

# **SGMA COMMUNITY ENGAGEMENT & STAKEHOLDER OUTREACH**

## **Groundwater Sustainability Plan & Sustainability Management Criteria**

**Owens Lake Management Area**

**February 16, 2021**

**Aaron Steinwand  
Owens Valley Groundwater Authority**



# Objectives



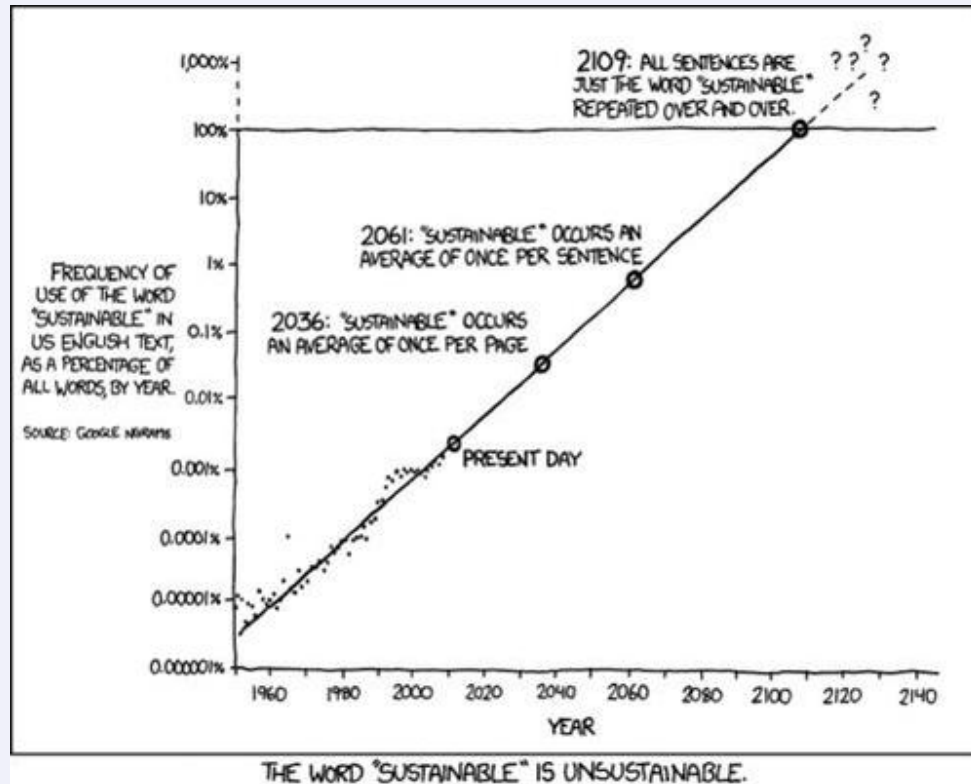
1. Briefly review SGMA
2. Provide brief overview of process and Groundwater Sustainability Plan (GSP) development
3. Introduce Undesirable Results and Proposed Sustainability Management Criteria
4. Invite comment on the GSP for the Owens Valley Groundwater Authority (OVGA)



# Intent of Sustainable Groundwater Management Act (SGMA)

In 2014, the California Legislature passed SGMA. SGMA defines “Sustainable Groundwater Management” and “Sustainable Yield”

- Provide local Groundwater Sustainability Agencies (GSA) authority and assistance to manage groundwater according to a GSP
- Respect overlying and other proprietary groundwater rights
- Require public reporting of groundwater pumping and conditions in the basin
- Allow State intervention to manage pumping in a basin if not in compliance with SGMA



# Authority Granted to OVGA Under SGMA

The OVGA is the GSA for the Owens Valley Basin. The OVGA can:

- Adopt rules, regulations, ordinances, and resolutions
- Enforce compliance with a GSP
- Register pumping wells
- Regulate groundwater pumping; amounts or allocations, well-spacing, new or reactivation of wells, well rotation, water transfers
- Measure and report on groundwater conditions
- Acquire and manage water for recharge
- Conduct investigations; e.g. water rights, facility or compliance investigations
- Cooperate with other agencies, the United States, and Indian tribes
- Provide technical assistance to groundwater pumpers
- Acquire and transfer property including groundwater or surface water rights
- Assess pumping or property-related fees

# Authority Granted to OVGA Under SGMA



SGMA does not apply to de minimis pumpers

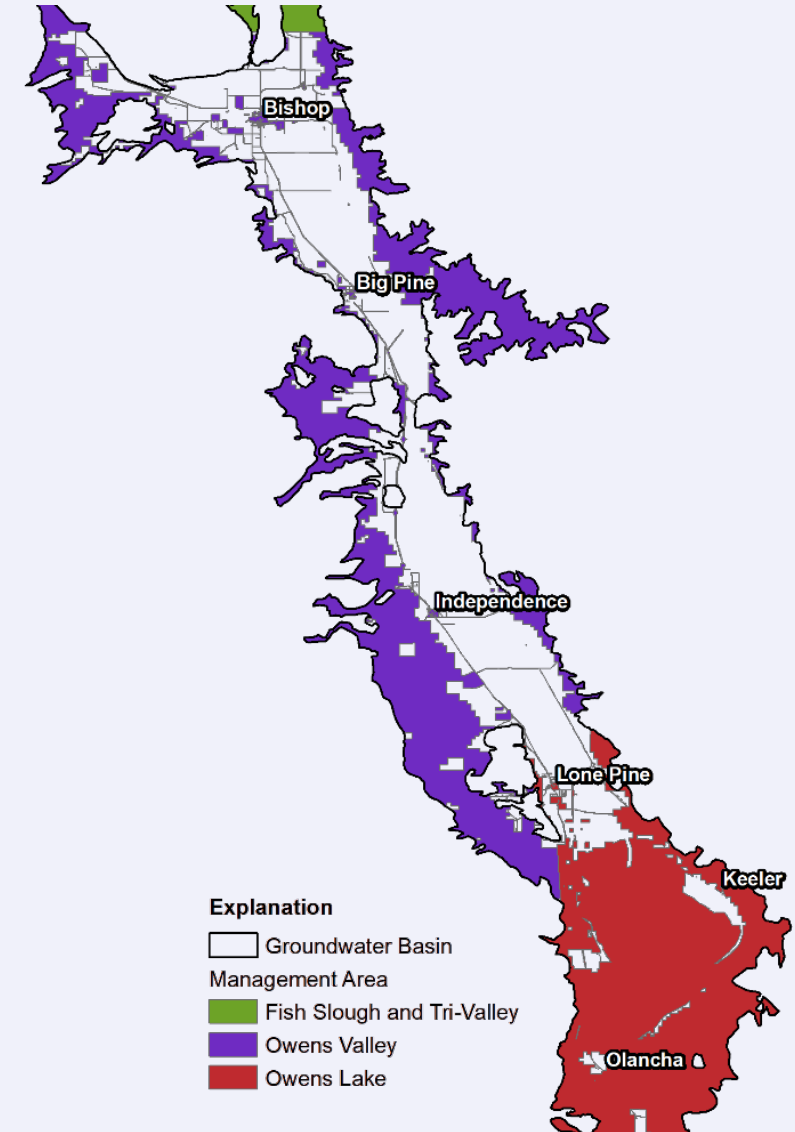
de minimis pumper - A person who extracts, for domestic purposes, two acre-feet or less per year.

Most households with private wells not subject SGMA regulation but can be protected in the GSP



# SGMA and LADWP Pumping

- Twenty-nine adjudicated basins in California are exempt from SGMA
- The portion of the Owens Valley managed according to the Inyo/Los Angeles Water Agreement is exempt from SGMA
- LADWP pumping from LADWP lands (and resulting water level fluctuations) cannot be regulated by the OVGA and GSP
- Lakebed is owned by the State and LADWP's Owens Lake project could be regulated by GSP if SLC makes it a condition of a lease or permit



# SGMA Public Input Required



## The GSP will:

Include a summary of information relating to notification and communication by the Agency with other agencies and interested parties including the following:

- A description of the beneficial uses and users of groundwater in the basin, including the land uses and property interests potentially affected by the use of groundwater in the basin, the types of parties representing those interests, and the nature of consultation with those parties.
- A list of public meetings at which the GSP was discussed or considered by the OVGA.
- Comments regarding the GSP received and a summary of any responses by the OVGA.



