




San Gorgonio Pass Groundwater Sustainability Plan


**What the GSP means
for the San Gorgonio
Pass Water Agency**

DECEMBER 13, 2021



This presentation is intended to answer the following questions:

- What is SGMA?
- What are GSAs?
- Why do we need a GSP?
- What is included in the SGP GSP?
- What are our next steps?



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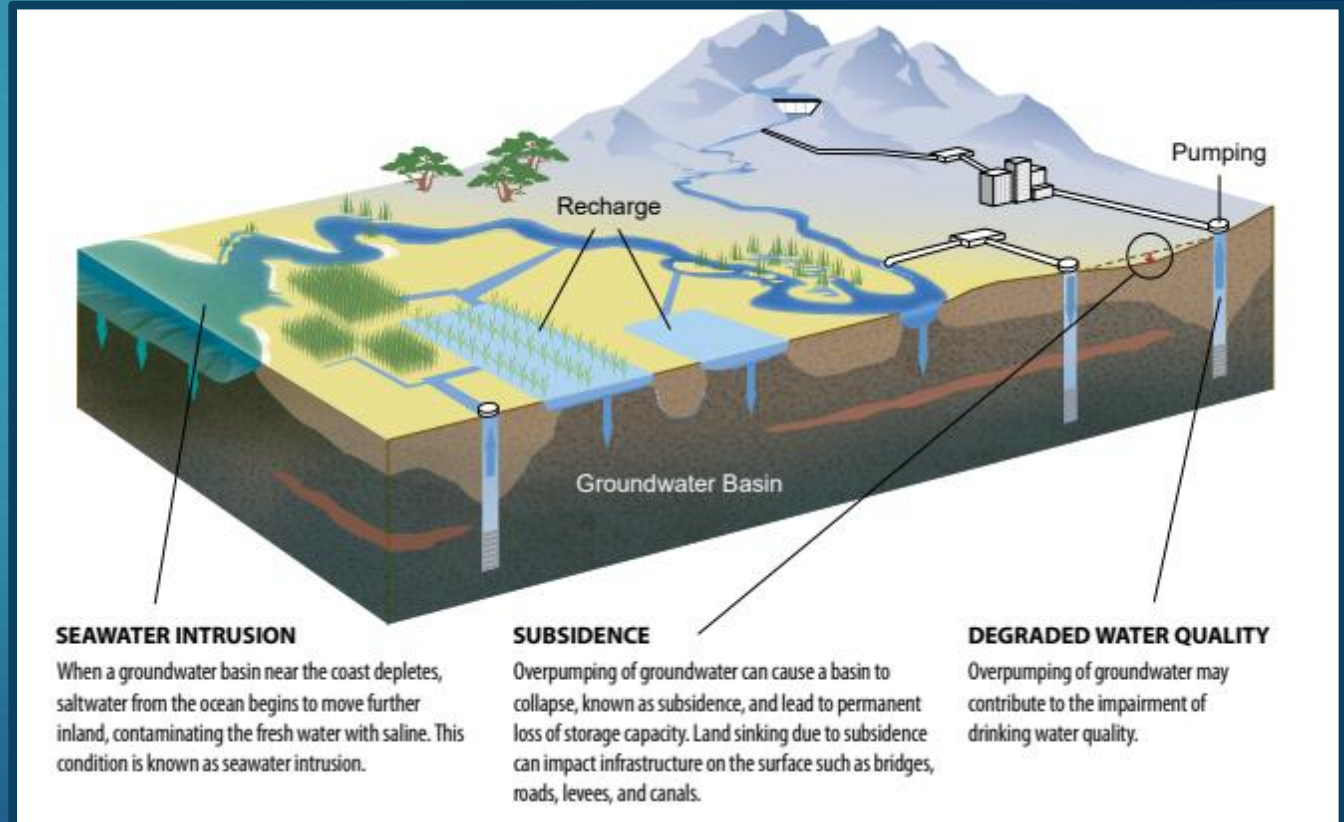
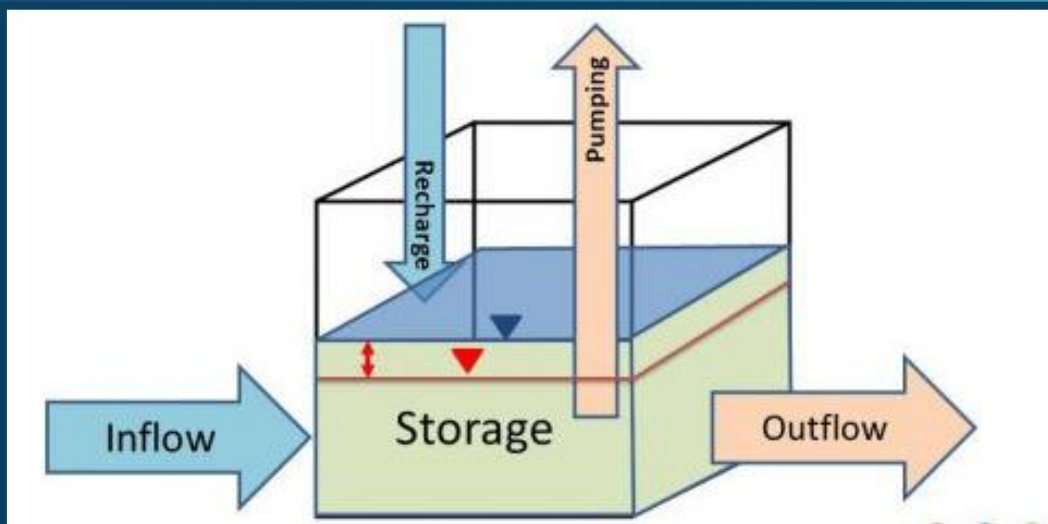
- **What is SGMA?**
- What is a GSA?
- Why do we need a GSP?
- What is included in the SGP GSP?
- What are our next steps?



**Sustainable Groundwater Management Act (SGMA)
Passed in 2014 and ushered in
a new era of groundwater
management in California.**

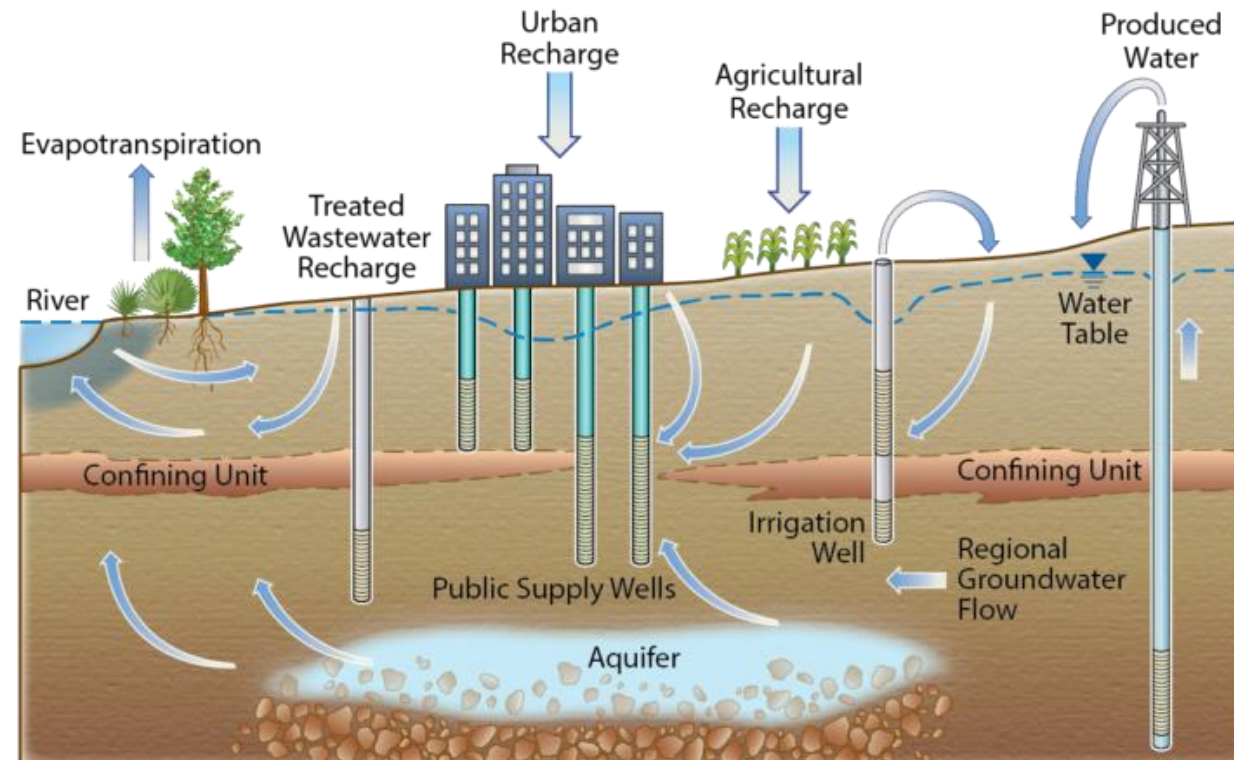
SGMA directs local agencies to work together to create a plan to balance the amount of water pumped out and put back into a basin.


The goal of these plans (GSP) is long-term sustainability of basins.



SGMA defines “sustainable groundwater management” as:

“management and use of groundwater in a manner that can be maintained during the planning and implementation horizon **without causing undesirable results.**”





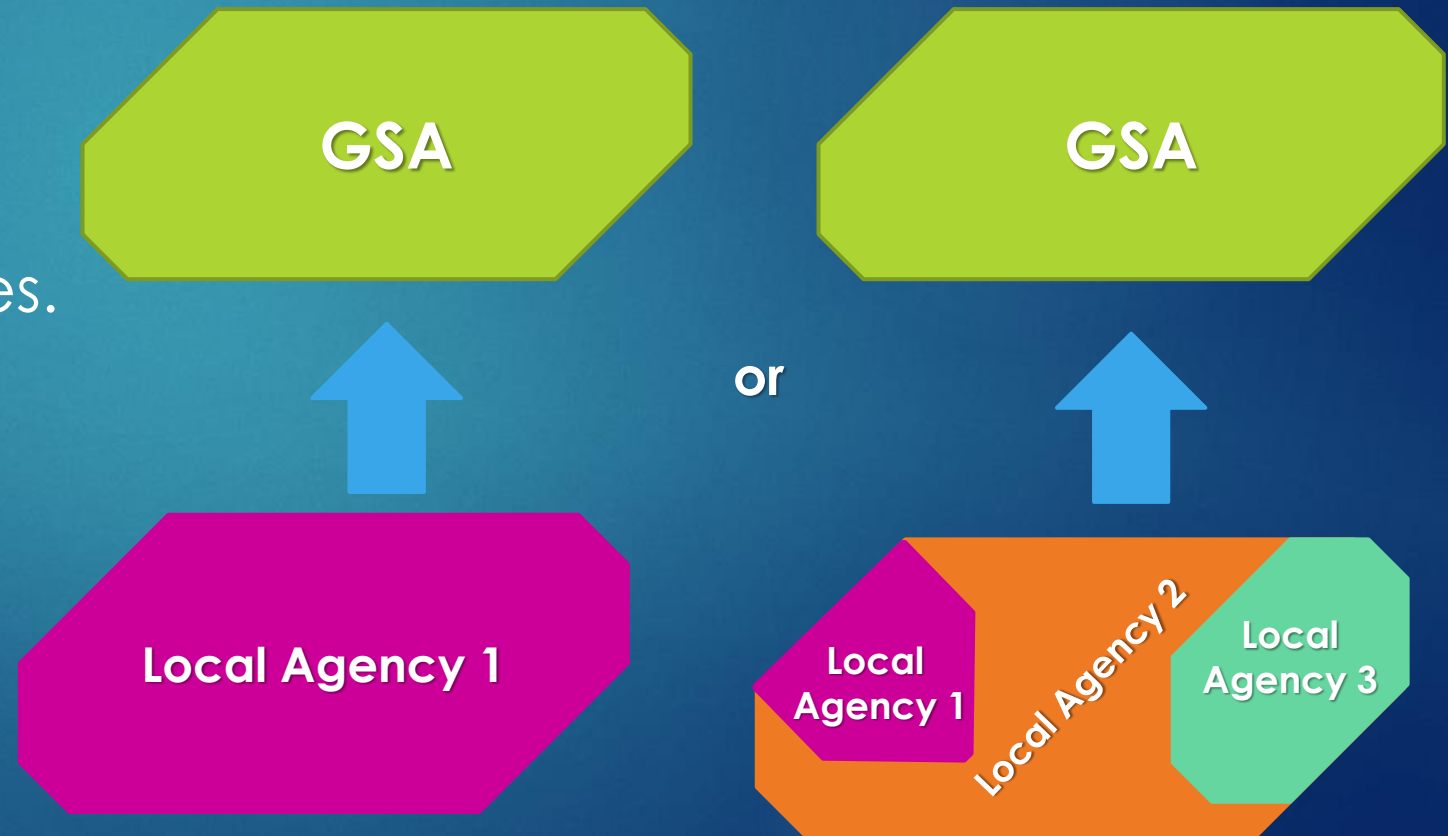
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Groundwater Sustainability Agencies

