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**CHAPTER 4 IMPLEMENTATION**

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Following is a summary of a proposed addition for the Sacramento River and San Joaquin River Basin Plan and the Tulare Lake Basin Plan. The text noted below will comprise a new section under *Chapter IV—Implementation* within each Basin Plan.

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**Salt and Nitrate Control Program**

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The Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative developed a comprehensive salt and nitrate management plan (SNMP) for the Central Valley Region, which was submitted to the Central Valley Water Board in January of 2017.<sup>7</sup> The SNMP is the basis for many components of this Salt and Nitrate Control Program and serves as one of the reference documents for the control efforts. The SNMP documented elevated salt and nitrate concentrations in portions of the Central Valley that impair or threaten to impair the region's water and soil quality which, in turn, adversely affects agricultural productivity and/or drinking water supplies. Excessive nitrates are significant issues for public health and safety in some areas. Based on the findings, the Central Valley Salt and Nitrate Control Program is designed to address both legacy and ongoing salt and nitrate accumulation issues in surface and groundwater; however, the primary focus of early actions (first ten years) is on groundwater quality and in particular nitrate impacts to drinking water supplies. The overarching management goals and priorities are:

1. Ensure Safe Drinking Water Supply (short and long term)
2. Achieve Balanced Salt and Nitrate Loading
3. Implement Long-Term, Managed Restoration of Impaired Water Bodies

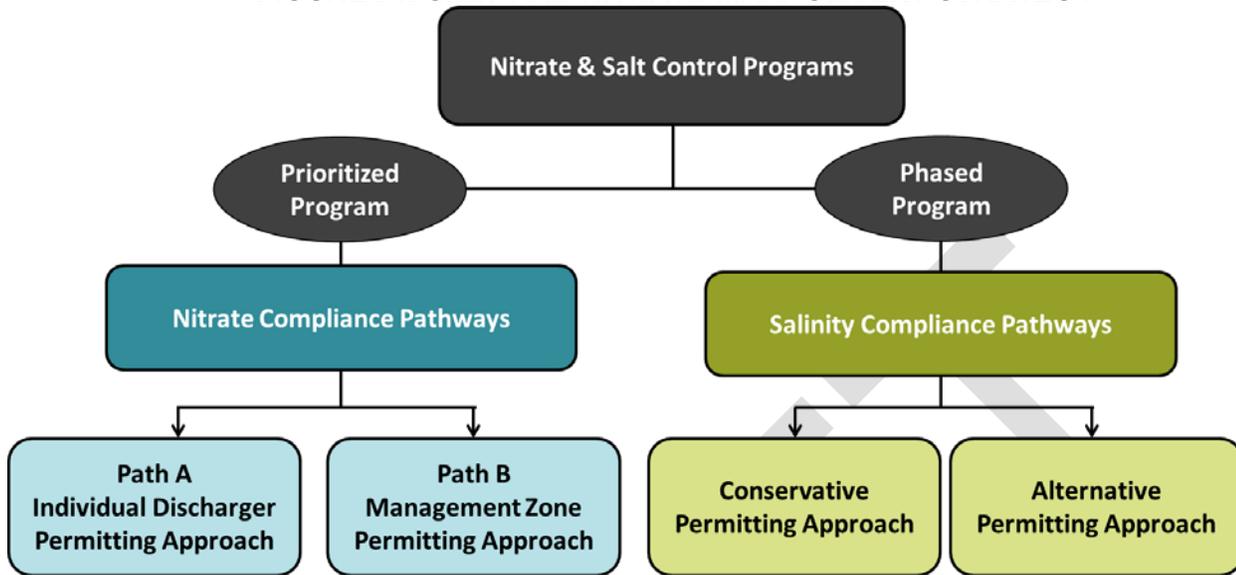
To meet these prioritized goals, the Salt and Nitrate Control Program has been phased with specific implementation activities required for salt and another set of implementation activities required for nitrate. Both implementation approaches provide permittees the option to select their means of compliance: either through a conservative permitting approach focused on individual source control or through an alternative coordinated, multi-discharger management approach (Figure I-1). For goals 2 and 3, the Salt and Nitrate Control Program recognizes that in some circumstances meeting these goals may not be reasonable, feasible or practicable.

The Salt and Nitrate Control Program is implemented through a combination of Central Valley Water Board authorities. First, to ensure timely implementation, a Conditional Discharge Prohibition has been established in the Basin Plans that will require that certain permittees begin to implement provisions of the Control Program upon receiving a Notice to Comply issued by the Board's Executive Officer. The Conditional Discharge Prohibition will assist in establishing enforceable conditions until the Board revises permits to incorporate applicable requirements from the Control Program or determines that existing permit requirements are adequate. Second, for certain other permittees subject to General Orders, the Board will hold a hearing to consider amending such Orders within 18 months of the effective date of the Salt and Nitrate Control Program to incorporate timelines and milestones for complying with the Control Program. Long-term implementation of the Salt and Nitrate Control Program is achieved primarily through Board permitting actions (i.e., waste discharge requirements or conditional waivers); however, to be successful, coordination, funding and support will be required from multiple state, federal and local agencies as well as from local stakeholders and those benefitting from Central Valley waters. Additional implementation authorities, affected entities, and required actions related to salt and nitrate control will be determined during the first phase of the effort.

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<sup>7</sup> CV-SALTS SNMP (2016)

FIGURE I-1. SALT AND NITRATE MANAGEMENT STRATEGY



The following identifies the major components of the Salt and Nitrate Control Program and policies that support its implementation:

- Salt Control Program (Discharges to Surface and Groundwater)
- Nitrate Control Program (Discharges to Groundwater)
  - Prioritized Groundwater Basins
  - Management Zones
- Conditional Prohibition
- Surveillance and Monitoring
- Policies to Support Implementation
  - Variance Policy
  - Exception Policy
  - Drought and Conservation Policy
  - Offsets Policy
  - Application of Secondary Maximum Contaminant Levels to Protect MUN

This amendment was adopted by the Central Valley Water Board on \_\_\_(date)\_\_\_, and approved by the State Water Resources Control Board on \_\_\_(date)\_\_\_ . The Effective Date of the Salt and Nitrate Control Program shall be \_\_\_(date)\_\_\_, the date of Office of Administrative Law approval. For those components subject to USEPA approval, the effective date shall be \_\_\_(date)\_\_\_, the date of USEPA approval. The Salt and Nitrate Control Program will be reviewed in its entirety prior to initiation of Phase II of the Salt Control Program, but no later than 15 years after Office of Administrative Law approval.

## **Program to Control and Permit Salt Discharges to Surface and Groundwater**

The Salt Control Program is a program for the control and permitting of salt discharges in the Sacramento-San Joaquin River Basins and in the Tulare Lake Basin and applies to all surface and ground waters. The Salt Control Program will be implemented in conjunction with and not replace the requirements of the *Control Program for Salt and Boron Discharges into the Lower San Joaquin River (LSJR)* adopted by Central Valley Water Board Resolution R5-2017-0062<sup>8</sup>, site specific salinity objectives in the Bay-Delta Plan, or other site-specific salinity objectives adopted by the Central Valley Water Board or State Water Board.

