

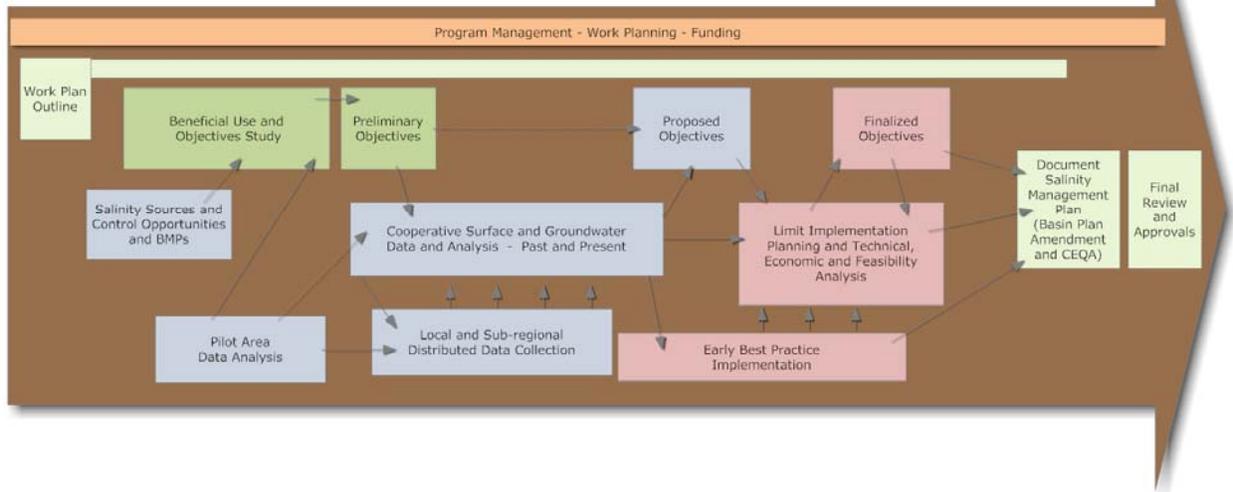
Draft Scope Tasks for CVSALTS Beneficial Uses and Objectives Study

Version 6 - 4/15/10

Where does this fit?

Discuss Scope and Procurement Method to develop

CV-SALTS Salinity and Nutrient Management Planning



CV-SALTS Salt and Nutrient Management Planning

2009-2010	2010-2012	2011-2013
Beneficial Use and Objective Study	Cooperative Data Collection and Analysis	Limit Implementation and Planning
Pilot Implementations and local information	Develop Study Plan	
Study Plan	Coordination	Develop Study Plan
Regional Approach	Prioritization	Technology Assessment
Concept Model	Data Mgt/analysis	Management Alternatives
Prioritization	Consolidation	Draft Objective Implementation
Beneficial Use Characterization	Cooperative Data Collection	Regulatory and Non-Regulatory
Phase 1 GIS & WQC	Current and historic	Regional Implementations
Phase 2	Data Mgt/analysis	Local Implementation
Priority Areas	Dynamics and modeling	Risk and Uncertainties
Assessment	Aggregation and Analysis	Adaptation options
Stakeholder Assessments	Integration/analysis	Permit Limit Concept Model
Aggregation/Evaluation	Modeling	
Water Quality Criteria	Monitoring	
Document Changes	Anti-Degradation	Maximum Benefit Analysis
	Assimilative Capacity	Systems or trading
	Objective Revision	Max Benefit Changes?
	Documentation	Document Plans
		BPA Documents
	Management Alternatives and Implementatino Alternatives	
	Salt and Nutrient Management Planning and Integration	
	BMP development and implementation	
	Matrix of Programs - Independent Dynamics	

Organization Background

The Central Valley Salinity Coalition (CVSC) was formed in 2008 to integrate and augment the efforts of the Central Valley Salinity Alternatives for Long Term Sustainability (CV-SALTS) initiative. The purpose of the organization is the governance and organization of the efforts needed to plan, develop and implement the salinity and nitrate management plan for the Central Valley. This plan will incorporate, and become implemented through, a basin plan amendments for the basins in the Central Valley.

Project Background

The overall purpose of the Beneficial Use and Objectives (BUO) Study is to review research information and current conditions and data, and integrate the results of Salt and Nitrate Source Pilot Implementation Study to determine both the appropriateness of the existing beneficial uses for water bodies on the Central Valley and their long-term attainability. The BUO Study will proceed in Phases and will complement and build on the findings of the Salt and Nitrate Source Implementation Pilot Study.

The BUO study will assemble and review existing policy, data, and information to list existing objectives and/or develop preliminary numeric objectives where none exist (or propose modifications where existing objectives may be changed). New (or modified) beneficial uses and associated objectives may also be proposed. The BUO Study (in consultation with the Salt and Nitrate Source Implementation Pilot Study.) will develop procedures for the uniform data collection of data for all areas of the Central Valley. Such data collection may occur in a distributed manner by regional or subregional entities.

