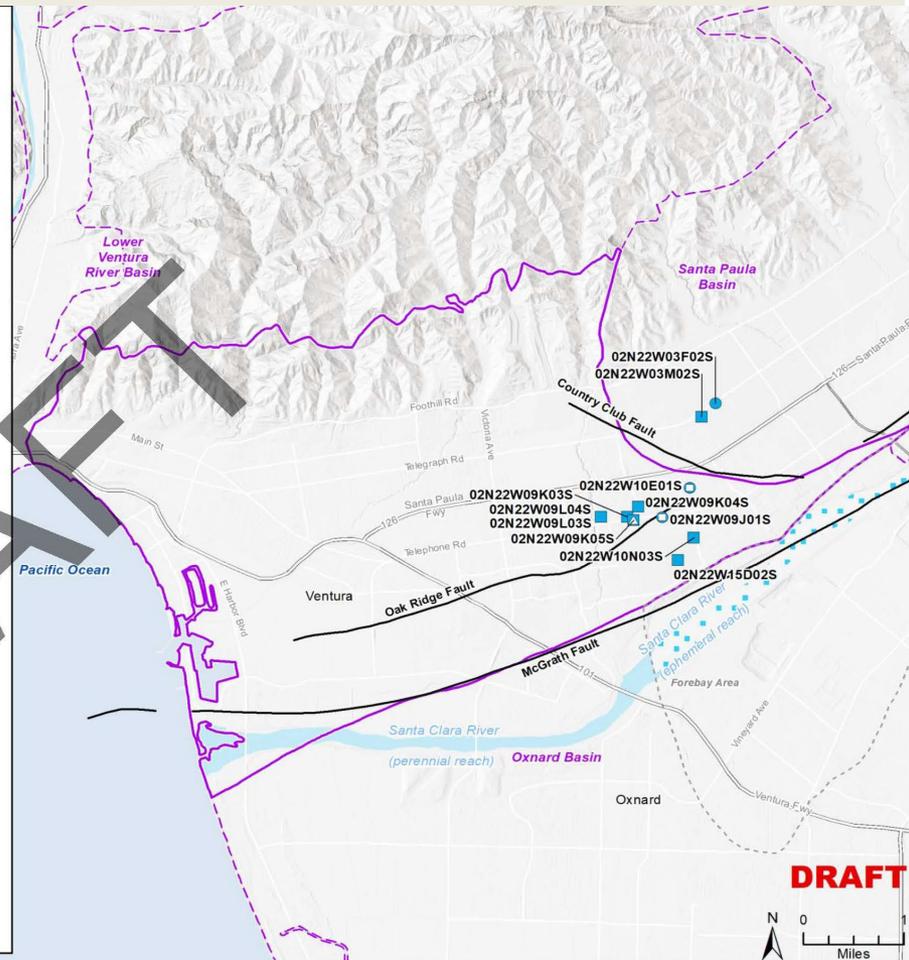
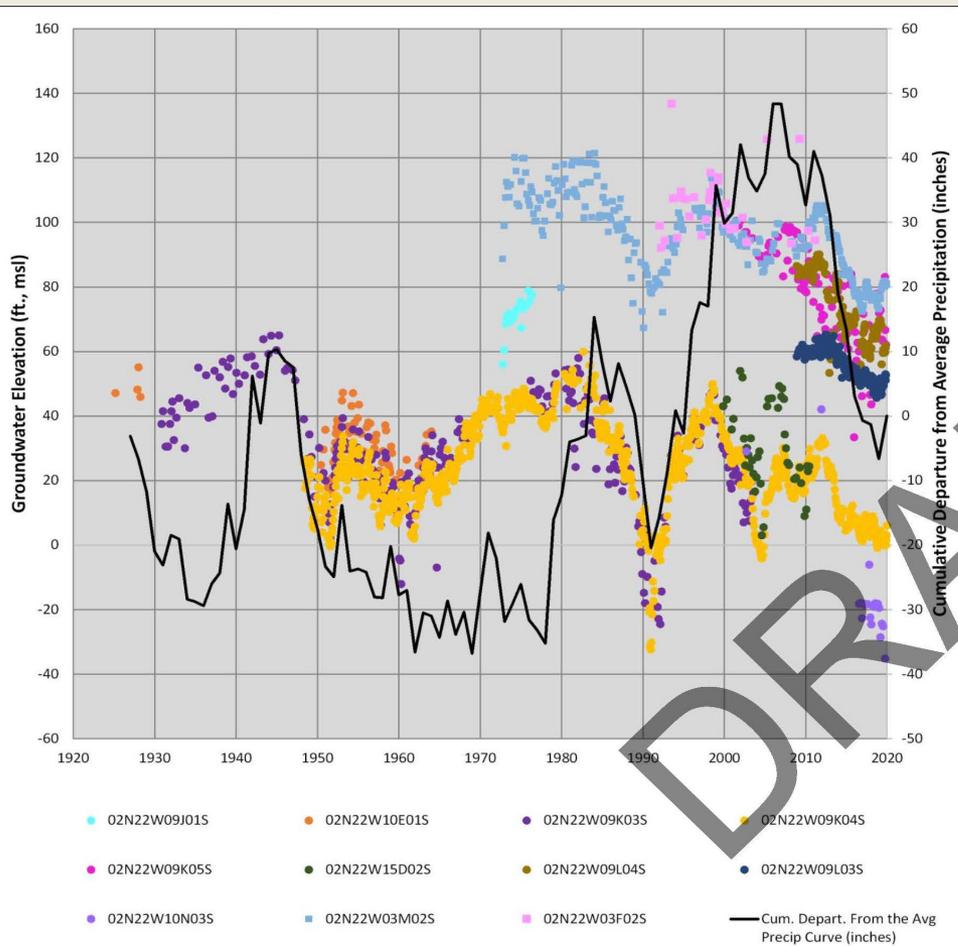
Santa Paula Basin



