

# Section 1

## Project Overview

### 1.1 Background

The CV-SALTS Executive Committee is developing policies to support the preparation of a Salt and Nutrient Management Plan (SNMP) for the Central Valley. This effort includes evaluating appropriate designation and level of protection for water bodies currently designated with the MUN beneficial use, taking into account the requirements of the Sources of Drinking Water Policy (88-63). In particular, CV-SALTS members were encouraged to provide submissions to identify waters that clearly meet the exemption criteria set forth in the Sources of Drinking Water Policy. Addressing the appropriateness of the MUN designation on one or more of these waterbodies through the completion of technical studies and basin planning documentation provides an opportunity to establish reference archetypes for making subsequent MUN determinations on other water bodies in the future.

As a member of CV-SALTS, the Tulare Lake Drainage District (TLDD) provided a study proposal for the removal of MUN from a portion of the historic Tulare Lake Bed in March 2011. Subsequently, Central Valley Water Board (CVWB) staff met with the TLDD in April 2011 to explore the proposal further and identify minimum data requirement that staff would need to better evaluate the proposal. Mr. Michael Nordstrom, representing the TLDD, summarized information available to support their initial study proposal, including:

- A study done for the 1972 Tulare Lake Basin Plan shows high saline groundwater in Tulare Lake Bed;
- USGS 1982-1989 data that delineate various high saline zones;
- TLDD 2009 data confirms the high salinity levels in the first waters encountered in the Tulare Lake Bed;
- Information that groundwater generally flows toward the lake bottom; and
- Well information including (1) location data showing the lack of wells on the lake bottom, but several around the upslope periphery; and (2) that some wells on the periphery may act as conduits by penetrating both the upper 'poor' or "perched" groundwater layer and the deeper 'good' quality groundwater near the perimeter of the lake bottom.

At a subsequent meeting in September 2011 additional discussion was held among CVWB staff, TLDD and others regarding the potential study area for the MUN de-designation and potential CVWB staff concerns. Staff noted that there are towns, farmsteads, and facilities near or abutting the lake bottom that use groundwater from lower aquifers for municipal or domestic supply. In addition, dairy facilities are present near the lake bottom to the southeast and north that currently use groundwater for domestic supply. The outcome of this meeting was a November 2011 CVWB staff letter to the TLDD that recommended the next steps for this project.

Specifically, if TLDD chooses to move forward with a potential Basin Plan Amendment (BPA) to de-designate MUN from the Tulare Lake Bed they should work with the CV-SALTS Technical Advisory Committee (TAC) to develop a Workplan. This Workplan would need to include at a minimum the following technical tasks:

- (1) Delineation of the specific area (horizontal and vertical) to be considered for de-designation of the MUN beneficial use;
- (2) Summary and analysis of data within the proposed de-designation area, including identifying the portions of the aquifer that are above 3,000 parts per million (ppm) total dissolved solids (TDS);
- (3) Study of the proposed de-designation area equivalent to a use attainability analysis for surface water, where any use of water in the area for municipal and domestic water supply would be identified, including:
  - (a) Map showing the specific locations of all known wells within the project area (as defined below) and highlighting those that serve as domestic water supply sources
  - (b) Water quality data, where available, from wells identified in (3)(a).
- (4) Development of a scope of work to supplement existing data (if needed) to provide technical justification for the de-designation of MUN from the area delineated in (1) above.

## 1.2 Workplan Purpose

The CV-SALTS Executive Committee agrees that pursuing de-designation of MUN from a portion of the Tulare Lake Bed can serve as an appropriate archetype or template for studies in which the purpose is to evaluate the appropriateness of the MUN beneficial use on a designated groundwater body. Moreover, the outcome of this effort advances the purpose and requirements associated with the development of the SNMP for the Central Valley region in that it may provide a template that can be utilized to identify areas that may serve as salt sinks until alternate treatment, disposal and/or export alternatives are developed.

Given the above, the purpose of this Workplan is to complete the above technical tasks within the framework of the requirements associated with a BPA, the mechanism by which the MUN use may be de-designated from a water body. To fulfill this purpose, this Workplan must address the following objectives:

- (1) Define the regulated area targeted for MUN de-designation (“Target Area”) and the area around the periphery of the Target Area that is included in the technical analyses. Combined, the Target Area and peripheral area around the Target Area comprise the “Project Area”;
- (2) Complete the technical tasks within the Target or Project Areas, as described above in Section 1.1;
- (3) Identify if any additional data collection is necessary to support a BPA; and, if so, complete the required data collection;
- (4) Prepare the regulatory documentation required to support a BPA to remove the MUN beneficial use in the targeted area in coordination with the CV-SALTS Processes;
- (5) Coordinate with the ongoing CV-SALTS process so that the findings and procedures from this effort are closely linked with the larger purposes of CV-SALTS; and
- (6) Complete stakeholder participation and other regulatory activities to support and complete a BPA process.