Funding for this project will contain funds from the State Water Resources Control Board and some or all elements of the contracting process may be conducted by the San Joaquin River Drainage Authority. The full scope of work will evolve based on direction from the Economic and Social Cost and Technical Advisory Committees. The current initial scope of work was approved by the committees and the Executive Committee in December 2009.

Significant salinity and nitrate work has been accomplished in the region; Attachment A provides a (non-exclusive) list of references and sources of information the consultant should utilize for the BUO Study. The BUO Study findings must be compatible with the information listed in Attachment A, with exceptions identified and justified.

http://www.cvsalinity.org/index.php/documents/doc_download/122-prior-works-and-data-sources-

This scope of work focuses on Phase 1 as the RFP candidate because further work is ongoing to develop Phases 2 and 3. In addition, implementation of Phase 1 will provide information that may influence the scope of work required under subsequent phases.

The draft work plan can be found at

http://www.cvsalinity.org/index.php/documents/doc_download/53-work-plan-outline-version-9.

Future updates to all program documents are available www.cvsalinity.org. Appendix B provides a look at future phases of work but it has not been developed further and is for context only.

Phase 1 (TRANSFERRED TO WITH ADDITIONAL CHANGES to [RFP 2010-001](#))

PHASE 2: Identification of Existing Water Quality

(tasks are numbered sequentially for all phases, not all tasks are necessarily performed in order shown)

Task 4A: Identification of readily available Existing Surface Waters and Groundwater Quality Problems

The purpose of this task is to develop GIS layers of surface water bodies currently under a TMDL regulation or identified as impaired on the 2009 303(d) listed bodies for constituents of concern. Contractor will coordinate with the State Board for ongoing GIS work that may be completed. Contractor will use existing Basin Plans to map water quality enforcement actions, discharger technical reports and other sources identified and made available by the Regional Board and active regulation for electrical conductivity, total dissolved solids, all salinity ions, and nutrient species. Contractor will evaluate for inclusion drinking water quality management plans (*add reference*) funded by CALFED. Contractor will review coordination matrix of Salinity and Nitrate programs for other efforts that should be include in the mapping to enhance the conceptual model. Contractor shall coordinate with Department of Public Health on areas of salt and nitrate impairment known to the Department. Contractor will also evaluate the DWR shallow groundwater database for inclusion into the mapping.

Task 4B: Groundwater

Nitrate information should be available from the board and from the GAMA program among others. Geotracker data may also be available.

Task 5: Prioritize Salinity and Nutrient Issues

The purpose of this task is to use information developed in Tasks 1 through 4 to prioritize areas requiring salt and/or nutrient management. Contractor will identify “tiers” of priorities based on the state of regulation and potential impact to beneficial uses.

Task 6: Develop Data Collection and Validation Work Plan for Task 7 and Phase 3

Develop a work plan to detail procedures and methods to used to implement Task 7 and Phase 3. Develop and aggregate data and information for the study. The work plan shall build on the efforts of the Salt and Nitrate Source implementation Pilot Study and expand to areas needed to determine the existing and historic water quality in the priority areas. The consultant will propose priority areas and actual priority areas will be determined by the Technical Advisory and Executive Committees.

Which Data and at what

Process and Policy for acceptance

The work plan will document the methods, manner and technical veracity of the work needed to characterize existing water quality including “salt and nutrient sources and concentrators of significance” in the priority areas. Through the plan the consultant shall:

- define terms “salt and nutrient sources and concentrators of significance” for the purposes of the plan and areas
- provide the methods and manner of collection and validation of the water quality data for the pilot areas
- outline data that is currently available and the quality of the data

- identify additional data required
- identify appropriate criteria for data use that takes into account wet, dry and normal hydrologic years
- indicate how the data collection shall account for
 - the total salt load salt balance and salt accumulation for each of the areas
 - identify critical concentration discharges into water bodies
- ensure the magnitude of each source is accurate when combined into the overall salt balance
- identify how historic, current and future salt and nutrient source data will be collected or can be estimated to provide trend information

It is critical for the consultant to propose methods that provide consistency in evaluation across all areas and that meet minimum data thresholds required for establishment of new or modified beneficial uses with accepted water quality objectives. The Work Plan should identify the process and/or methods that will be used to create a linkage between the regulatory process for developing revised uses and objectives and the use, collection and analysis of data to support regulatory changes.

The constituents contributing to salinity impacts should be identified in the work plan and should be prioritized into tiers as indicated below in an evaluation process with the committee:

1. Salts as Total Dissolved Solids and/or EC, and separately, but with equal importance, Nitrates and water quality related nitrogen species
2. Other salt constituents, chloride, phosphate, sulfate, carbonate, and bi-carbonate or others of local interest as recommended by the consultant. Consultant should propose data collection methods for all constituents, methods or timing may vary as appropriate.