### **Program Overview**

Based on the CV-SALTS SNMP and its supporting studies, salt concentrations in surface and ground waters generally continue to increase over time under existing water quality management programs and strategies to control salt. Given these findings, the SNMP identified the need for the implementation of a salt management strategy with the following goals:

- Control the rate of degradation through a “managed degradation” program;
- Protect beneficial uses by applying appropriate antidegradation requirements for high quality waters.
  - Implement salinity management activities to achieve long-term sustainability and prevent continued impacts to salt sensitive areas; and
  - Protect beneficial uses by maintaining water quality that meets applicable water quality objectives and pursuing long-term managed restoration where reasonable, feasible and practicable.

The supporting studies evaluated local salt management options in areas with significant salt concerns. These evaluations demonstrated that the volume and mass of unmanaged salt would remain high even under scenarios where existing salt management tools are widely adopted. A comprehensive solution to the salinity issues in the Central Valley will therefore need to rely on both local and sub-regional solutions as well as broad region-wide projects that will export salt out of the Central Valley. Additional studies are still needed to further define the range of solutions for surface and ground waters that may be deployed within each Central Valley hydrologic region to prevent continued impacts to salt sensitive areas in the Central Valley Region.

Given the need for these studies, the Central Valley Water Board will implement a phased Salt Control Program consistent with the goals of the salt management strategy. All permitted salt discharges shall comply with the provisions of this program. Two pathways to compliance are available for Phase I. Compliance pathways for subsequent phases will be identified prior to that phase. The Phase I Compliance pathways are:

1. **Conservative Salinity Permitting Approach**, utilizes the existing regulatory structure and focuses on source control, use of conservative salinity limits and limited use of assimilative capacity and/or compliance time schedules.
2. **Alternative Salinity Permitting Approach**, is an alternative approach to compliance through implementation of specific requirements, rather than application of conservative limits. Under

<sup>8</sup> In the LSJR Basin, management activities are addressing salinity impact to surface water but are not sufficient to address the long-term accumulation in the basin as a whole.

Phase I, permittees must support facilitation and completion of the Salinity Prioritization and Optimization Study. Discharges of salt to waste management units subject to the containment requirements of Division 2 of Title 27 of the California Code of Regulations are not eligible to be permitted under the Alternative Salinity Permitting Approach.

### ***Phased Control Program***

The Salt Control Program will be implemented in three phases, with each of the three phases having a duration of ten to fifteen years (Figure S-1). Some portions of a subsequent phase may occur or be initiated prior to the end of an existing phase. At the discretion of the Central Valley Water Board's Executive Officer, the completion date and interim milestones for any phase may be modified or extended. 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.

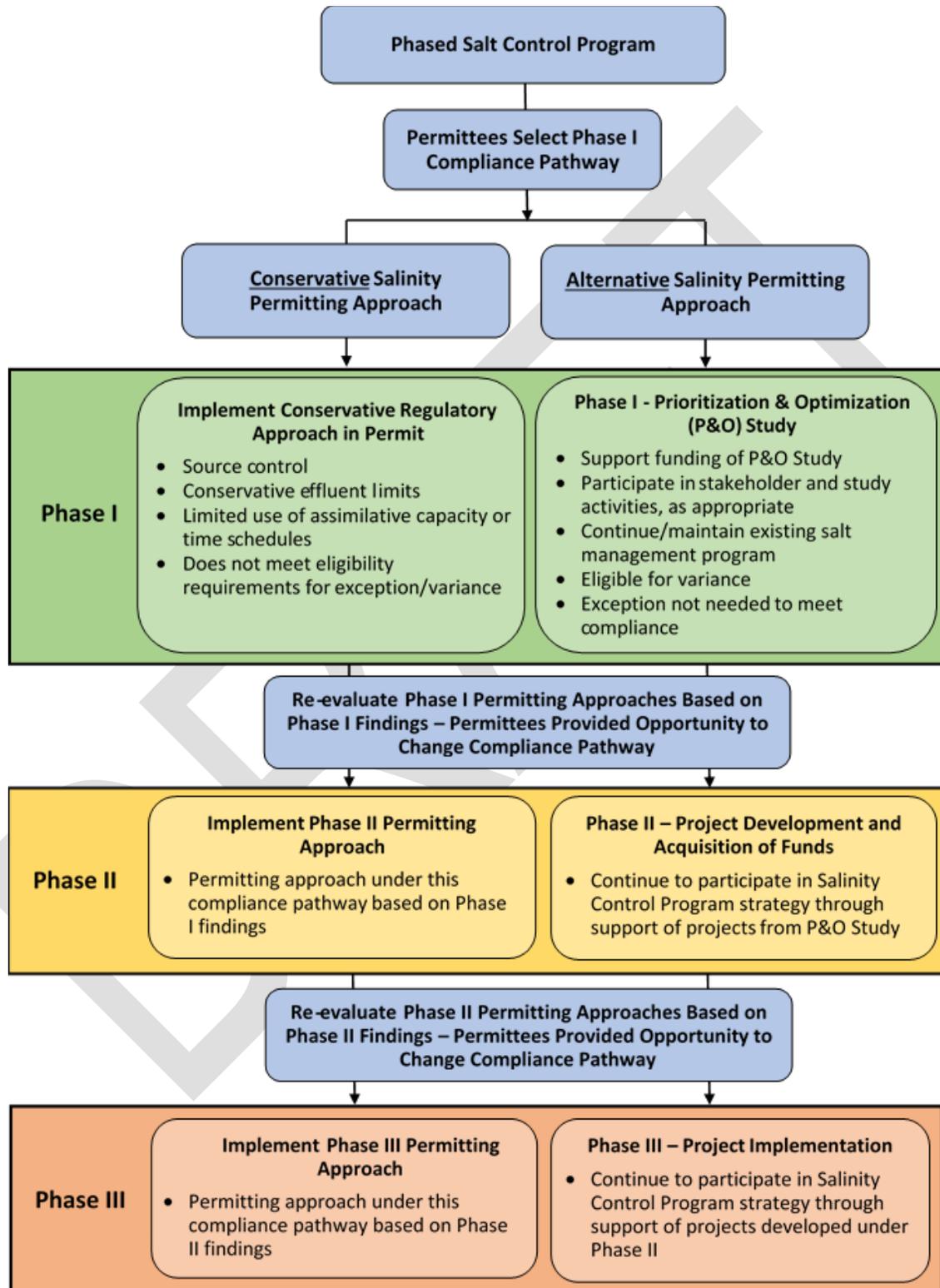
The phases of the Salt Control Program are linked to activities occurring under each the Alternative Salinity Permitting Approach, as follows:

Phase I – Prioritization and Optimization Study (P&O Study) - The P&O Study will facilitate the development of a long-term Salt Control Program to achieve the goals of the salinity management strategy by coordinating and completing tasks and securing funding. The P&O Study will:

- Develop groundwater and surface water-related salinity data and information for sensitive and non-sensitive areas for hydrologic regions within the entire Central Valley Region, including guidelines to protect salt-sensitive crops;
- Identify sources of salinity and actions that impact salinity in surface and ground waters;
- Evaluate impacts of state and federal policies and programs;
- Identify and prioritize preferred physical projects for long-term salt management (e.g. regulated brine line(s), salt sinks, regional/sub-regional de-salters, recharge areas, deep well injection, etc.);
- Develop the conceptual design of preferred physical projects and assess the environmental permitting requirements and costs associated with each of these projects;
- Identify non-physical projects and plan for implementation;
- Develop a governance structure and funding plan;
- Identify funding programs, including federal and state funds, and opportunities for future phase implementation; and
- Identify recommendations for Phase II of the Salt Control Program.

The P&O Study will inform Phases II and III of this Salt Control Program. Based on the findings of the P&O Study, the Central Valley Water Board must review the Basin Plan and consider whether modifications to the Basin Plan are required to facilitate implementation of Phases II or III.

FIGURE S-1: SALT CONTROL PROGRAM PATHWAYS TO COMPLIANCE



Phase II – Project Development and Acquisition of Funds - Phase II of this Salt Control Program will begin no later than at the end of Phase I, but some activities may be initiated during Phase I. Phase II includes the following key elements:

- Using available funding sources, complete the engineering design and environmental permitting of preferred physical projects identified in Phase I;
- Initiating or continuing implementation of preferred non-physical projects identified during Phase I and, if appropriate, identifying new preferred non-physical projects and the process or milestones for implementation; and
- Identifying sources and securing the funding to implement the preferred physical projects.

Phase III – Project Implementation - During Phase III, construction of preferred physical projects will be completed, unless already completed during Phase II. 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 to complete full build-out of the project.

### ***Salt Control Program Implementation***

Permittees will be subject to Phase I of the Salt Control Program from the issuance of the Notice to Comply until **\*\*date\*\*** (ten years from the effective date of the Basin Plan Amendments). Phase I may be extended up to five years at the discretion of the Central Valley Water Board's Executive Officer based on the need to develop Basin Plan Amendments to support implementation of Phase II, reduction in anticipated staff resources, or other factors. Table S-1 depicts the key components of the two pathways to regulatory compliance under the Phase I Salt Control Program. The Board retains its discretion to adjust the established requirements on a case-by-case basis. However, because the Board finds that implementation of the Salt Control Program is best achieved through implementation of the Alternative Salinity Permitting Approach, application of such discretion will be limited under the Conservative Salinity Permitting Approach.

Under Phase I of the Salt Control Program, permitted dischargers of salinity (permittees) will be subject to the Conservative Salinity Permitting Approach unless the permittee elects to be permitted under the Alternative Salinity Permitting Approach.

Permittees may switch from one approach to another by submitting a written request to the Executive Officer of the Central Valley Water Board to change its selected compliance pathway. This request must include documentation regarding how the permittee will comply with the requirements applicable to the compliance pathway it is now requesting to be permitted under and the basis for the change. If the permittee requests to change from the Alternative to the Conservative Permitting Approach, the permittee must demonstrate to the Board that it has complied with all provisions associated with the Alternative Compliance Permitting Approach, including financial support to the P&O study, up through the time of permit revision to incorporate requirements for the Conservative Permitting Approach. If the permittee requests to change from the Conservative Permitting Approach to the Alternative Approach, the permittee shall meet the financial commitment requirements of the Alternative Approach as required by the entity conducting the P&O Study.

Prior to implementation of Phase II, the Central Valley Water Board must review the Salt Control Program and adopt compliance pathways for Phase II. The compliance pathways for Phase II may be similar or different from those in Phase I. Permittees will have an opportunity to review and select Phase II compliance pathways upon implementation of Phase II. The process shall repeat itself prior to implementation of Phase III.

**TABLE S-1: COMPARISON BETWEEN THE CONSERVATIVE AND ALTERNATIVE SALINITY PERMITTING APPROACHES DURING PHASE I**

<b>Conservative Salinity Permitting Approach</b>	<b>Alternative Salinity Permitting Approach</b>
<p><u>All Permittees</u></p> <ul style="list-style-type: none"> <li>• Apply conservative assumptions for interpretation of the narrative objectives and application of numeric water quality objectives to protect AGR and MUN beneficial uses</li> <li>• Limited availability of a compliance or time schedule to meet a salinity-related effluent limit or waste discharge requirement (subject to the discretion of the Central Valley Water Board )</li> </ul> <p><u>Groundwater Discharge and Non-NPDES Discharge Permittees</u></p> <ul style="list-style-type: none"> <li>• Limited new or expanded allocation of assimilative capacity subject to the discretion of the Central Valley Water Board</li> <li>• Does not meet eligibility requirements for an exception</li> </ul> <p><u>NPDES Surface Water Discharge Permittees</u></p> <ul style="list-style-type: none"> <li>• A new or expanded allocation of assimilative capacity may be authorized only where a permittee can demonstrate that the impact of the new discharge or the increased discharge is temporary or <i>de minimis</i>, a determination subject to the discretion of the Central Valley Water Board Does not meet eligibility requirements for a variance</li> </ul>	<p><u>All Permittees</u></p> <ul style="list-style-type: none"> <li>• Participate in the Phase I Prioritization and Optimization Study throughout its duration</li> <li>• Continue implementing reasonable, feasible and practicable efforts to control salinity through performance-based measures as determined by the Central Valley Water Board , including:               <ul style="list-style-type: none"> <li>- Salinity management practices</li> <li>- Pollution prevention, watershed, and/or salt reduction plans</li> <li>- Monitoring</li> <li>- Maintenance of existing discharge concentration or loading levels of salinity</li> </ul> </li> </ul> <p><u>Groundwater and Non-NPDES Discharges</u></p> <ul style="list-style-type: none"> <li>• Salinity limits not used as a compliance metric except to ensure implementation of performance-based measures;</li> <li>• Permittees that meet requirements of the alternative salinity permitting approach are considered in compliance with their salinity limits</li> </ul> <p><u>NPDES Surface Water Discharges</u></p> <ul style="list-style-type: none"> <li>• Eligible for a salinity variance</li> </ul>

**Phase I Conservative Salinity Permitting Approach**

The Conservative Salinity Permitting Approach applies to all permitted dischargers, unless the permittee elects to participate in the Phase I Alternative Salinity Permitting Approach. Under the Conservative Salinity Permitting Approach, the Central Valley Water Board shall develop permit conditions based on the requirements established below.