SGMA required high and medium priority groundwater basins to develop GSAs by June 2017.

A **GSA** may be formed by a single local agency or a combination of local agencies.




Groundwater Sustainability Agencies

GSAs aid in GSP development and implementation, including monitoring and annual reporting.

GSAs are not enforcement or regulating agencies.





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A **Groundwater Sustainability Plan** (GSP) is a 20-year plan to ensure that groundwater is managed sustainably within a groundwater basin.

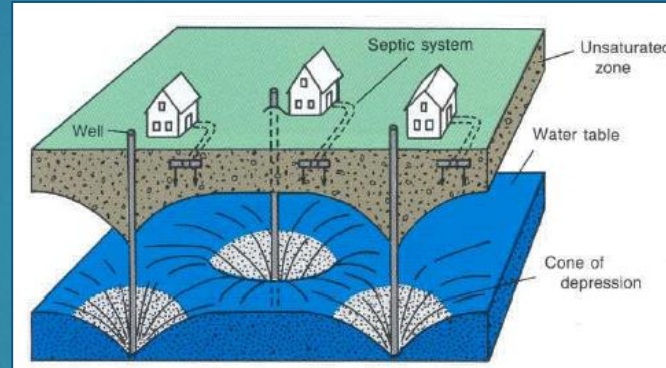
It requires local agencies to coordinate towards the basin's common sustainability goal.

To achieve sustainability, the GSP considers avoiding undesirable impacts to the six sustainability indicators:

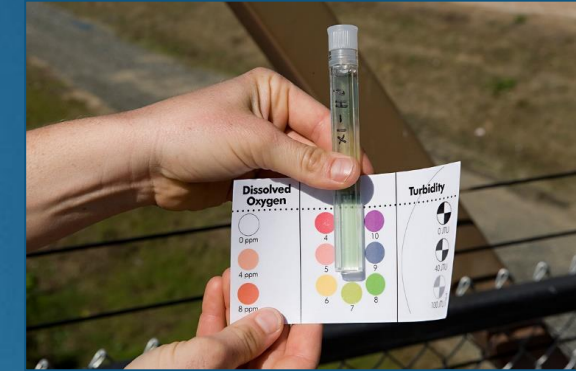
Chronic lowering of groundwater levels



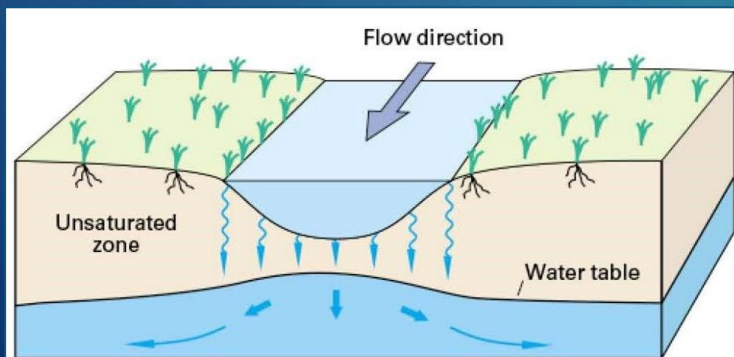
Reduction of groundwater storage



Degraded water quality



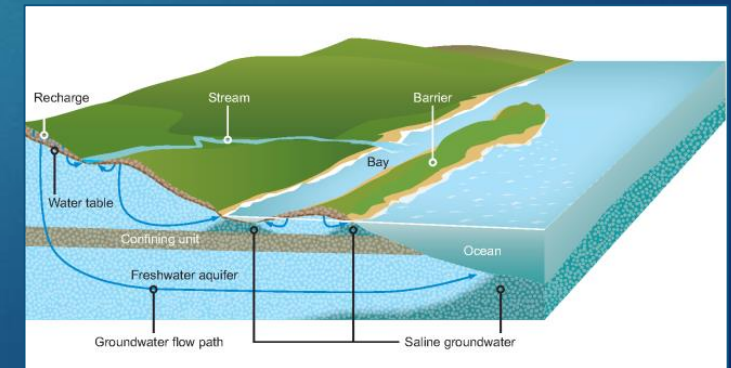
Depletions of interconnected surface water



Land subsidence



Seawater intrusion



The San Gorgonio Pass Subbasin is characterized as a medium priority basin, resulting in the following deadlines:

The GSP is due
January 31, 2022

The Annual Report
is due April 1, 2022

2022 Calendar


January '22						
M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

February '22						
M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

March '22						
M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

April '22						
M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	



A person's hand is pointing at a computer monitor. The monitor displays several data visualizations: a bar chart with blue bars, a line graph with a blue line, and a bar chart with green bars. A yellow rectangular highlight is visible in the top right corner of the screen. The background is dark and out of focus.

The 20-year implementation period begins when the GSP is submitted (January 31, 2022).

Implementation includes monitoring, reporting, filling data gaps, 5-year GSP updates, and continued outreach.

SGMA Steps

1. Form
GSA
June 2017


2. Develop
GSP
Jan 2020/22

3. Implement
GSP
Over 20 yrs

4. Achieve
Sustainability
2040/42



*As of May 2020



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Contents of the Public Review Draft GSP

- ▶ Executive Summary
- ▶ Chapter 1 – Introduction
- ▶ Chapter 2 – Plan Area
- ▶ Chapter 3 – Basin Setting
- ▶ Chapter 4 – Sustainable Management Criteria
- ▶ Chapter 5 – Monitoring Network
- ▶ Chapter 6 – Projects & Management Actions
- ▶ Chapter 7 – Implementation

Consultant Roles

Provost and Pritchard is tasked with the Groundwater Sustainability Plan development and GSP Submittal.

Intera is tasked with the groundwater modeling and water budget development.

Houston Engineering Inc. is tasked with Data Management System development.



Executive Summary

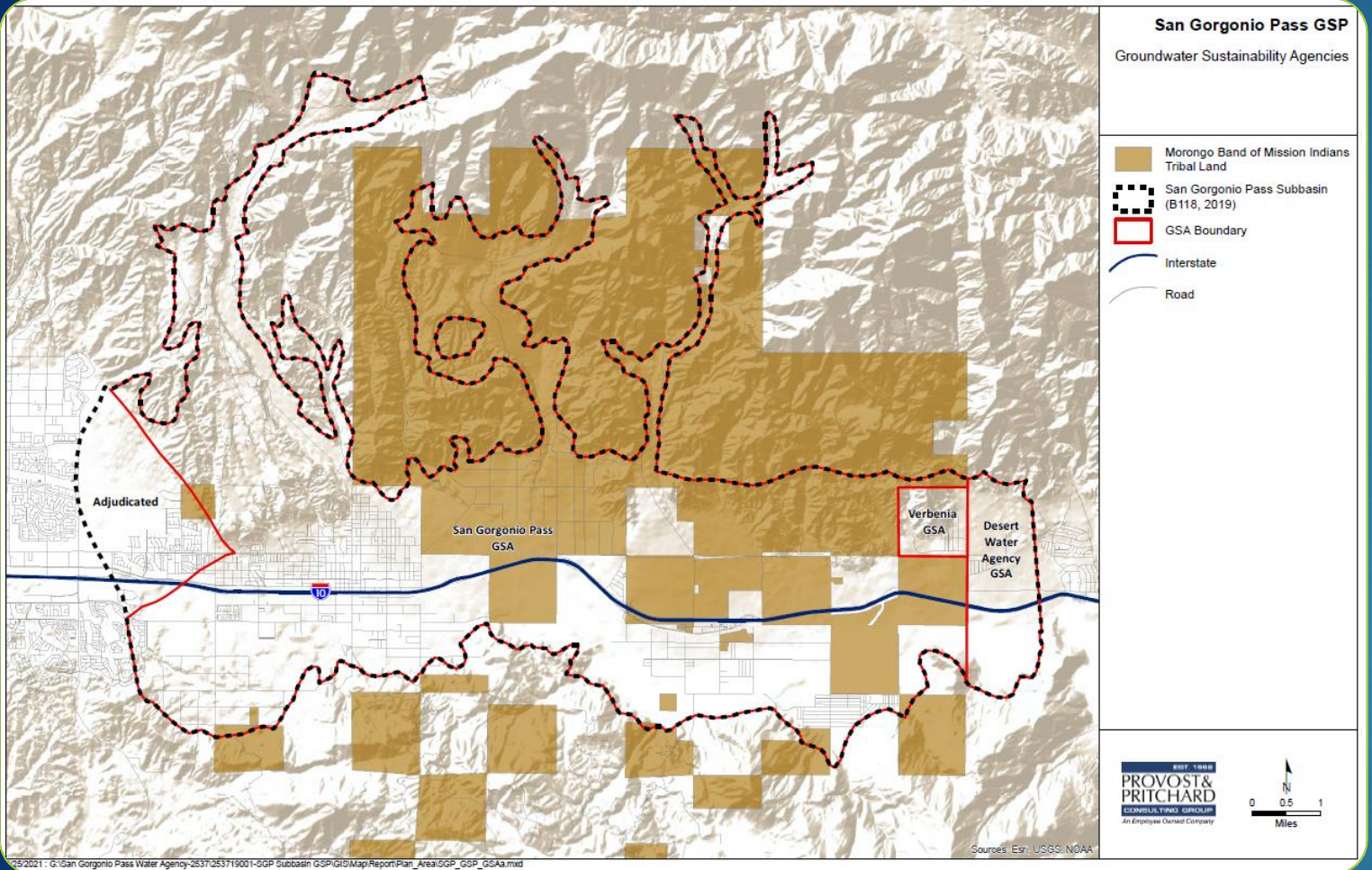
A high-level overview of the GSP contents, to guide the reader on where to look for information of interest.