## Must include All Beneficial Users

- All Groundwater Users
- Holders of Overlying Rights (agriculture and domestic)
- Municipal Well Operators
- Public Water Systems
- Tribes
- Local Land Use Planning Agencies
- Counties
- Local Landowners
- Disadvantaged Communities
- Business
- Federal Government
- Environmental Users
- Surface Water Users  
*(if reliant on ground water discharge)*



# OVGA Communications and Engagement Plan

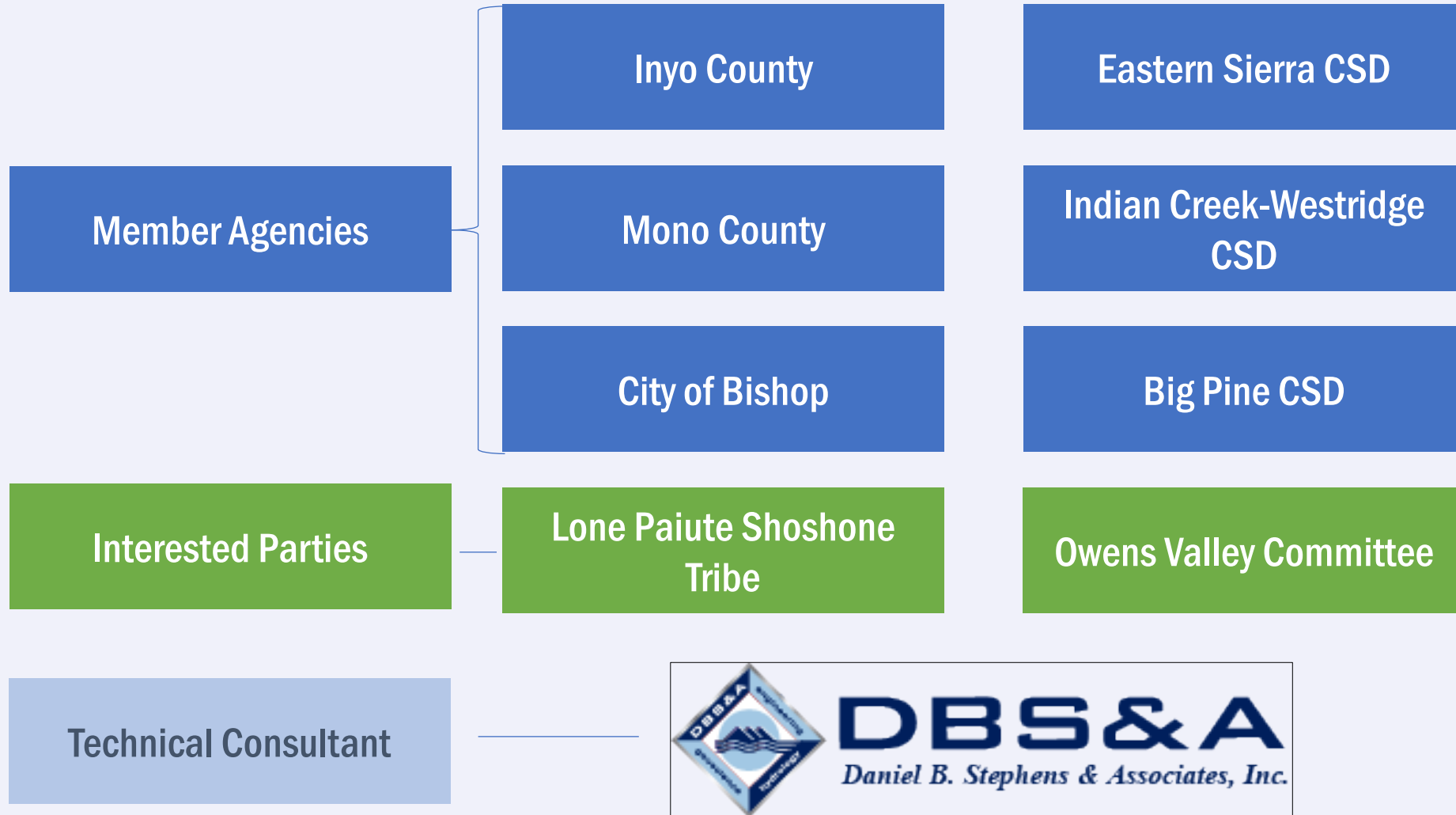


## The CEP includes:

- An explanation of the OVGA's decision-making process: described in Joint Powers Agreement and Bylaws
- A description of how the Agency encourages the active involvement of diverse social, cultural, and economic elements of the population within the basin
- Identify opportunities for public engagement and a discussion of how public input and response will be used: board meetings, workshops, meetings at specific community groups mailers, submitted written comments, etc.
- The method the OVGA shall follow to inform the public about progress implementing the GSP, including the status of projects and actions.

- Questions pertaining to SGMA?
- Website : OVGA.us
- Contacts:  
Aaron Steinwand  
Executive Manager, OVGA  
[asteinwand@inyocounty.us](mailto:asteinwand@inyocounty.us)

# Owens Valley Groundwater Authority (OVGA)



# OVGA Responsibility and Authority



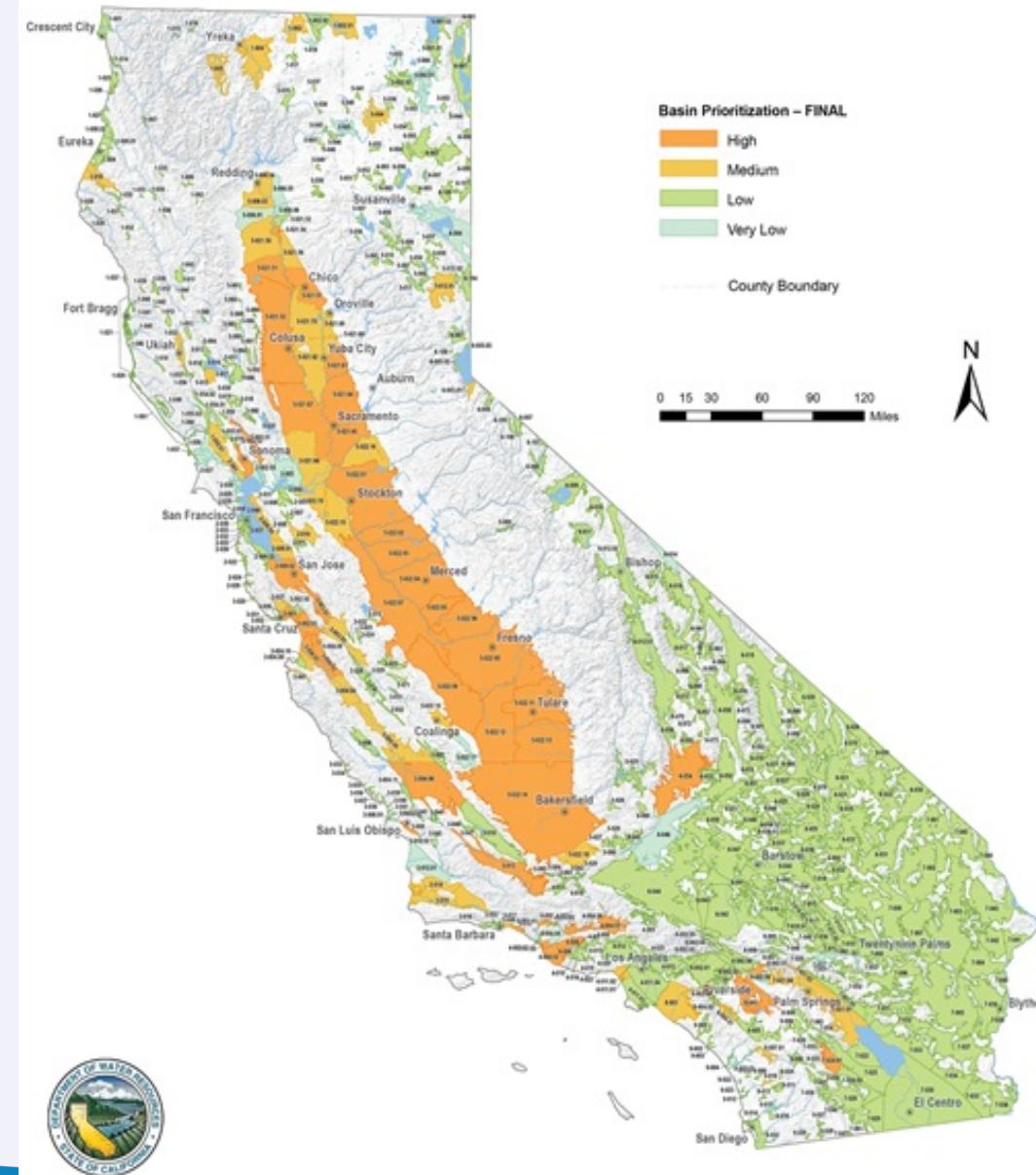
**Mission:** Safeguard the sustainability of the Basin through locally tailored management of groundwater resources to protect and sustain the environment, local residents and communities, agriculture, and the economy

