



2022 Groundwater Monitoring Program

October 31, 2022

Agenda

- Overview of 2022 Groundwater Monitoring Program (2022 GMP)
- Critical Items to Review
- Next Steps
- Discussion/Questions

2022 GWMP Overview

Section 1 Introduction

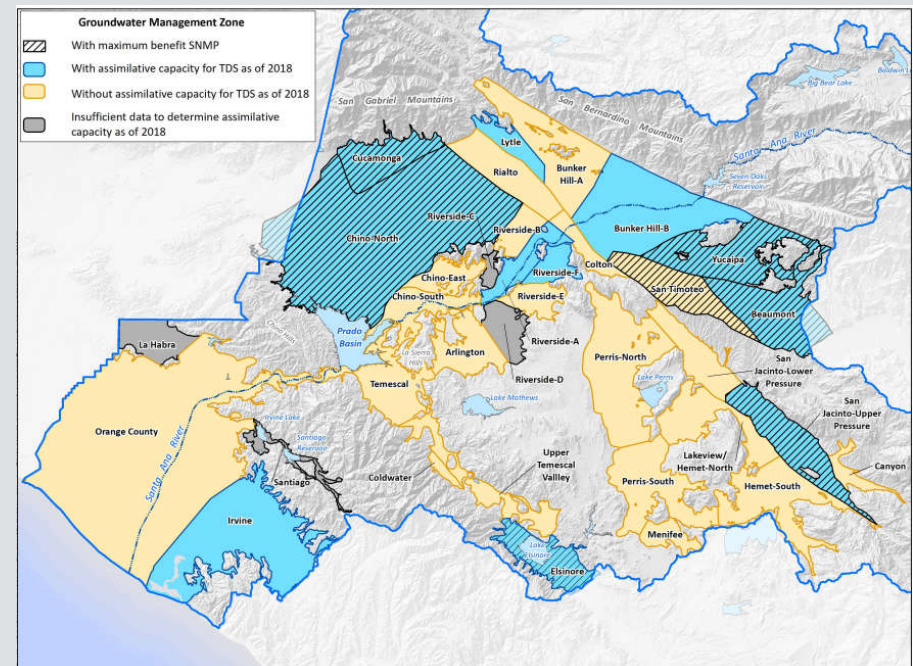
- Purpose and Organization
- Regulatory Setting
- Groundwater Monitoring Program Requirements and Goals
 - Table 1-1 Reference Guide

Table 1-1. How the 2022 Groundwater Monitoring Plan Addresses the Required Elements of the 2019 Recycled Water Policy and the 2021 Basin Plan Amendment	
Required Elements	How the Report Addresses the Required Element
Recycled Water Policy (Section 6.2.4.1)	
Define an appropriate network of monitoring locations that:	
Provide a reasonable, cost-effective means of determining whether water quality in the basin is consistent with applicable water quality objectives	<ul style="list-style-type: none"> The 2022 GMP defines a monitoring network that includes all wells in each GMZ that are monitored for TDS and/or nitrate. In GMZs with potential data gaps, a stepwise process has been defined to confirm the data gaps prior to investing money in new well construction. Both of these approaches ensure a cost-effective means of collecting the monitoring data needed to assess AWQ and assimilative capacity every five years.
Consider basin-specific conditions in establishing the number, type, or density of monitoring locations to be sampled	<ul style="list-style-type: none"> Local conditions were considered. Due to the complexity, variability, and diversity of aquifer conditions and uses across the SAR Watershed, a qualitative approach to determining the sufficiency of the monitoring network was applied. The analysis of potential data gaps is described in Section 3.3 and the potential data gaps in each GMZ are identified in Appendix C
Target areas with surface and ground water connectivity, where applicable	<ul style="list-style-type: none"> Because monitoring network includes all wells in each GMZ that are monitored for TDS and/or nitrate, and potential data gaps are identified, the 2022 GMP sufficiently addresses this criteria.
Include existing wells that are located and screened appropriately to determine water quality throughout the most critical areas of the basin	<ul style="list-style-type: none"> The 2022 GMP defines a monitoring network that includes all wells in each GMZ that are monitored for TDS and/or nitrate, including all municipal groundwater supply wells. Thus, the most critical areas of the GMZs are covered.
Leverage the wells in other regulatory programs, such as those defined for compliance with the Sustainable Groundwater Management Act	<ul style="list-style-type: none"> The 2022 GMP defines a monitoring network that includes all wells in each GMZ that are monitored for TDS and/or nitrate.