***Groundwater and Non-NPDES Surface Water Discharges***

The Central Valley Water Board shall apply the following principles to permits being issued to regulate discharges of salt to groundwater or discharges of salt to surface waters that are not subject to NPDES permits (Chapter 5.5 of the Porter-Cologne Water Quality Control Act which contains state statutory requirements for issuing NPDES permits consistent with the federal Clean Water Act).

1. *Permit Provisions* – Permit limitations shall be set as follows:
  - (a) Surface Water – Limitations shall be set based on the applicable water quality objective that protects the most sensitive beneficial use and based on the application of the Antidegradation Policy. The Central Valley Water Board may use its discretion to continue to authorize a previously approved mixing zone for salinity subject to the provisions in paragraph (4).

- (b) Groundwater – Limitations will be set based on the applicable water quality objective that protects the most sensitive beneficial use and based on the application of the Antidegradation Policy. The Central Valley Water Board may use its discretion to continue to authorize previously allocated use of assimilative capacity in groundwater subject to the provisions in paragraph (4).
2. *Application of Applicable Water Quality Objectives* – When the most salinity sensitive beneficial use is AGR or MUN, the Central Valley Water Board will apply the associated narrative and range in numeric objectives as indicated below. When the applicable water quality objective for setting Permit Limitations is a site-specific numeric water quality objective, the Board shall apply that numeric objective. The values recommended below apply only for the conservative approach and are limited to use under Phase 1.
- (a) AGR Beneficial Use Protection – When it applies the narrative water quality objective, the Central Valley Water Board shall use a conservative, numeric value for electrical conductivity (EC) to protect the AGR beneficial use. During Phase I of the Salt Control Program, the numeric value of 700  $\mu\text{S}/\text{cm}$  EC (as a monthly average) shall be considered to be a conservative value that is protective of the AGR beneficial use. This value is for use only as indicated here for the Conservative Permitting Approach and shall not be considered a water quality objective. For discharges where a site-specific numeric value has been developed and/or previously applied to the discharge for the protection of the AGR beneficial use, the Board shall continue to apply that value, as appropriate.
- (b) MUN Beneficial Use – When it applies a Secondary Maximum Contaminant Level (SMCL) for protection of a MUN beneficial use, the Central Valley Water Board shall use the recommended SMCL of 900  $\mu\text{S}/\text{cm}$  EC (as an annual average).
3. *Consideration of Degradation to High Quality Waters* – Before authorizing degradation to high quality waters, and consistent with the state and federal antidegradation policies as applicable, the Central Valley Water Board must consider, among other things, if allowing the degradation is to the maximum benefit to the people of the state. Under the Phase I Conservative Permitting Approach, the Board must specifically find that allowing this permittee to degrade a high quality water better serves the people of the state rather than their participation in the P&O study for Phase I of the Salt Control Program.
4. *Allocation of Assimilative Capacity* – For both surface and groundwater discharges, the Central Valley Water Board will limit new or expanded allocations of salinity related assimilative capacity. If a permittee has previously received an allocation of assimilative capacity, and the allocation was granted with the support of an antidegradation study or analysis, then the Board may consider continuing the previously approved allocation of assimilative capacity.
5. *Salinity Exception* - Permittees operating under the Phase I Conservative Salinity Permitting Approach do not meet eligibility requirements for a salinity exception.
6. *Issuance of Time Schedules* – The Central Valley Water Board will limit use of time schedules for achieving compliance with salinity permit limitations and will use its discretion to limit the time allowed in the event that a time schedule is deemed necessary under the particular circumstances associated with that discharge.

## NPDES Surface Water Discharges

The Central Valley Water Board shall apply the following principles to permits being issued to regulate discharges of salinity to surface waters that are subject to NPDES permit provisions as required by the federal Clean Water Act.

1. *Permit Provisions* – Permit limitations, if required, shall be set as follows:

Limitations shall be set based on the applicable water quality objective that protects the most sensitive beneficial use and based on the application of the Antidegradation Policy. The Central Valley Water Board may use its discretion to continue to authorize a previously-approved mixing zone for salinity subject to the provisions in paragraph (4).

2. *Application of Applicable Water Quality Objectives* – When the most salinity sensitive beneficial use is AGR or MUN, the Central Valley Water Board will apply the associated narrative and range in numeric objectives as indicated below. When the applicable water quality objective for setting Permit Limitations is a site-specific numeric water quality objective, the Board shall apply that numeric objective. The values recommended below apply only for the conservative approach and are limited to use under Phase 1.

(a) *AGR Beneficial Use Protection* – When it applies the narrative water quality objective, the Central Valley Water Board shall use a conservative, numeric value for electrical conductivity (EC) to protect the AGR beneficial use. During Phase I of the Salt Control Program, the numeric value of 700  $\mu\text{S}/\text{cm}$  EC (as a monthly average) shall be considered to be a conservative value that is protective of the AGR beneficial use. This value is for use only as indicated here for the Conservative Permitting Approach and shall not be considered a water quality objective. For discharges where a site-specific numeric value has been developed and/or previously applied to the discharge for the protection of the AGR beneficial use, the Board shall continue to apply that value, as appropriate.

(b) *MUN Beneficial Use* – When it applies a Secondary Maximum Contaminant Level (SMCL) for protection of a MUN beneficial use, the Central Valley Water Board shall use the recommended SMCL of 900  $\mu\text{S}/\text{cm}$  EC (as an annual average).

3. *Consideration of Degradation to High Quality Waters* – Before authorizing degradation to high quality waters, and consistent with the state and federal antidegradation policies as applicable, the Central Valley Water Board must consider, among other things, if allowing the degradation is to the maximum benefit to the people of the state. Under the Phase I Conservative Permitting Approach, the Board must specifically find that allowing this permittee to degrade a high quality water better serves the people of the state rather than their participation in the P&O study for Phase I of the Salt Control Program.
4. *Allocation of Assimilative Capacity (i.e., mixing zone/dilution credit)* – The Central Valley Water Board will limit new or expanded allocations of assimilative capacity in surface water (i.e., mixing zone/dilution credit) and will consider whether a permittee can demonstrate that the impact of the discharge is temporary or *de minimis*, such that reduction of water quality will be spatially localized or temporally limited with respect to the waterbody. The Board may consider maintaining any previously approved allocations of assimilative capacity, if there have been no material changes to the discharge and the previously approved allocation was granted with the support of an antidegradation study or analysis.
5. *Salinity Variance* – Permittees operating under the Phase I Conservative Salinity Permitting Approach do not meet eligibility requirements for a salinity variance.
6. *Compliance Schedule* – Where a reasonable potential finding has been made and the permittee is unable to comply with the applicable salinity effluent limit, the Central Valley Water Board will

use its discretion to limit the use of compliance schedules authorized by the State Water Board Compliance Schedule Policy for achieving compliance with salinity-based effluent limits, and will use its discretion to limit the time allowed in the event that a compliance schedule is deemed necessary under the particular circumstances associated with the discharge.