# GENERALIZED GROUNDWATER FLOW DIRECTIONS



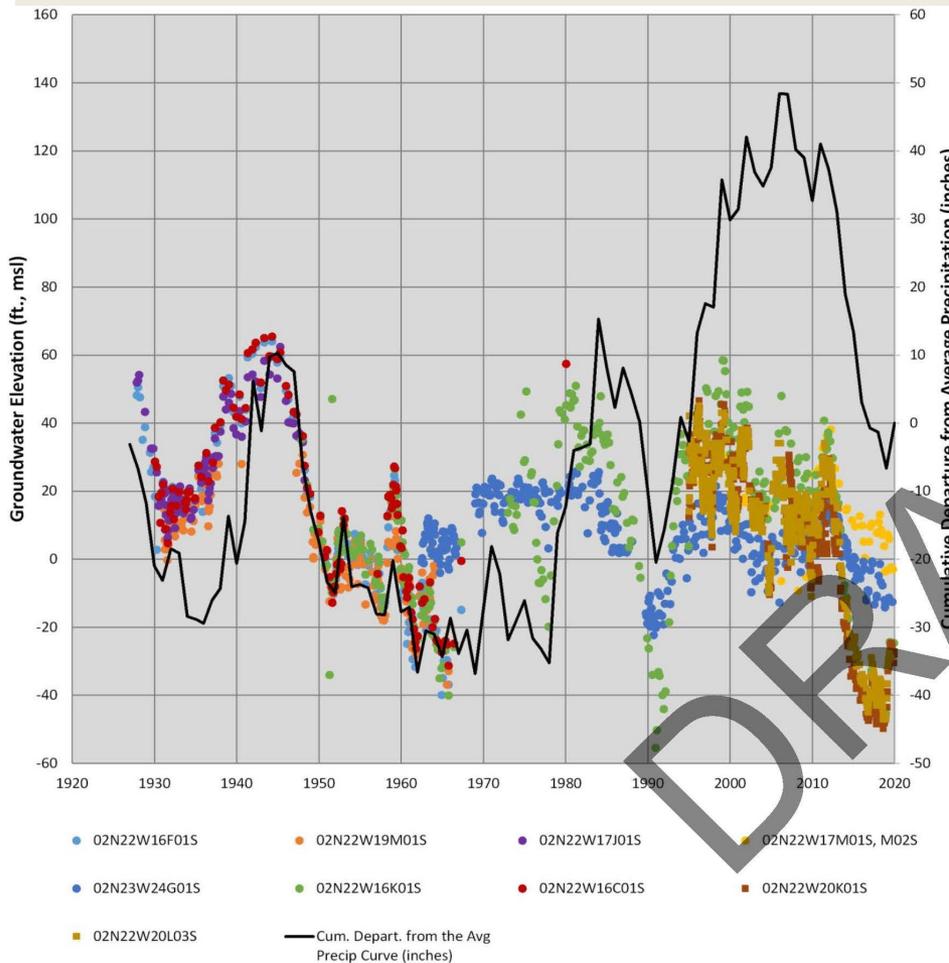
# GROUNDWATER LEVEL TRENDS EASTERN AREA



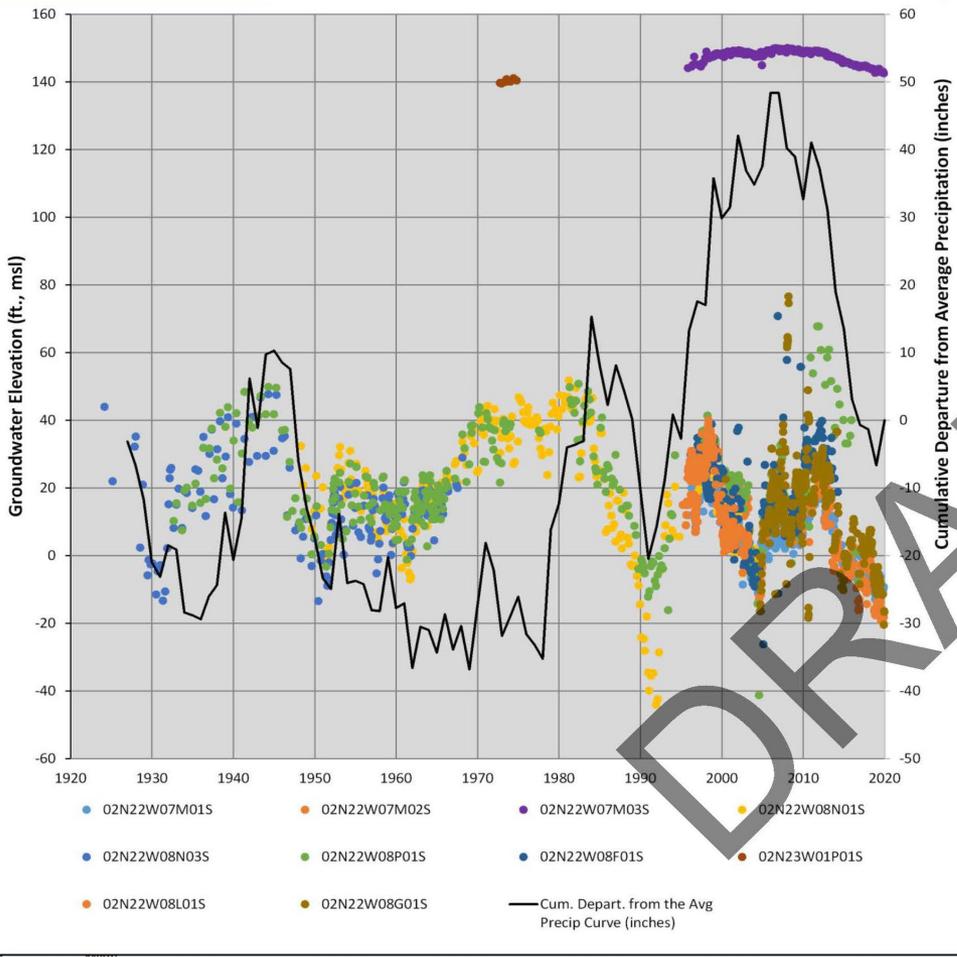
**DRAFT**

0 1 Miles

# GROUNDWATER LEVEL TRENDS SOUTHERN AREA



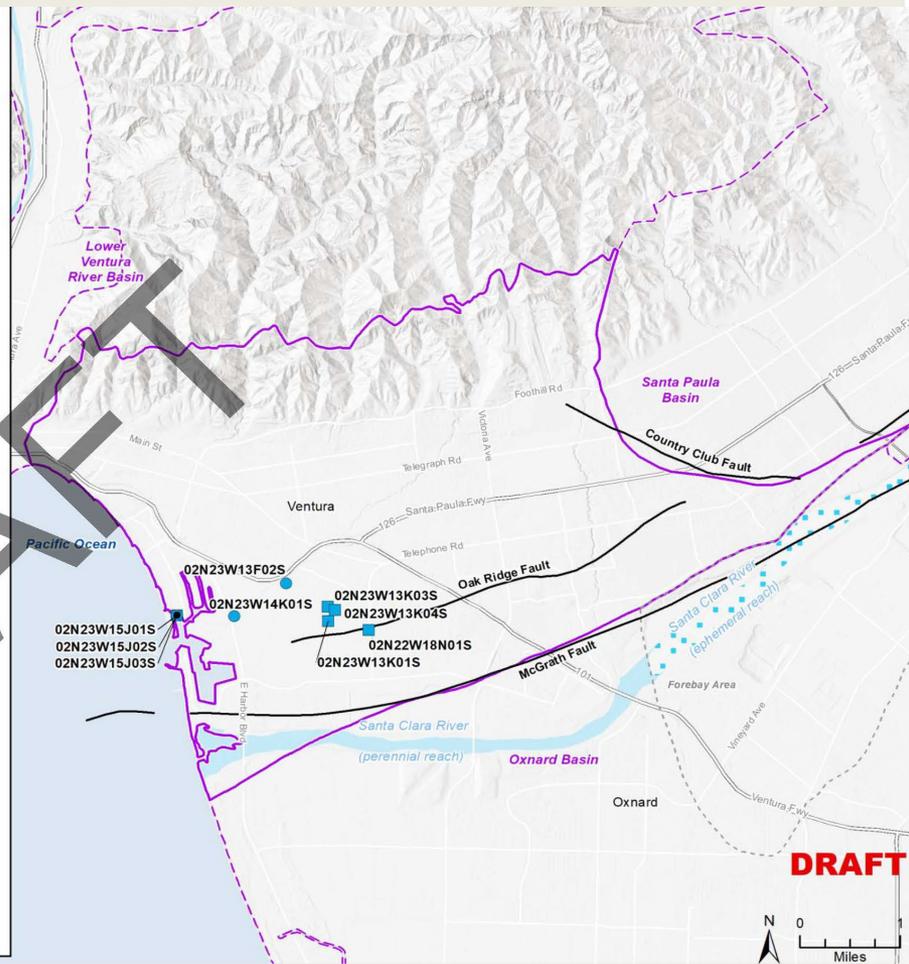
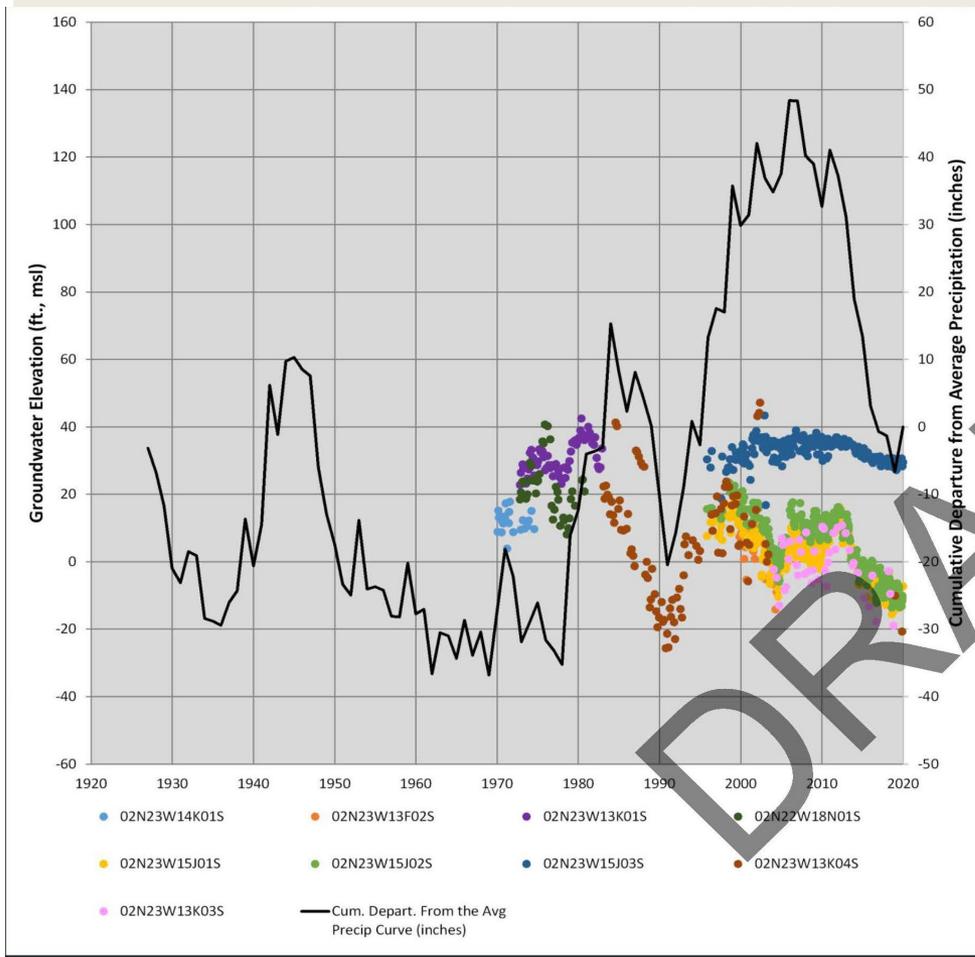
# GROUNDWATER LEVEL TRENDS CENTRAL AREA



**DRAFT**



# GROUNDWATER LEVEL TRENDS WESTERN AREA

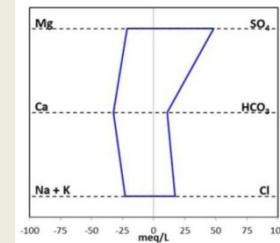


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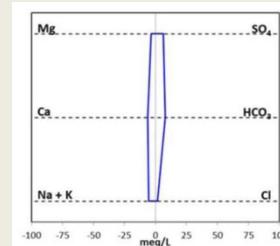


# GROUNDWATER GENERAL CHEMISTRY

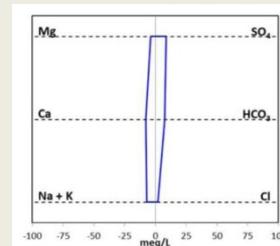
- Shallow groundwater (above Mugu Aquifer) has a very different composition and is ~5x more mineralized that groundwater in principal aquifers
- Groundwater in Mugu and Hueneme aquifers have similar composition and, with slightly higher mineralization in the Hueneme aquifer, compared to the Mugu



FGPD  
(above Mugu)



Mugu

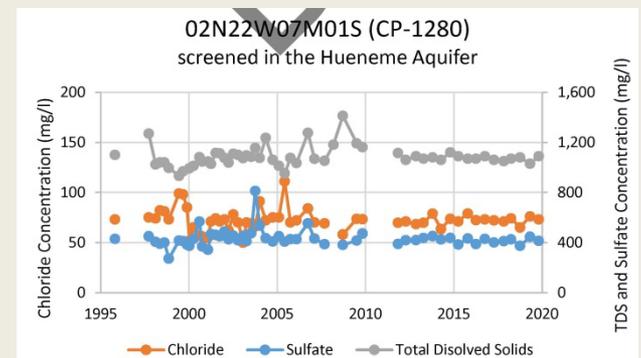
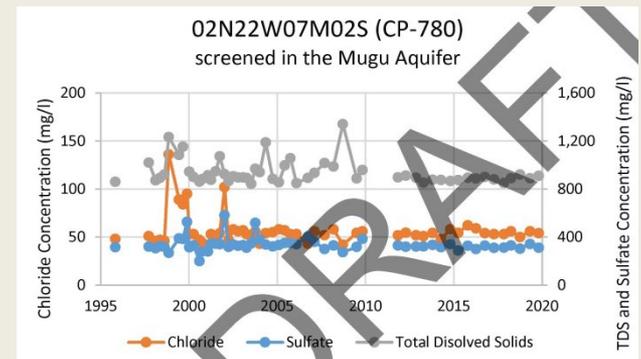


Hueneme

# GROUNDWATER QUALITY

- No contamination plumes ✓
- Groundwater quality is marginal, but generally meets RWQCB Water Quality Objectives ✓

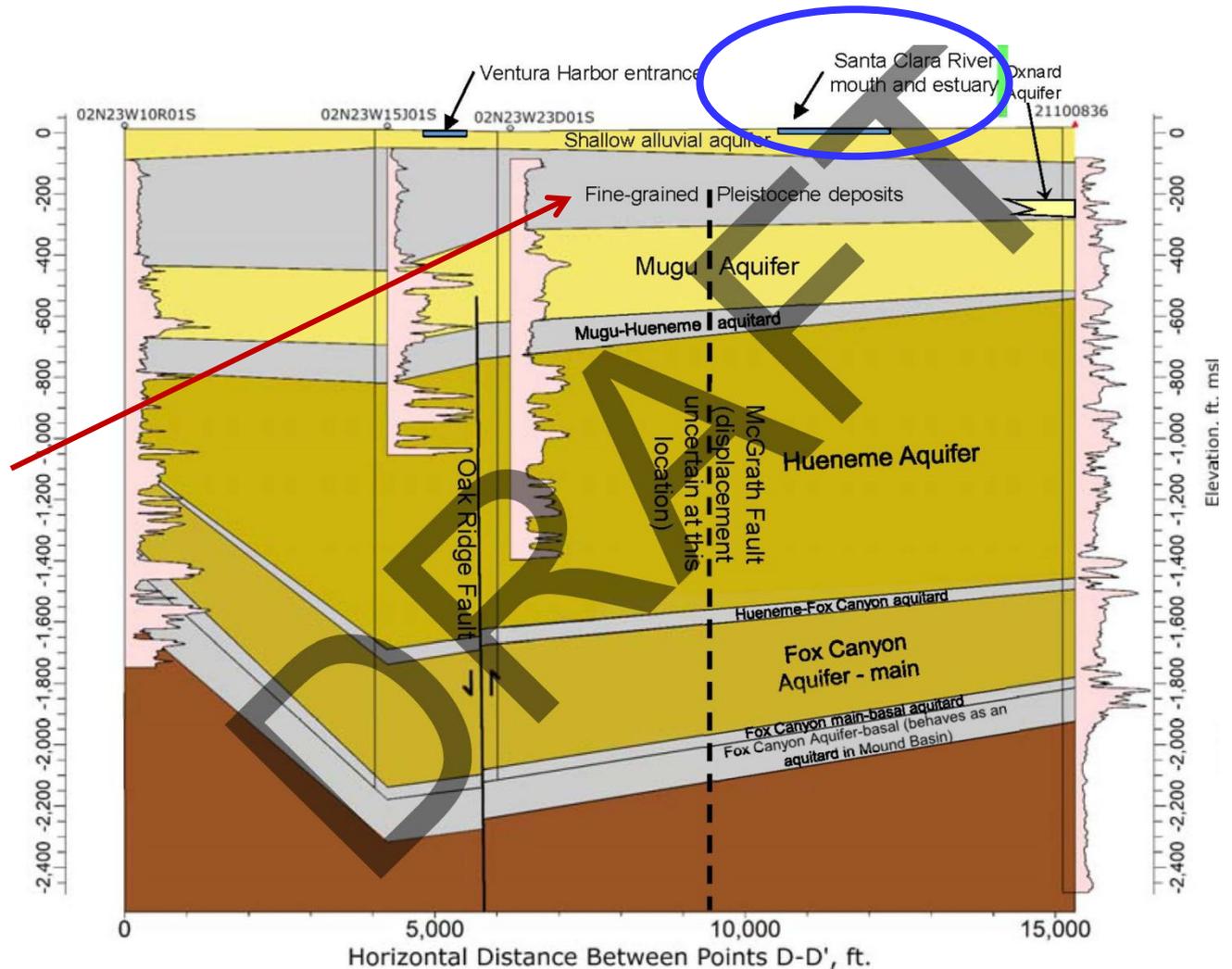
Constituent	WQO (mg/l)	Status
Nitrate-N	10	<ul style="list-style-type: none"> <li>• Mostly below objective</li> <li>• A few wells with abnormally high concentrations not considered representative</li> </ul>
TDS	1,200	<ul style="list-style-type: none"> <li>• Generally below objectives</li> <li>• Concentrations generally are stable</li> </ul>
Sulfate	600	
Chloride	150	
Boron	1	