**Owens Valley is ranked as a LOW PRIORITY BASIN**

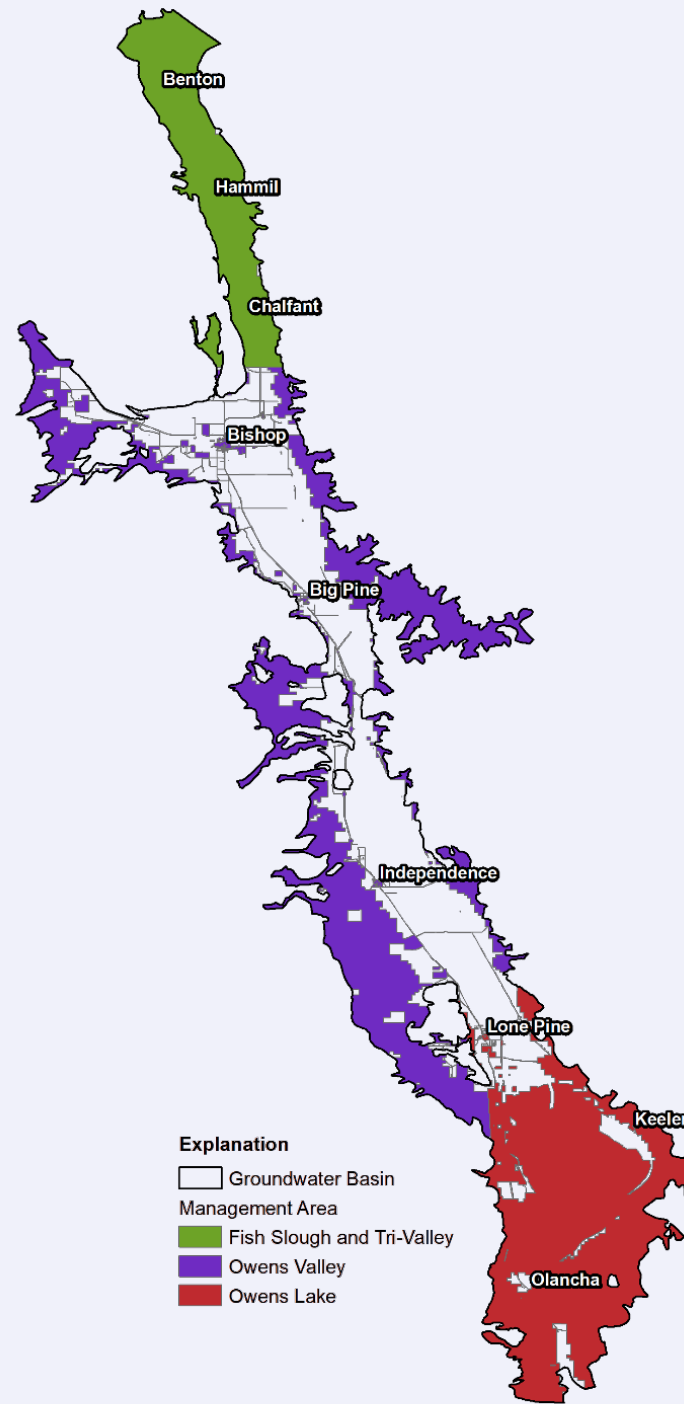
GSP preparation and implementation not required and the State cannot intervene

OVGA decided it is sound public policy for a local agency to proactively manage groundwater to avoid undesirable results

OVGA must have member with jurisdiction in an area to implement the GSP







## Proposed Management Areas for the Owens Valley Groundwater Basin

At least one OVGA member is responsible for implementing and funding the GSP in each Management Area

# GSP Development Steps



## Science: Describe the Basin

Institutional Setting: Plan Area, Water Supply

Data Compilation & Data Management System

Hydrogeologic Conceptual Model

Water Budget (Historical, Current, and Projected)

## Policy: Set Groundwater Monitoring and Goals for the Basin

Develop Monitoring Plan

Define Undesirable Results for this Basin

Set Sustainability Criteria (SMC)

## Implementation Components: Steps the OVGA can undertake to manage the Basin

Projects and Management actions to Achieve Sustainability (Regulations)?

Future Budget and Financing (Fees, Member Contributions?)

# Status of Technical Memos for GSP

Subject	In Progress	Staff Review	Draft Final
Distributed Parameter Watershed Model	X	X	X
West Bishop Shallow GW Evaluation	X	X	X
Monitoring Plan & Data Gaps Analysis	X	X	X
Subsidence	X	X	X
GDEs	X	X	
Hydrogeologic Conceptual Model	X	X	X
Sustainable Management Criteria	X	X	
Water Budget	X		
Sampling and Analysis Plan	X		
Projects and Management Areas	X		

# OWENS VALLEY GSP DEVELOPMENT TIMELINE





- Questions pertaining to OVGA, its purpose, or mission?
- Website : OVGA.us
- Contacts:
  - Aaron Steinwand
  - Executive Manager, OVGA
  - [asteinwand@inyocounty.us](mailto:asteinwand@inyocounty.us)

# SGMA Sustainability Indicators



	Sustainability Indicator	Needed for Owens Lake Management Area?
Lowering GW Levels	Consistent Lowering of Groundwater Levels	Yes
Reduction of Storage	Reduction of Groundwater Storage	Yes
Surface Water Depletion	Depletion of Connected Surface Water	Yes
Seawater Intrusion	Seawater Intrusion	No
Degraded Quality	Degraded Water Quality	Yes
Land Subsidence	Land Subsidence	Yes

**GOAL** - sustainable groundwater conditions within 20 years

## Establishing SMC, Step 1: Undesirable Results

**Sustainable groundwater management** - is the absence of **undesirable results**.  
SGMA does not set specific numbers.

**Undesirable results** occur when **significant and unreasonable effects** for any sustainability indicators are caused by groundwater conditions occurring throughout the basin.

**Significant and Unreasonable** – defined by OVGA. Local control is inherent to SGMA.

It is critical that OVGA has public input on these definitions to consider while preparing the GSP

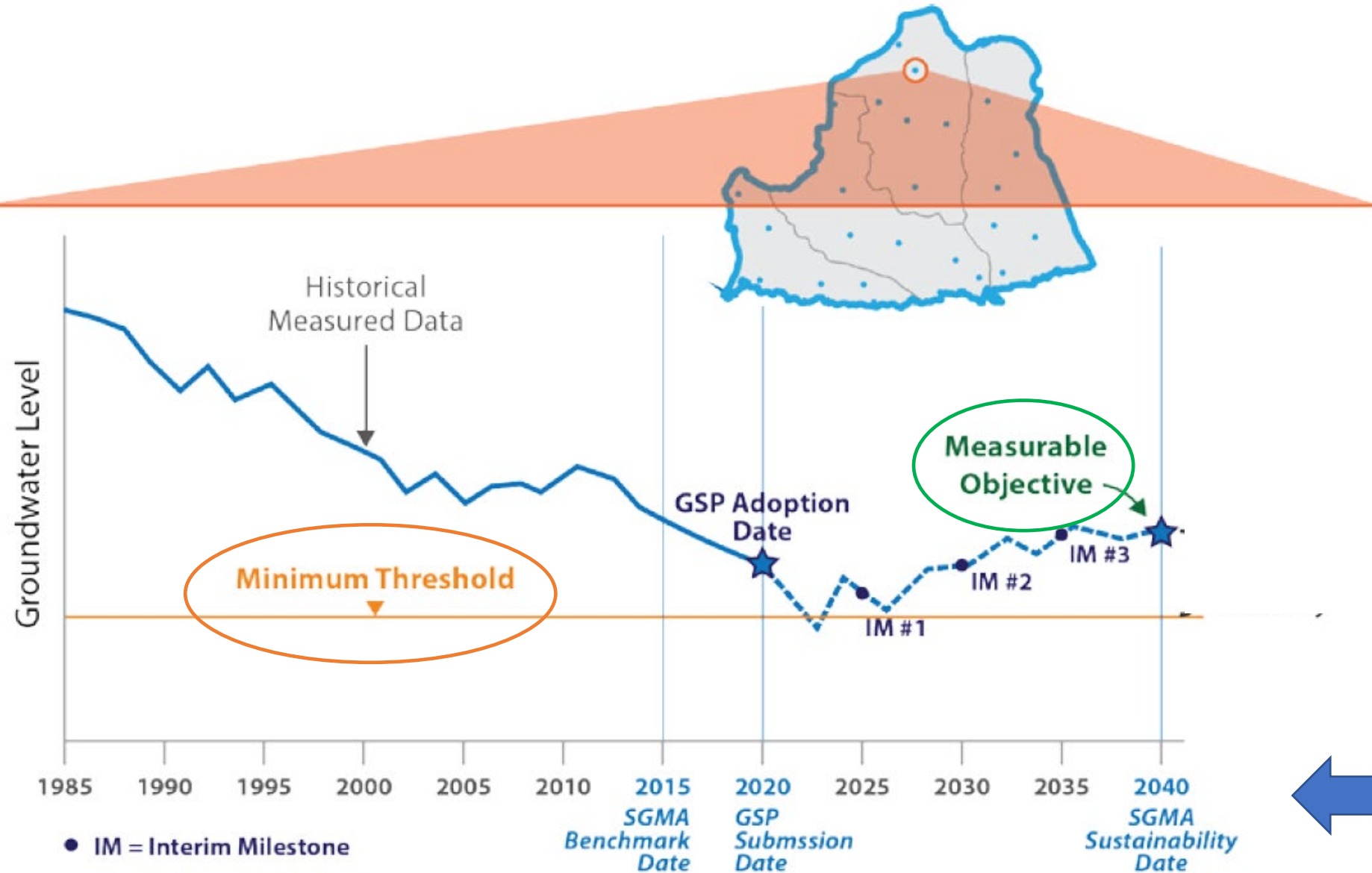
### Two Main Parts of SMC

**Minimum Threshold** – a quantitative value for each SMC that defines undesirable results. Set by OVGA (but cannot be an arbitrary number.)