Chapter 1 - Introduction

- ▶ Background on SGMA, the purpose of the GSP, and the sustainability goal of the Subbasin.



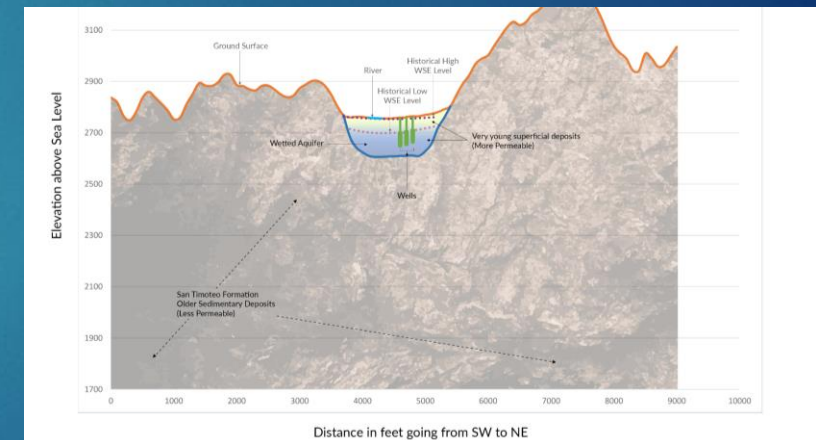
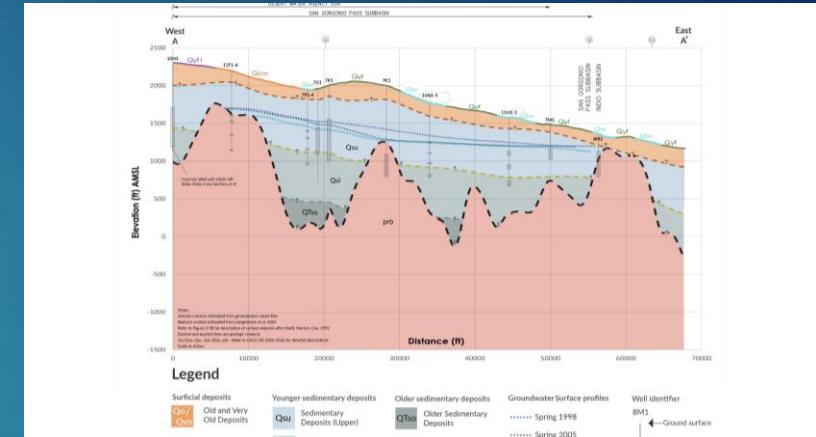


Chapter 2 – Plan Area

- ▶ Description of the GSAs, member agencies, beneficial users of groundwater, land uses, and resultant water uses.
- ▶ Clarifies that the adjudicated Beaumont Basin and the MBMI lands are not subject to the GSP.

Chapter 3 – Basin Setting

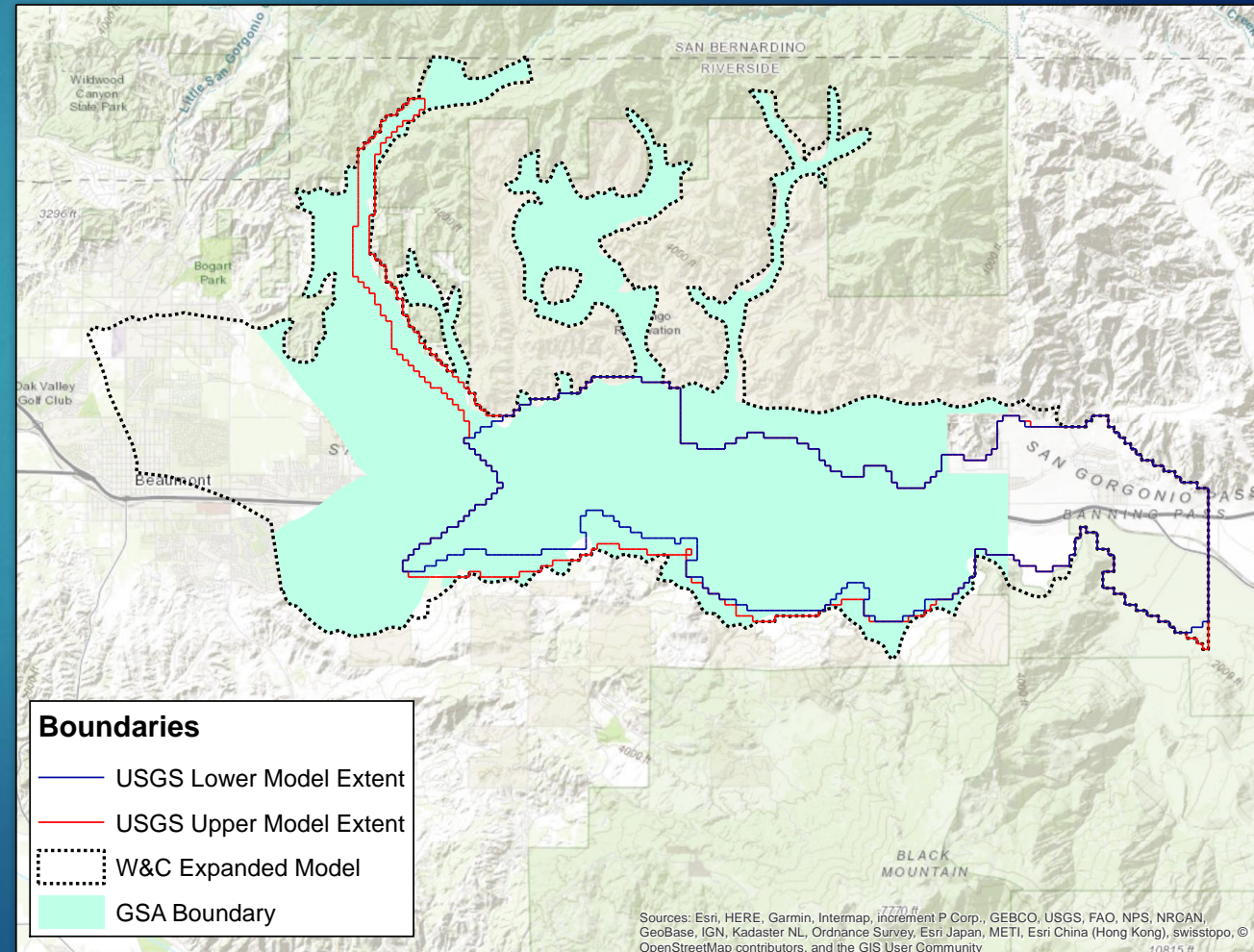
- Provides a scientific primer behind the hydrogeology of the subbasin, including modeling results and the historic, current, and projected water budgets that are used to inform sustainable management criteria.



Modeling Effort

Intera has developed a model informed by both the existing USGS analysis and Woodard & Curran developed models for the San Gorgonio Pass Subbasin.

The model generated historic, current and projected water budgets.



Chapter 4 – Sustainable Management Criteria

- ▶ Details how the GSAs will quantitatively and qualitatively measure progress towards sustainability for the relevant sustainability indicators.
- ▶ Measures include an undesirable result, measurable objective, minimum threshold.

Sustainability Indicators Applicable to the San Gorgonio Pass Subbasin



Groundwater Level Decline



Reduction of Storage

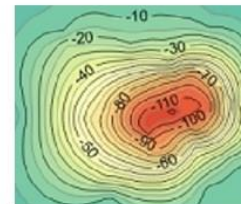


Degraded Water Quality

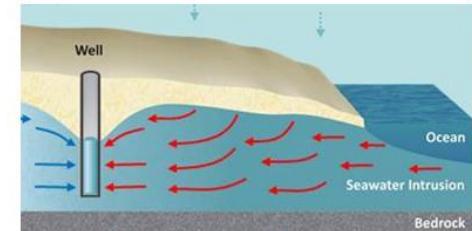


Surface Water Depletion

Sustainability Indicators Not Applicable to the San Gorgonio Pass Subbasin



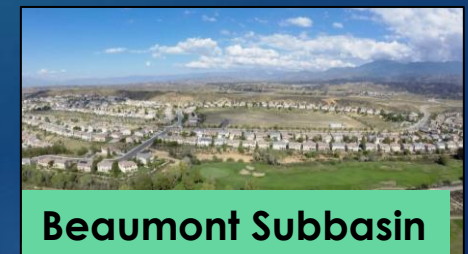
Land Subsidence



Seawater Intrusion

Sustainable Management Criteria (SMCs) focus on how to avoid significant and unreasonable impacts to the **beneficial uses** of groundwater.

Additional Considerations





SGMA recognizes sustainable groundwater management as preventing “undesirable results”.



