

Policy for Control and Permitting of Salinity Discharges in the Sacramento-San Joaquin River Basins and in the Tulare Lake Basin

Policy Overview

The Salt and Nitrate Management Plan (SNMP) summarized existing salinity conditions in the Central Valley Region. The SNMP and its supporting studies demonstrate that salt concentrations in surface and ground waters will continue to increase over time even under existing water quality management programs and strategies to control salt. Given these findings, the SNMP identified the need for implementation of a salinity management strategy that includes the following goals:

- Control the rate of degradation, that is implement a “managed degradation” program;
- Implement salinity management activities to achieve long-term sustainability or a salt balance where feasible, practicable and reasonable; and
- Protect beneficial uses by meeting applicable water quality objectives and applying appropriate antidegradation requirements.

The SNMP and supporting studies identified currently available alternatives for salt management in the Central Valley ranging from local or subregional solutions that may be implemented within the Central Valley to projects that will result in the export of salt out of the Central Valley. Additional studies are still needed to further define the range of solutions that may be deployed to achieve salt balance in the Central Valley.

Given the need for these studies, the Regional Water Board will implement this policy for the control and permitting of salinity discharges in three phases over an approximate thirty-year period. During the early phases of implementation of this policy, the Regional Water Board also will implement an Interim Salinity Permitting Approach.

This policy applies to all surface waters and groundwaters in the Central Valley Region, and all salinity-related discharges shall comply with its provisions. Implementation of this policy does not affect compliance with existing water quality objectives for salinity, in Section III, Table III-3 of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins or the salinity objectives applicable to the Bay Delta Region established in the Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary.

Phased Policy Implementation

Each of this policy’s three phases will have a duration of approximately ten years. The findings from each phase will inform the next phase allowing for implementation of an adaptive management approach to salt management in the Central Valley Region.

Phase I – Prioritization and Implementation Study

Phase I will implement the Prioritization and Optimization Study (P&O Study or Study). The P&O Study will develop information that is needed to support Phases II and III of this policy and will include elements directed toward:

- Evaluating the impact of state policies (e.g., Bay-Delta Plan) that impact management of salinity to surface and ground waters in the Central Valley Region;

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- Identifying physical projects and proposed locations for long-term management of salt (e.g., regulated brine line, salt-sinks, regional/subregional de-salters, recharge areas, deep well injection, etc.);
- Developing the conceptual designs for potential physical salt management projects;
- Identifying the various environmental permits and the schedule for obtaining the permits needed to implement physical projects;
- Identifying non-physical projects that support salt management goals for the Central Valley Region;
- Developing governance structures for implementation of physical projects;
- Identifying funding sources, including state and federal funding sources, necessary for implementation of large-scale capital physical projects and subsequent operation and maintenance;
- Identifying and proposing any necessary Basin Plan changes that may be necessary to implement Phases II or III of this policy; and
- Other related activities that support the purpose of the P&O Study or this policy.

Phase I will span from _____, 2018 until at least _____, 2028. At the discretion of the Regional Water Board Executive Officer the Phase I completion date may be modified. Phase I milestones include:

- A Phase I Workplan will be completed by _____. The purpose of the Workplan is to (a) clarify the scope and intent of the P&O Study tasks with regards to salt management in surface water and groundwater; (b) support long-term Phase I planning efforts to secure sufficient funding to complete the Study over its estimated ten-year period; and (c) provide information to stakeholders regarding how to best participate in the Study during execution of the Workplan. This Workplan will include detailed task descriptions, a cost estimate for each planned task, and a task completion schedule.
- Annually, the lead entity for the P&O Study will submit a Progress Report to the Regional Water Board that summarizes progress on execution of the Workplan, status of Phase I funding and expenditures, and stakeholder participation during the reporting year. The first annual Progress Report shall be submitted by _____, 2019; subsequent reports will be submitted no later than one year after submittal of the first Progress Report.
- An Interim Project Report will be completed within five years of the start date for Phase I. This report will identify recommended or preferred physical and non-physical salt management projects for implementation within each Central Valley hydrologic region.
- A Final Project Report will be completed within nine years of the start date for Phase I. This report will include conceptual designs and an assessment of environmental permitting requirements for the preferred physical projects identified in the Interim Project Report.
- Within one year of the completion of all tasks in the Phase I Workplan, recommendations will be provided to the Regional Water Board regarding amendments to the Basin Plan required to facilitate implementation of Phase II of this policy, including recommendations for potential modifications to this policy's Interim Salinity Permitting Approach.