**Measurable Objective** – specified quantifiable goals for the maintenance or improvement of groundwater conditions. Included in the GSP to document if the basin is sustainable. Set by OVGA but must comply with SGMA

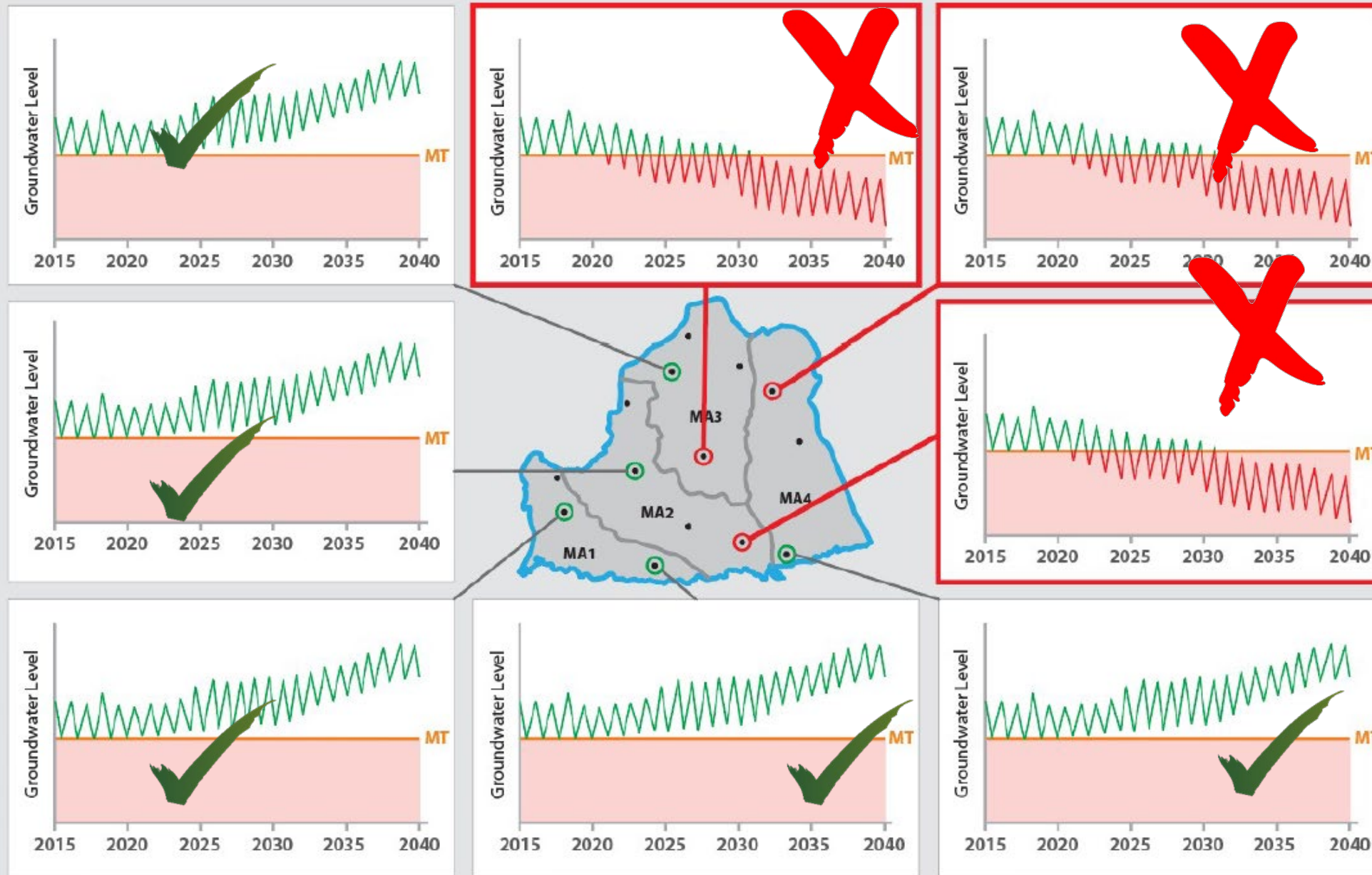


# SMC Example for Single Monitoring Point



IM = interim  
milestone every 5 years

# SMC Examples for a Management Area



# Proposed SMC Applicable to Entire Basin

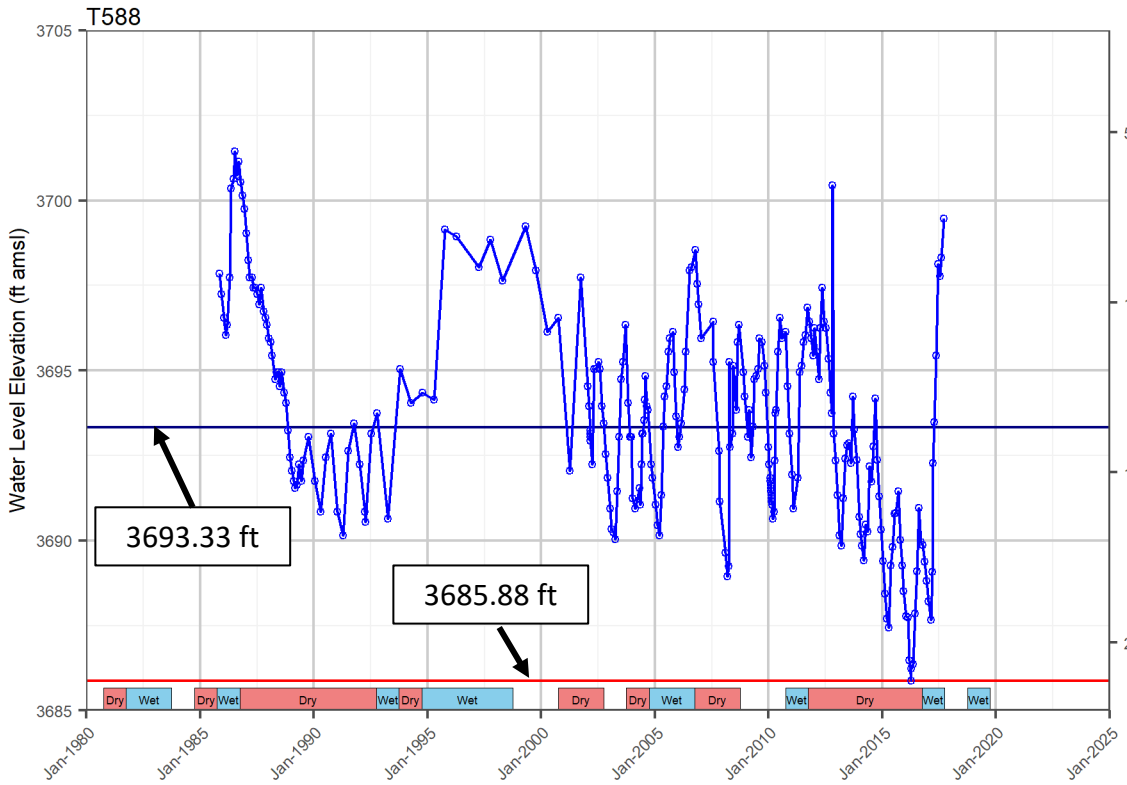


Indicator	Undesirable Results	Metric	Minimum Threshold	Measureable Objective
Degraded WQ	Increased treatment costs, loss of potable water supplies	Solute concentrations	Included in existing or future regulations	None
Seawater Intrusion	N/A	N/A	N/A	N/A

# Proposed SMC, Owens Lake Management Area

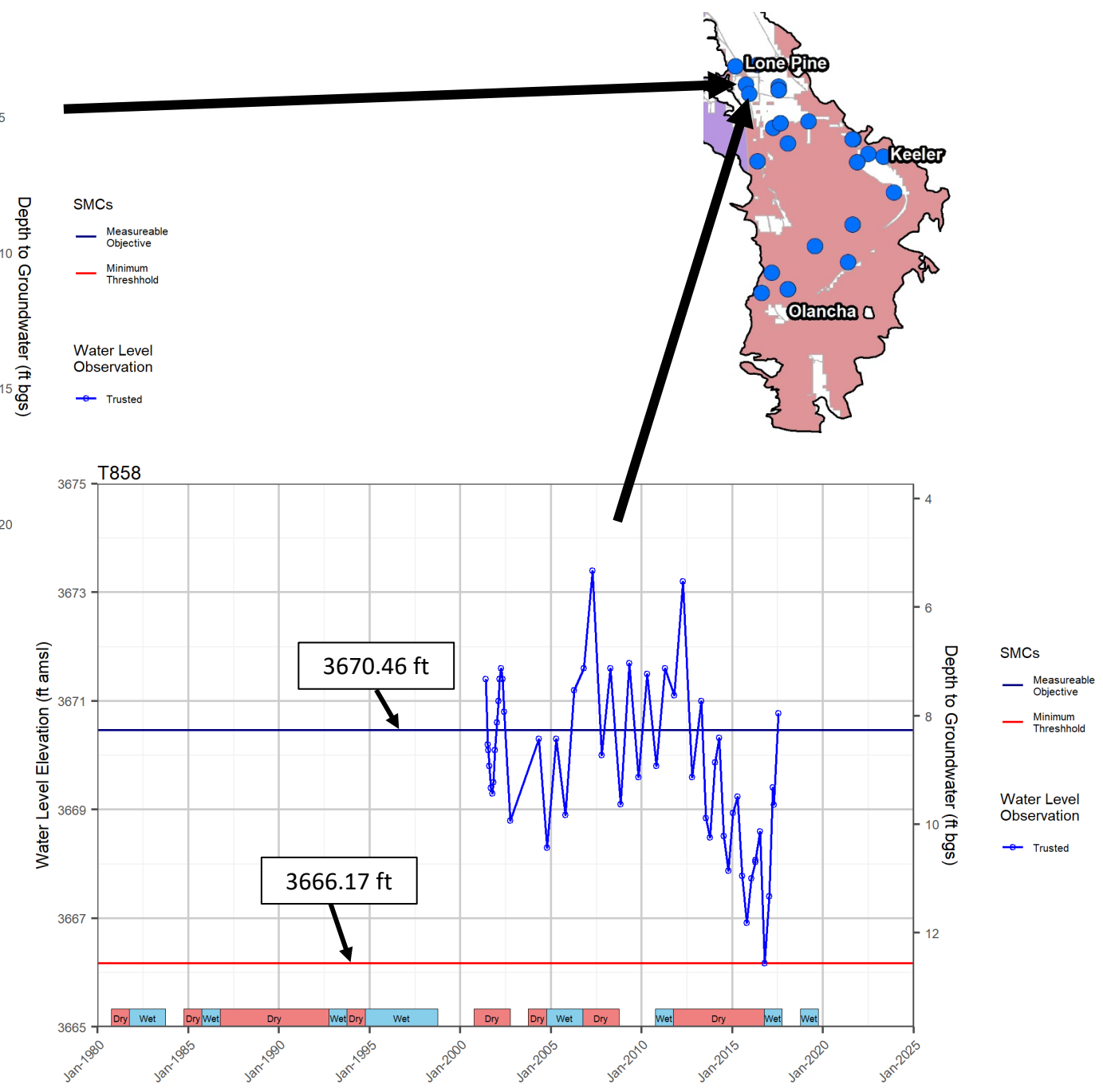
Indicator	Undesirable Results	Metric	Minimum Threshold	Measureable Objective
GW elevation	Increased pumping costs, drying out of shallow domestic wells,  loss of existing monitoring wells	GW elevation	Lowest GW elevation during period of record (usually 2012-2016 drought)  -OR-  Lowest GW elevation available since 2000	Average GW elevation from WY 2001-2010  -OR-  Average GW elevation for most recent 10 years
GW Storage Reduction	Decreased ability to maintain status quo pumping during extended drought periods	GW elevation	Same	Same