Operational Flexibility

Difference between the Measurable Objective and Minimum Threshold

Minimum Threshold

Quantification of the undesirable result

Measurable Objective

Quantification of the sustainability goal



Operational Flexibility

Difference between the Measurable Objective and Minimum Threshold

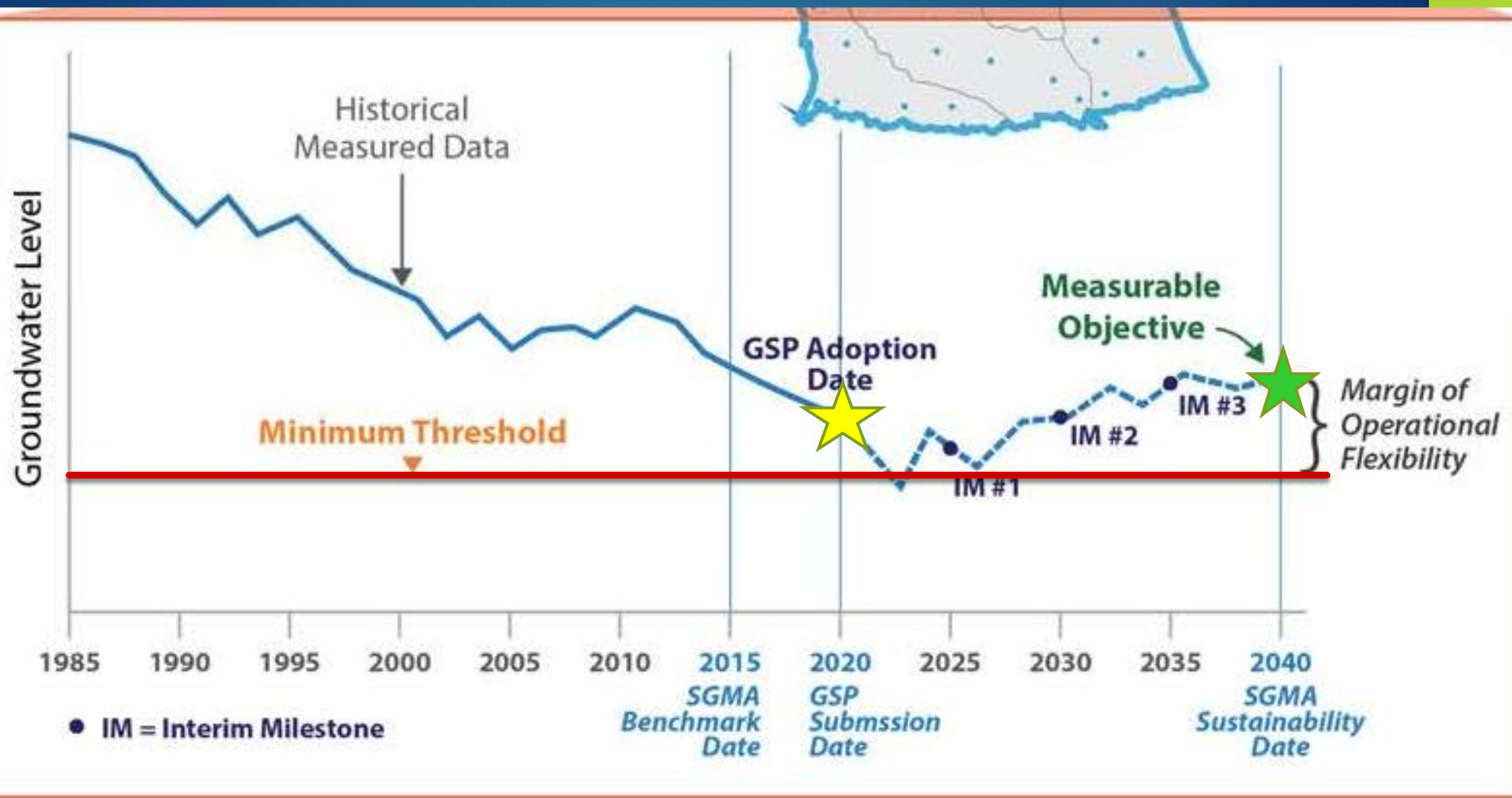
Measurable Objective

Quantification of the sustainability goal

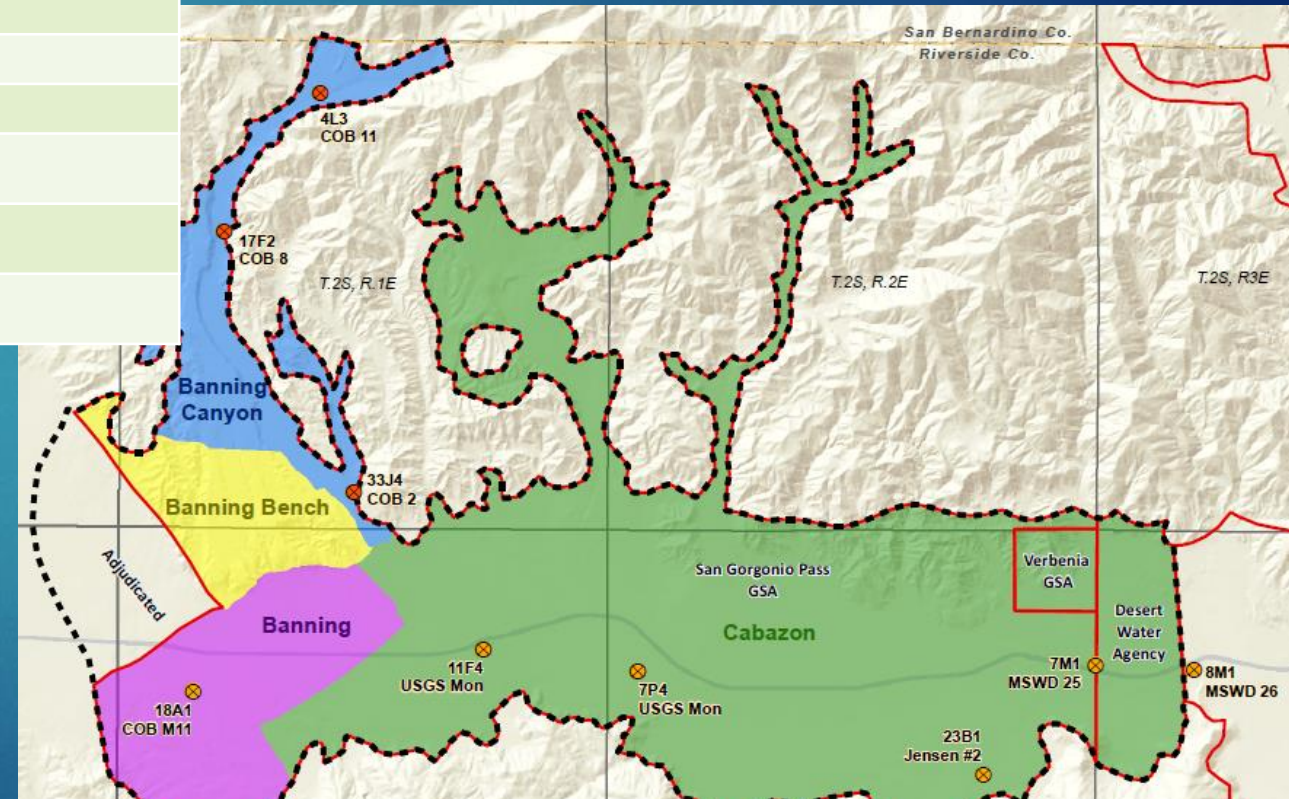


Minimum Threshold

Quantification of the undesirable result



Representative Monitoring Site	Measurable Objective	Minimum Threshold	Sustainability Indicator		
	Water Surface Elevation in Feet (Above Mean Sea Level)		GW Levels	GW Storage	Intercon. Surface Water
4L3 (COB #11)	4,425	4,400	✓	✓	✓
17F2 (COB #8)	3,805	3,780	✓	✓	✓
33J4 (COB #2)	2,705	2,680	✓	✓	✓
18A1 (COB #M11)	1,955	1,905	✓	✓	
11F4	1,570	1,520	✓	✓	
7P4	1,440	1,390	✓	✓	
23B1 (Jensen #2)	1,165	1,140	✓	✓	
7M1 (MSWD #25)	1,155	1,130	✓	✓	
8M1 (MSWD #26)	1,135	1,110	✓	✓	

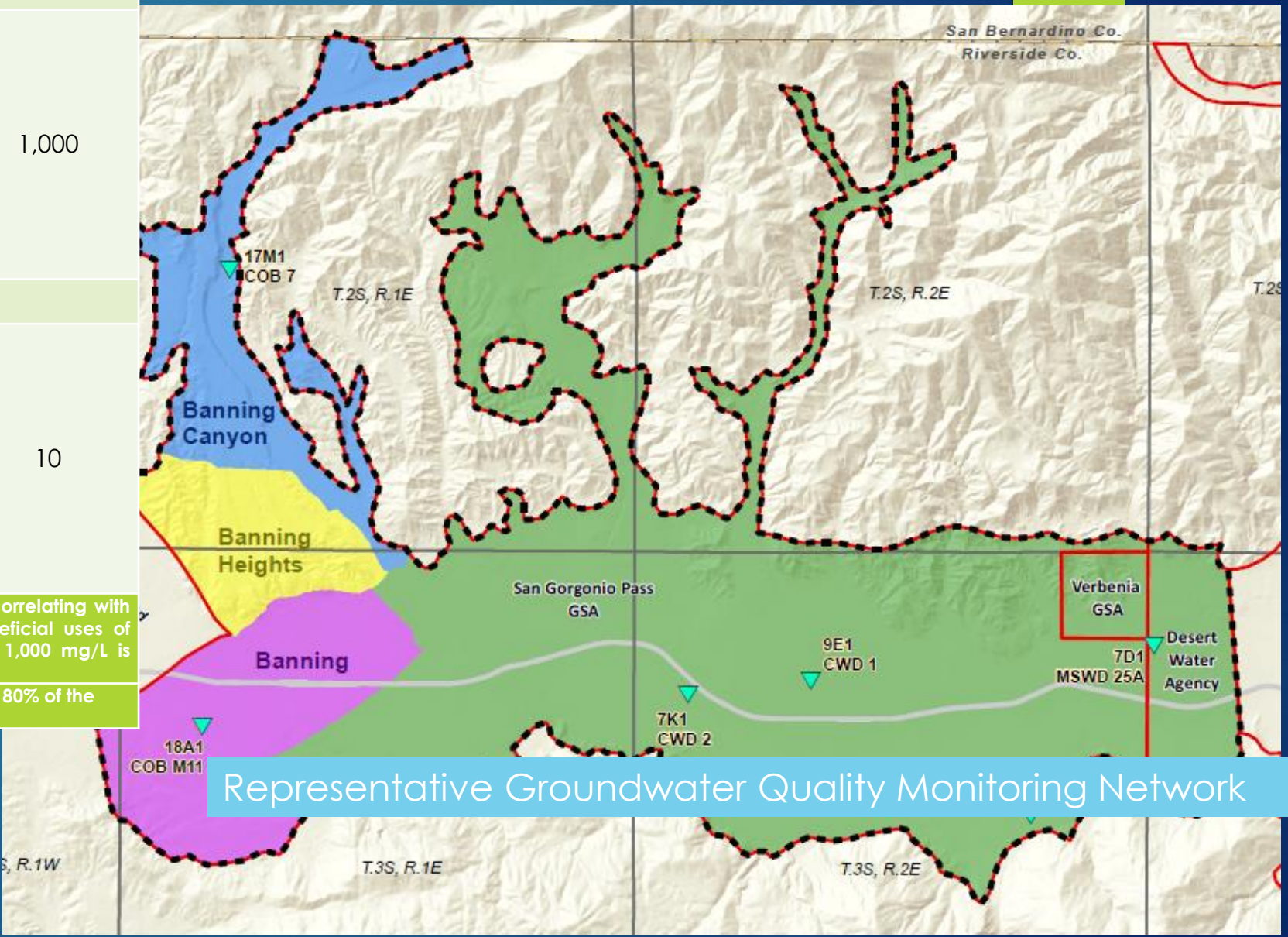


Representative Groundwater Level Monitoring Network

Storage Unit	Representative Monitoring Site	Measurable Objective	Minimum Threshold
TDS		TDS (mg/L)	
Banning Canyon	17M1 (COB #7)	800	1,000
Banning	18A1 (COB #M11)		
Cabazon	9E1 (CWD #1)		
Cabazon	7K1 (CWD #2)		
Cabazon	7D1 (MSWD #25A)		
Nitrates		(mg/L as N)	
Banning Canyon	17M1 (COB #7)	8	10
Banning	18A1 (COB #M11)		
Cabazon	9E1 (CWD #1)		
Cabazon	7K1 (CWD #2)		
Cabazon	7D1 (MSWD #25A)		