### **Phase I Alternative Salinity Permitting Approach**

In lieu of being subject to the Conservative Permitting Approach, permittees may elect to be permitted for discharges of salinity by participating in the Phase I Alternative Salinity Permitting Approach. Permittees electing to participate in the Phase I Alternative Salinity Permitting Approach are given the opportunity to participate collectively in the P&O Study with other permittees, the Central Valley Water Board, and other stakeholders, including those importing and benefitting from water supplies from the Central Valley, to work toward full implementation of the Salt Control Program. Key milestones for the P&O Study are identified in Table S-2 and outlined in Figure S-2.

If the P&O Study does not meet the milestones established in Table S-2 or where the Central Valley Water Board finds reasonable progress is not being made towards achieving the milestones, the Board will notify the permittees that selected the Alternative Salinity Permitting Approach of its findings through public notice that includes a required schedule for completion of the P&O Study milestones. Failure to comply with the requirements in the notice will result in all permittees that elected to be permitted under the Phase I Alternative Salinity Permitting Approach to become subject to the requirements of the Conservative Salinity Permitting Approach.

The Central Valley Water Board shall develop salinity-related permit conditions based on the requirements established below. 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. Discharges of salt to waste management units subject to the containment requirements of Division 2 of Title 27 of the California Code of Regulations are not eligible to be permitted under the Alternative Salinity Permitting Approach.

**TABLE S-2: KEY PHASE I PRIORITIZATION AND OPTIMIZATION STUDY MILESTONES**

<b>Implementation Schedule</b>	<b>Milestone/Deliverable</b>	<b>Minimum Requirements</b>
6 months from Notice to Comply	Phase I Workplan	<p><i>Workplan to include:</i></p> <ul style="list-style-type: none"> <li>• Detailed P&amp;O Study task descriptions</li> <li>• Cost estimate for each task</li> <li>• Task completion schedule</li> <li>• Stakeholder participation elements</li> </ul>
Within 12 months from Notice to Comply	Phase I Funding & Governance Plan	<p><i>Complete Phase I implementation planning:</i></p> <ul style="list-style-type: none"> <li>• Establish the entity and procedures for governance of the P&amp;O Study</li> <li>• Develop funding plan to complete the P&amp;O Study</li> </ul>
Per Workplan	Special Studies	<p><i>Special Studies to include:</i></p> <ul style="list-style-type: none"> <li>• Groundwater Quality Trace Constituent Study</li> <li>• Recycled Water Imports Study</li> <li>• Stormwater Recharge Master Plan Study</li> <li>• Emerging Technical Updates (every 5 years)</li> </ul>
12 months from Workplan approval and annually thereafter	Annual Progress Report	<p><i>Annual Report to summarize:</i></p> <ul style="list-style-type: none"> <li>• Progress on Workplan execution</li> <li>• Status of Phase I funding and expenditures</li> <li>• Stakeholder participation</li> </ul>
5 years from Notice to Comply	Interim Project Report	<p><i>By Central Valley Hydrologic Region, identify:</i></p> <ul style="list-style-type: none"> <li>• Recommended preferred physical projects with recommended next steps for development</li> <li>• Recommended non-physical projects and a schedule for implementation</li> </ul>
9 years from Notice to Comply	Long-term Governance Plan for Phases II and III	<p><i>Governance Plan that establishes:</i></p> <ul style="list-style-type: none"> <li>• Describes planned implementation approach for Phases II &amp; III</li> <li>• Governance structure including: <ul style="list-style-type: none"> <li>– Stakeholder roles and responsibilities</li> <li>– Committees responsible for development of policies, technical documents, BMPs and funding</li> </ul> </li> </ul>
	Long-term Funding Plan for Phases II and III	<p><i>Funding Plan that establishes:</i></p> <ul style="list-style-type: none"> <li>• Financial approach for long-term funding including sources and funding types (grants, bonds, loans, etc.)</li> <li>• Approach for the equitable management and funding of long-term, large-scale salinity management projects</li> </ul>
	Basin Plan Amendment Recommendations	<p><i>As needed, recommended amendments to Basin Plans to:</i></p> <ul style="list-style-type: none"> <li>• Facilitate implementation of Phase II of the Salt Control Program</li> <li>• Consider extension of salinity variance and revision of salinity exception policies</li> <li>• As appropriate, modify the Salinity Permitting Approaches;</li> </ul>
10 years from Notice to Comply	Final Phase I Project Report	<ul style="list-style-type: none"> <li>• <i>For preferred physical projects:</i> <ul style="list-style-type: none"> <li>– Conceptual designs</li> <li>– Assessment of environmental permitting requirements</li> </ul> </li> <li>• Status of implementation of non-physical projects per Interim Project Report with recommendations for modifications, as needed</li> </ul>

### *Groundwater and Non-NPDES Surface Water Discharges*

The Central Valley Water Board shall apply the following principles to permits being issued for regulating discharges of salt to groundwater or discharges of salt to surface waters that are not subject to NPDES permits (Chapter 5.5 of the Porter-Cologne Water Quality Control Act which contains state statutory requirements for issuing NPDES permits consistent with the federal Clean Water Act).

1. *Participation in P&O Study* - Permittees electing the Alternative Salinity Permitting Approach shall be required to participate in efforts related to conducting the P&O Study, including providing the minimum required level of financial support. The level of participation may vary based on salinity in the discharge, local conditions or other factors. The needed level of participation would be established by the lead entity (i.e., Central Valley Salinity Coalition [CVSC]) that is overseeing the P&O Study. The lead entity shall document and confirm full participation by the permittee(s) until the P&O Study is completed or until such time that the Central Valley Water Board otherwise revises the applicable waste discharge requirements and/or conditional waiver or determines permittee is in compliance with the requirements of the Phase 1 Conservative Salinity Permitting Approach. The timeframe for completion of the P&O Study is expected to be ten years from the effective date of this Salt Control Program but may be extended by the Central Valley Water Board's Executive Officer for a period of up to five years.
2. *Implementation of Reasonable, Feasible and Practicable Efforts to Control Salt* - The Central Valley Water Board will require dischargers to continue to implement reasonable, feasible and practicable efforts to control levels of salt in discharges. Such efforts may include, but are not limited to, implementation of management practices that are designed to reduce salt in discharges; implementation of pollution prevention plans, watershed plans, and/or salt reduction plans that help to reduce salt loads in discharges to groundwater or surface water; and, monitoring for salt in surface water or groundwater as part of existing local, watershed-based or regional monitoring programs, in coordination with monitoring under the SNMP.
3. *Maintain Current Discharge Concentrations for Salt or Mass Loading Levels* - To the extent reasonable, feasible and practicable (and while accounting for conservation and drought, salinity levels in the water supply source, and some appropriate increment of growth), the Central Valley Water Board may use its discretion to adopt performance-based limits or action levels to the extent the Board finds it appropriate and necessary for salinity for permittees electing the Alternative Salinity Permitting Approach.
4. *Setting Permit Requirements* - In regulating discharges of salt in waste discharge requirements and conditional waivers, the Board shall require dischargers to fully participate in the P&O study (as documented by the lead entity overseeing the study), implement reasonable, feasible and practicable efforts to control salt, and meet any performance-based limits or action levels deemed appropriate and necessary by the Central Valley Water Board. Compliance with these requirements shall constitute compliance with the water quality control plan and shall be deemed adequately protective of beneficial uses and the water quality objectives reasonably required for that purpose consistent with this salt control program.