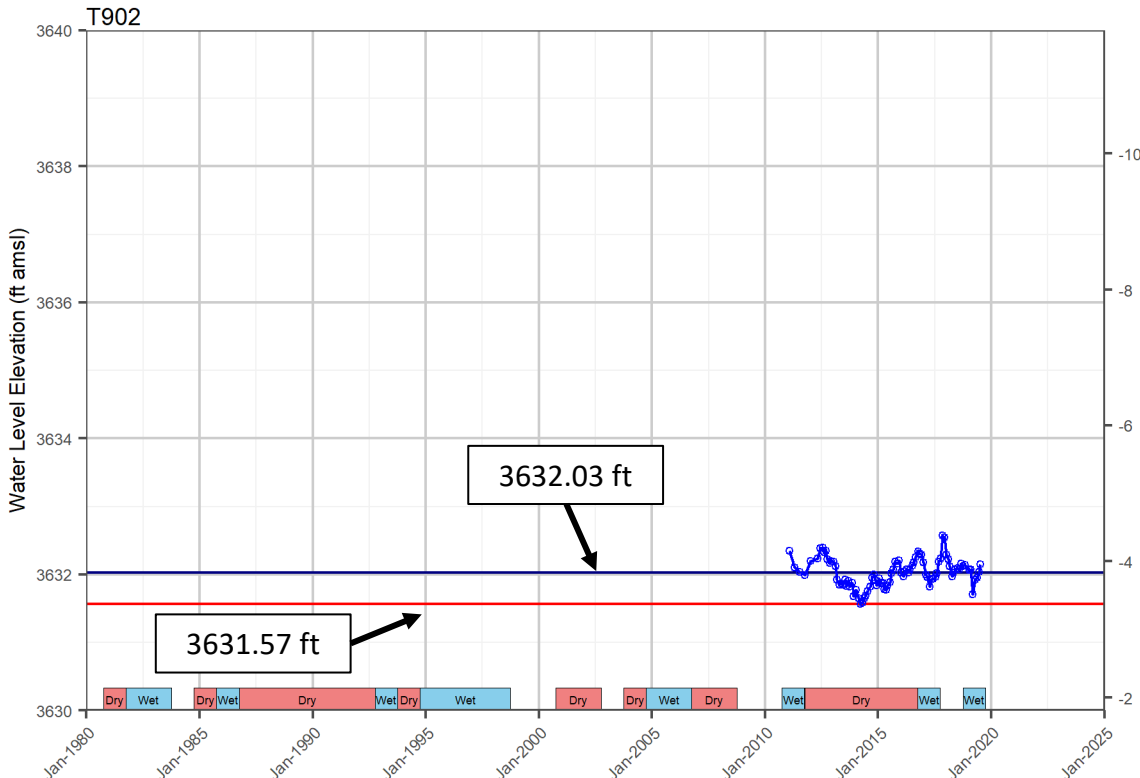
# Owens Lake Management Area

Preliminary Draft  
Subject to Revision



# Owens Lake Management Area

Preliminary Draft  
Subject to Revision



SMCs

- Measureable Objective
- Minimum Threshold

Water Level Observation

- Trusted

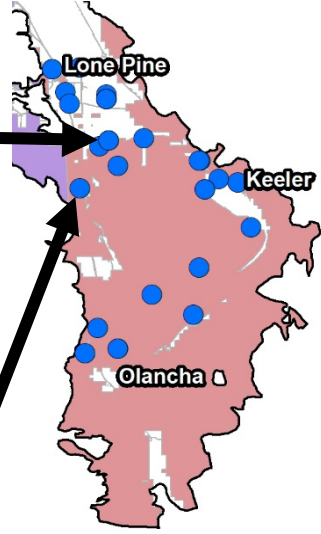


