

CV-SALTS – Strategy and Framework

Version 3

CV-SALTS is developing a comprehensive regulatory and programmatic approach to the management of salt/nitrate (S/N) in the Central Valley that is consistent with the State Recycled Water Policy (SRWP). This work is being done with the Central Valley Regional Water Quality Control Board, the State Water Resources Control Board, the Central Valley Salinity Coalition and Stakeholders. The strategy to achieve this outcome is to adopt a Central Valley - Salt Nutrient Management Plan (CV-SNMP) and revise the Basin Plan to facilitate implementation of the CV-SNMP. Combined, these actions will establish:

- A revised regulatory structure (Beneficial Uses [BU] and Water Quality Objectives [WQO]) and policies to facilitate salt and nitrate management;
- Policies and procedures to evaluate compliance with Basin Plan uses and objectives and provide the regulatory flexibility needed to make salt and nitrate management decisions at the appropriate geographic or management scale; and
- The basis for short and long-term management of salt and nitrate across the Central Valley at appropriate geographic scales.

To implement the above strategy and achieve the intended outcome, CV-SALTS is executing work in three areas. These work areas comprise the CV-SALTS Framework:

1. *Regulatory Planning* - Establishes the regulatory structure and policies within the Basin Plan to support basin-wide S/N management;
2. *CV-SNMP Master Plan Development* – Creates the framework, technical studies, planning and procedures for a basin-wide and regional approach to S/N management through the adoption of a CV-SNMP and implementation of required elements including monitoring and reporting;
3. *SNMP Implementation* – Provides basis and process for future development of regional or site-specific S/N management plans or future modification of BUs or WQOs consistent with the adopted regulatory structure and policies.

Spatially, the scale or size of the geographic area at which S/N management occurs decreases from Regulatory Planning to SNMP Implementation. For example, Regulatory Planning will consider establishing large-scale Management Areas (MAs) to describe the existing large scale differences in watershed characteristics across the Central Valley. In contrast, within the realm of SNMP Implementation S/N management activities would occur within much smaller areas, depending on the specific S/N management needs of the area.

Temporally, the time frame associated with completion of activities to support the Regulatory Planning and CV-SNMP Master Plan areas is tied to the schedule imposed by the SRWP, which targets a CV-SNMP

proposal by May 2014 and adoption of Basin Plan Amendments to support approval of a final CV-SNMP in the following year (by May 2015, see SRWP Section 6(b)(2)). The time frame associated with region or site-specific SNMP Implementation activities extends well into the future. While it is anticipated that the approved CV-SNMP will include one or more completed Regional S/N Plans (which will serve as prototypes for future Regional S/N Plans), the CV-SNMP will include mechanisms and process for the development and adoption of additional Regional S/N Plans well beyond its initial adoption.

The following sections provide additional information regarding the CV-SALTS Framework (see summary in Table 1); the CV-SALTS Program Work Plan provides additional details regarding implementation activities designed to achieve the expected outcomes describe below.

Regulatory Planning

Description - CV-SALTS will establish the overarching regulatory structure, process and policies that facilitate implementation of the CV-SNMP. Adoption of this structure, which is expected to require modifications to the Basin Plan, will focus on four key elements:

1. Revision of AGR, MUN and GWR BUs, where needed. Activities may include establishing sub-categories of these uses, better defining what constitutes an existing use, and, for AGR, determining what is the most sensitive use.
2. Revision of WQOs applicable to each of the established BUs (and subcategories of BUs), where needed. The final WQOs may be numeric or narrative. If the latter, the Basin Plan revisions will provide the basis for translating narrative WQOs into numeric values.
3. Establish policies that define the basis for assessing compliance with revised Basin Plan BUs and WQOs in surface water and groundwater (e.g., points of compliance, spatial and temporal averaging, threshold values and action triggers).
4. Identification of MAs for implementation of the regulatory structure. MAs provide a framework that acknowledges the existence of significant differences across the basin in baseline water quality (e.g., receiving waters and source waters for agriculture/municipal uses), land use, climate conditions, soil characteristics, existing infrastructure (e.g., areas with extensive agriculture vs. areas relatively undeveloped), and short and long-term S/N management needs (e.g., areas where elevated nitrate or salt are already problematic).

Expected Outcomes: Adoption of a Basin Plan Amendment (BPA) that results in a revised Basin Plan that facilitates implementation of the CV-SNMP.