### *NPDES Surface Water Discharges*

The Central Valley Water Board shall apply the following principles to permits being issued for authorizing discharges of salt to surface waters subject to NPDES permits under the federal Clean Water Act.

1. *Participation in P&O Study* - Permittees electing the Alternative Salinity Permitting Approach shall be required to fully participate in efforts related to conducting the P&O Study including providing at least the minimum required level of financial support determined by the lead entity. The level of participation may vary based on salinity in the discharge, local conditions or other factors. The needed level of participation would be established by the lead entity (i.e., CVSC) that is overseeing the P&O Study. The lead entity shall document and confirm adequate participation by the permittee(s) until the P&O Study is completed or until such time that the Central Valley Water Board otherwise revises the applicable NPDES permit consistent with this Control Program. The timeframe for completion of the P&O Study is expected to be ten years from the effective date of this Salt Control Program but may be extended by the Board's Executive Officer for a period of up to five years.
2. *Requirements for Ensuring Reasonable Protection of Beneficial Uses* - Full participation in the P&O study as documented and confirmed by the lead entity overseeing the P&O Study shall be found by the Central Valley Water Board to provide for in lieu or alternative compliance to receiving water limits based on salinity. To determine reasonable potential, the Board maintains its discretion to conduct such analysis by using the approach set forth in U.S. EPA's Technical Support Document, by using the approach set forth in the SIP, or by using another approach that is consistent with applicable federal regulations. To the extent that the discharge in question is found to have reasonable potential for causing or contributing to a violation of an applicable salinity water quality objective pursuant to applicable federal regulations, the Board may consider granting use of assimilative capacity by allowing for a mixing zone and dilution credits. The permittee is also eligible for consideration of receiving a salinity variance pursuant to the Salinity Variance Policy.
3. *Implementation of Reasonable, Feasible, and Practicable Efforts to Control Salt* - The Central Valley Water Board will continue to require implementation of reasonable, feasible and practicable efforts to control levels of salt in discharges. Such efforts may include, but are not limited to, implementation of management practices that are designed to reduce salt in discharges; implementation of pollution prevention plans, watershed plans, and/or salt reduction plans that help to reduce salt loads in discharges to surface waters; and, continued monitoring for salt in surface water as part of existing local, watershed-based or regional monitoring programs, in coordination with monitoring under the Salt and Nitrate Control Program.
4. *Maintain Current Discharge Concentrations for Salt or Mass Loading Levels* - To the extent reasonable, feasible and practicable (and while accounting for conservation and drought, salt levels in the water supply source, and some appropriate increment of growth), the Central Valley Water Board may use its discretion to prescribe performance-based limits or triggers to the extent the Board finds such additional actions appropriate and necessary for salinity for permittees electing the Alternative Salinity Permitting Approach.

#### *Permitted Discharge to a Water Body Subject to De-designation of a Beneficial Use*

The P&O Study will establish a program for the long-term management of salts in the Central Valley, including identifying locations that may serve as salt management area. For example, a groundwater basin that has had one or more beneficial uses de-designated due to salinity may be a considered a potential location for establishment of a salt management area. Accordingly, under the Phase I Salt Control Program:

- Permittee(s) that selects either the Conservative or Alternative Permitting Approach and then requests the de-designation of one or more beneficial uses from a surface water body or all or part of a groundwater basin based on salinity shall participate in the P&O Study even after the beneficial use de-designation is approved by providing at least the minimum level of required financial support throughout the Phase I program. The P&O Study shall evaluate all areas de-designated based on salinity for suitability as salt management areas.

- Permittee(s) that discharges to a surface water body or a groundwater basin where one or more beneficial uses were de-designated due to salinity prior to the beginning of Phase I of the Salt Control Program shall participate in the P&O Study by providing at least the minimum level of required financial support.

### *Process to Initiate Phase I of the Salt Control Program*

This section establishes the process and schedule for initiation of Phase I of the Salt Control Program and for selection of a compliance pathway during Phase I. For permittees that select the Alternative Salinity Permitting Approach, nothing here prevents, or should be interpreted to prevent, permittees from implementing elements of the Phase I P&O Study prior to receiving a Notice to Comply.

### *Existing Discharges of Salt*

The Central Valley Water Board shall issue a Notice to Comply with the Salt Control Program to existing permittees that discharge salt in the Central Valley Region within one year of the effective date of the Basin Plan Amendments. Upon receipt of the Notice to Comply, permittees receiving the notice will be subject to the Conditional Prohibition of Salinity Discharges (Section ##), which establishes enforceable requirements for implementation of Phase I of the Salt Control Program.

No later than six months after receiving the Notice to Comply, existing permittees shall notify the Central Valley Water Board of its decision of whether to be permitted under the Conservative Salinity Permitting Approach or the Alternative Salinity Permitting Approach. Based on the selection of the permitting approach, the permittee shall comply with the following requirements:

- *Conservative Salinity Permitting Approach* – A permittee that selects this approach must submit an assessment of how the discharge will comply with the conservative permitting requirements set forth in the Conservative Salinity Permitting Approach. The permittee shall submit this assessment to the Central Valley Water Board with the notification to the Board of its permit compliance pathway decision. If the Board does not concur with the findings of the assessment, the Board may request additional technical and/or monitoring information with a deadline for submittal. When conducting the assessment, the permittee may use historical water quality information if the information adequately represents the character of the current discharger and/or receiving water and is approved by the Board's Executive Officer.
- *Alternative Salinity Permitting Approach* – A permittee that selects this approach shall participate in the Phase I P&O Study by providing at least the minimum required level of financial support throughout Phase I as determined by the lead entity overseeing the P&O Study. The permittee shall provide documentation of its compliance with the required level of support with the notification to the Central Valley Water Board of its permitting decision. If the permittee has an approved salinity-related Time Schedule Order, Compliance Schedule or variance that expires prior to the completion of the Phase I P&O Study, the Board, at its discretion, may extend the Time Schedule Order or Compliance Schedule or renew or grant a variance, as appropriate and allowed by other applicable policies.

### *New or Substantively Modified Discharges*

A new permittee, or existing permittee seeking a permit modification due to a substantial and/or material change which increases salt concentration or load from a facility, shall indicate how the permittee intends to comply with the Salt Control Program at the time of application and provide the required information to support the decision, as described above.