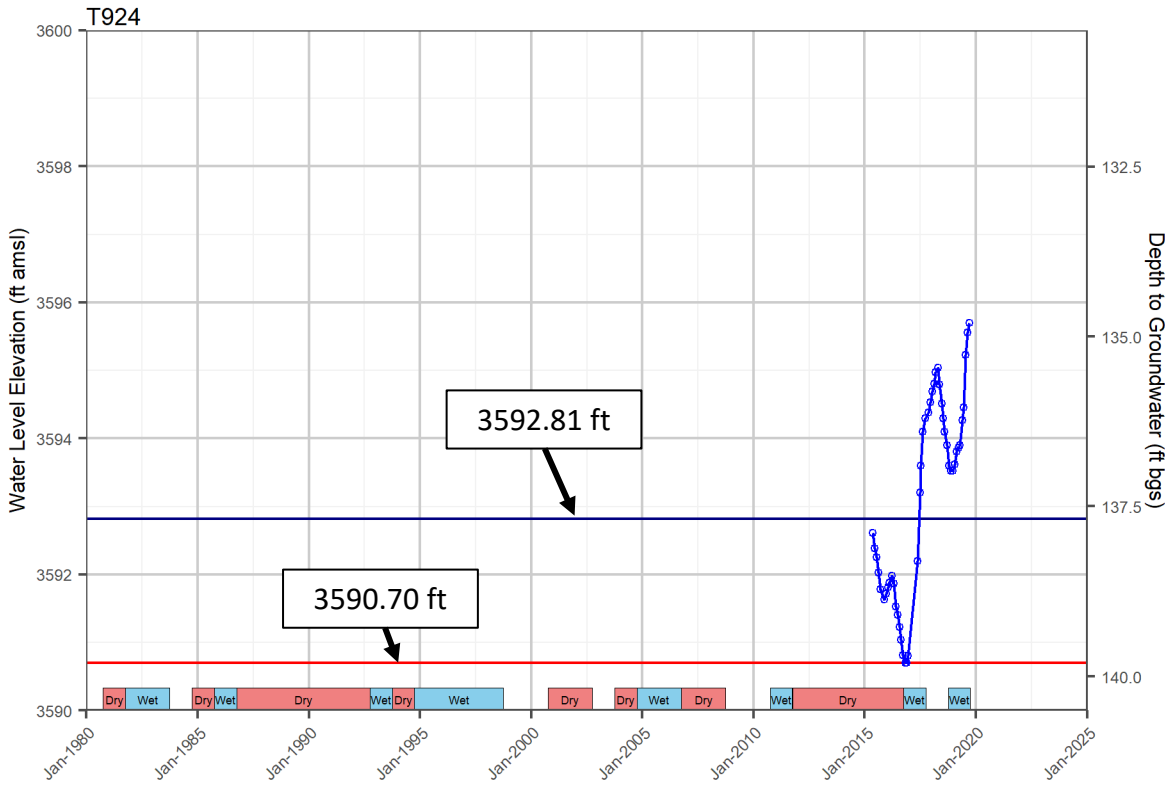
SMCs

- Measureable Objective
- Minimum Threshold

Water Level Observation

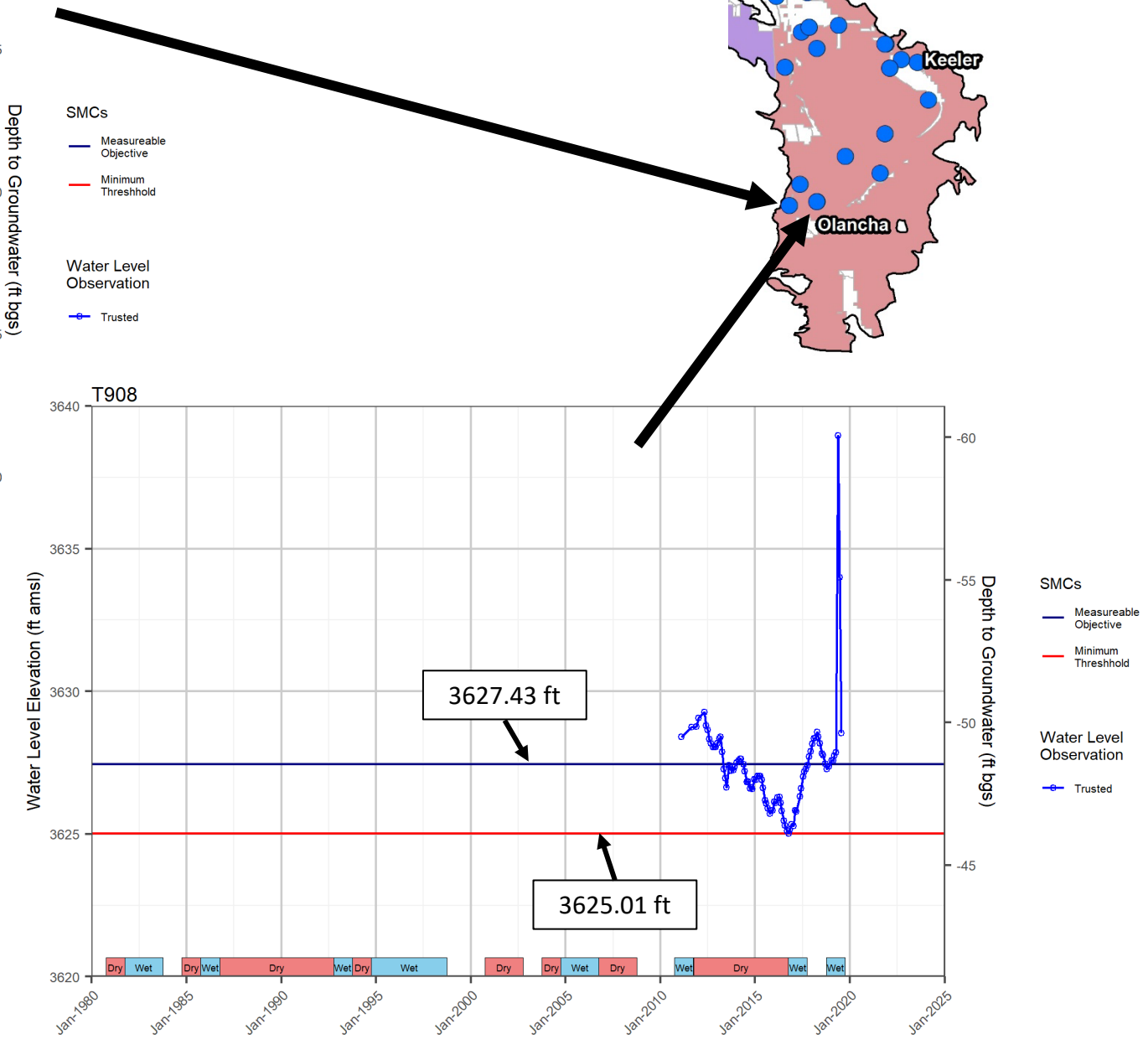
- Trusted





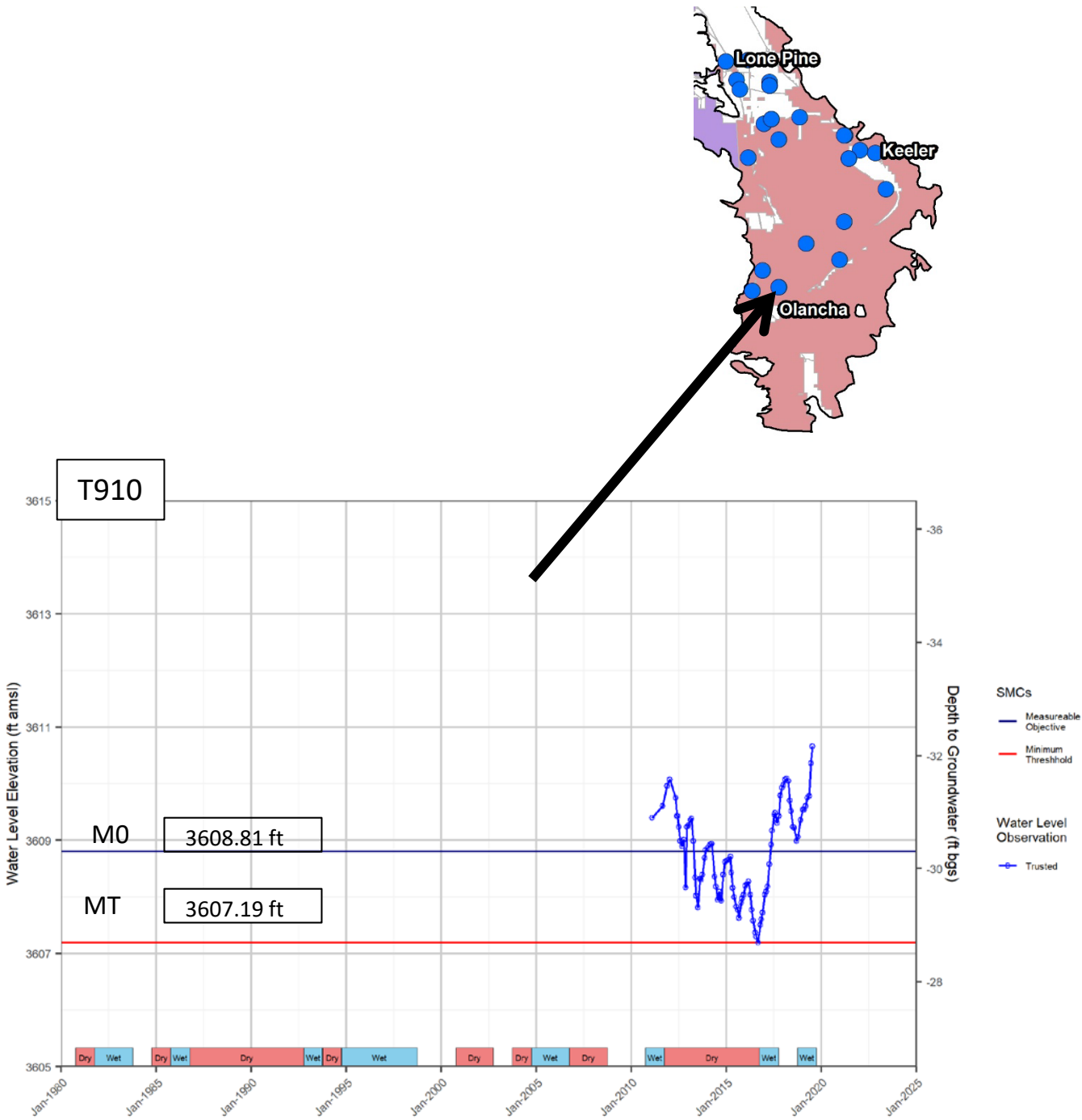
# Owens Lake Management Area

Preliminary Draft  
Subject to Revision