# INTERCONNECTED SURFACE WATER

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

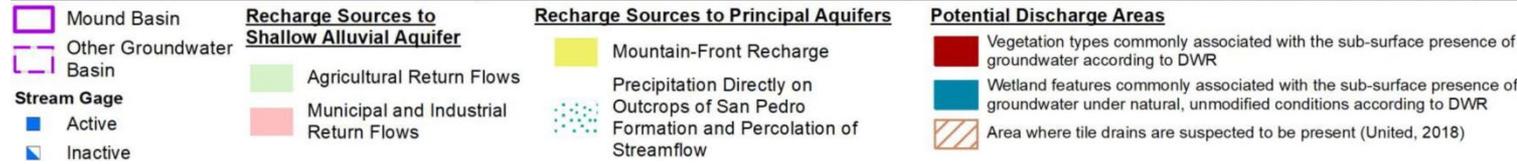
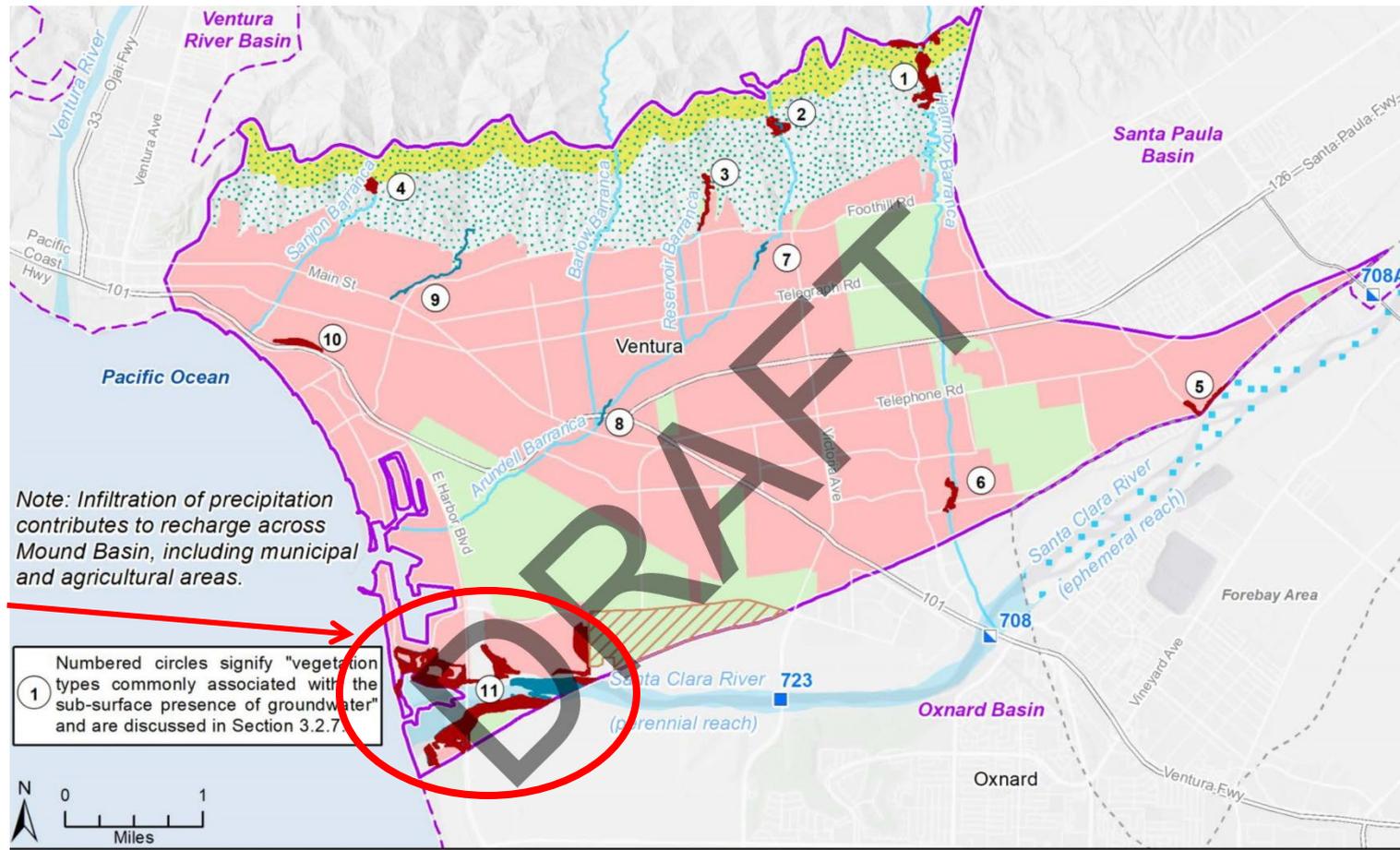


# GROUNDWATER DEPENDENT ECOSYSTEMS

11 areas of potential GDEs were identified and reviewed

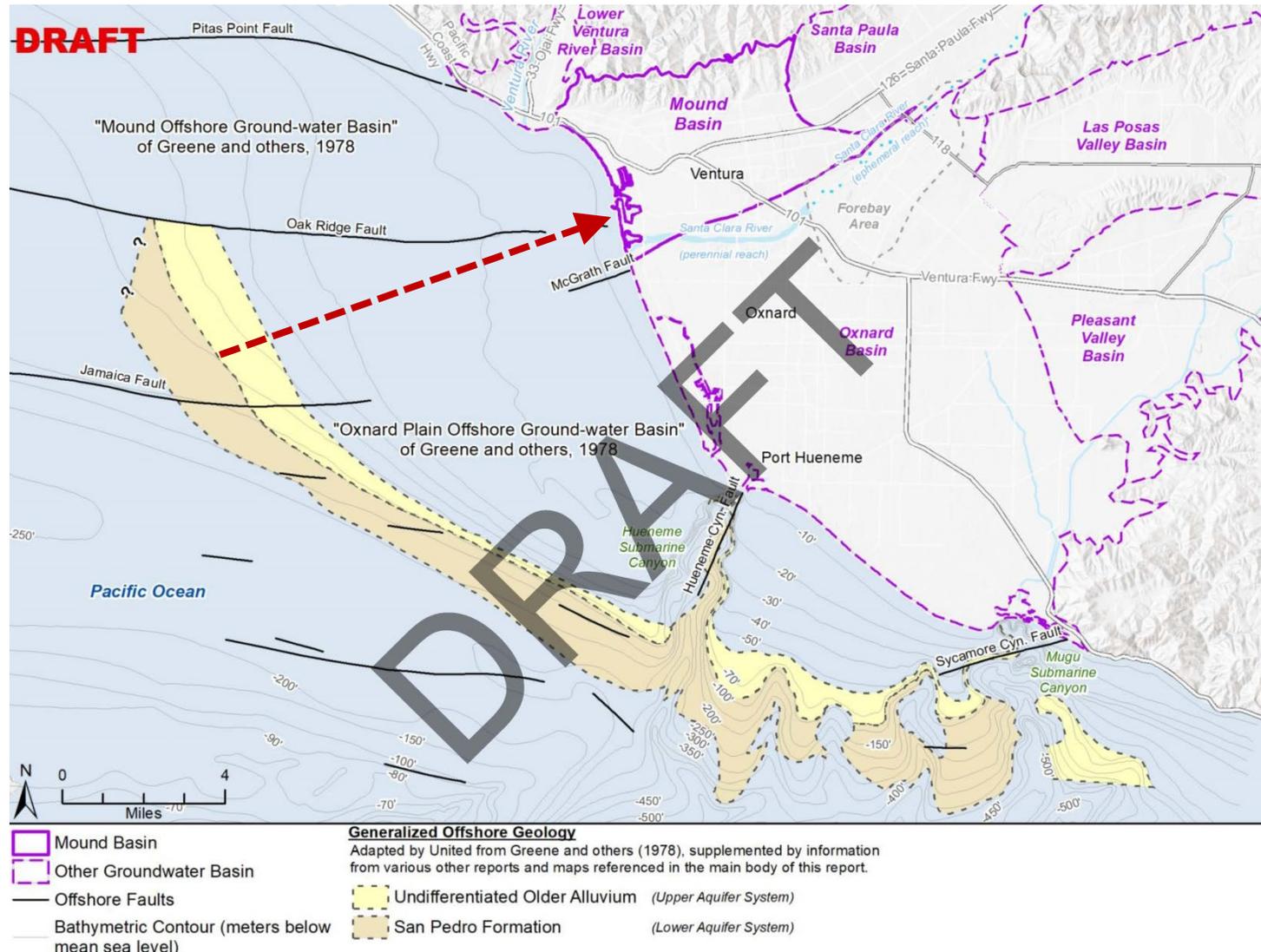
10/11 areas were determined not to be actual GDEs.

Area #11 (Santa Clara River and adjacent riparian area) was retained as a GDE. However there is shallow GW pumping.



# SEAWATER INTRUSION POTENTIAL FROM AQUIFER SUBCROP

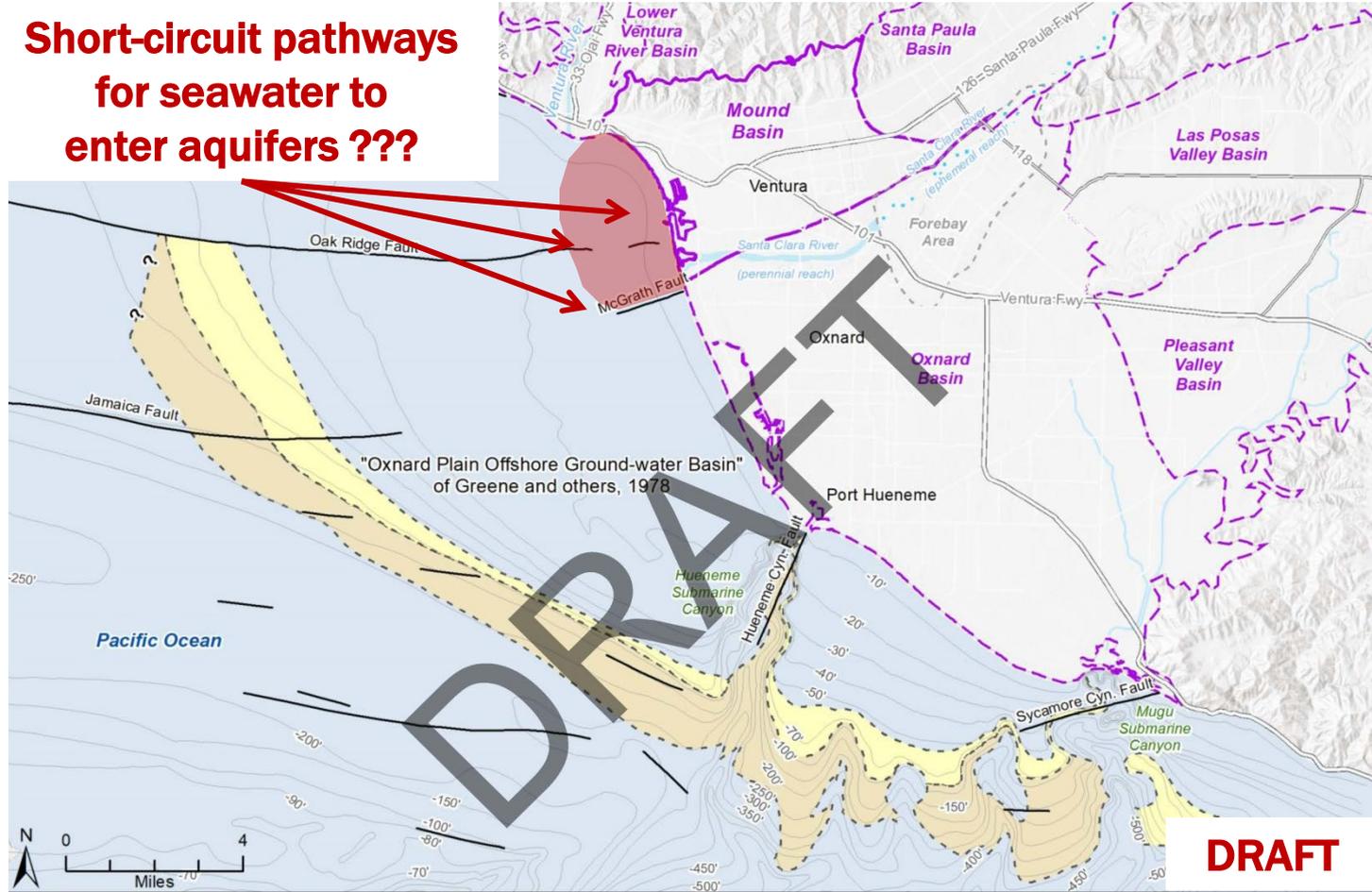
Seawater would need to flow approximately 10 miles within the aquifer to reach the shoreline, which would require hundreds of years at a consistently low groundwater level condition in the basin. Such a timeframe extends past the GSP planning horizon.



# SEAWATER INTRUSION POTENTIAL VIA SHORT-CIRCUIT PATHWAYS?

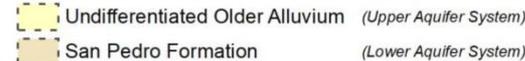
Potential gaps in the confining layer above the aquifers and/or faulting could possibly provide short-circuit pathways for seawater intrusion near the shoreline. If such short-circuit pathways exist, seawater could reach the shoreline within the GSP implementation period.