2022 GWMP Overview

Section 2 –Groundwater Monitoring Program Review

- Approach to Obtain Task Force Input
 - Table 2-1 – record of workshops
 - Appendix D - PPTs
- Data Collection, Review, and Analysis
 - Appendix B – GMZ maps
- Summary of Key Findings and Lessons Learned
- Task Force Input and Feedback
 - Table 2-2 – Considerations, feedback, and recommendation



Section 3 – GMZ Monitoring Networks and Potential Data Gaps

- [illegible]

Planning Priorities Task 2 Workshop #9 | October 31, 2022

2022 GWMP Overview

Section 4 – 2021 AWQ Pilot Study

- Objectives and Intended Outcomes
- Scope of Work
- Schedule – Table 4-1
- Planning Level Budget - Table 4-2

Table 4-1. Schedule to Perform the 2021 Ambient Water Quality Pilot Study											
Task and Subtask	Task Duration										
	2023										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Task 1. Data Collection and Review											
Task 2. Pilot Assessment of Ambient Water Quality in Select GMZs											
Task 3. Develop Technical Approach and SNMP Implementation Plan											
Task 4. Prepare Final Report								D		F	
Task 5. Task Force Workshops and Project Management	W	W	W	W	W	W	W	W	W	W	*
Notes: D = Draft Report F = Final Report W = Task Force Workshop Project management only											