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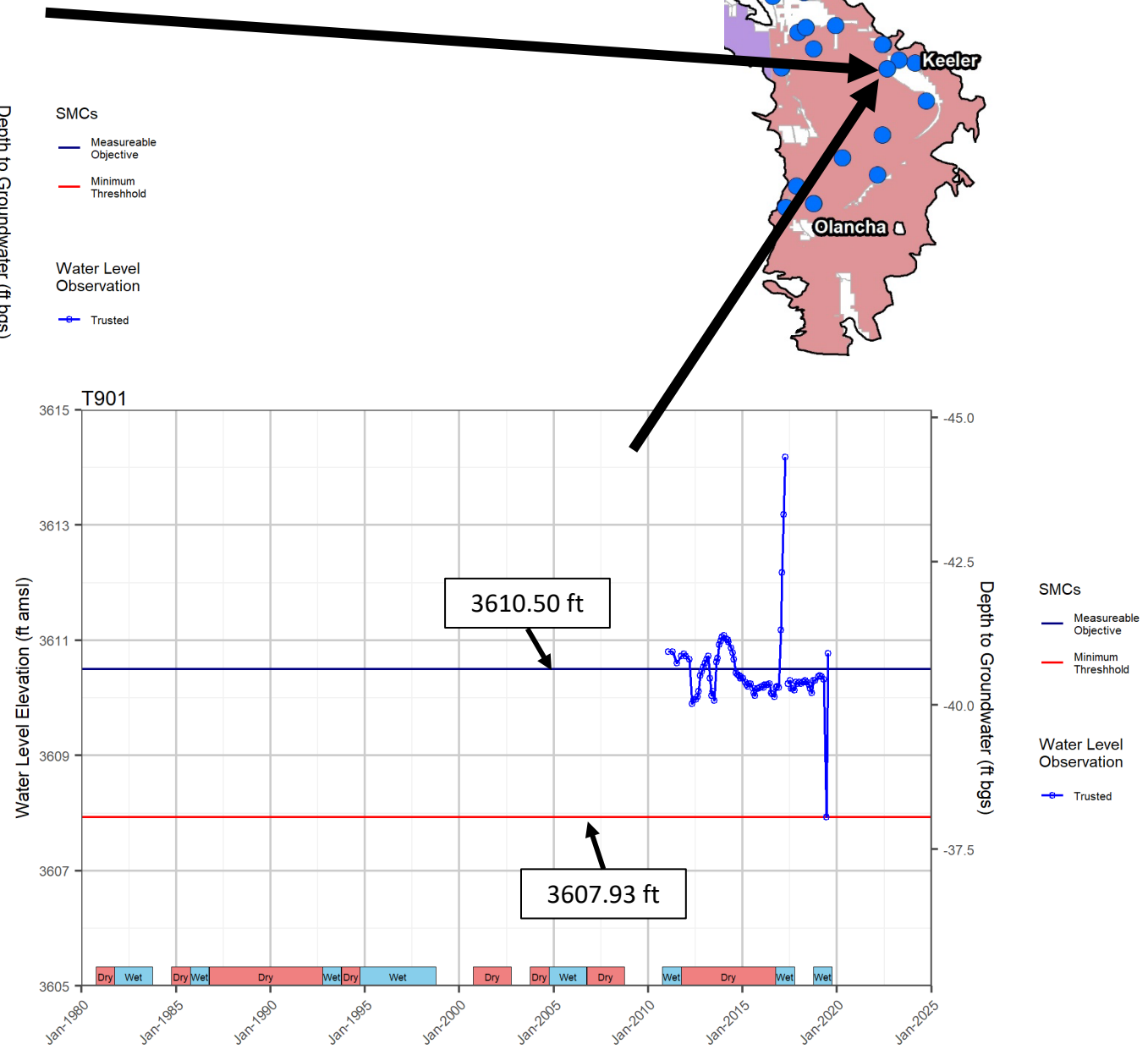
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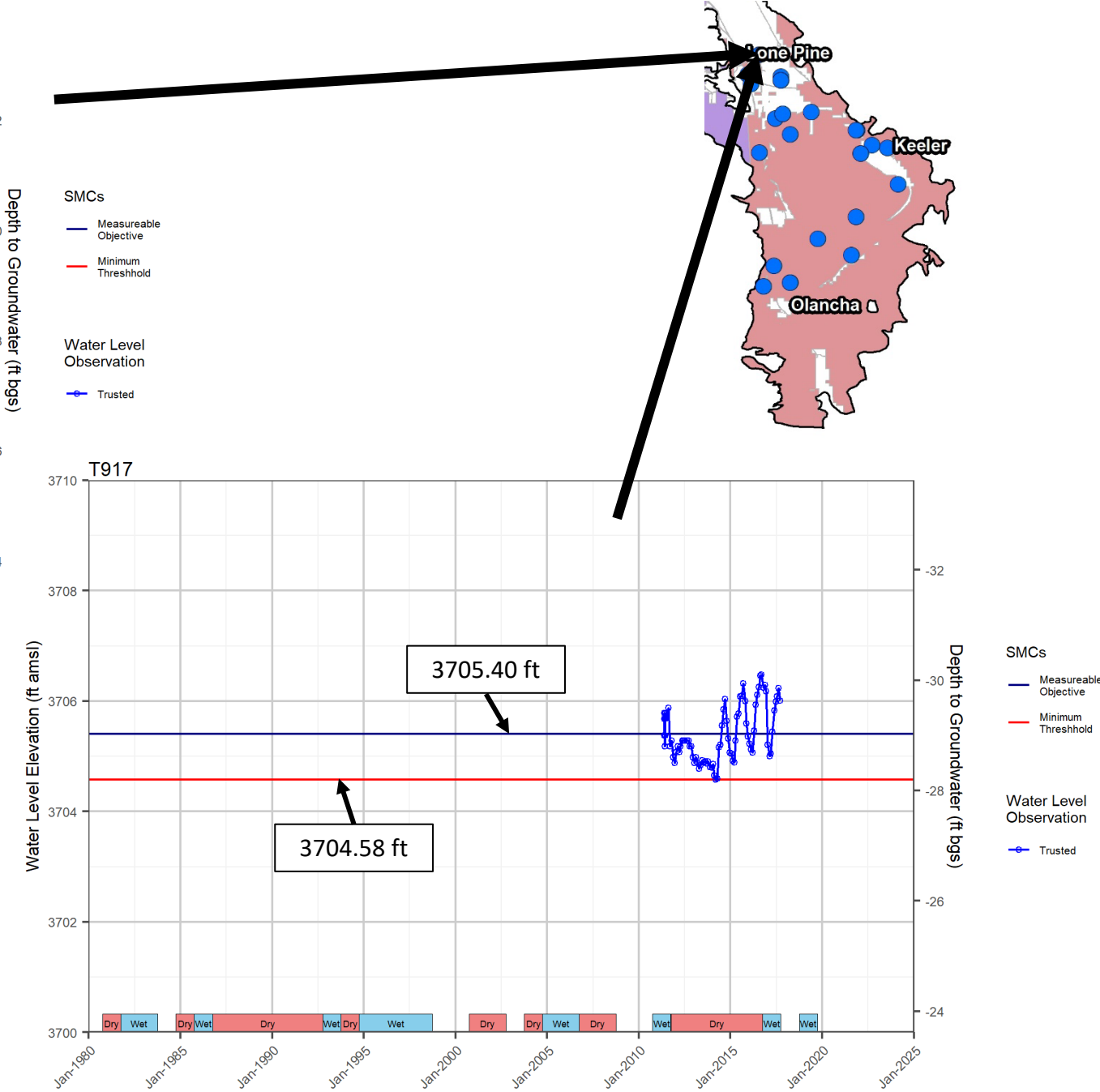
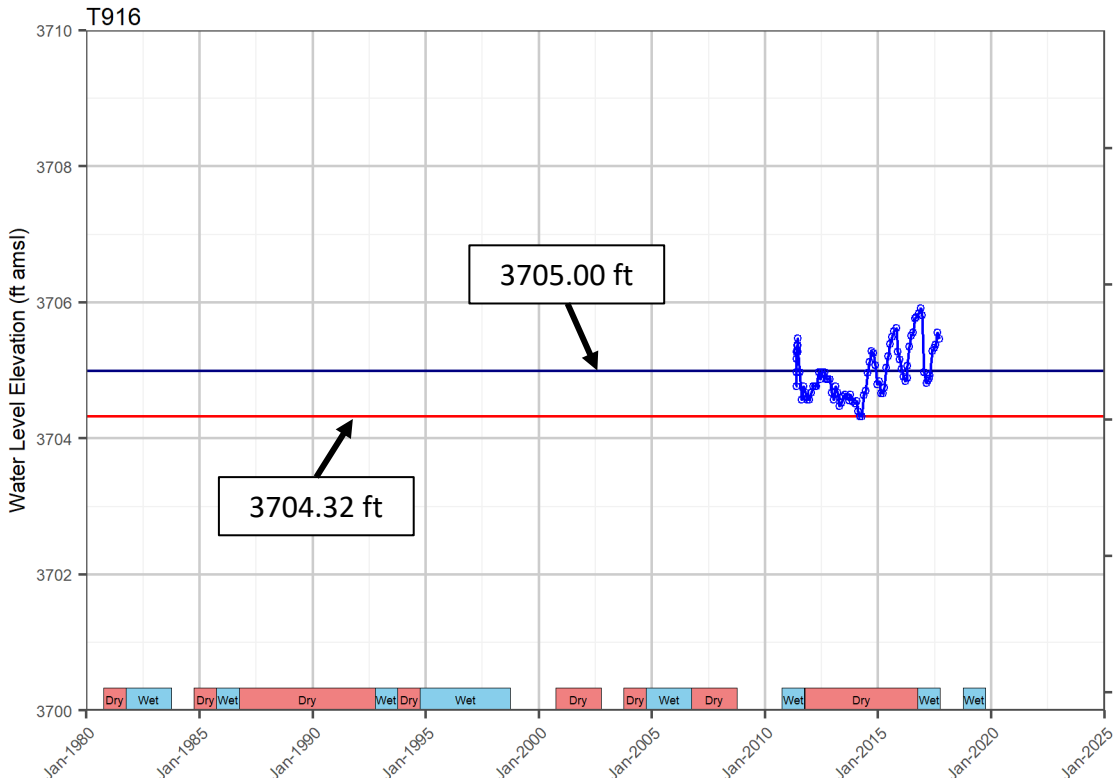
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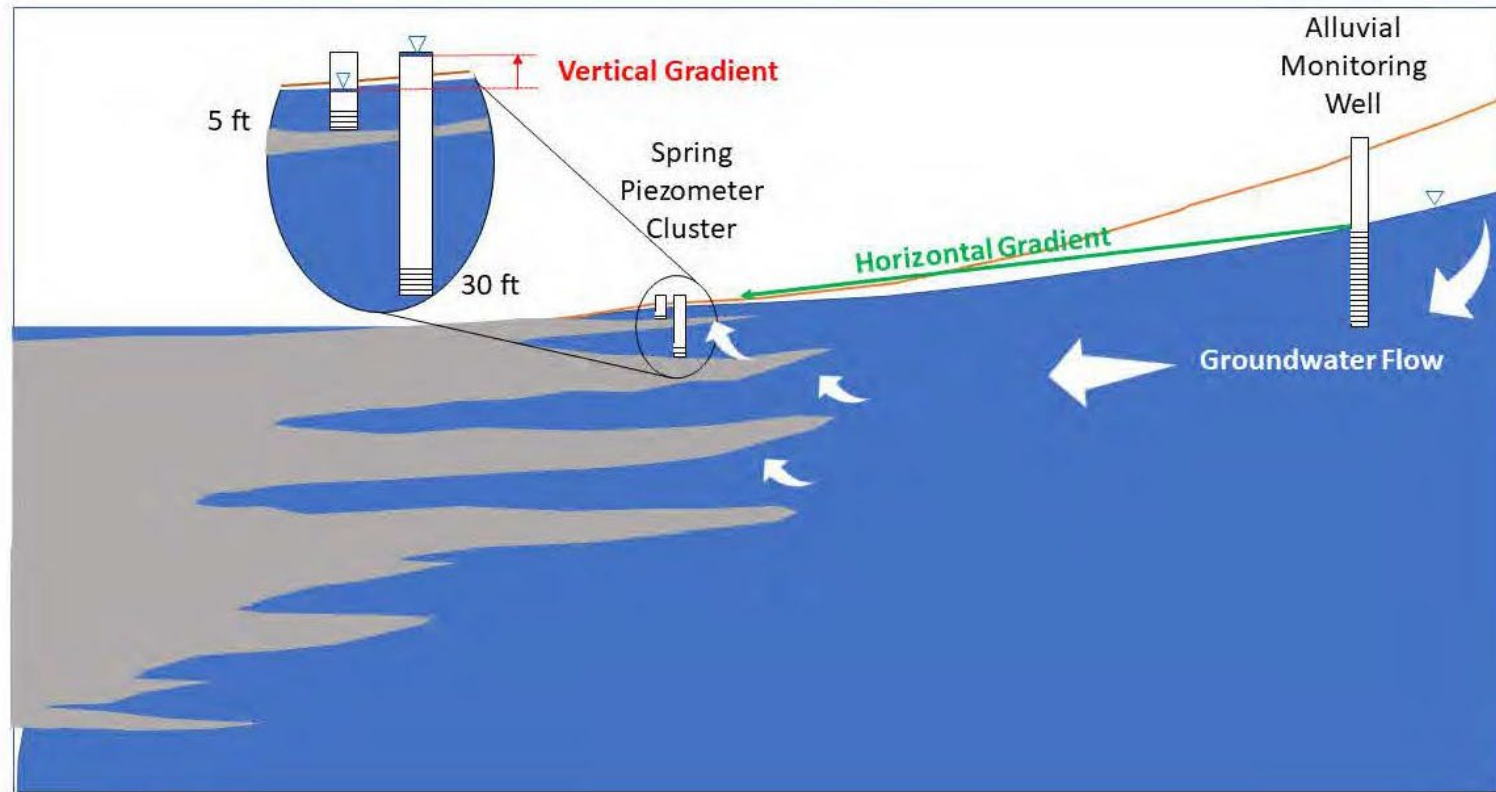




