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Basin Monitoring Program Task Force Revised Draft Planning Priorities

(2021 – 2025)

A. Tier I Priorities

Tier I priorities are those that are either required to be performed by a date certain due to state policy/regulation or are highly recommended to be performed because of anticipated state policy/regulation.

- 1) *Update the surface water monitoring plan for the annual report of Santa Ana River Water Quality.* As part of the Basin Plan Amendments that will be considered by the Santa Ana Water Board in 2021, an update to the surface water monitoring plan is being required and must be submitted by June 1, 2022. The update will need to specify sampling locations, sampling frequency, sampling parameters and QA/QC requirements. It will also need to identify parties responsible for implementing the monitoring and reporting program (including, e.g., POTWs, MS4 agencies, CAFOs, CWAD enrollees, de minimus permittees and others discharging under General Orders).
- 2) *Update the groundwater monitoring plan to be compliant with the 2019 Recycled Water Policy and update approach for Recomputation of Ambient Water Quality.* As part of the Basin Plan Amendments that will be considered by the Santa Ana Water Board in 2021, an update to the groundwater monitoring plan is being required and must be submitted by June 1, 2022. The update will need to address data loss from well attrition and update the monitoring program as needed to comply with the 2019 Recycled Water Policy.
- 3) *Conduct a study to identify and quantify the cause(s) of TDS exceedances during baseflow conditions at below Prado Dam.* This would be a follow-on study to the ones performed by WEI in early 2015, which showed that the exceedances were not due to POTW discharges and were more likely the result of poor-quality rising groundwater in the Prado Basin Management Zone (PBMZ). To assist with this study, consideration should be given to developing a simple spreadsheet tool for tracking the volume-weighted monthly average TDS concentration of wastewater discharges to Reaches 3 & 4 of the Santa Ana River as a surrogate indicator of

baseflow conditions from controllable sources (i.e. POTWs). Information from this study is anticipated to be used to inform the Santa Ana Water Board's 2024 Integrated Report process and the development of the next 303(d) impaired waterbodies list. By having this information available for that process, the Task Force can inform the Santa Ana Water Board as to why exceedances are occurring and provide data and information as to why it would be improper to list Reaches 3 and 4 of the Santa Ana River as impaired. According to Santa Ana Water Board staff, public comment on the draft impaired waterbodies list may be available sometime in mid-2022.

- 4) *Evaluate existing Salt and Nutrient Management Plan (SNMP) and recommend Basin Plan Amendments to align the existing SNMP with the 2019 Recycled Water Policy, if necessary.* In addition to updating the groundwater monitoring plan to ensure compliance with monitoring requirements of the 2019 Recycled Water Policy, the existing SNMP needs to be evaluated to ensure that it aligns with the requirements of the 2019 Recycled Water Policy. If adjustments to the SNMP need to be made, then Basin Plan Amendments will be necessary. For example, the existing SNMP should be revised to change the ambient recomputation period from once every three years to once every five years. The Santa Ana Water Board is required to complete their evaluation of alignment no later than April 8, 2024. To that end, Santa Ana Water Board staff have recommended that any proposed Basin Plan Amendments related to alignment with the 2019 Recycled Water Policy be provided to the Santa Ana Water Board no later than October 1, 2023.
- 5) *Prepare and submit 2002-2021 Recomputation of Ambient Water Quality.* The Santa Ana Water Board generally agrees that the ambient recomputation period should be shifted from once every three years to once every five years. However, until the Basin Plan is amended to align the SNMP to be consistent with the 2019 Recycled Water Policy, the Santa Ana Water Board has stated that the existing triennial review compliance schedule must be continued. As such, the next Recomputation of Ambient Water Quality will need to evaluate the 20-year period of 2002-2021, and will need to be submitted to the Santa Ana Water Board by October 1, 2023.
- 6) *Coordinate review of and comments on 303(d) listing decisions during the upcoming water quality assessment cycle for the Santa Ana region.* In 2016, State Board staff improperly assumed that the salinity objectives (TDS, chloride, sodium, sulfate & hardness) for Reach 3 of the Santa Ana River were established to protect the warm water aquatic life beneficial use. Exceedances of these objectives were presumed to be impairing benthic macroinvertebrates in that stream segment (based on low scores from the California Stream Condition Index). State Board staff was unaware that these water quality objectives were actually Antidegradation Targets and that they were established to protect the MUN beneficial use in underlying Groundwater Management Zones. The proposed listings were withdrawn in 2017 because the CSCI was not timely submitted. The listings may return in the next cycle.
- 7) *Monitor development of State Water Board's Biostimulatory/Biological Objectives Policy.* The Basin Monitoring Program Task Force should closely monitor the development of this policy that includes two key components: 1) The biostimulatory

part of this policy is the State Board's effort towards developing Numeric Nutrient Endpoints (NNEs), which may establish statewide nutrient standards for lakes and streams to prevent eutrophication and harmful algal blooms; resulting nitrogen criteria are likely to be one-tenth of the Primary MCL; and, 2) the biological objectives component of the policy, which looks to set objectives based on reference stream conditions.