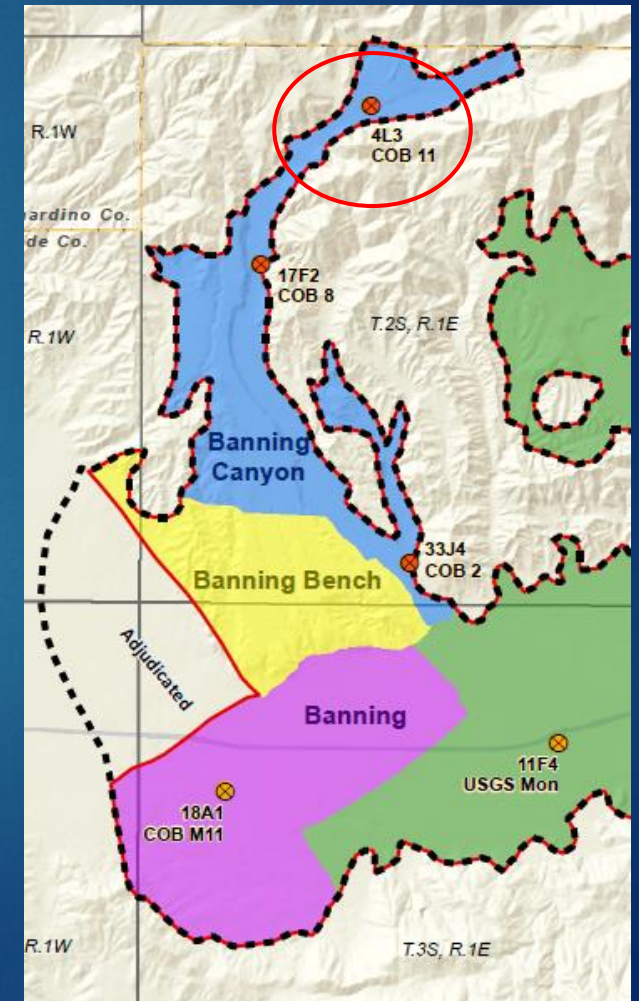
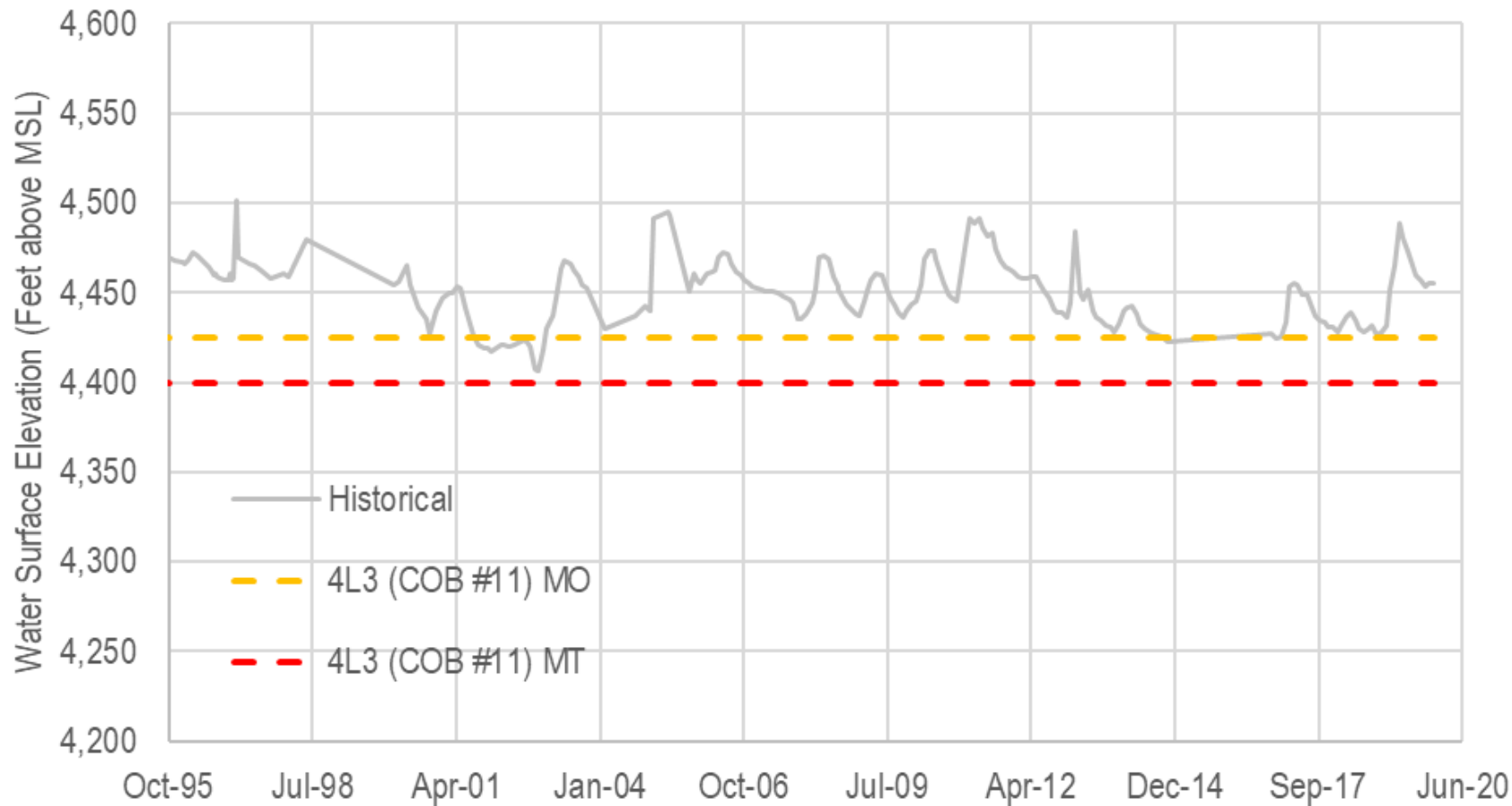
¹The SMCL for TDS is a range, 500 mg/L to 1,000 mg/L with 1000 mg/L correlating with inappropriate for human consumption. With consideration of the beneficial uses of groundwater, 800 mg/L is defined as the measurable objective and 1,000 mg/L is defined as the minimum threshold.

²The MCL of 10 mg/L for nitrates is defined as the minimum threshold, with 80% of the minimum threshold (8 mg/L) serving as the measurable objective.

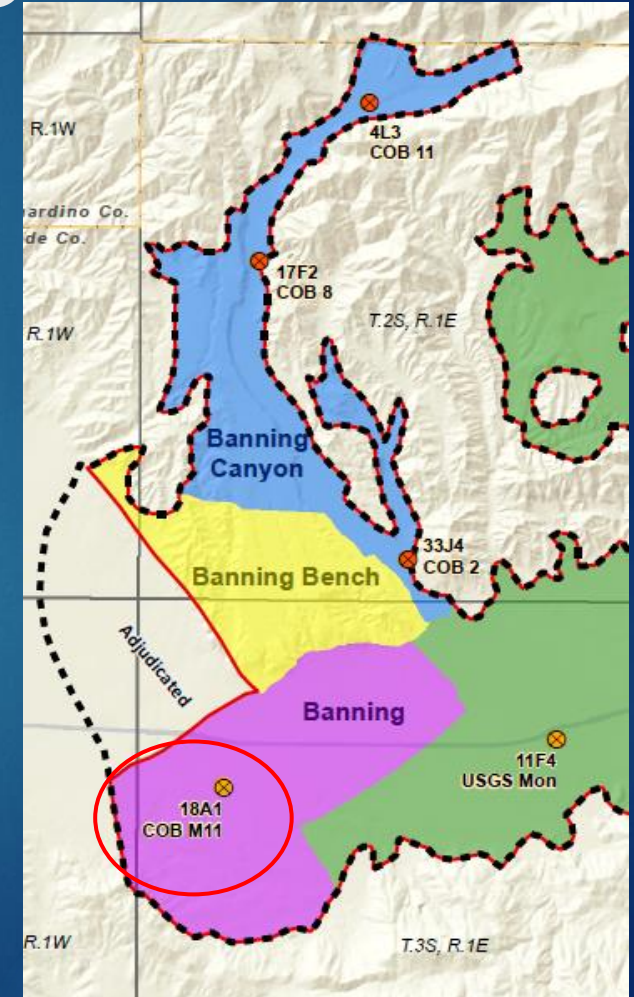
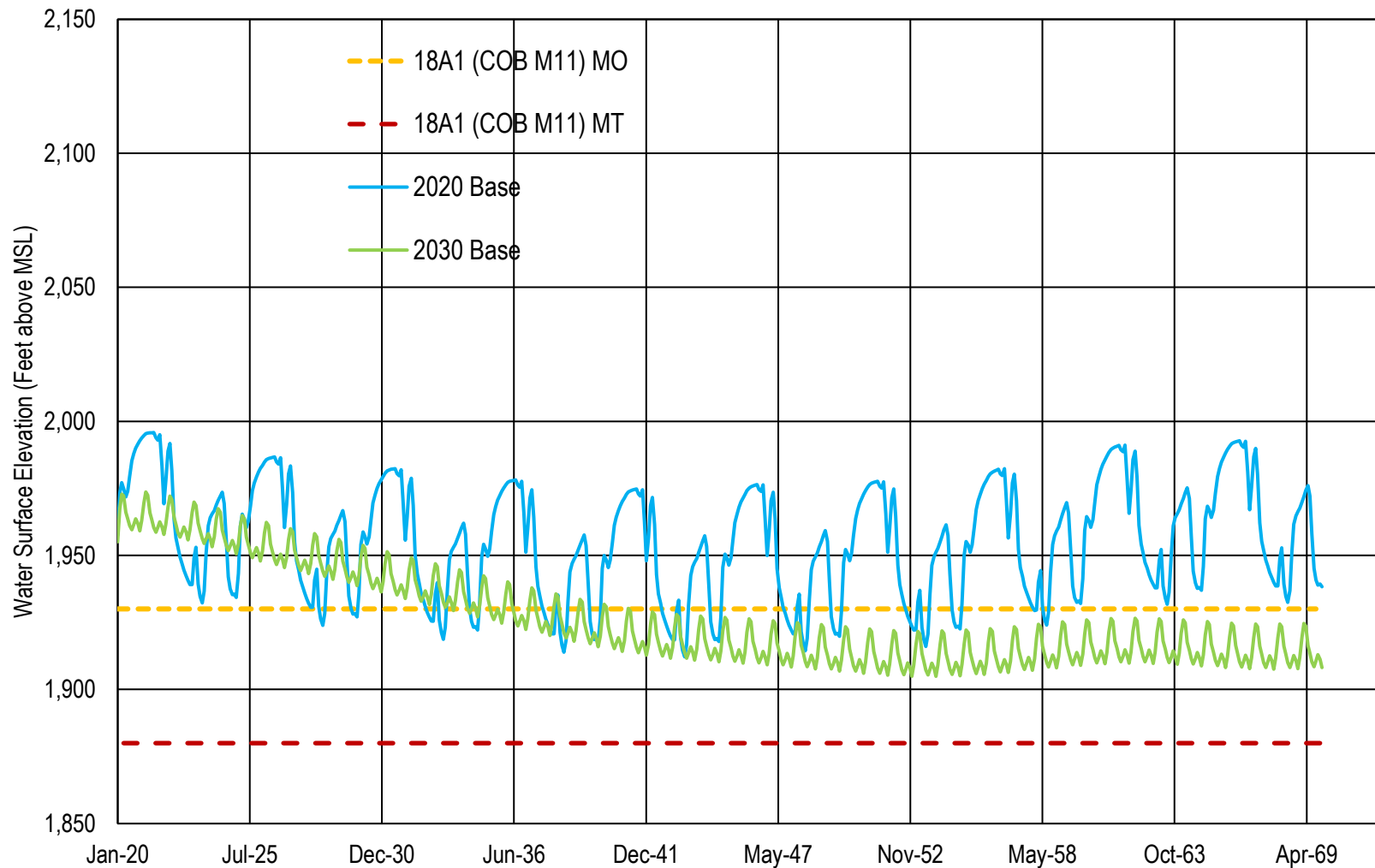