## Section 2

# Workplan Tasks and Schedule

### 2.1 Workplan Tasks

This Workplan addresses the objectives described in Section 1.2 through the completion of seven key tasks. The following text describes the work to be completed under each of these Tasks. Section 2.2 describes the deliverables for each task and Section 2.3 provides a general schedule to complete the work. Note that (a) in order to provide opportunities to obtain additional data from stakeholders for the evaluations needed to support a BPA, the CEQA scoping session (under Task 6.3) is anticipated to occur as soon as the project problem statement and proposed regulatory alternatives (Tasks 6.1 and 6.2, respectively) and the map clearly delineating the project area (Task 2.1) are completed; and (b) the level of effort needed for Tasks 4 and 5 will depend on the results of Task 3.

- *Task 1 – Coordination Activities* – This project will serve as a CV-SALTS archetype or template for future studies, documentation and processes associated with an evaluation of the appropriateness of an MUN beneficial use designation in a groundwater body. Accordingly, this project will implement the following coordination activities:
  - *Task 1.1 – CV-SALTS Executive Committee Coordination* – Provide periodic updates on project progress to the CV-SALTS Executive Committee to ensure consistency of project deliverables with CV-SALTS policies;
  - *Task 1.2 – CV-SALTS TAC Review* - Provide opportunity for CV-SALTS TAC to review project deliverables to ensure consistency with other CV-SALTS technical work activities.
  - *Task 1.3 – CV-SALTS SNMP Support* – Based on approved project deliverables, prepare appropriate templates or other documentation, as needed, to support development of the Central Valley SNMP.
  - *Task 1.4 – Technical/Regulatory Project Coordination* – Where project deliverables are developed by different entities, participate in coordination activities to ensure the collaborative development of technical and regulatory deliverables.
- *Task 2 - Project Delineation* – Establish the geographical boundaries for the project using GIS mapping tools. Two boundaries will be delineated and reviewed for approval by the TAC:
  - *Task 2.1 – Regulated Area Targeted for MUN De-Designation (“Target Area”)* – Delineate the discrete area within which the regulatory action is proposed, e.g., the horizontal and vertical target area where MUN is proposed for de-designation.

- *Task 2.2 – Area of Technical Analysis (“Project Area”)* – Delineate the peripheral area around the Target Area that is included in the technical analysis. The horizontal and vertical extent of the Project Area depends upon the area of study needed to demonstrate that implementation of the proposed regulatory action will not result in a loss of human health protection for areas outside the Target Area where the regulatory action would not apply. It is anticipated that the peripheral area delineated around the Target Area will be relatively small.
- *Task 3 – Data Evaluation* – Complete data compilation and evaluation activities within the Project Area to (a) verify that the data necessary to support a regulatory decision are available, or (b) identify data gaps that must be filled to support a regulatory decision. Two subtasks will be completed:
  - *Task 3.1 – Data Compilation* - Identify, gather, and compile data and studies relevant to the project area and the purposes of the project. Relevant data and studies include, but may not be limited to, databases and reports that provide the following types of information (both spatial and temporal aspects): hydrogeologic characteristics (including direction of flow and impacts from current and anticipated pumping), well locations and sources of water, groundwater well characteristics, depth to groundwater, and water quality concentration data (in terms of TDS at various groundwater depths), and past, present and anticipated future use of well water.
  - *Task 3.2 – Data Evaluation* – Evaluate existing data compiled under Task 3.1 to identify any data gaps that must be addressed to fulfill the Workplan objectives. Submit the results of this analysis to the TAC to confirm identified data gaps. Where agreement exists, prepare a supplemental Workplan (scope of work, budget and schedule) to obtain the necessary data; obtain approval of the Supplemental Workplan (Note: subsequent discussions of deliverables and schedules assume that no additional data gathering that may be time intensive will be necessary).
- *Task 4 - Data Gathering Activities (if any)* – Based on the findings of Task 3.2, implement the approved Supplemental Workplan. As needed, coordinate implementation of this work with other tasks within this Workplan (If Task 4 requires implementation, the schedule for subsequent tasks may be modified).
- *Task 5 – Technical Analyses* – Task 5 focuses on the development of the technical information required to support a BPA to de-designate MUN from the Target Area. The scope of work for this task may be modified based on the outcome of Task 3.2 and Task 4. Any need for a modification of the following tasks will be coordinated with the TAC.
  - *Task 5.1 - Project Area Characterization* – Characterize the geology, hydrology and water quality of the Project Area through completion of the following tasks (Note: the scope of work for these tasks may be revised based on the outcome of Tasks 3 and 4):
    - *Task 5.1.1 - Hydrogeologic Analyses* – Fully characterize the hydrogeology of the Project Area. The purpose of this activity is to provide technical information that (a) describes the hydrogeologic characteristics that define the Project Area vertically and horizontally; and (b) describes the direction of groundwater movement such that it can be demonstrated that aquifers in the Target Area do not serve as source waters for municipal and domestic supplies in the area nearby or immediately adjacent to the Target Area.
    - *Task 5.1.2 - Water Quality Analyses for Total Dissolved Solids* – Describe the water quality characteristics within the Project Area as follows: (a) Characterize existing TDS concentrations vertically and horizontally within the Project Area; (b) delineate and illustrate TDS concentrations (e.g., maps showing TDS concentration contours), in particular area that exceeds 3,000 ppm; (c) characterize TDS concentration trends under existing conditions; and