2022 GWMP Overview

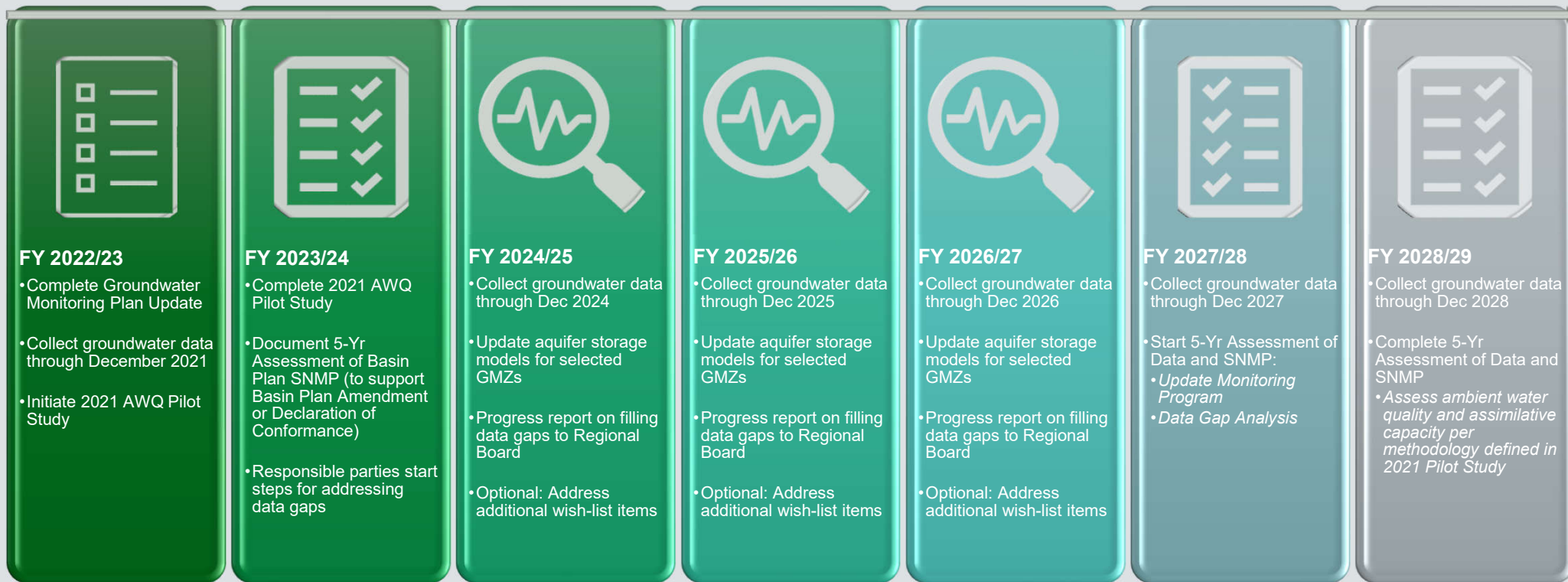
Section 5 – Implementation Plan

- The Task Force was formed to support implementation of the Basin Plan.
- One of the goals of the 2022 GMP was to identify the work that the Task Force will need to perform through fiscal year 2028/29 to comply with the Basin Plan SNMP, including anticipated activities that will address the 2019 Recycled Water Policy.
- Table 5 1 shows a schedule for when the work items generally need to be performed.
- The final report that will be prepared for the 2021 AWQ Pilot study will help to refine the scope and schedule of the future work items.

Table 5-1. Task Force Schedule of Work to Comply with the Basin Plan SNMP

Task (Task Lead)	Task Duration						
	Fiscal Year						
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
2021 Ambient Water Quality Pilot Study (Task Force)	Start: Jan 2023	Finish: Oct 2023					
Complete First Five-Year Assessment of the Basin Plan SNMP (Santa Ana Water Board, with Task Force Support)	Start: Jul 2023	Finish: April 2024					
Perform Four-Step Process to Address Potential Data Gaps Identified in 2022 GMP (Responsible Parties)		Start: Jan 2023		Finish: Dec 2025			
Annual Data Collection (Task Force)			Jul-Dec 2024	Jul-Dec 2025	Jul-Dec 2026	Jul-Dec 2027	Jul-Dec 2028
Update GMZ Aquifer Storage Models (Task Force)			Start: Jul 2024		Finish: Jun 2027		
Identify New Potential Data Gaps (Task Force)					Jan-Jun 2027		
Compute AWQ and Assimilative Capacity (Task Force)						Start: Jul 2027	Finish: Oct 2028
Complete Second Five-Year Assessment of the Basin Plan SNMP (Santa Ana Water Board, with Task Force Support)							Oct 2028 - Apr 2029

A Vision for the Future



A Vision to the Future – Costs

- TBD depending on final scope. Initial estimates for tasks in next 2-3 years
 - Collect and process data for 2021 AWQ Pilot Study: \$85,000 to \$100,000
 - 2021 AWQ Pilot Study: \$225,000 to \$250,000
 - Technical support on 5-year SNMP assessment: \$20,000
 - Ongoing annual data collection and management costs: \$35,000 to \$40,000
 - Annually track progress on data gaps progress: \$15,000
 - Process to update storage model updates: \$10,000 to \$20,000 per year over three years

Next Steps – 2021 AWQ Pilot Study

- Task 1 – Data Collection and Review
 - All wells in all GMZs
 - TDS/N data only
- Task 2 – Pilot Assessment of Ambient Water Quality in Select GMZs
 - 7 GMZs – Standard Method, with piloting minor adjustments
 - 4 GMZs – Alternative Method with data, trends, statistics
- Task 3 – Develop Technical Approach and SNMP Implementation Plan
- Task 4 – Prepare Final Report
- Task 5 – Task Force Workshops and Project Management

2022 GWMP Overview

Section 4 – 2021 AWQ Pilot Study

Table 4-2. Budget Level Cost Estimate to Perform the 2021 Ambient Water Quality Pilot Study	
Task	Cost Estimate
Task 1 – Data Collection and Review	\$76,000
Task 2 – Perform Pilot Ambient Water Quality Analysis	\$128,000
Task 3 – Develop AWQ Technical Approach and AWQ Work Plan	\$41,000
Task 4 – Prepare Final Report	\$35,000
Task 5 – Task Force Workshops and Project Management	\$40,000
Total	\$320,000

Questions/Discussion

THANK YOU

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