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



**Generalized Offshore Geology**

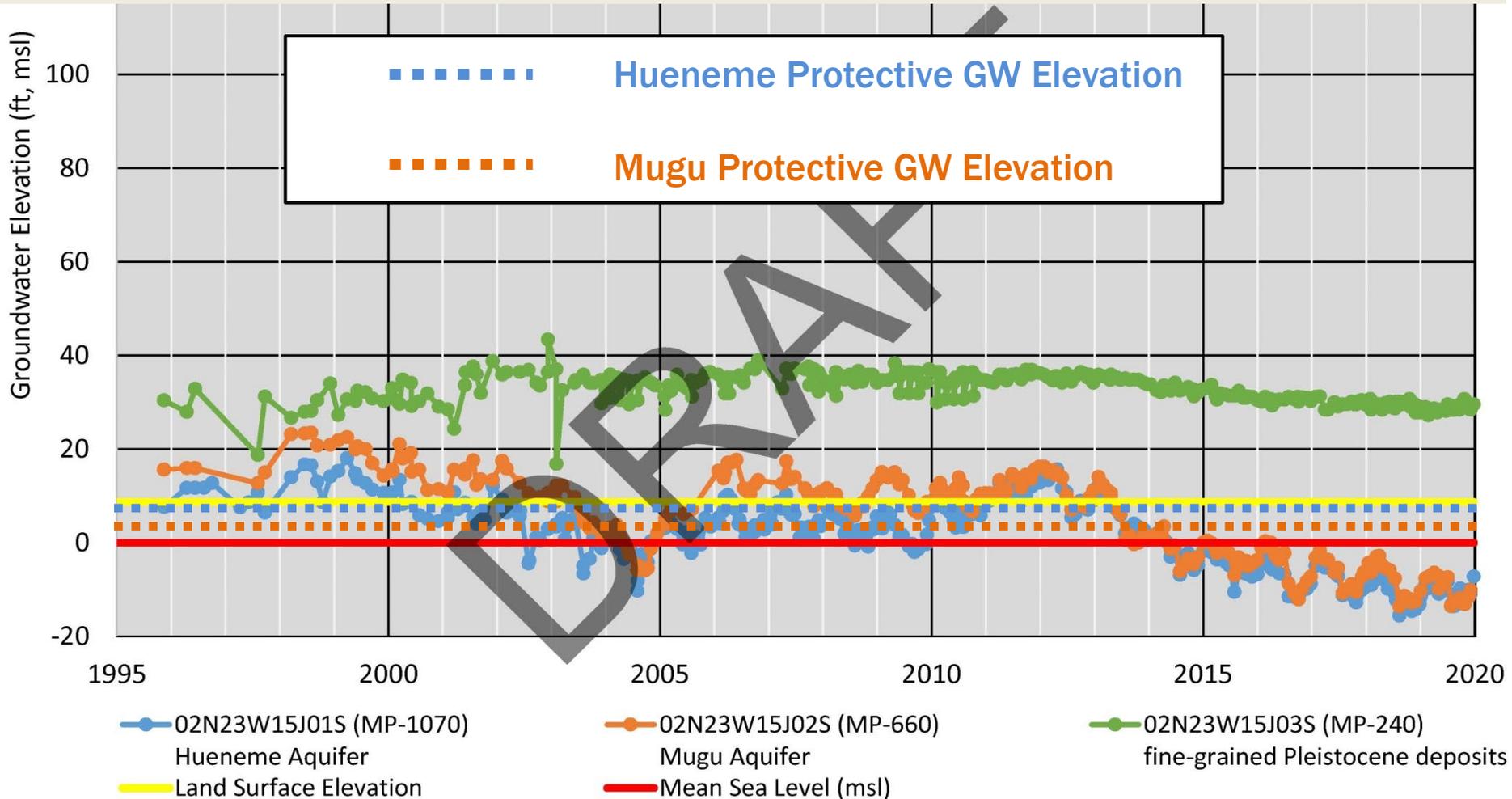
Adapted by United from Greene and others (1978), supplemented by information from various other reports and maps referenced in the main body of this report.



**DRAFT**

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

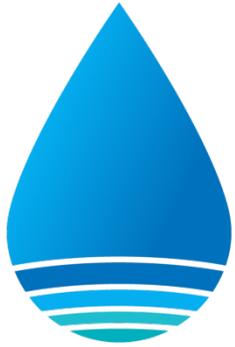
# PROTECTIVE GROUNDWATER LEVELS AT THE COAST



# BASIN SETTING OVERVIEW QUESTIONS



*View looking southeast from Grant Park*



# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

# GROUNDWATER MODEL SUMMARY





**MoundBasin**

GROUNDWATER SUSTAINABILITY AGENCY

# UWCD Groundwater Model Summary

Senior Groundwater Modeler

Jason Sun, PhD, PE

September 3, 2020

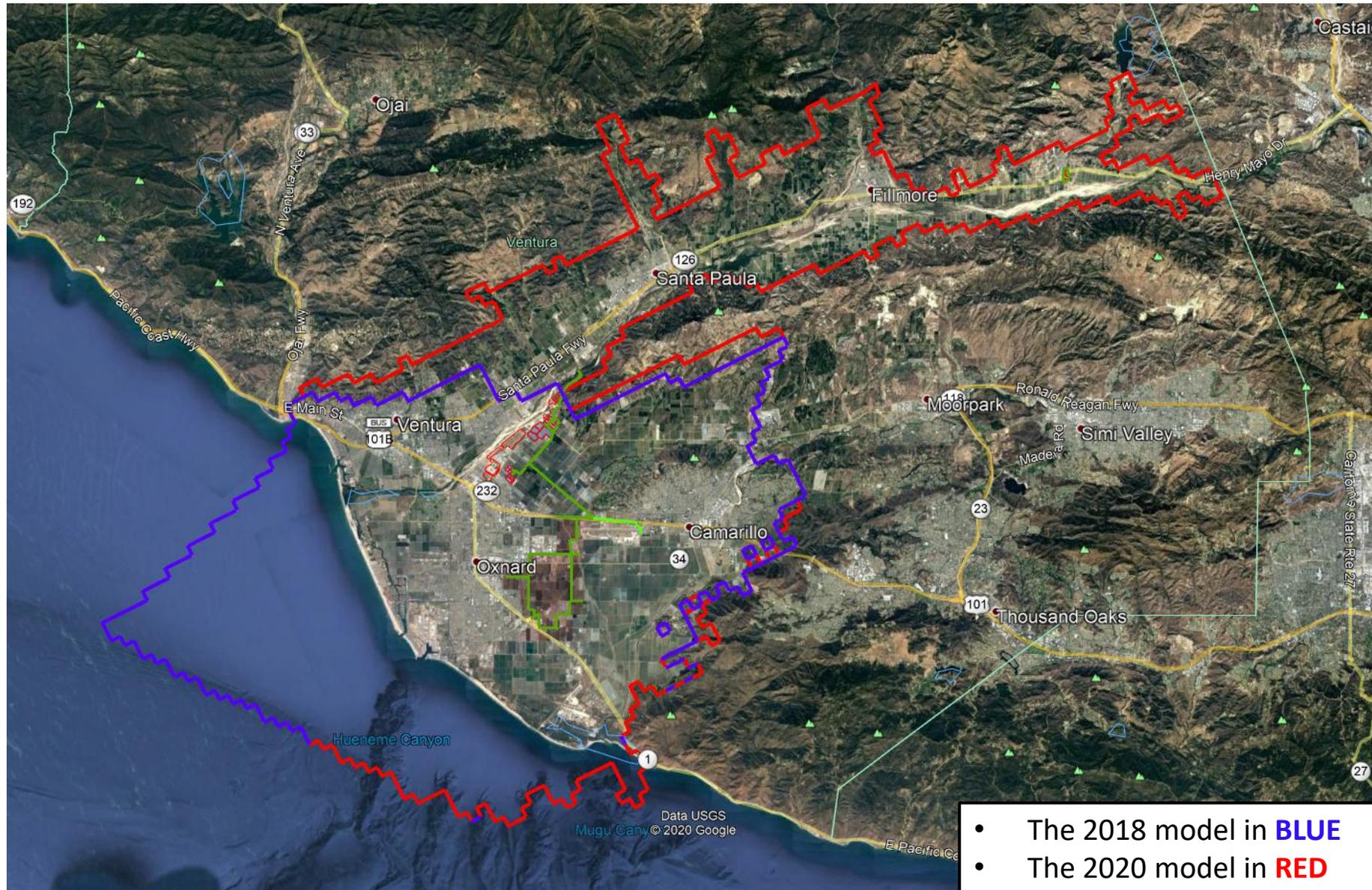


**United Water**

CONSERVATION DISTRICT

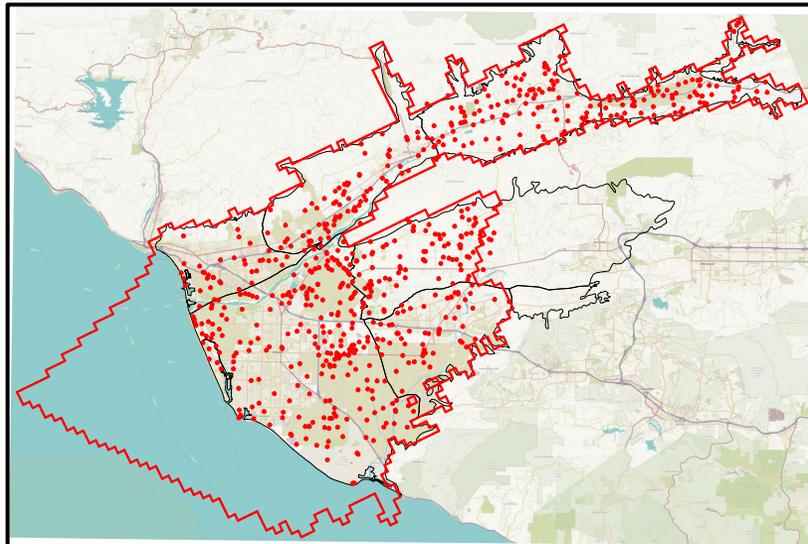
# Model Development History

- UWCD Started in November 2013 for groundwater management
- UWCD released the GW model in 2018 and was used to simulate FCGMA's GSPs
- UWCD completed the model expansion in August 2020

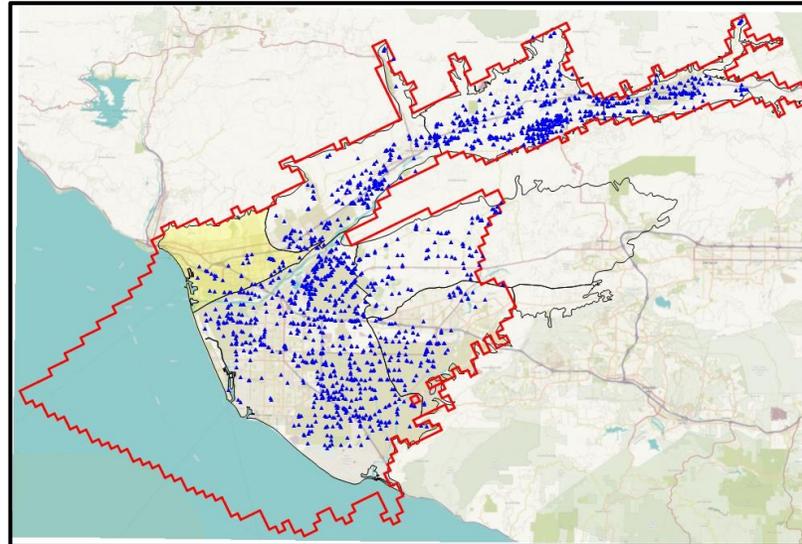


# UWCD Groundwater Model

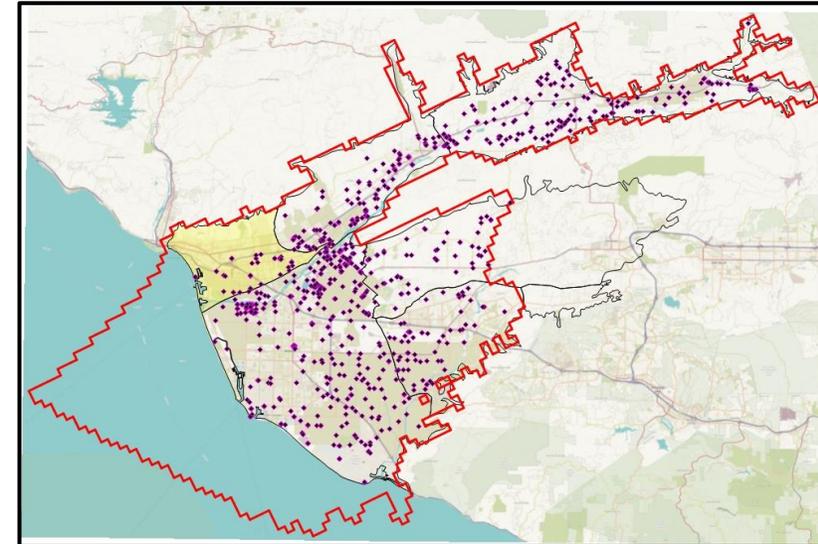
- Used known data (e.g. **well e-logs, pumping records, stream flow**).
- Calibrated to mimic observed **groundwater level data**.