Key Tasks (Note this list is only intended to describe the high level tasks):

1. Develop revised Basin Plan regulatory structure and policies:
 - a. Beneficial uses (including subcategories, where appropriate)
 - b. Water quality objectives
 - c. Implementation policies and procedures to support assessment of compliance with salt and nutrient management requirements

2. Technical tasks to support policy decisions:
 - a. Mapping waterbodies (groundwater and surface water) and establishment of MAs
 - b. Identification of production zones
 - c. Map supply intakes and effluent dischargers
 - d. Agricultural mapping (crop activities, sensitivity, limiting conditions, salt impacts)
 - e. Water quality assessment activities to support decisions on compliance determinations (spatial, temporal, points of compliance, etc.)
3. Develop BPA to modify Basin Plan to facilitate implementation of the CV-SNMP, including Staff Report with supporting attachments, CEQA Analysis, Antidegradation Analysis, and 13241 Analysis.

CV-SNMP Master Plan Development

Description - CV-SALTS will develop the CV-SNMP with a two-tiered structure: (a) Basin-wide requirements or “master plan” for the S/N management in the Central Valley; and (b) placeholder for incorporation of area-specific Regional S/N Plans. The CV-SNMP will include “proofs of concept”. These proofs will be of two types: (a) archetypes, which provide examples of how to establish waterbody-specific uses or objectives; and (b) prototypes to provide examples of local or regional SNMP implementation. CV-SNMP development includes the following key elements:

1. Development of the CV-SNMP, which establishes (a) basin-wide S/N management requirements for the Central Valley consistent with the SRWP requirements and policy decisions developed under the Regulatory Planning portion of this Framework; and (b) short and long-term strategies to address areas not currently in compliance with WQOs (e.g., elevated nitrate or salt).
2. Completion of archetypes for modifications to BUs or WQOs that demonstrate application of the regulatory structure and policies developed under the Regulatory Planning area of this Framework.
3. Completion of prototypes for establishment of Regional S/N Plans within the tiered SNMP structure or local, specific projects to resolve local salt/nitrate issues.
4. Establishment of templates or methodologies based on the completed archetypes and prototypes to provide guidance for additional future SNMP implementation.

Expected Outcomes: (a) Adoption of a CV-SNMP that complies with SRWP; (b) completion of one or more archetypes for modifying BUs or WQOs relevant to S/N management in the Basin Plan; and (c) completion of one or more Regional S/N Plans or local demonstration projects that serve as prototypes for long-term CV-SNMP implementation.

Key Tasks (Note this list is only intended to describe the high level tasks):

1. Develop CV-SNMP, consistent with minimum requirements of SRWP and the work completed under the Regulatory Planning element of this Framework, including:
 - a. Water recycling and stormwater management goals/objectives

- b. Conceptual Model, which provides basin-wide information regarding source identification, assimilative capacity, loading estimates, etc.
 - c. Monitoring plan
 - d. Antidegradation analysis
 - e. Implementation methods, including templates for modifying BUs or WQOs and developing Regional S/N Plans
 - f. Management activities, that when implemented, provide reasonable assurance of compliance with SRWP requirements
2. Complete selected BU and WQO archetypes, using the policies and procedures developed under the Regulatory Planning portion of this Framework.
 3. Complete selected Regional S/N Plan prototypes, using the *Framework for Identification of Salt/Nitrate Sources* as a basis for plan development
 4. Establish templates/methodologies to support long term CV-SNMP implementation
 5. Complete studies that support development of management activities or implementation strategies for inclusion in the CV-SNMP, e.g. SSALTS
 6. Develop regulatory documentation, e.g., staff report, CEQA compliance, to support CV-SNMP adoption by the Regional Board

CV-SNMP Implementation

Description – This portion of the Framework represents long-term implementation of the CV-SNMP. As described above, the CV-SNMP will include a Master Plan for S/N management in the Central Valley which serves as the default management approach, unless a more site-specific or regional approach has been adopted in a Regional S/N Plan. The CV-SNMP may be periodically updated to incorporate Regional S/N Plans developed in the future. These regional plans establish refined or area-specific S/N management activities within defined Study Areas. To support development of these regional plans, the CV-SNMP will include one or more Regional S/N Plans (developed as part of CV-SNMP Master Plan development) that serve as prototypes for development of future Regional Plans.