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- A Governance Plan will be completed within five years of the start date of Phase I. This Plan will describe how the phases of this policy will be implemented over time, including the governance structure and roles and responsibilities of stakeholders.
- A Funding Plan to support the development and implementation of this policy, including implementation of Phases II and III, will be developed within five years of the start date for Phase I.

The Regional Water Board will establish policies and directives to encourage participation by permitted surface water and groundwater dischargers in the P&O Study. The Regional Water Board cannot require participation, but lack of participation by a permitted discharger will necessitate the incorporation of more stringent compliance requirements in WDRs/Conditional Waivers and NPDES permits. These requirements, specific to permitted discharges to groundwater or surface water, are described in the Interim Salinity Permitting Approach in this policy.

Phase II – Project Development and Acquisition of Funds

Phase II of this policy will begin at the end of Phase I. Phase II addresses two key elements:

- Completion of the engineering and design and environmental permitting of preferred physical projects identified in Phase I; and
- Securing the funding to implement the preferred projects.

The duration of Phase II is anticipated to be approximately ten years. At the discretion of the Regional Water Board Executive Officer, the length of Phase II may be extended.

Phase III – Project Implementation

Construction of all preferred physical projects will be completed during Phase III, unless already completed during Phase II. The duration of Phase III is anticipated to be 10 years. For large-scale capital projects, such as construction of a regulated brine line, construction may occur over multiple phases and additional time may be required for complete build-out of the project.

Requirements for Groundwater and Non-NPDES Surface Water Discharges

Interim Salinity Permitting Approach

For dischargers that are participating in the P&O Study the Regional Water Board shall implement an Interim Salinity Permitting Approach applicable to new or existing salinity-related to groundwater and non-NPDES surface water discharges. The Interim Salinity Permitting Approach will be implemented in WDRs/Conditional Waivers for a period not to exceed 15 years after adoption of this policy, or until _____, 2033. Based on the findings in the Phase I P&O Study Final Project Report, the Interim Salinity Permitting Approach may be modified or extended to support implementation of Phase II of this policy. While the Interim Salinity Permitting Approach is in effect, the following shall apply:

- Most permitted dischargers will not be subject to stringent salinity-related receiving water limits and/or effluent limits; instead permitted dischargers shall be in compliance with salinity water quality objectives during Phase I, as long as the discharger is in compliance with the Interim Permit Provisions of this policy, as applicable to their discharge.

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- Permitted salinity discharges shall be implemented in a manner consistent with state and federal antidegradation policies (State Water Board Resolution No. 68-16 and 40 CFR §131.12), as applicable.
- The Regional Water Board retains authority to identify high priority saline discharges and/or areas where more stringent control programs must be implemented.
- WDRs/Conditional Waivers shall include the following requirement: The permittee shall participate in efforts related to conducting the P&O Study, and subsequent Phases II and III, as applicable. Participation means that the permittee is providing the minimum required level of financial support to the P&O Study.

The Interim Permit Provisions require dischargers to continue current reasonable, feasible and practicable efforts to control levels of salinity in their discharges, which may include the following requirements, as applicable and appropriate:

- Implement salinity management practices and/or source control efforts;
- Implement pollution prevention plans, watershed plans, and/or salt reduction plans;
- Monitor for salinity in groundwater as part of existing monitoring programs, or through regional monitoring programs as appropriate, consistent with the Surveillance and Monitoring Program established to support implementation of the SNMP;
- Maintain current discharge levels of salinity to the extent feasible, reasonable, and practicable, while accounting for conservation, salinity levels in the water supply source, and some appropriate increment of growth; and/or
- Comply with interim permit limits, to the extent that the Regional Water Board finds it appropriate and necessary to adopt such limits.