**600+** well e-logs

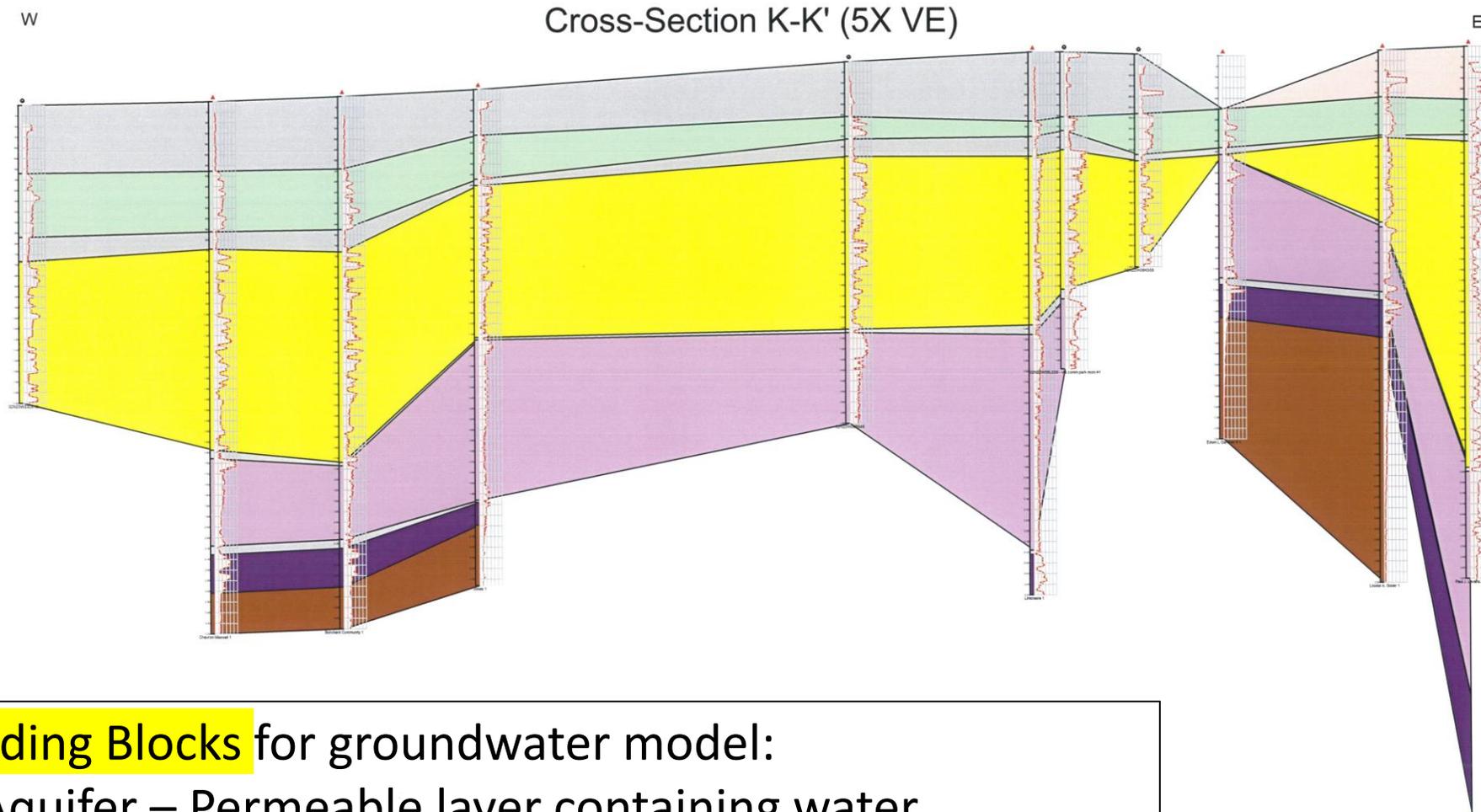


**1607** Production wells



**888** monitoring wells  
on groundwater level

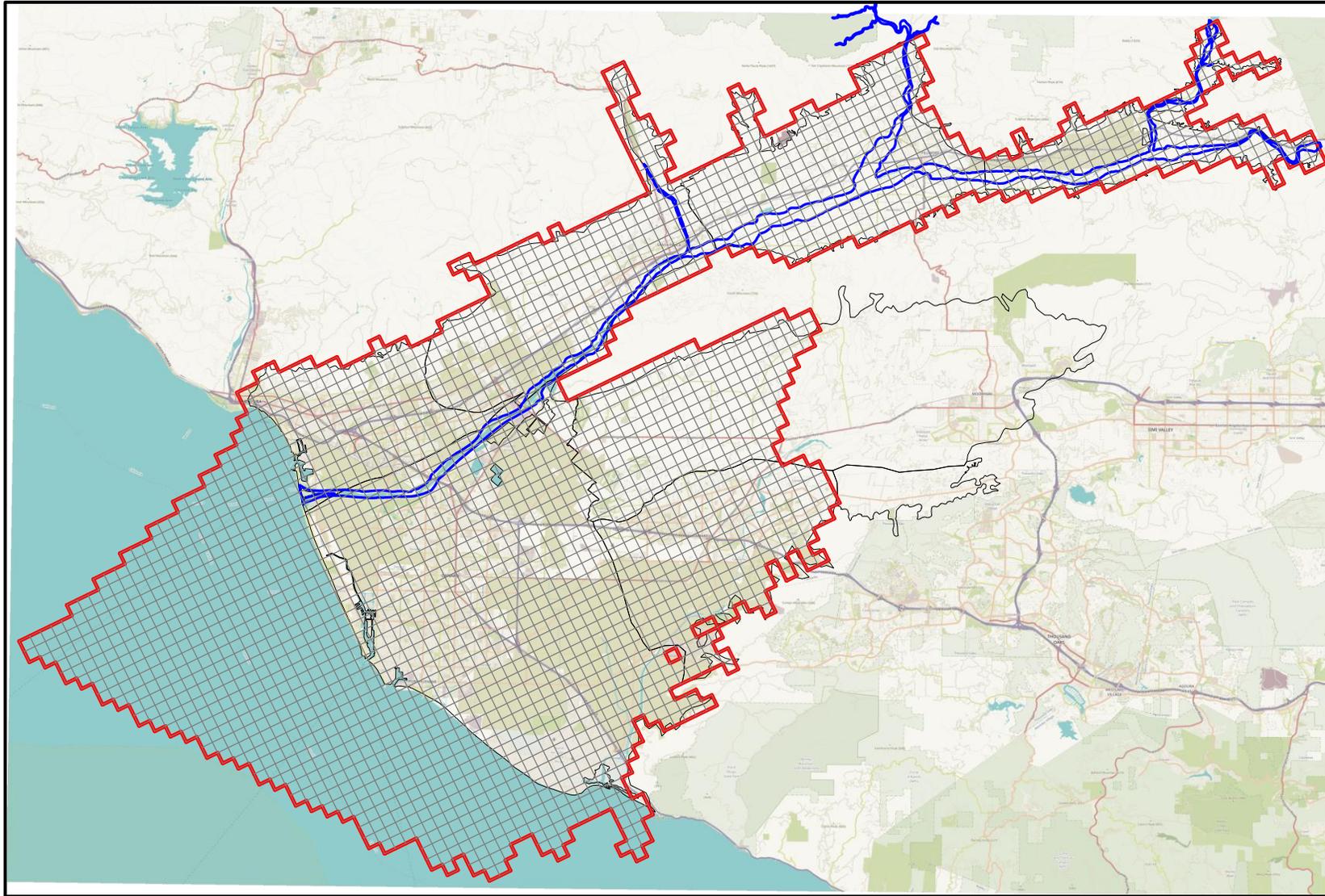
## Sample Cross Section (physical evidence on aquifers and aquitards)



### Building Blocks for groundwater model:

- Aquifer – Permeable layer containing water
- Aquitard – Impermeable layer containing little water

## The 2020 Model



Based on 600+ well e-logs

Basin	Monitoring Wells	Pumping Wells
All Basins	888	1610
Oxnard Plain	325	502
Oxnard Forebay	117	140
Pleasant Valley	80	132
West Las Posas	48	82
Mound	35	40
Santa Paula	118	180
Fillmore	104	363
Piru	51	125
Others	10	46

- Grid size: 2000 ft
- 26505 active cells
- 384.7 mile<sup>2</sup>

# UWCD Groundwater Model

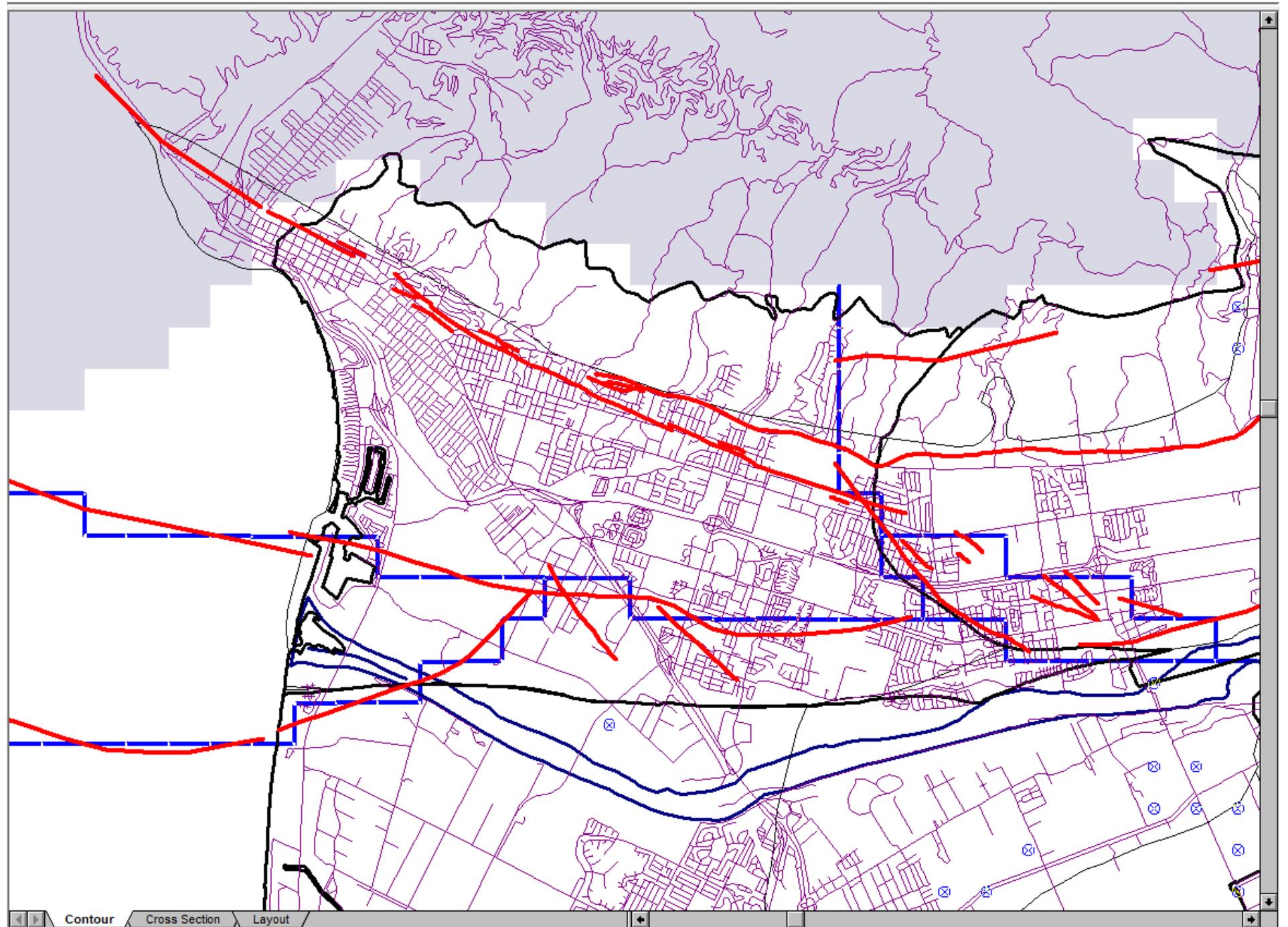
- **MODFLOW-NWT** Version 1.2.0 – an open-source and well reviewed software developed by U.S.G.S.
- Grid size: 2000 ft by 2000 ft.
- Calibration period: 1985 to 2015 with daily time step. The CPU time is 100 minutes.
- **Pumping**: Ag and M&I usages
- **Streams**: Santa Clara River, Piru Creek, Hopper Creek, Pole Creek, Sespe Creek, Santa Paula Creek, UWCD conservation releases
- **Diversions**: Various diversions along Santa Clara River, Piru Creek, and Santa Paula Creek
- Surface water: Recharge from precipitation, Ag/M&I usages
- Tile Drains

			Hydraulic Conductivity (unit: ft/day)			
Aquifer System	Hydrostratigraphic Unit	13 Layer Model	Forebay	Oxnard Plain	Pleasant Valley	Mound
Shallow	Ground Surface to the bottom of Semi-Perched Aquifer	1	300	200 - 300	50 - 200	200
UAS	Semi Perched-Oxnard Aquitard	2	0.01	1.0e-4 - 0.01	50 - 100	0.01
	Oxnard Aquifer	3	250	100 - 300	10 - 100	0.01
	Oxnard-Mugu Aquitard	4	200	0.1 - 1	1 - 50	0.01
	Mugu Aquifer	5	200	50 - 200	1 - 100	100
LAS	Mugu-Hueneme Aquitard	6	1.0e-4 - 0.001	5.0e-4 - 0.01	5.0e-3 - 0.1	0.10
	Hueneme Aquifer	7	0.1 - 20	20	1 - 10	20
	Hueneme-Fox Canyon Aquitard	8	0.01 - 0.1	0.1	0.1	0.1
	Fox Canyon Aquifer - upper	9	0.1 - 10	10	1 - 10	10
	Fox Canyon upper - basal Aquitard	10	0.01 - 0.1	0.1	0.1	0.1
	Fox Canyon Aquifer - basal	11	0.1 - 10	5	1 - 5	10
	Santa Barbara and/or other Formation - upper	12	0.01 - 0.1	0.1	0.001 - 0.1	-
	Grimes Canyon Aquifer	13	0.1 - 1	1	1	-