Representative Groundwater Quality Monitoring Network

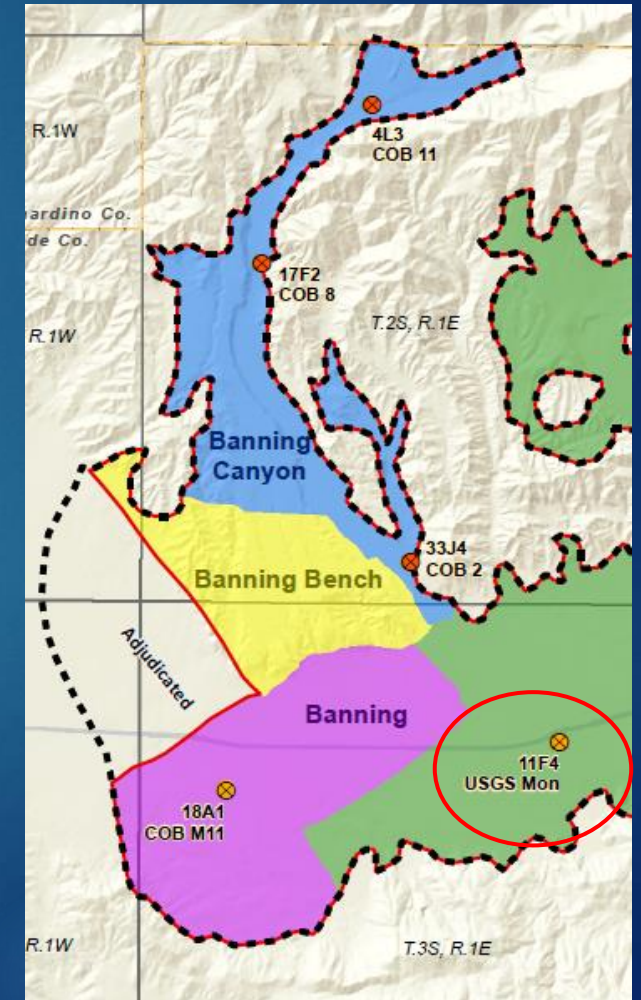
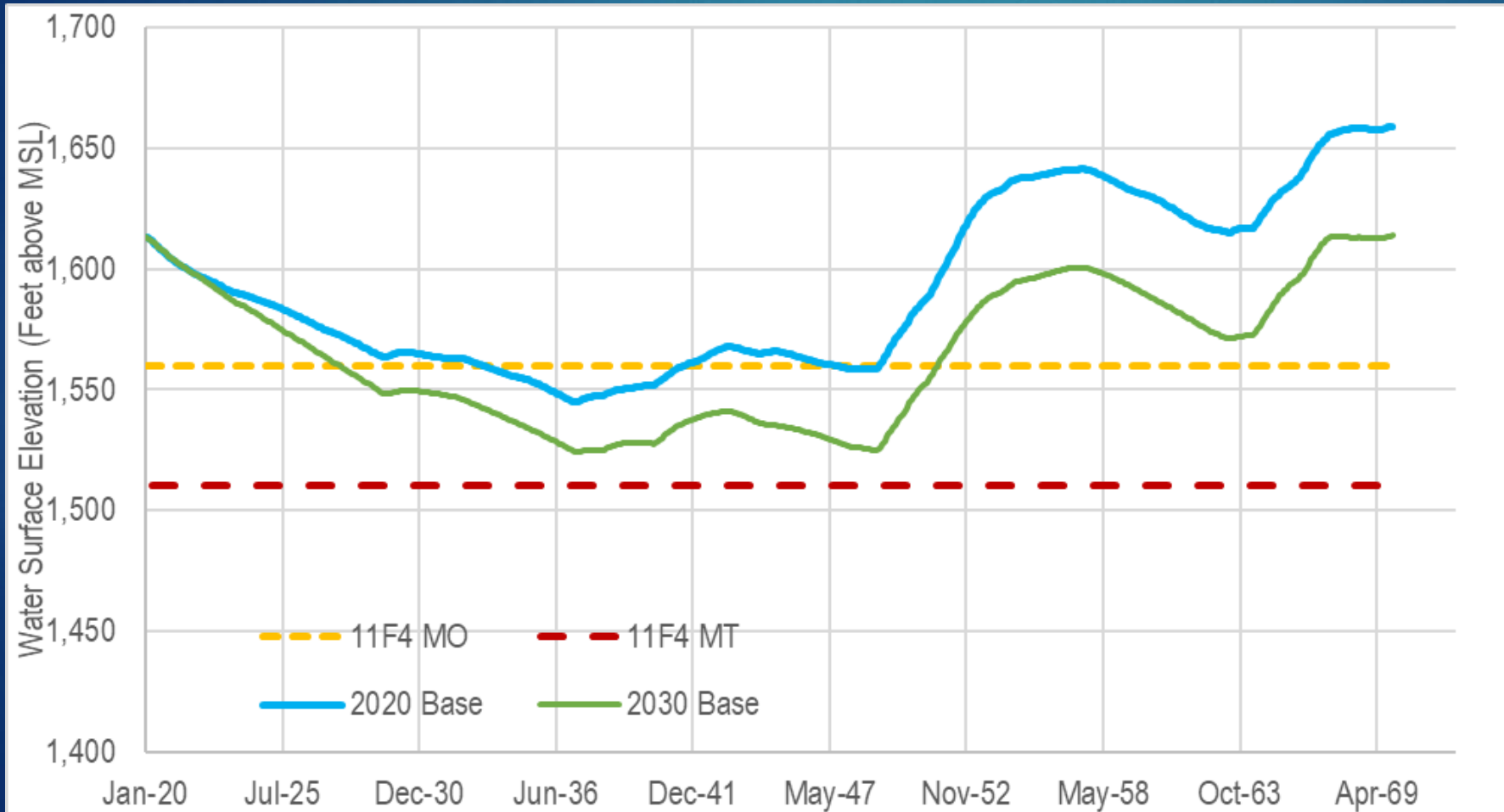
Example of SMC Hydrograph 4L3 (COB 11) in the Banning Canyon Subunit



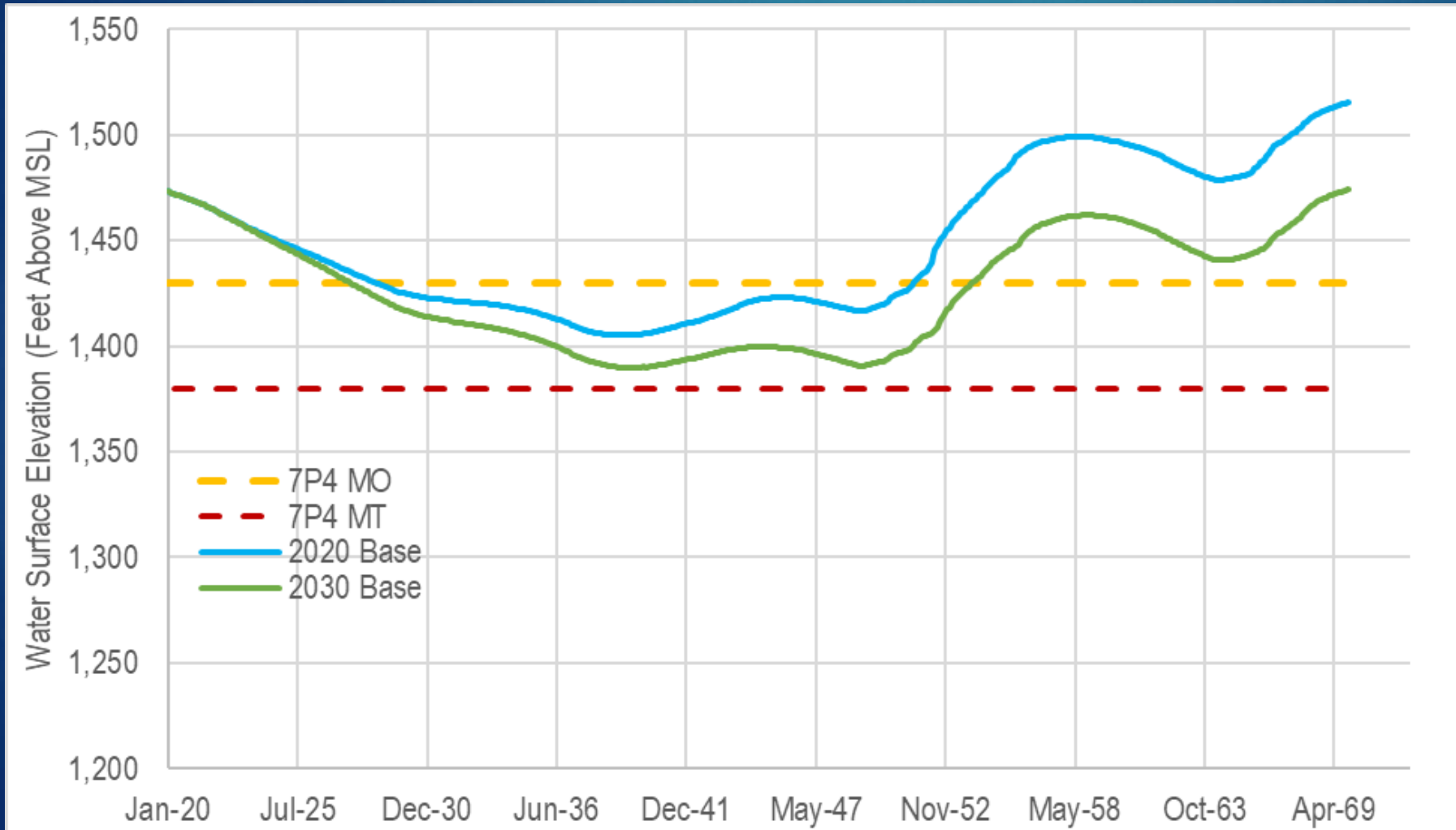
Example of SMC Hydrograph 18A1 (COB M11) in the Banning