Provisions to Opt Out of the Interim Salinity Permitting Approach

For dischargers that choose to opt out of the P&O Study and not be permitted under the Interim Salinity Permitting Approach, the Regional Water Board shall develop permit conditions based on the following:

1. *Interpreting Narrative Water Quality Objectives* – When it interprets narrative water quality objectives for the purpose of establishing a permit effluent limit, the Regional Water Board shall select applicable salinity water quality objectives in a conservative manner.
 - (a) AGR Beneficial Use Protection - The Regional Water Board shall apply a conservative, protective agricultural goal, e.g., 700 $\mu\text{mhos/cm}$ for electrical conductivity. In determining the agricultural goal that should be used to interpret the narrative objective, the Regional Water Board will consider whether a site specific agricultural goal has been developed and/or previously adopted for the permittee. If a site-specific goal has been developed and/or previously adopted, the Regional Water Board shall continue to apply that value, as appropriate.

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- (b) **MUN Beneficial Use** – For the protection of this beneficial use, the Regional Water Board shall interpret water quality objectives in a manner consistent with the Secondary Maximum Contaminant Level Guidance established by the SNMP.
2. **Allocation of Assimilative Capacity** – The Regional Water Board shall not grant a new allocation or expanded allocation of assimilative capacity. A discharger will need to demonstrate that the discharge does not cause or contribute to exceedances of groundwater limitations for salinity constituents in shallow groundwater. If a discharger has previously received an allocation of assimilative capacity, and the allocation was granted with the support of an antidegradation study or analysis, then the Regional Water Board shall continue to allocate the previously approved assimilative capacity, as appropriate.
 3. **Issuance of Time Schedules** – The Regional Water Board will use its discretion to issue time schedules for meeting salinity limitations sparingly, for minimal time periods, and only where appropriate. In general, a discharger shall be allowed no more than five years to meet a restrictive salinity limitation.

Requirements for NPDES Surface Water Discharges

Interim Salinity Permitting Approach

For dischargers that are participating in the P&O Study the Regional Water Board will implement an Interim Salinity Permitting Approach applicable to new or existing salinity-related surface water discharges. The Interim Salinity Permitting Approach will be implemented through an NPDES permit consistent with the applicable Interim Permit Provisions of this policy and federal regulatory requirements for issuance of an NPDES permit.

Consistent with federal regulatory requirements, NPDES permits are to be renewed every five years. During each permit renewal, the Interim Salinity Permitting Approach will provide the basis for establishing salinity-related discharge requirements in NPDES permits. This approach shall be implemented for a period not to exceed 15 years after adoption of this policy, or until _____, 2033. Based on the findings in the Phase I P&O Study Final Project Report, the Interim Salinity Permitting Approach may be modified or extended to support implementation of Phase II of this policy. While the Interim Salinity Permitting Approach is in effect, the following shall apply to individual or watershed-based NPDES permits:

- Most permitted dischargers will not be subject to stringent salinity-related receiving water limits and/or effluent limits; instead permitted dischargers shall be in compliance with salinity water quality objectives during Phase I, as long as the discharger is in compliance with the Interim Permit Provisions of this policy, as applicable to their discharge.
- Permitted salinity discharges shall be implemented in a manner consistent with state and federal antidegradation policies (State Water Board Resolution No. 68-16 and 40 CFR §131.12), as applicable.
- The Regional Water Board retains authority to identify high priority saline discharges and/or areas where more stringent control programs must be implemented.
- Dischargers that are unable to comply with applicable surface water quality objectives for salinity must obtain a variance under the Variance Program for Salinity Water Quality Standards by meeting the

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criteria in section III.A in the Variance Policy for Surface Waters (**Note: assumes modification per SNMP Salinity Variance Program Policy**).