# Local Geological Features

— Fault lines by hydrogeologists

— Fault lines in GW Model



# Current Model Status

- The model has been reviewed internally by UWCD surface water hydrologists and hydrogeologists
- The 2020 groundwater model is being reviewed externally by an expert panel (Dr. Sorab Panday, Mr. John Porcello, and Mr. Jim Rumbaugh). The expert panel concludes that “... The **model calibration to both heads and stream flows is very good**, especially considering the size of the model grid cells compared to stream dimension in these three basins that have been added to the model...”
- UWCD is addressing the review comments and finalizing the 2020 groundwater model
- UWCD is collecting the 2016-2019 data for **model validation**

# Model Validation

- Calibration is to utilize a set of data (1985-2015 pumping, precipitation data and adjust model parameters (e.g. hydraulic conductivity, etc.) so that the model can mimic the data (e.g. 1985-2015 water level measurements)
- Validation is to use an **independent NEW set of data** (2016-2019 pumping, precipitation data) and the **same calibrated parameters** (e.g. hydraulic conductivity, etc.) from the calibration to see if the model can mimic the **NEW measurements** (e.g. 2016-2019 water level measurements)
- If the model can mimic the NEW (2016-2019) water level measurements, then the model is validated 
- If the simulated values are significantly different from the NEW measurements, then the model may need update/improvement 

# Calibration, Validation, and GSPs

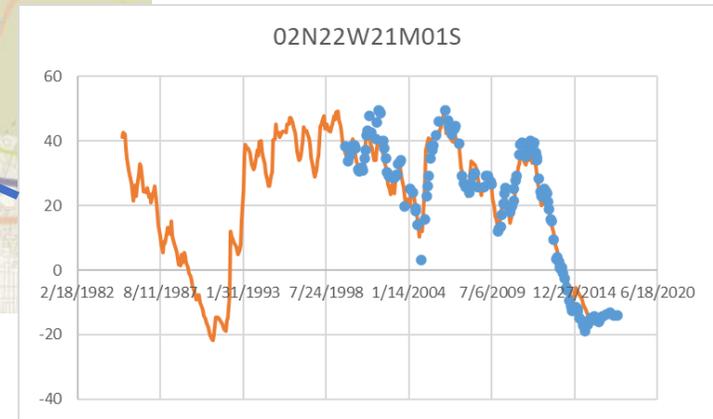
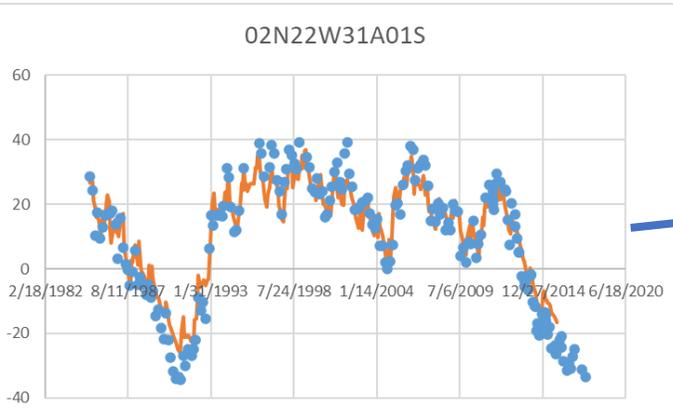
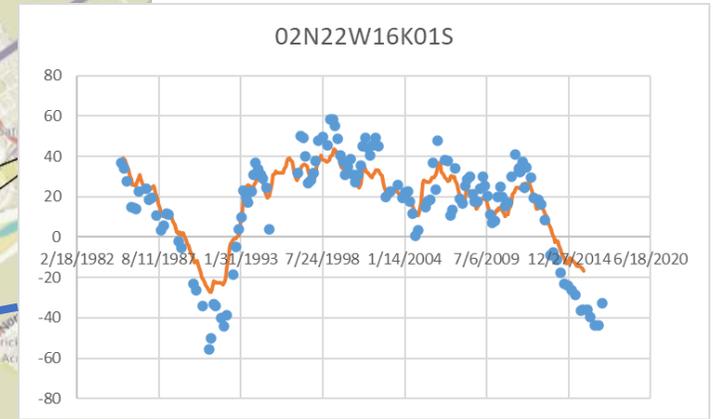
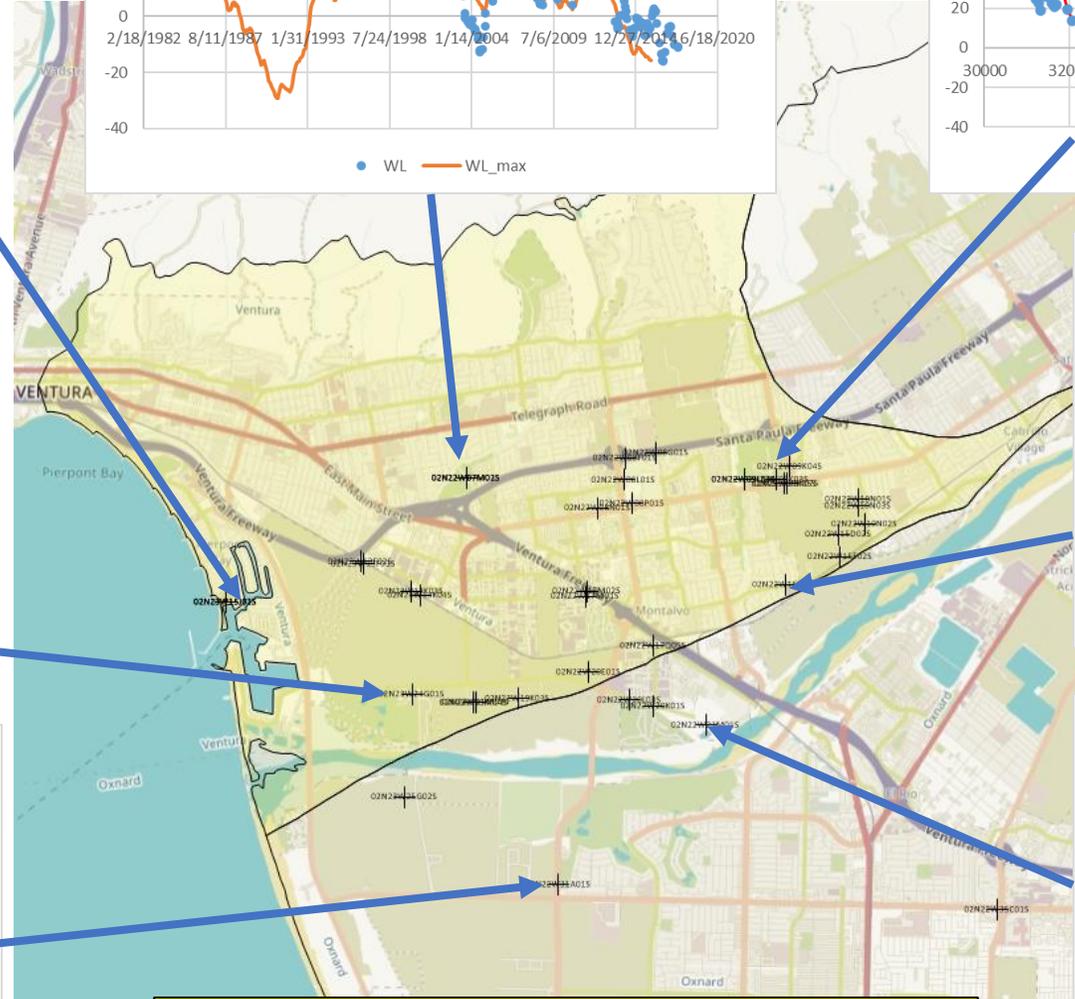
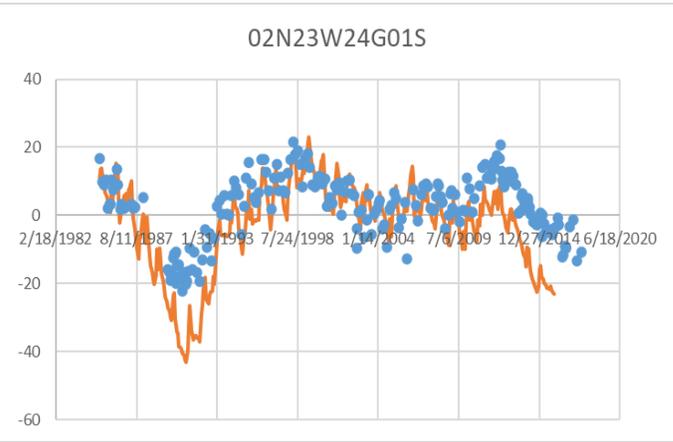
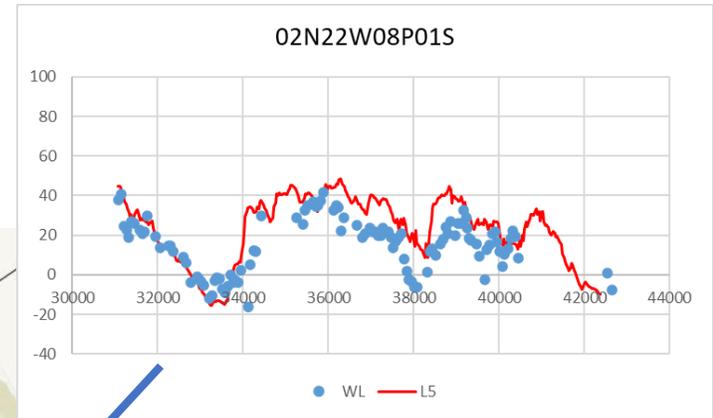
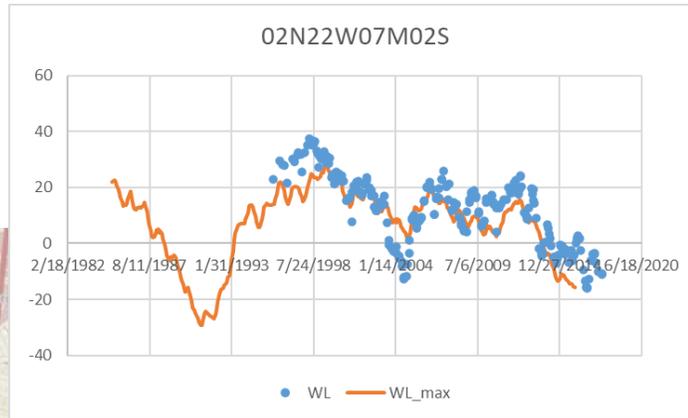
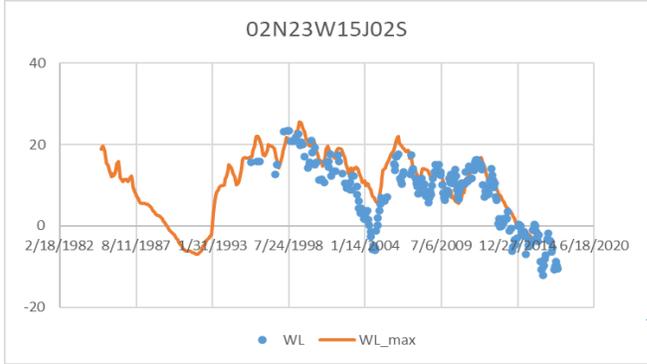
Scenario	Time Period
Calibration	1985 - 2015
Validation	2016 - 2019
GSPs	<b>Assumed</b> Future 50 years

- The calibration and validation are based on actual measurements
- The GSPs are based on **assumed** conditions. It is a **stress test** on the sustainability of groundwater resources
- GSPs may be revised/updated in the future