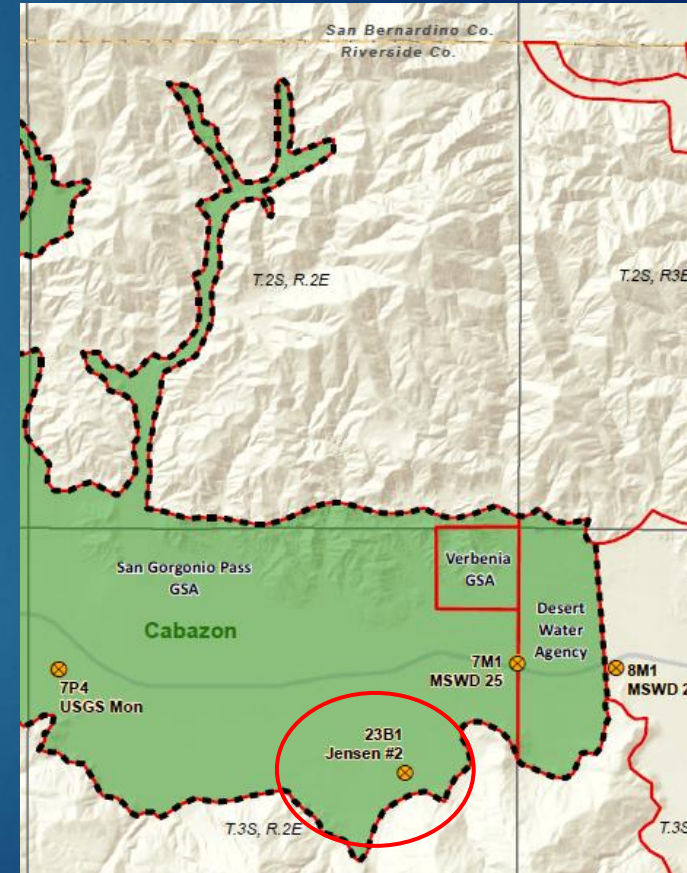
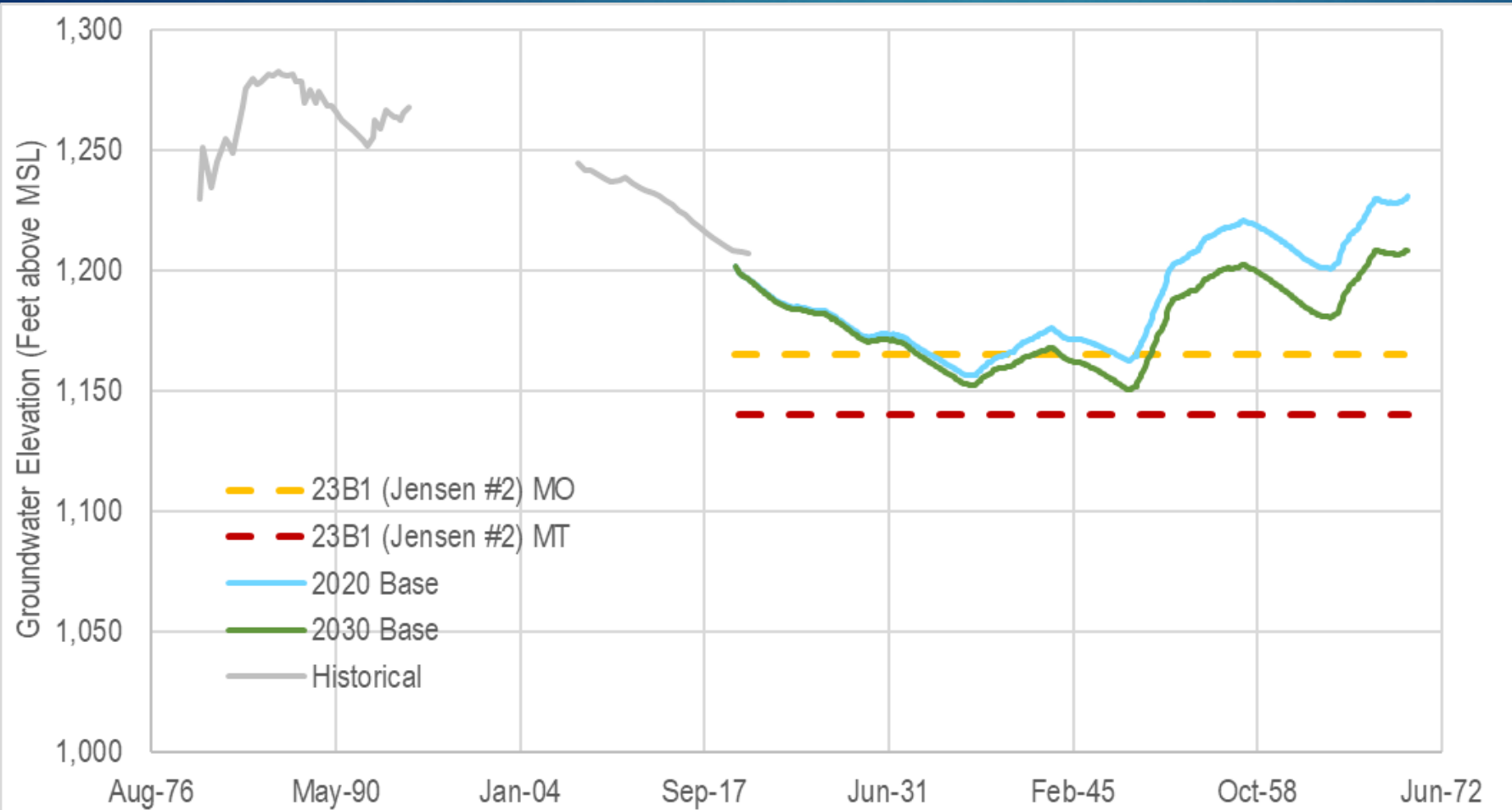
Example of SMC Hydrograph USGS 11F4 in the Cabazon Subunit



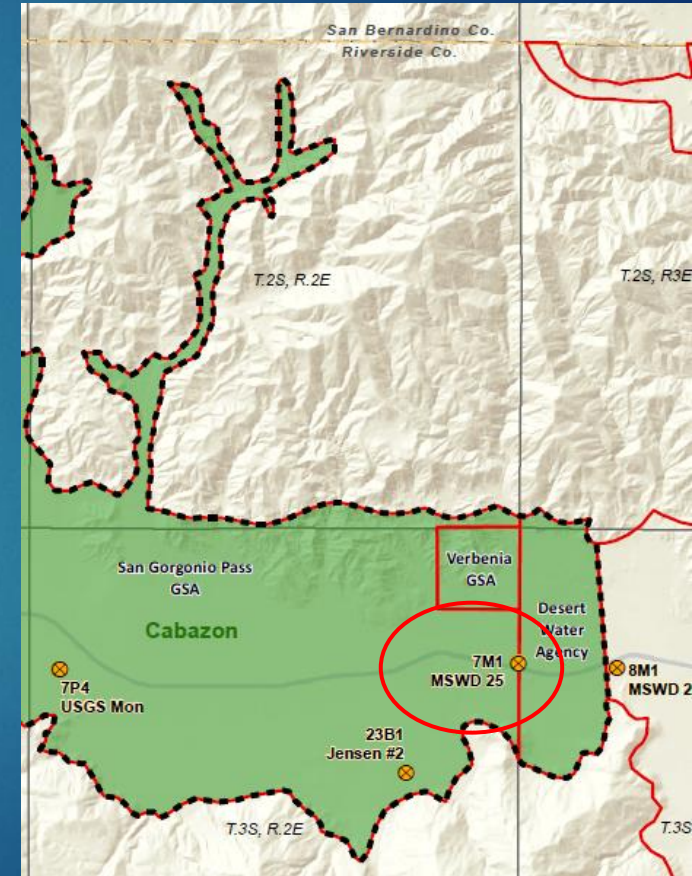
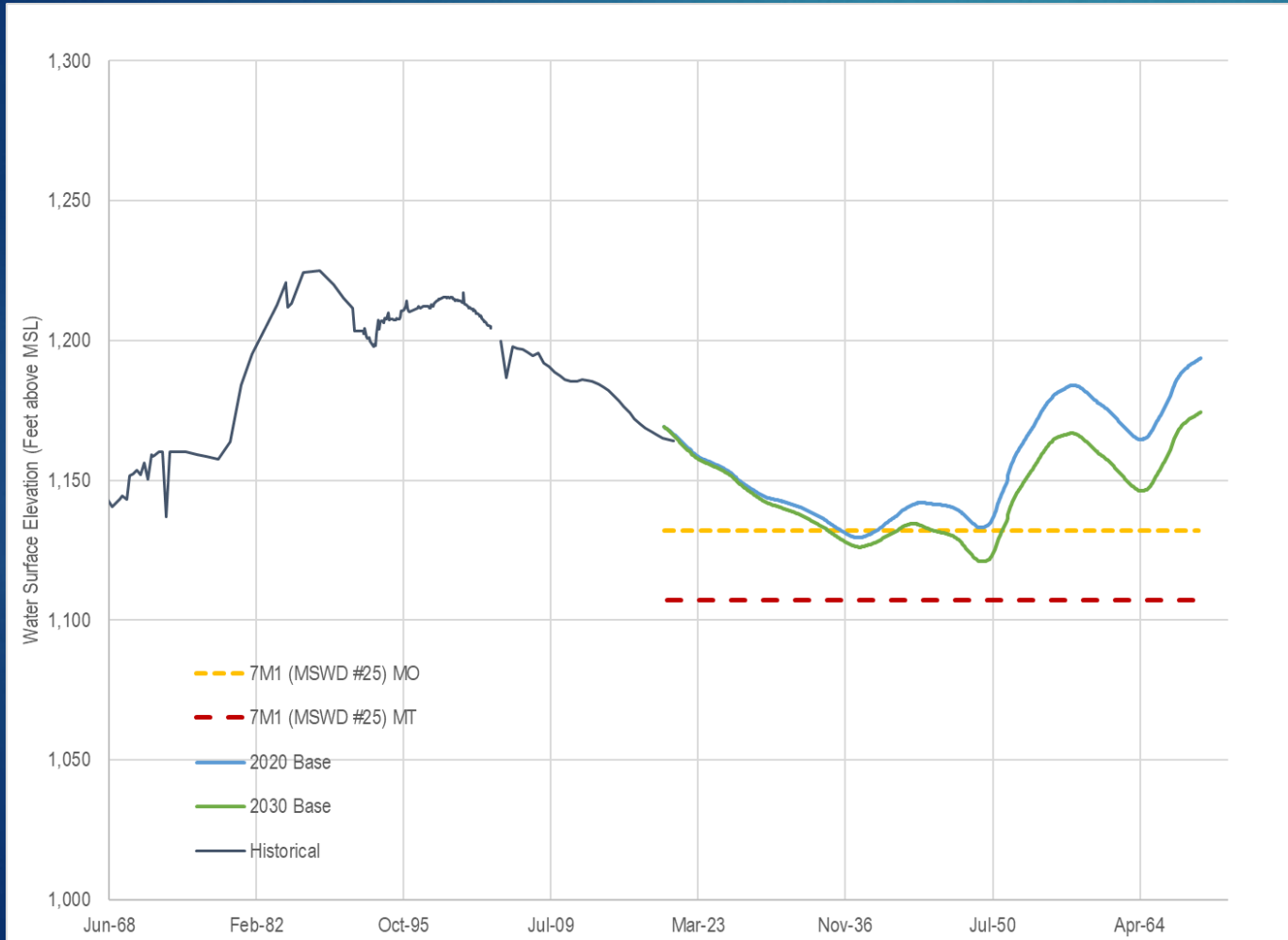
Example of SMC Hydrograph USGS 7P4 in the Cabazon Subunit