- NPDES permits shall include the following requirement: The permittee shall participate in efforts related to conducting the P&O Study, and subsequent Phases II and III, as applicable. Participation means that the permittee is providing the minimum required level of financial support to the P&O Study.

Interim Permit Provisions applicable to NPDES permits require dischargers to continue current reasonable, feasible and practicable efforts to control levels of salinity in their discharges, which may include the following requirements, as applicable and appropriate:

- Implement salinity management practices and/or source control efforts;
- Implement pollution prevention plans, watershed plans, and/or salt reduction plans;
- Monitor for salinity in surface water as part of existing local, watershed-based or regional monitoring programs, as appropriate;
- Maintain current discharge levels of salinity to the extent feasible, reasonable, and practicable, while accounting for conservation, salinity levels in the water supply source, and some appropriate increment of growth; and/or
- Comply with interim permit limits, to the extent that the Regional Water Board finds it appropriate and necessary to adopt such limits.

Provisions to Opt Out of the Interim Salinity Permitting Approach

For dischargers that choose to opt out of the P&O Study and not be permitted under the Interim Salinity Permitting Approach, the Regional Water Board shall develop permit conditions based on the following:

1. *Reasonable Potential Analysis* – The Regional Water Board will determine the reasonable potential to exceed applicable receiving water salinity water quality objectives in a manner that is consistent with federal regulations at 40 CFR § 122.44(d). Dischargers will need to demonstrate that the discharge does not have reasonable potential to exceed the applicable criteria, or the discharge can comply with a water quality-based effluent limit if a reasonable potential finding has been made.
2. *Interpreting Narrative Water Quality Objective* - When the Regional Water Board interprets narrative water quality objectives for the purposes of conducting a reasonable potential analysis and establishing a permit effluent limit (if reasonable potential is found), the Regional Water Board shall select applicable salinity water quality objectives in a conservative manner.
 - (a) *AGR Beneficial Use* - The Regional Water Board shall apply a conservative, protective agricultural goal, e.g., 700 $\mu\text{mhos/cm}$ for electrical conductivity. In determining the agricultural goal that should be used to interpret the narrative objective, the Regional Water Board should consider whether a site-specific agricultural goal has been developed and/or previously adopted for the discharger in question. If a site-specific goal has been

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developed and/or previously adopted, the Regional Water Board shall continue to apply that value, as appropriate.

- (b) **MUN Beneficial Use** – For the protection of this beneficial use, the Regional Water Board shall interpret water quality objectives in a manner consistent with the Secondary Maximum Contaminant Level Guidance established by the SNMP.
3. **Allocation of Assimilative Capacity (i.e., mixing zone/dilution credit)** – The Regional Water Board shall not authorize a new allocation of assimilative capacity (i.e., mixing zone/dilution credit) in a surface water to meet a salinity effluent limitation. However, the Regional Water Board may consider maintaining any previously approved mixing zone/dilution credits, if previously authorized and there have been no changes to the discharge.
 4. **Salinity Variance** – A salinity variance shall not be authorized for a discharger that is not participating in the P&O Study.
 5. **Compliance Schedule** – Where a reasonable potential finding has been made and the discharger is unable to comply with a water quality-based effluent limit, the Regional Water Board may determine if a compliance schedule is appropriate consistent with the State Water Board’s Compliance Schedule Policy (Resolution 2008-0025) and federal laws and regulations including 40 CFR 122.47. The Regional Water Board shall issue compliance schedules for meeting salinity effluent limitations sparingly, for minimal time periods, and only where appropriate and consistent with the goals of this policy.

Recommendations to Other Agencies

The implementation of long-term salinity management solutions to achieve a salt balance in the Central Valley is a statewide issue. Efforts to achieve salt sustainability will require significant participation and potentially specific actions by state and federal entities. It is recommended that these entities consider participation, including financial, in the Phase I P&O Study as findings from this Study will direct implementation of projects to achieve salt sustainability, which may require participation by state and federal agencies.