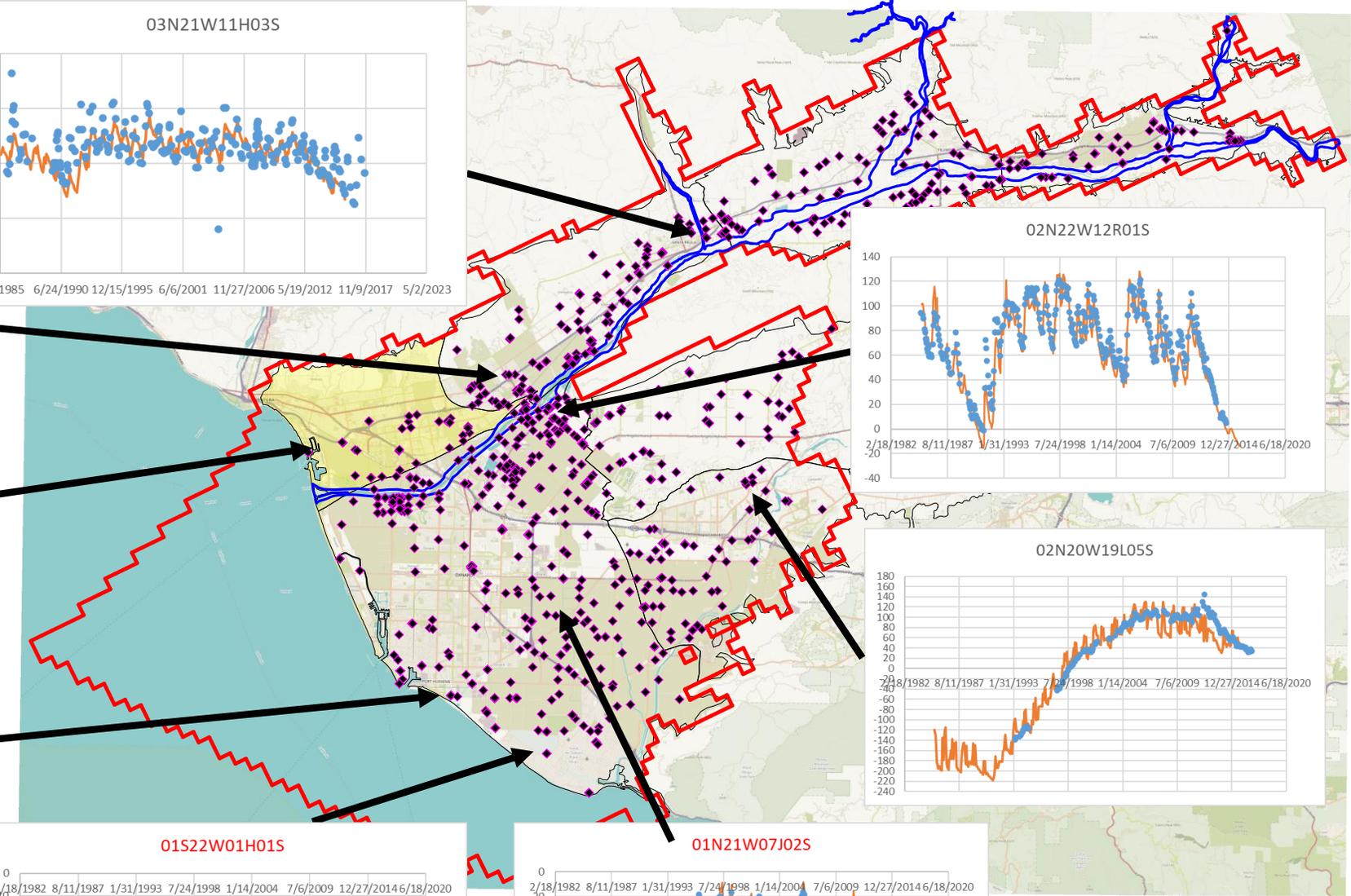
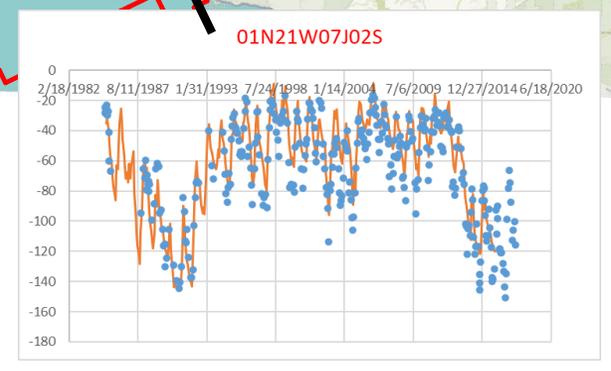
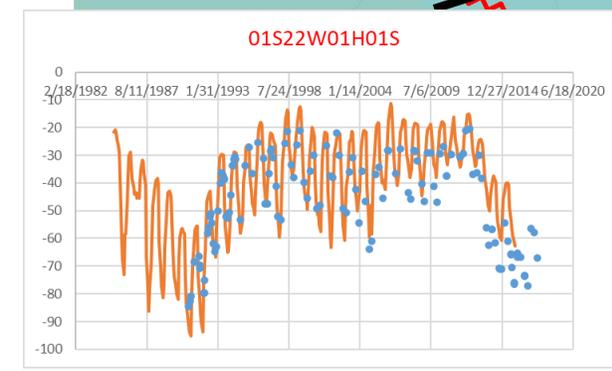
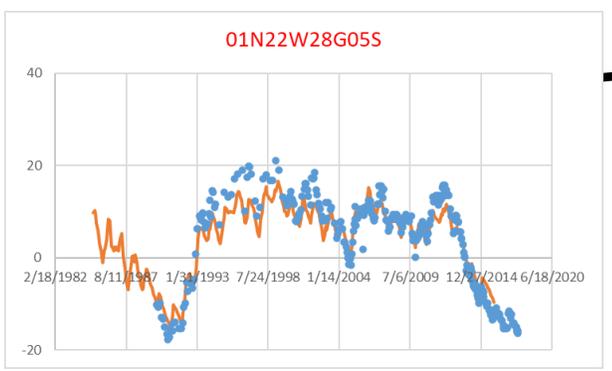
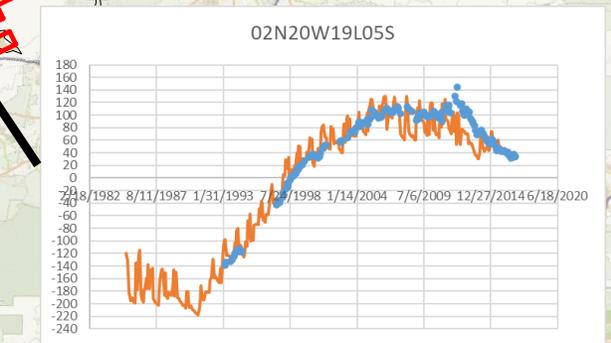
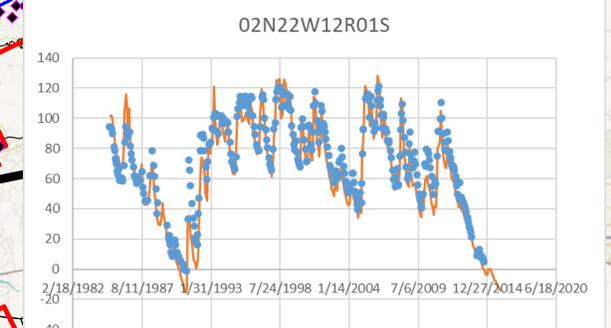
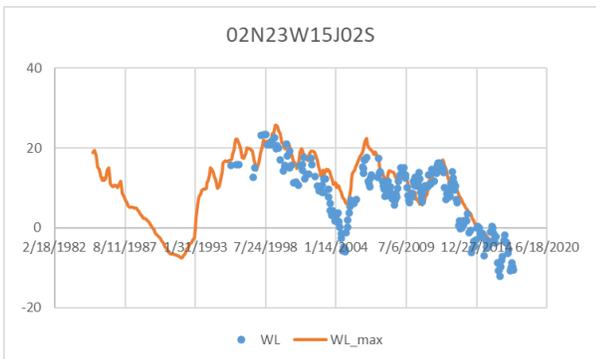
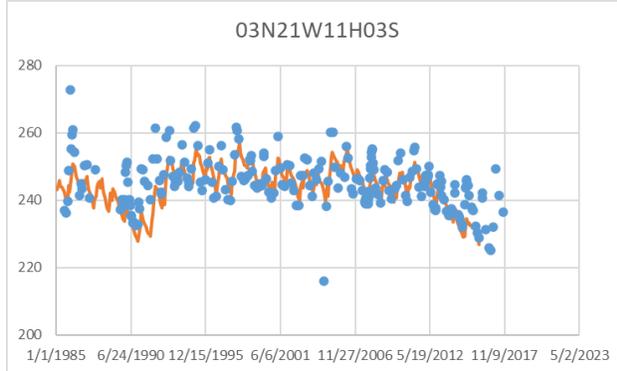
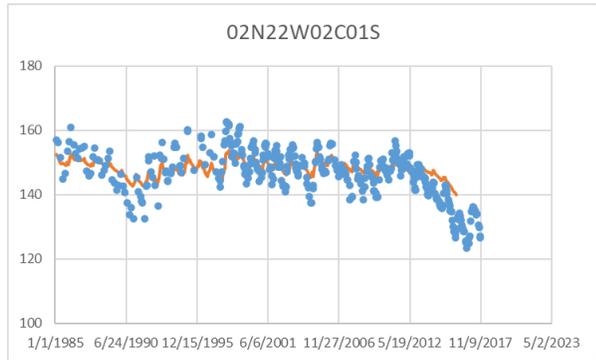
# Some Observations

- Mound basin is more connected to Oxnard Basin than Santa Paula basin
- The seawater intrusion in Mound is not as evident as in Oxnard basin because there is **no long-term cone of depression**
- The rising seawater level will be important for shallow **unconfined** aquifers. The thick aquitard (Layers 2-4) may lessen the impact
- More detailed quantitative study is needed to verify the observations

# Calibration



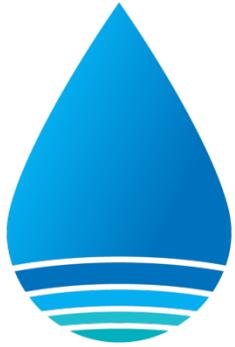
Water level measurements in **BLUE** dots  
Simulated water levels in **Orange/Red**



Questions/Comments

# GROUNDWATER MODEL SUMMARY QUESTIONS





# MoundBasin

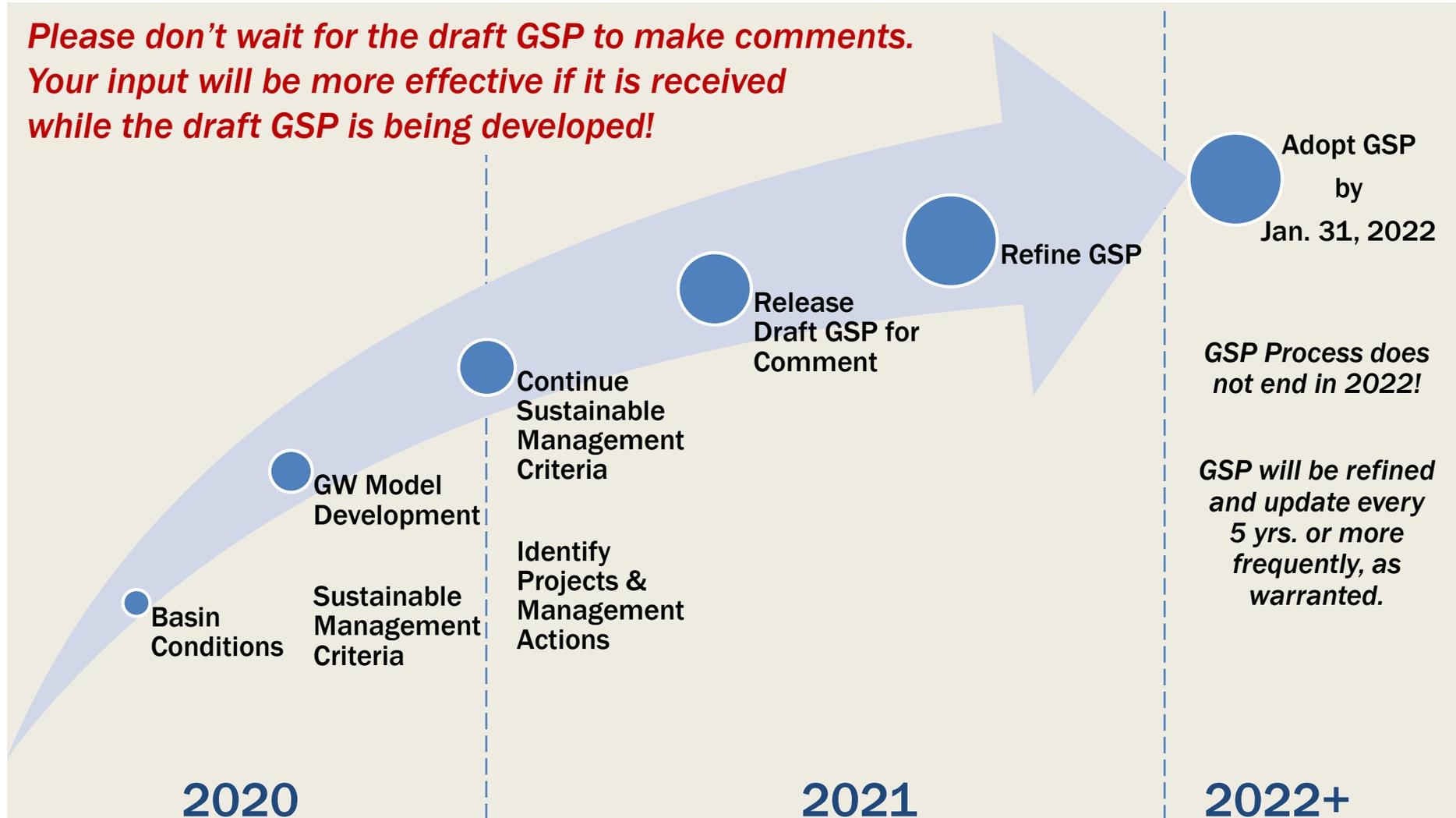
GROUNDWATER SUSTAINABILITY AGENCY

# NEXT STEPS FOR GSP



# MBGSA GSP DEVELOPMENT APPROACH

*Please don't wait for the draft GSP to make comments.  
Your input will be more effective if it is received  
while the draft GSP is being developed!*