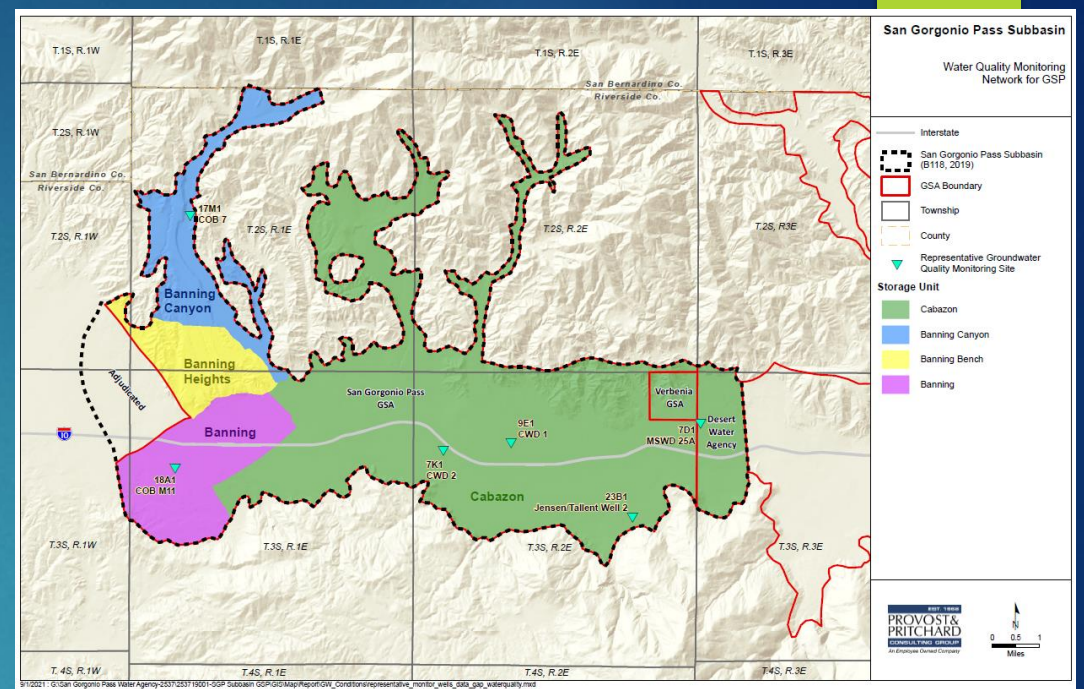
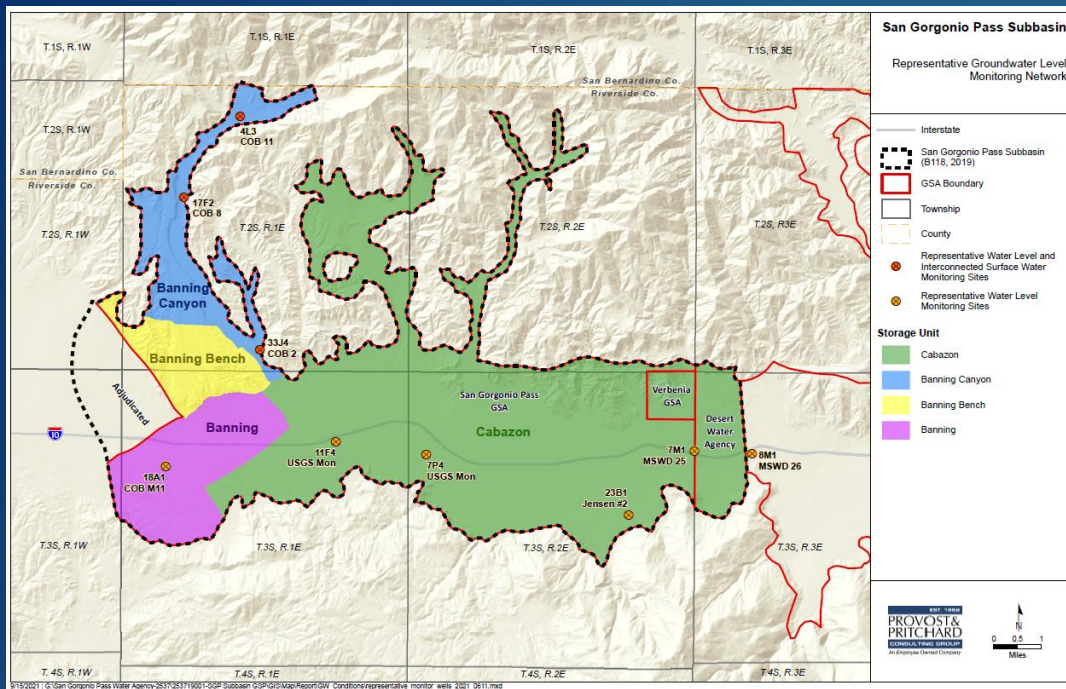


Example of SMC Hydrograph Jensen #2 in the Cabazon Subunit



Example of SMC Hydrograph 7M1 in the Cabazon Subunit





Chapter 5 – Monitoring Network

► Discussion of existing monitoring activities and the designated (representative) monitoring networks and monitoring frequencies to measure sustainable management criteria.

Chapter 6 – Projects & Management Actions

- Outline of identified projects and management actions that can support the subbasin's sustainability.

Project No.	Project Title
Project 1	Municipal Water Conservation (Phase 1)
Project 2	Stormwater Capture (Phase 2)
Project 3	Additional Imported Water Spreading at Noble Creek Spreading Basins (Phase 2)
Project 4	New Pipeline with Additional Imported Water Spreading in the Cabazon Storage Unit (Phase 2)
Project 5	New Pipeline with Additional Imported Water Spreading in the Banning Storage Unit (Phase 2)
Project 6	New Imported Colorado River Aqueduct Spreading in the Cabazon Storage Unit (Phase 2)

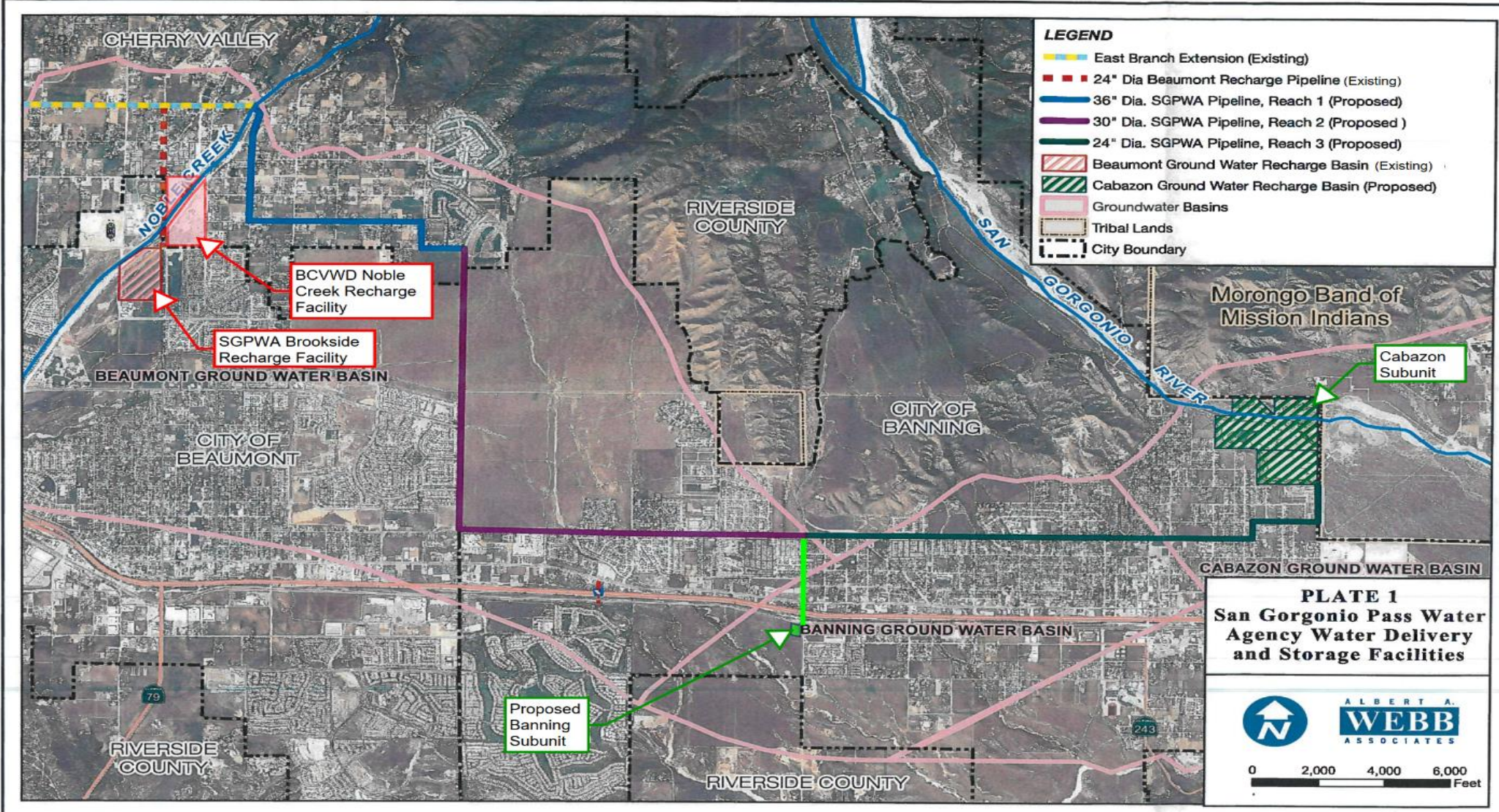
Management Action No.	Project Title
Management Action 1	Implement Action Plan if Groundwater Levels Fall Below Minimum Thresholds
Management Action 2	Well Head Requirements
Management Action 3	Investigate Issues Promptly Regarding Water Quality and Unexpected Water Pumping
Management Action 4	Implement SGMA or Other Available Fees on Pumpers to Encourage Reduced Pumping and Conservation
Management Action 5	Groundwater Pumping Allocation
Management Action 6	Groundwater Basin Adjudication

Projects and management actions in the GSP can qualify for DWR's Sustainable Groundwater Management Implementation grant program.

“Projects” Support
Water Supply
Augmentation
Projects

**“Management
Actions”** Support
Demand Reduction
or Mitigation
Measures

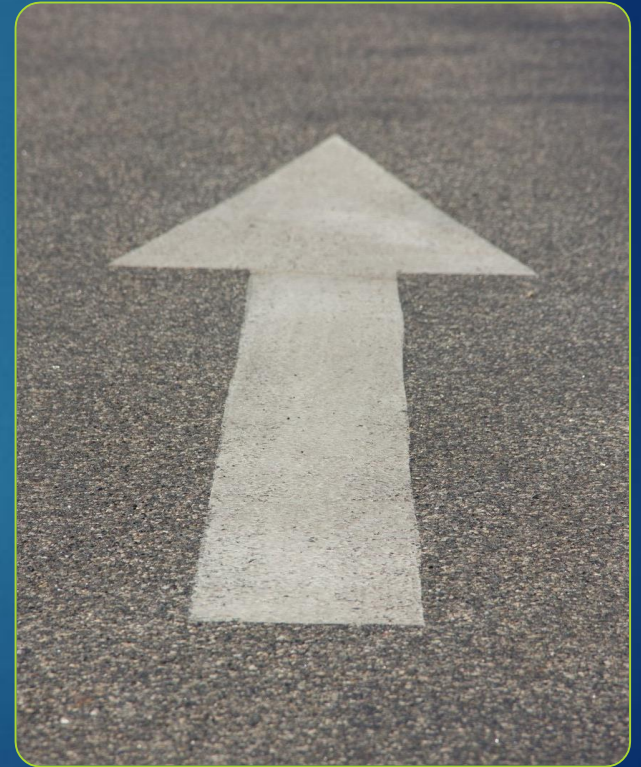
Projects providing supplemental recharge to support San Gorgonio Pass Groundwater supplies




Map revised Sept. 5, 2014. G:\009\09-0033\GIS\Plate1_ProgFacilities_11x17.mxd

Chapter 7 - Implementation

- ▶ Discussion on the projected cost, schedule, annual reporting, and data management system to successfully implement the GSP.
- ▶ GSP implementation starts January 2022
- ▶ Basin must be sustainable by 2042





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Next Steps:

- Support development of 90% draft GSP (Nov).
- Perform final internal review (Dec)
- Hold CWD Board Meeting recommending a member to proceed with GSP adoption at GSA public hearing (Dec/Jan)
- Hold SGPGSA Public Hearing (Jan)
- Submit GSP (January)
- Support Annual Report development (Nov-Mar)