- 8) *Monitor EPA's development of draft conductivity criteria.* The draft document was withdrawn by the Trump administration but will likely be reinstated at some point. The draft document recommended a conductivity criteria of 500-600 uS/cm (equivalent to about 320-380 mg/L as TDS) to protect benthic macroinvertebrates living in streambed sediments. If adopted, there would be no assimilative capacity for TDS in any of the major streams of the Santa Ana watershed. And, under Rancho Caballero and Lompoc, effluent limits for all POTWs would have to be set no higher than this new and more stringent objective.

B. Tier II Priorities

Tier II priorities are those issues that are not required by the Basin Plan or a state policy but that the Task Force may wish to consider pursuing in the future.

- 9) *Separate water quality objectives from antidegradation targets.* Water quality objectives are defined by the Water Code to mean, "limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area." (Wat. Code § 13050(h).) In contrast, antidegradation targets are set at a level to protect high quality waters. (See Resolution 68-16 and 40 CFR §131.12.) For nitrate-nitrogen, the water quality objective should be set equal to 10 mg/L (the Primary MCL) in waterbodies designated MUN. For TDS, the water quality objective should be set equal to 750 mg/L for waterbodies designated MUN, which is consistent with the threshold previously endorsed by the Santa Ana Regional Board (See Table B in in Res. No. R8-2010-0012). Antidegradation targets would be drawn directly from Table 4-1 in the Basin Plan and would remain unchanged. By amending the Basin Plan to clarify the distinction between water quality objectives and antidegradation targets, this will ensure that during the 303(d) assessment process by the State Water Board, listing of use impairments would be based on exceedances of water quality objectives, which are directly related to the beneficial uses rather than antidegradation targets that are not use impairment thresholds. This revision does not change Santa Ana Water Board authority to regulate to protect high water quality waters based on antidegradation targets, the Santa Ana Water Board may only allow such degradation if it finds it is to the maximum benefit to the people of the state.
- 10) *Review and harmonize water quality objectives for TDS in Reach 2 of the Santa Ana River and Reach 3 (at below Prado Dam).* Both water quality objectives are intended to do the same thing, which is protect the MUN beneficial use in the Orange County Groundwater Management Zone underlying Reach 2. However, the water quality

objective for Reach 2 is expressed as the mean of the five most recent volume-weighted annual averages and the water quality objective for Reach 3 (at below Prado Dam) is expressed as the average concentration during baseflow conditions (measured by a minimum of 5 samples collected in dry conditions during August and September each year). The problem is that the river is in consistent compliance with the Reach 2 objective, but, since 2012 the river has frequently exceeded the water quality objective at Prado Dam. The TDS objective for OC-GMZ = 580 mg/L, the WQO for Reach 2 = 650 mg/L (5-year average), and the WQO at Prado Dam = 700 mg/L (annual baseflow average).

- 11) *Delete surface water quality objectives for individual salt ions (chloride, sodium, sulfate and hardness) where these objectives were originally established as Antidegradation Targets and when there is an existing concurrent TDS objective serving that purpose for the same waterbody. Alternatively, consider revising the water quality objectives for these salt ions based on the Secondary MCLs and move existing water quality objectives to a separate table of Antidegradation Targets.*

- 12) *Evaluate merging responsibility for water quality modeling and projections into the Basin Monitoring Program Task Force.* In the Santa Ana River upper watershed there are multiple ongoing modeling efforts. This includes the Integrated Groundwater Flow Model and the Waste Load Allocation Model. This priority would involve having the Cooperative Agreement and Task Force parties work together to integrate modeling efforts to use the best available science in making decisions, reduce duplicative efforts and inefficiencies, and make decisions, to the extent feasible, based on consensus of all parties.

- 13) *Evaluate whether to update the geomorphology data used to define the boundaries and physical characteristics of major Groundwater Management Zones in the region.* For this priority, the Task Force would look to see if new data is available since the 2004 Basin Plan amendments that would significantly change the aquifer geometries or storage properties of the major Groundwater Management Zones.