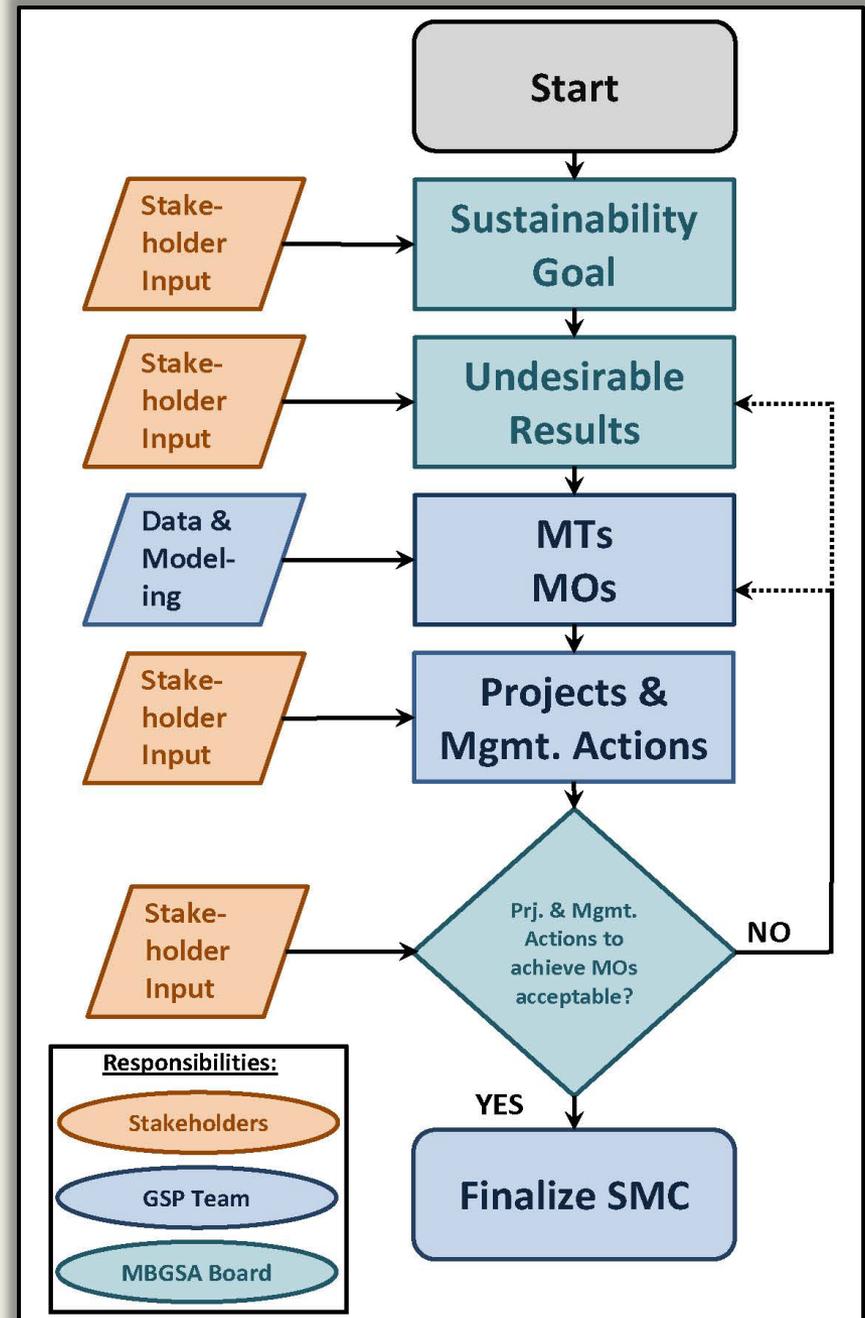


# GROUNDWATER MODEL DEVELOPMENT

- Model is a mathematical tool used to estimate future groundwater and surface water conditions
  - Compare estimated future conditions relative to proposed SMC and projects / management actions
    - Are proposed SMC achievable?
    - Basin response to proposed projects / management actions
  - Estimate future water budgets for GSP
- Model calibrated to historically measured conditions

# SUSTAINABLE MANAGEMENT CRITERIA DEVELOPMENT PROCESS

*SMC will be the  
central focus of the GSP*



# SUSTAINABILITY GOAL

- High-level policy framework to guide development of Sustainable Management Criteria & Plan Actions
- Draft released July 16
- Available On MBGSA Website
- Board to consider adoption on September 17
- Your input on the goal is valued!

## Draft Sustainability Goal July 16, 2020

*The goal of this Groundwater Sustainability Plan (GSP) is to sustainably manage the groundwater resources of the Mound Basin for the benefit of current and anticipated future beneficial users of groundwater and the welfare of the general public who rely directly or indirectly on groundwater. Sustainable groundwater management will ensure the long-term reliability of the Mound Basin groundwater resources by avoiding undesirable results pursuant to the Sustainable Groundwater Management Act (SGMA) no later than 20 years from GSP adoption through implementation of a data-driven and performance-based adaptive management framework. It is the express goal of this GSP to develop sustainable management criteria and plan implementation measures to avoid undesirable results for the applicable SGMA sustainability indicators by:*

- 1. Using best available science and information, including consideration of uncertainty in the basin setting and groundwater conditions;*
- 2. Conducting active and meaningful stakeholder engagement;*
- 3. Considering potential impacts on the management of adjacent basins and, where necessary coordinating with adjacent basins; and*
- 4. Balancing economic, social, and environmental impacts and benefits associated with the all current and anticipated future beneficial users of groundwater, by considering:*
  - a. Water supply reliability for agriculture enterprises and potable and industrial users;*
  - b. Availability of alternative water sources for domestic groundwater beneficial users;*
  - c. Identifying and considering potential impacts to groundwater dependent ecosystems and, where possible, opportunities to enhance those ecosystems;*
  - d. State, federal, or local standards relevant to applicable sustainability indicators;*
  - e. Feasibility of projects and management actions necessary to achieve proposed measureable objectives; and*
  - f. Economic impact of projects and management actions necessary to achieve proposed measureable objects on all beneficial users, with special consideration of disadvantage communities and agricultural enterprises lacking alternative land use options.*

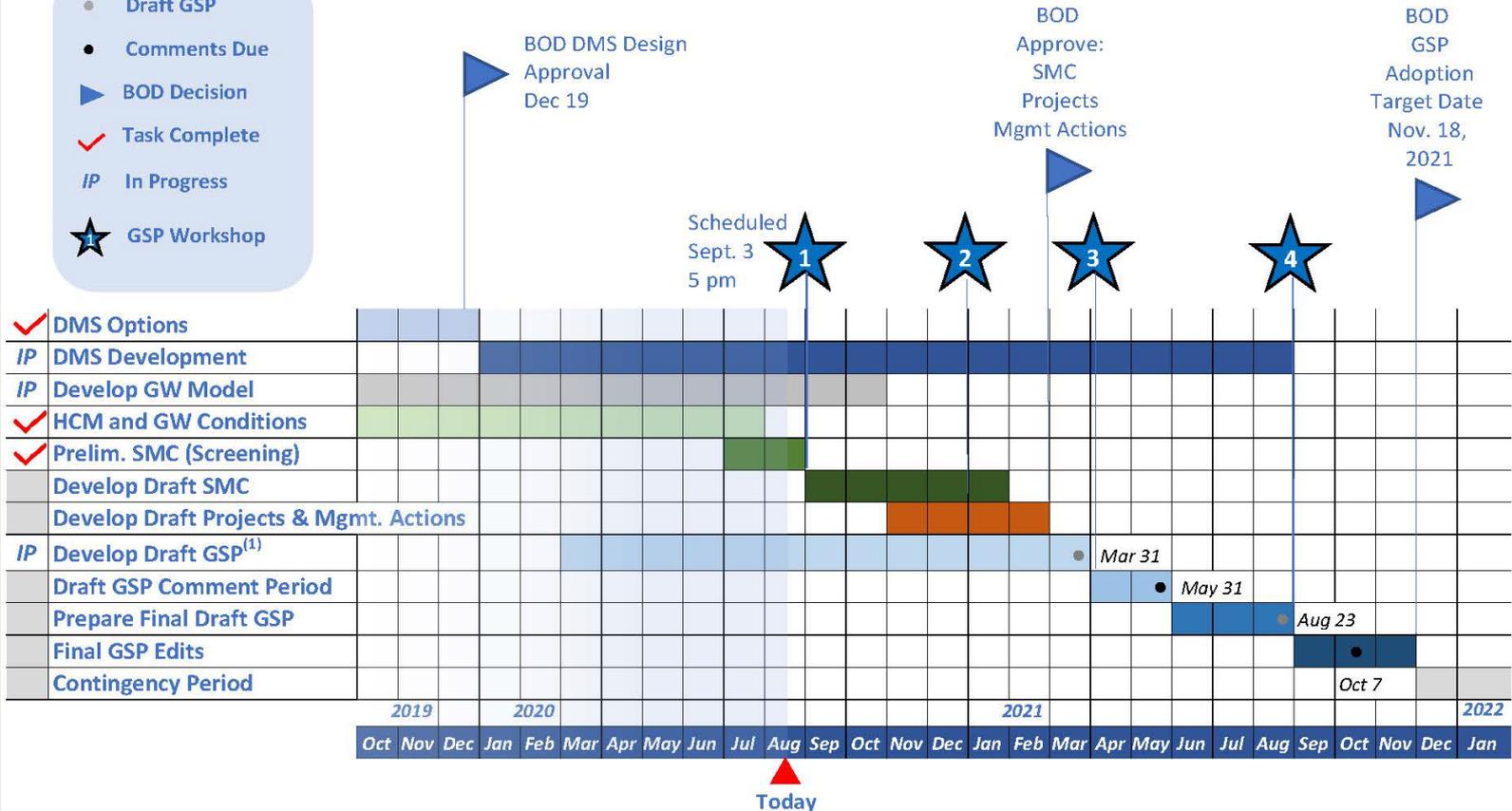
# NEXT STEPS FOR GSP DEVELOPMENT

- Basin Setting: Draft HCM and GW Conditions available for review now
- Model Development and Sustainability Criteria: Through early 2021
- Projects & Management Actions and Water Budgets: Early 2021
- Draft GSP: Spring/Summer 2021
- GSP Adoption: Late 2021 (no later than Jan 31, 2022)

# GSP DEVELOPMENT SCHEDULE WILL BE UPDATED ON MBGSA WEBSITE

## Mound Basin GSA GSP Development Schedule Updated 8/15/2020

- Draft GSP
- Comments Due
- ▶ BOD Decision
- ✓ Task Complete
- IP In Progress
- ★ GSP Workshop



**Notes:**

{1} GSP topics not listed above generally consist of background or supporting information and will be prepared concurrently with the above-listed tasks.

BOD = Board of Directors; DMS = Data Management System; HCM = Hydrogeologic Conceptual Model; GSA = Groundwater Sustainability Agency;

GSP = Groundwater Sustainability Plan; GW = Groundwater

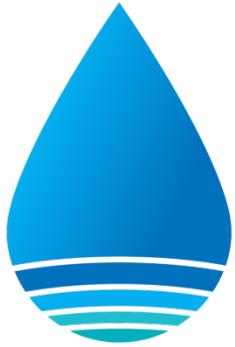
# PLEASE GET INVOLVED!!!

- Track status at:  
<https://www.moundbasingsa.org/>
- Join the MBGSA Interested Parties List:  
<https://www.moundbasingsa.org/contact-us/>
- Email inquiries to: Jackie Lozano  
[Jackiel@unitedwater.org](mailto:Jackiel@unitedwater.org)

# GSP NEXT STEPS QUESTIONS



*Main Street, Ventura*

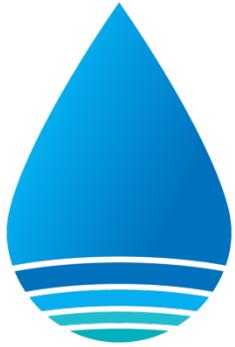


# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

# ATTENDEE POLL NO. 4





# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

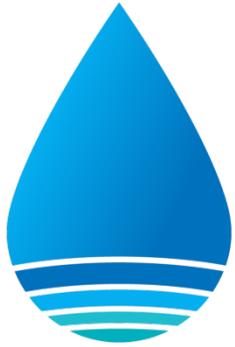
# STAKEHOLDER

# Q&A

# &

# FEEDBACK





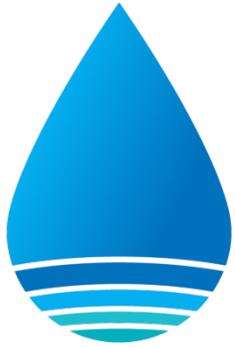
# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

# ATTENDEE

# POLL NOS. 5 & 6



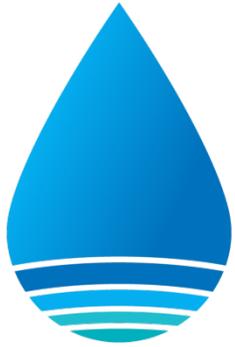


# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

# MBGSA DIRECTOR COMMENTS





# MoundBasin

GROUNDWATER SUSTAINABILITY AGENCY

WRAP UP  
THANK YOU FOR  
PARTICIPATING!