### *Failure to Comply*

Any permittee that does not submit a response to the Notice to Comply within the required six-month period may be subject to an enforcement action. Permittees who do not respond in the required six-month period are subject to enforcement for failure to respond to the Notice to Comply but may still select the Alternative Salinity Permitting Approach. Permittees selecting the Alternative Salinity Permitting Approach after the originally allocated six-month period will need to obtain approval from the lead entity conducting the P&O Study to join late and will be subject to the lead entity's requirements in addition to providing the minimum required level of financial support.

A permittee that elects to participate in the Alternative Salinity Permitting Approach must continue to provide at least the minimum required level of financial support to the lead entity for the P&O Study throughout the duration of Phase I of the Salt Control Program, unless the Central Valley Water Board has revised the permittee's permit in a manner that authorizes them to be subject to the Conservative Permitting Approach. In such cases, the permittee must remain in compliance with the Alternative Salinity Permitting Approach until such time that their permit is amended to allow compliance under the Conservative Permitting Approach. Where a permittee fails to provide the minimum required level of financial support to the P&O Study, the Board may require the permittee to comply with the requirements of the Conservative Salinity Permitting Approach.

#### *Salt Control Program - Phase I to Phase II Re-Evaluation*

Upon completion of Phase I and prior to initiation of Phase II of the Salt Control Program, the Central Valley Water Board will re-evaluate the Conservative and Alternative Salinity Permitting Approaches applicable under Phase I of the Salt Control Program. The Regional Water Board shall consider convening a stakeholder group to assist in the re-evaluation. In this re-evaluation, the Regional Water Board shall consider the findings of the P&O Study, results from surveillance and monitoring programs, proposals for use of other permitting options or approaches, and progress made towards meeting the overarching goals of the Salt Control Program. Based on the findings of this re-evaluation, the Regional Water Board may modify or re-adopt the Phase I permitting approaches and policies (e.g., variance and exceptions), thereby making them applicable to Phase II. Such amendments must be completed prior to the initiation of Phase II of the Salt Control Program.

Prior to the initiation of Phase II of the Salt Control Program, the Central Valley Water Board will notify all existing permittees in the Central Valley Region of the salinity-related permitting approaches applicable to Phase II. This notification must occur even if the Phase I permitting approaches are re-adopted. The purpose of the notification is to provide the opportunity for permittees to change the compliance pathway selected for Phase I. A permittee that elects to change its compliance pathway shall submit documentation to support the change within 180 days of the Board's notification.

A similar notification process will be utilized prior to the initiation of Phase III of the Salt Control Program.

**Figure S-2: General Schedule of Key Phase I Prioritization and Optimization Study Activities and Milestones**

Category	Year of Implementation (From Notice to Comply)									
	1	2	3	4	5	6	7	8	9	10
Stakeholder Coordination	Stakeholder Coordination Meetings (as needed frequency)									
	SGMA GSA Coordination Meetings (as needed frequency)									
Phase I Workplan	Phase I Work-plan									
Governance	Phase I Governance Plan	Long-term Governance Plan for Phases II & III								
Funding	Phase I Funding Plan	Long-term Funding Plan for Phases II & III								
Preferred Physical/Non-Physical Salt Management Projects	Development of Recommended Preferred Physical and Non-Physical Projects			Interim Project Report						
						Conceptual Design and Assessment of Environmental Permitting Requirements for Preferred Physical Projects			Final Project Report	
Special Studies				Groundwater Quality Trace Constituent Study						
						Recycled Water Imports Study				
								Stormwater Recharge Master Plan Study		
					Emerging Tech Update No. 1				Emerging Tech Update No. 2	
Basin Planning								Phase II Recommendations		
Reports	Progress Reports at Key Milestones (Years 1; 5; and 10 with documentation (electronic or otherwise) of participation)									

***Edits Specific to the Tulare Lake Basin Plan Salinity Limits (Revision)***

The following paragraphs include proposed modifications to the Tulare Lake Basin Plan in the sections indicated below.

**CHAPTER 3 WATER QUALITY OBJECTIVES**

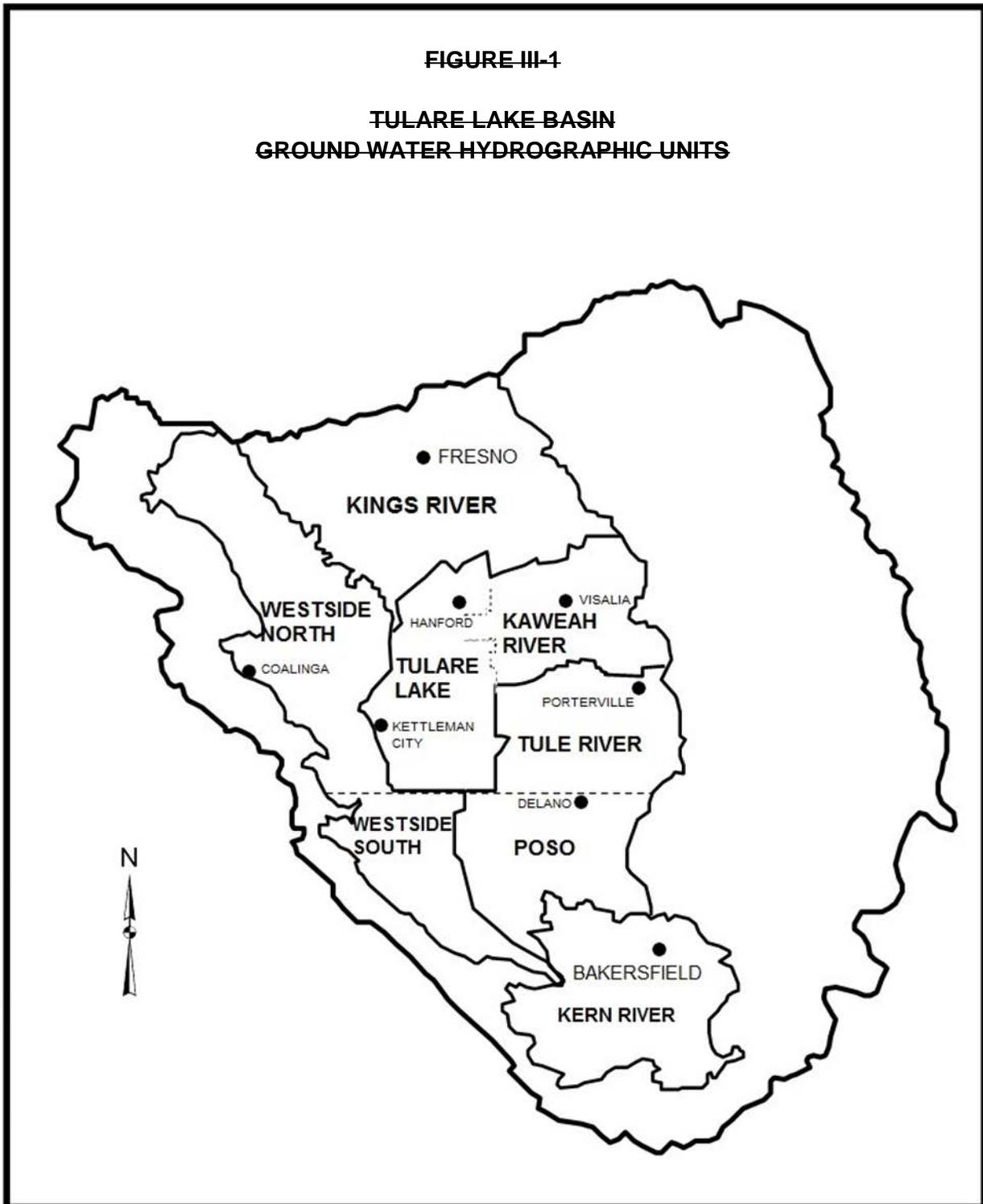
Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading “Salinity” (page III-8 and III-9), as follows:

No proven means exist at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels throughout the Basin. Accordingly, the water quality objectives for ground water salinity control the rate of increase.

The maximum average annual increase in salinity measured as electrical conductivity shall not exceed the values specified in Table III-4 for each hydrographic unit shown on Figure III-1. The average annual increase in electrical conductivity will be determined from monitoring data by calculation of a cumulative average annual increase over a 5-year period.

**TABLE III-4  
TULARE LAKE BASIN  
GROUND WATER QUALITY OBJECTIVES FOR SALINITY**

<u>Hydrographic Unit</u>	<u>Maximum Average Annual Increase in Electrical Conductivity (µmhos/cm)</u>
Westside (North and South)	4
Kings River	4
Tulare Lake and Kaweah River	3
Tule River and Pose	6
Kern River	5



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**CHAPTER 4 IMPLEMENTATION**


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Modify the Basin Plan in Chapter 4 Implementation under the heading “Irrigated Agriculture” (page IV-3), as follows:

Agricultural drainage may be discharged to surface waters provided it does not exceed 1,000  $\mu\text{mhos/cm}$  EC, 175 mg/l chloride, nor 1 mg/l an applicable water quality objective for boron. Other requirements also apply. An exception from the EC and/or the chloride boron limits for agricultural drainage discharged to surface waters may be permitted consistent with the Program for Exception from Implementation of Water Quality Objectives for Salinity boron.

Modify the Basin Plan in Chapter 4 Implementation under the heading “Discharges to Navigable Waters” (page IV-10), as follows:

- ~~The maximum electrical conductivity (EC) of a discharge shall not exceed the quality of the source water plus 500 micromhos per centimeter ( $\mu\text{mhos/cm}$ ) or 1,000  $\mu\text{mhos/cm}$ , whichever is more stringent. When the water is from more than one source, the EC shall be a weighted average of all sources.~~
- Discharges shall not exceed an EC of 1,000  $\mu\text{mhos/cm}$ , a chloride content of 175 mg/l, or an applicable water quality objective for boron content of 1.0 mg/l.
- An exception variance from the EC and/or the chloride boron limitations identified here may be granted for municipal and domestic wastewater discharges to navigable waters if a variance is granted pursuant to the Variance Policy for Surface Water.

Modify the Basin Plan in Chapter 4 Implementation under the heading “Discharges to Land” (page IV-11), as follows:

Additional effluent limits follow...

- ~~The incremental increase in salts from use and treatment must be controlled to the extent possible that it is reasonable, feasible and practicable. In most circumstances, the maximum EC shall not exceed the EC of the source water plus 500  $\mu\text{mhos/cm}$ . When the source water is from more than one source, the EC shall be a weighted average of all sources. However, under certain circumstances, the Regional Board, upon request of the discharger, may adopt an effluent limit for EC that allows EC in the effluent to exceed the source water by more than 500  $\mu\text{mhos/cm}$ . This request will be granted consistent with the Policy for Exception from Implementation of Water Quality Objectives for Salinity.~~
- Discharges to areas that may recharge to good quality ground waters shall not exceed an EC of 1,000  $\mu\text{mhos/cm}$ , a chloride content of 175 mg/l, or an applicable boron content of 1.0 mg/l/water quality objective.
- An exception from the EC and/or the chloride boron limits for discharges to land may be permitted consistent with the Program for Exception from Implementation of Water Quality Objectives for Salinity.

Modify the Basin Plan in Chapter 4 Implementation under the heading "Industrial Wastewater" (page IV-13 and IV-14), as follows:

Generally, the effluent limits established for municipal waste discharges will apply to industrial wastes. Industrial dischargers shall be required to...

- (1) Comply with water quality objectives established in Chapter 3.
- (2) Comply with Chapter 15 for discharges of designated or hazardous waste unless the discharger demonstrates that site conditions and/or treatment and disposal methods enable the discharge to comply with this Basin Plan and otherwise qualify for exemption from Chapter 15.
- (3) Comply with effluent limitations set forth in 40 CFR 400 when discharge is to surface water.
- (4) Comply with, or justify a departure from, effluent limitations set forth in 40 CFR 400 if discharge is to land.
- ~~(5) Limit the increase in EC of a point source discharge to surface water or land to a maximum of 500  $\mu$ mhos/cm. A lower limit may be required to assure compliance with water quality objectives.~~

~~An exception from the EC limit may also be permitted consistent with the Program for Exception from Implementation of Water Quality Objectives for Salinity.~~

Modify the Basin Plan in Chapter 4 Implementation under the heading "Oil Field Wastewater" (page IV-15), as follows:

Policies regarding the disposal of oil field wastewater are...

- Discharges of oil field wastewater to unlined sumps, stream channels, or surface waters shall be regulated consistent with applicable laws, regulations and policies requiring the protection of beneficial uses in surface water and groundwater and the need to prevent nuisance conditions. Limits for the White Wolf subarea are discussed in the "Discharges to Land" subsection of the "Municipal and Domestic Wastewater" section.
- ~~• Maximum salinity limits boron limit for wastewaters in unlined sumps overlying ground water with existing and future probable beneficial uses are 1,000  $\mu$ mhos/cm EC, 200 mg/l chlorides, and is 1 mg/l boron, except in the White Wolf subarea where more or less restrictive limits apply. The limits for the White Wolf subarea are discussed in the "Discharges to Land" subsection of the "Municipal and Domestic Wastewater" section.~~
- ~~• Discharges of oil field wastewater that exceed the above maximum salinity limits may be permitted to unlined sumps, stream channels, or surface waters if the discharger successfully demonstrates to the Regional Water Board in a public hearing that the~~

~~proposed discharge will not substantially affect water quality nor cause a violation of water quality objectives.~~

- An exception from the EC and/or the chloride boron limits may be permitted consistent with the Program for Exception from Implementation of Water Quality Objectives for ~~Salinity~~ Boron.

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