Summary Table of Tier 1 Priorities

| Tier 1 Activities | Need/Reason | Due Date | Proposed FY for Implementation |
|------------------------------------------------------------------------------|----------------------------|-----------------|---------------------------------------|
| Update Surface Water Monitoring Program | 2021 Basin Plan Amendments | June 1, 2022 | FY 21-22 |
| Update Groundwater Monitoring Plan to Comply with 2019 Recycled Water Policy | 2021 Basin Plan Amendments | June 1, 2022 | FY 21-22 |

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|----------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|
| and Update Approach for Recomputation of Ambient Water Quality | | | |
| Study to Identify & Quantify Cause(s) of TDS Exceedances during Baseflow Conditions at Prado | 2024 Integrated Report Process | Mid-2022 | FY 21-22 |
| Evaluation of Existing SNMP & Basin Plan Amendments to Align with 2019 Recycled Water Policy | 2019 Recycled Water Policy | April 8, 2024 (Regional Board Due Date) Submit to SAWB by October 1, 2023 | FY 22-23 |
| 2002-2021 Recomputation of Ambient Water Quality | 2021 Basin Plan Amendments | October 1, 2023 | FY 22-23 |
| Review and Comment on 2024 Integrated Report and 303(d) Listing Decisions | 2024 Integrated Report Process | Mid-2022 | FY 22-23 |
| Monitor State Board's Biostimulatory/Biological Objectives Policy Development Process | State Board Priority | None at this Time | FY 21-22 & FY 22-23 |
| Monitor EPA's Development of a Criteria for Conductivity | For protection of Aquatic Life Beneficial Uses | None at this time | FY 21-22 & FY 22-23 |

Timeline/Process for Implementation of Tier I Priorities

Timeline for Update of Surface Water and Groundwater Monitoring Plans and TDS Exceedance Study:

February 2021 - Before preparing RFP for 2001-2021 Ambient Water Quality update, conduct workshop and invite consultants to discuss potential approaches for groundwater and surface water monitoring program update reflecting 2019 Recycled Water Policy review and approach to identify and quantify cause(s) of TDS exceedances during Santa Ana River baseflow conditions at Prado Dam (e.g., rising groundwater)..

April 2021 - Prepare and issue RFP (or RFPs) for groundwater monitoring program design update to reflect, Recycled Water Policy review.¹

April 2021 - Prepare and issue RFP for a revised and updated surface water monitoring program.

April 2021 – Prepare and issue RFP for Study to Identify & Quantify Cause(s) of TDS Exceedances during Baseflow Conditions at Prado

May 2021 – Receive RFP responses

Early June 2021 – Interview selected RFP candidates

By June 30, 2021 – Select consultant(s) for groundwater monitoring program design update reflecting Recycled Water Policy review.

By June 30, 2021 – Select consultant(s) for surface water monitoring program update.

By June 1, 2022 – Submit groundwater monitoring program design update to Water Board.

By June 1, 2022 – Submit surface water monitoring program update to Water Board for approval.

Timeline for Evaluation of SNMP and Alignment with Recycled Water Policy and Recomputation of Ambient Water Quality

April 2022 – Issue RFP for 2002-2021 Recomputation of Ambient Water Quality of groundwater management zones for TDS and Nitrate.

April 2022 – Issue RFP for Evaluation of SNMP and Alignment with Recycled Water Policy and preparation of Basin Plan Amendment support documents. Scope of work may include, but not be limited to, environmental impacts analysis, antidegradation analysis, economic considerations, and other technical reports necessary to support proposed Basin Plan Amendments.

By June 30, 2022 – Select consultant(s) for 2002-2021 Recomputation of Ambient Water Quality

¹ Although the groundwater monitoring and surface water monitoring updates are shown as two separate RFPs, the Task Force can consider issuing one RFP that includes multiple tasks and allow consultants to respond to all or parts of the RFP.

By June 30, 2022 – Select consultant(s) for Evaluation of SNMP and Alignment with Recycled Water Policy and Basin Plan Amendment support documentation

By October 1, 2023 - Submit 2002-2021 Recomputation of Ambient Water Quality for groundwater management zones for TDS and Nitrate reflecting updated program design to Water Board.

By October 1, 2023 – Submit results of Recycled Water Policy Review, proposed Basin Plan Amendments, and supporting Basin Plan Amendment documents to Water Board for consideration.