After completion of the P&O Study, this Basin Plan may be amended to recognize the impact of local, state and federal agency actions on efforts to achieve salt sustainability and make recommendations for how these agencies should interact and be part of implementation of Phases II and III of this policy.

Coordination with Other Salt and Nitrate-Related Management Policies

PLACEHOLDER for nexus with other SNMP policies related to salinity management (As needed, references/links to related sections in the new *Policy for the Control of Salt and Nitrate Management in the Central Valley* or other Basin Plan Implementation Chapter sections, e.g., Salinity Variance Program, Exceptions Policy for Discharges to Groundwater, Offsets Policy, Drought & Water Conservation Policy, SMCL Guidance)

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Original Outline for Reference

- I. Background/Introduction to Salt Management Strategy (SMS) (provide contextual information)
 - A. Purpose and Applicability (Long term plan to bring salt into balance in the region; replace existing salinity management requirements in Basin Plans, impacts to permittees and others who use/manage water)
 - B. Salt Management Goals (Three goals stated in the strategy)
 - C. Overview of Salinity Management Strategy (Introduction to sections below: Three phased implementation program over approximately 30 years; Interim salinity permitting approach; other introductions as needed)
 - D. Compliance with Existing Salinity-related Water Quality Objectives (Statement that establishment of SMS does not change any existing site-specific salinity objectives in the Region or Delta)
 - E. Summary of Ambient Conditions
- II. Phased Implementation Program
 - A. Phase 1 - Prioritization and Optimization Study
 - 1. Purpose (General description of activities to be completed with anticipated outcomes)
 - 2. Schedule (Estimated 10 years; identify big picture milestones, discretion of the Board to adjust schedule if progress being made)
 - 3. Participation
 - a. General expectations (coverage, SW/GW)
 - b. Relationship to discharge permits (but more detail below in Section III)
 - c. Funding and governance
 - d. Lack of participation (overview; more detail below in Section III)
 - B. Phase 2 – Environmental Permitting, Funding, and Engineering and Design
 - 1. Purpose (Brief description of activities to be completed)
 - 2. Schedule (Estimated 10 years; milestones to be determined based on outcome of Phase I; discretion of the Board to adjust schedule if progress being made)
 - 3. Participation General expectations, mention of relationship to permits; but more detail below in Section III)
 - C. Phase 3 – Implementation/Construction (Brief description of anticipated activities; schedule/participation to be determined based on findings of Phases 1/2)
- III. Interim Salinity Permitting Approach
 - A. Purpose and Applicability (Interim during Phase 1 and potential for renewal/modification under Phase 2; all discharges to SW/GW; new vs. existing permittees)
 - B. Process and Overview of Approach (Incorporate findings/governing principles as needed from SMS)
 - C. Interim Permit Provisions (Based on SMS; expanded upon as needed)
 - 1. Groundwater and Non-NPDES Surface Water Discharges
 - a. Minimum WDR requirements (existing vs. new discharges?)
 - b. Participation in Phase 1 P&O Study
 - c. Opting out of P&O Study
 - i. Compliance with water quality objectives

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- ii. Allocation of assimilative capacity
 - iii. Issuance of time schedules
 - 2. Surface Water NPDES Permittees
 - a. Minimum NPDES permit requirements (existing vs. new discharges?)
 - b. Participation in Phase 1 P&O Study
 - c. Opting out of P&O Study
 - i. Compliance with water quality objectives
 - ii. Allocation of assimilative capacity
 - iii. Issuance of compliance schedules
- IV. Nexus with Other SNMP Policies Related to Salinity Management (As needed, references/links to related sections in the new Policy for the Control of Salt and Nitrate Management in the Central Valley or other Basin Plan Implementation Chapter sections)
 - A. Salinity Variance Program
 - B. Exceptions Policy for Discharges to Groundwater
 - C. Offsets Policy
 - D. Drought & Water Conservation Policy
 - E. SMCL Guidance
- V. Recommendations to Other Agencies