# Proposed SMC, Owens Lake Management Area

Indicator	Undesirable Results	Metric	Minimum Threshold	Measureable Objective
SW Depletion	Reduction of groundwater discharged to the surface resulting in impacts to GDEs	GW elevation	Reduction of groundwater flow gradient toward springs below an <u>acceptable</u> percentage of the baseline gradient	Baseline period groundwater flow gradient towards springs
Land Subsidence	Damage to conveyance infrastructure  General infrastructure damage	InSar	0.3 ft of subsidence within a single year or over 5 years	Average GW elevation from WY 2001-2010 -OR- Average GW elevation for most recent 10 years AND 0 ft of subsidence

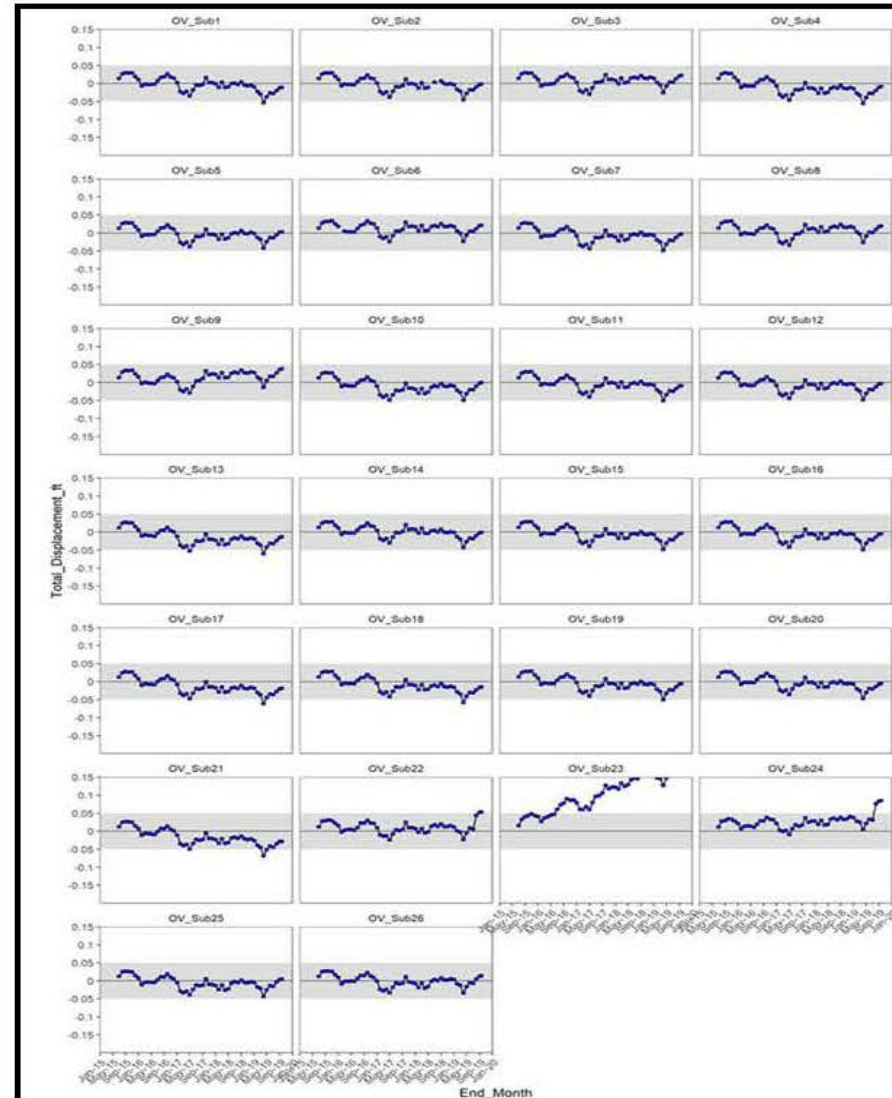
# Proposed SMC, GDE protections, Owens Lake Management Area



Source: LADWP and Technical Consultants, 2020. Six-Month Operation Test of Testing Well TW-E at Owens Lake. Updated Testing Plan, October 2020



# InSAR Subsidence Monitoring Points



PRELIMINARY DRAFT  
SUBJECT TO REVISION

- Questions on the GSP: contents, Undesirable Results, Monitoring, and SMC?
- Website : OVGA.us
- Contacts:  
Aaron Steinwand  
Executive Manager, OVGA  
[asteinwand@inyocounty.us](mailto:asteinwand@inyocounty.us)



Funding for this project has been provided in part from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and through an agreement with the State Department of Water Resources



Workshop	Timeframe	Possible Topics + Notes
Community Workshop #1	<i>Summer 2020</i> August or September	<ul style="list-style-type: none"> <li>Virtual Meeting</li> <li>Topics to discuss: <ul style="list-style-type: none"> <li>Why this matters</li> <li>How to stay involved and provide input</li> <li>Basin Setting, Models, Water Budget</li> </ul> </li> </ul>
Community Workshop #2	<i>Winter 2020</i> November or December	<ul style="list-style-type: none"> <li>Virtual or Hybrid Meeting</li> <li>GSP components compiled. Before or near start of development of Administrative Draft</li> <li>Topics to discuss: <ul style="list-style-type: none"> <li>SMC, Undesirable Results, Baseline and projected water budgets</li> <li>review of other technical topics as needed</li> </ul> </li> </ul>
Community Workshop #3	<i>Spring 2021</i> March or April	<ul style="list-style-type: none"> <li>Virtual or Hybrid Meeting</li> <li>Topics to discuss: <ul style="list-style-type: none"> <li>Projects and Management Actions</li> <li>Review of other technical topics as needed</li> </ul> </li> </ul>
Community Workshop #4	<i>Summer 2021</i> June	<ul style="list-style-type: none"> <li>Virtual or Hybrid Meeting</li> <li>Coincide with release of Draft GSP</li> <li>Topics to discuss: <ul style="list-style-type: none"> <li>Overview of GSP by chapter</li> <li>Process to review + comment on GSP</li> <li>Review of technical topics as needed</li> </ul> </li> </ul>
Community Workshop #5	<i>Winter 2021</i> December	<ul style="list-style-type: none"> <li>Virtual or Hybrid Meeting</li> <li>Coincide with completion of review period</li> <li>Topics to discuss: <ul style="list-style-type: none"> <li>Revisions made to GSP in response to review period</li> </ul> </li> </ul>