Regional S/N Plan development will be guided by the *Framework for Salt/Nitrate Source Identification Studies*. The information developed under this framework is expected to provide the basic information needed for any Regional Plan. An important consideration in the development of regional plans is the size or configuration of the area to be covered by each plan. As noted in the above-referenced document, regional Study Areas should be small enough to be effectively managed and modeled.

Development of a Regional S/N Plan would require, at a minimum, (a) consistency with adopted policies and procedures (as described under the Regulatory Planning portion of this Framework) and the CV-SNMP Master Plan and (b) completion of the following elements:

1. Delineation of the local planning area (or Study Area);

2. Data gathering and analysis to support plan development;
3. Development of implementation measures specific to the planning area; and
4. Participation in the regulatory process to incorporate a Regional S/N Plan into the CV-SNMP.

Development of a Regional S/N Plan could also include completion of studies to support recommendations for waterbody specific changes in BUs or WQOs that would facilitate implementation of the regional plan.

Expected Outcomes: Long-term implementation of the CV-SNMP that may result in (1) adoption of additional regional plans to address region-specific S/N management issues; it is anticipated that approximately 20-25 plans would ultimately be adopted; and (2) additional revisions to BUs or WQOs to facilitate CV-SNMP implementation.

Key Tasks: Tasks are variable and dependent on the regulatory planning and salt/nitrate issues applicable to a specific self delineated Study Area. Tasks could include the development of modified BUs, establishment of site-specific WQOs, refinement of S/N management objectives in the Study Area, or some combination of these activities appropriate to the area.

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Framework Area	Primary Purpose	Expected Outcome	Spatial Dimension	Temporal Dimension	Key Tasks
Regulatory Planning	Establish the regulatory policies and Basin Plan structure to facilitate CV-SNMP implementation	<ul style="list-style-type: none"> Revised BUs and WQOs, as needed Establishment of policies and procedures for evaluating compliance with S/N WQOs, considering differences across MAs Identification of MAs 	Entire Central Valley with identified MAs - MAs recognize basic differences in watershed characteristics across Central Valley	By May 2015 - BPA for adoption of changes to the Basin Plan to facilitate approval of the CV-SNMP proposal in accordance with the SRWP Section 6(b)(2)	<ul style="list-style-type: none"> Develop revised Basin Plan regulatory structure and policies (BUs, WQOs, implementation requirements) to facilitate CV-SNMP implementation Technical tasks to support policy decisions, e.g., mapping waterbodies & MAs, intakes & discharges, agricultural activities, compliance determinations. Develop BPA supporting documentation
CV-SNMP Master Plan Development	Establish the overall basin-wide approach to salt/nitrate management and the mechanisms for establishment of regional approaches to S/N management	<ul style="list-style-type: none"> Adoption of CV-SNMP that complies with SRWP and is consistent with policies developed under Regulatory Planning activities Completion of archetypes for BU/WQO modification; Completion of prototypes for CV-SNMP implementation, e.g. example Regional S/N Plan(s) Established templates for development of future Regional S/N Plans or studies to make additional revisions to BU/WQO 	Master CV-SNMP applicable to entire Central Valley with select Regional S/N Plans applicable to smaller areas incorporated	Submittal of proposed CV-SNMP by May 2014; Board adoption by May 2015 (Section 6(b)(2) of the SWRP)	<ul style="list-style-type: none"> Develop CV-SNMP Master Plan with required elements (see text) Complete BU/WQO archetypes Complete CV-SNMP implementation prototypes Establish templates for future efforts to modify uses or objectives or develop additional Regional S/N Plans Develop regulatory documentation to support Regional Board adoption of CV-SNMP
CV-SNMP Implementation	Establish Regional S/N plans within Central Valley consistent with outcomes of Regulatory Planning activities and Master CV-SNMP	<ul style="list-style-type: none"> Regional S/N Plans 	Regional S/N Plans for Study Areas delineated on a per project basis; size will vary, but maximum of 20-25 plans anticipated for the Central Valley	Long-term CV-SNMP implementation (post 2015 CV-SNMP adoption)	<ul style="list-style-type: none"> Variable – dependent on regional needs and purpose of studies, e.g., to establish a Regional S/N Plan, to develop recommended revisions to BUs or WQOs, or some combination of activities.