Other constituents may also be addressed if project scoping or information uncovered during Phase I indicates a data requirement. The plan should propose methods that are consistent with prior works indicated in References as shown in Attachment A and provide efficient collection and utilization. All collection efforts are intended to lead to the broader basin plan amendment work plan and tie to fate and transport studies in future work phases, not included in this study. The studies will proceed only upon approval of the work plan by the committees, agreement from the Regional Board that the Work Plan has the regulatory and technical elements needed to develop a basin plan amendment, and upon adequate funding.

Task 7: Identification of Existing Water Quality

Building on the pilot salt and nitrate data provided by the Salt and Nitrate Sources Pilot Implementation Study, the Data Gaps Report by CSU Fresno and other sources listed in the previous works and data sources list, shown in Attachment A, (http://www.cvsalinity.org/index.php/documents/doc_download/122-prior-works-and-data-sources-) evaluate areas where data is available and develop or aggregate where it is needed in accordance with the work plan in Task 6:

- Assemble available data on surface and groundwater supply quantity and quality current trends and historic levels.

- Identify and quantify areas where salinity levels and nutrients (specifically nitrates) are impacting beneficial uses of surface waters. The evaluation of impact will be based on the State’s 303(d) listing criteria. Where objectives have not yet been established for a beneficial use, potential objectives identified in Task 3 may be used to support this analysis.
- Assemble data on salinity and nitrate impact levels in surface and groundwater
- Assemble surface and groundwater data on salinity or nitrate sensitive uses in priority geographies
- Review and validate data assembled for summary reporting
- Create GIS layers and that connect the and summarize the data assembled

Phase 3: Establish and Implement Regulatory Process on Pilot Waterbodies

This phase needs additional development to outline both analytical and regulatory processes.

Under this phase, the Work Plan developed under Phase 2 will be implemented in coordination with the Regional Board. That Work Plan will establish the data collection requirements and outline the regulatory process, or “roadmap”, to follow for potential modification of beneficial uses designations for surface and groundwater bodies. While the goal of the overall phased effort is updated beneficial uses and objectives throughout the Central Valley, it is recognized that a pilot approach should be implemented first to provide a proof of concept before efforts to implement regulatory change across the region are instigated. Thus, the outcome of Phase 2 is waterbody-specific findings for pilot waterbodies that provide recommendations for basin plan amendments: Key tasks under Phase 3 include:

1. Work with the Regional Board through the Technical Committee or a subcommittee to define: reasons for modification; how the beneficial uses might be modified; ; information and data necessary to support regulatory acceptance of such a modification (taking into consideration of Clean Water Act and Porter-Cologne regulations regarding existing and potential uses), and mechanisms for making regulatory changes. The outcome of this task is to develop a framework and approach that has been agreed upon between stakeholders and regulators for addressing areas where salinity or nutrients are affecting water quality and/or beneficial uses designations need modification to better reflect actual uses.
2. In coordination with the Technical Committee identify priority areas and water bodies where water quality objectives are not being met and modification of the beneficial use designation may be appropriate. Selection of these sites should consider data availability, i.e., they should be sites with considerable existing data to minimize data collection needs during this phase..
3. Implement approach for each of the pilot water bodies by using the agreed upon methods for modifying uses and objectives. Existing data will be used to the maximum extent practicable. Where new data collection is required to meet minimum data thresholds, additional scope and budget will be developed separately. These test cases provide the opportunity (1) to implement the methods previously defined for developing revised uses and objectives, and (2) resolve issues/problems that arise through the process. During this step, the technical team will work

closely with the Task Force to resolve these issues. Prepare water body specific reports for each pilot site that provide recommendations for Basin Plan amendments for revised uses and objectives. These reports will include all necessary data to support an amendment as agreed to previously by the Regional Board. Identify with regulatory representatives the information and data necessary for demonstrating the use categorization and gaining regulatory approval for proposed modifications.

Phase 4: Basin-Wide Implementation

Following completion of Phase 3, Phases 2 and 3 may be implemented for additional waterbodies in the region. The selection of additional waterbodies may be based on priorities previously identified during Phase 1.

(This task is beyond the BUO Scope, the work plan outline provides additional scope overview)

Phase 5: Implement Basin Plan Amendment Process for Pilot Waterbodies

The focus of Phase 3 is the adoption of Basin Plan amendment for work completed on pilot waterbodies under Phase 2. Under this phase all regulatory documents, including Use Attainability Analyses, CEQA Scoping, CEQA analyses, e.g., Supplemental Environmental Documentation, Technical Staff Report, 13241 analyses, will be completed. While the Regional Board typically prepares these documents, the coalition will provide support/resources to expedite the Basin Plan amendment process at the level needed or requested by the Regional Board.

* Description of GIS requirements. GIS Layers/coverages to be developed with spatial, numeric and appropriately populated metadata to indicate sources and any assumptions in an ESRI shapefile format or compatible. Base mapping coverages provided must be royalty free or public domain. (This section shall be further developed based on State/Regional Board standards with review and enhancement by the stakeholders.)