- (d) evaluate the water quality data within the context of the Sources of Drinking Water Policy exception criteria, in particular, exception 1(a).
- *Task 5.2 - Municipal and Domestic Water Supply Analyses* - Characterize the past, present and probable future use of waters within the Target Area as a municipal and domestic water supply.
  - *Task 5.2.1 - Present Use* – Characterize presently utilized domestic water supply wells in the Project Area through completion of the following activities: (a) map the locations of all known existing domestic water supply wells; (b) to the extent data are available, create tabular summaries of the characteristics of each mapped domestic water supply well, e.g., geographical coordinates, construction information, depth, operator/owner, end users, and available water quality data; and (c) demonstrate that aquifers in the Target Area are not a source of water for domestic water supply wells in the Project Area.
  - *Task 5.2.2 – Past Use* – Complete an analysis of the historical use of groundwater in the Target Area as a municipal and domestic water supply source.
  - *Task 5.2.3 - Probable Future Use* – Develop documentation to demonstrate that it is not probable that the groundwater in the Target Area could become a municipal and domestic water supply use in the near future.
- *Task 6 – Basin Plan Amendment Preparation* – Task 6 uses the information developed under Tasks 2 through 5 to prepare the regulatory documentation required to support a BPA. The proposed schedule (Figure 2-1) shows that BPA preparation tasks are completed after completion of Task 5. However, the start and end dates of several of the BPA tasks [in particular, Tasks 6.1, 6.2 and 6.3(a)] may vary to coordinate better with activities under Tasks 3, 4 and 5.
  - *Task 6.1 - Problem Statement* – Draft the regulatory and geographical framework associated with the proposed BPA to de-designate MUN from the Target Area. For the proposed BPA revision, the Problem Statement should include: (a) purpose and need; (b) regulatory basis; (c) compliance with state and federal laws, regulations and policies; (c) description of the proposed amendments; and (d) geographical description of the Target Area within the context of the Basin Plan. This task occurs in two parts; (a) preliminary Problem Statement is prepared for use during the CEQA Scoping Meeting (see Task 6.3); and (b) a revised Problem Statement is developed for inclusion in the BPA Staff Report based on the outcome of the CEQA Scoping Meeting.
  - *Task 6.2 – Proposed Regulatory Alternative* – Develop the proposed regulatory alternatives and preferred alternative based on the technical information developed under Tasks 3, 4 and 5. This information should include: (a) summary of the findings of technical studies; (b) alternatives considered under the BPA process; (c) recommended regulatory alternative based on the alternatives analysis; and (d) consistency of the recommended regulatory alternative with state and federal laws, regulations and policies. This task occurs in two parts; (a) preliminary Regulatory Alternative is prepared for use during the CEQA Scoping Meeting (see Task 6.3); and (b) a revised Regulatory Alternative is developed for inclusion in the BPA Staff Report based on the outcome of the CEQA Scoping Meeting.
  - *Task 6.3 – California Environmental Quality Act (CEQA)* – Complete CEQA requirements applicable to a BPA process: (a) conduct CEQA Scoping Meeting early in the project; and (b) prepare all necessary CEQA documentation, including preparation of a Substitute Environmental Document (SED) that includes an Environmental Checklist and Analysis that serves as the basis for a systematic evaluation of the potential for the BPA to result in a significant impact relative to a variety of environmental factors.

- *Task 6.4 - Economic Analysis (13241 Factors)* –To the extent necessary to support the BPA, prepare documentation that provides an evaluation of Water Code Section 13241 factors.
- *Task 6.5 - Staff Report Preparation* –Prepare the formal Staff Report to support the BPA process. This task will combine the outcomes of Tasks 6.1 through 6.4 into a single document with complete references or attachments, as needed. Preliminary draft, final draft and final Staff Report documents will be prepared.
- *Task 7 – Basin Plan Amendment Process* - Task 7 includes any activities required to support the BPA process coordinated with the CV-SALTS processes.
  - *Task 7.1 - Stakeholder Participation* – Complete stakeholder participation activities including public notifications, workshops, or meetings required to keep stakeholders informed of the proposed BPA and provide opportunity for comment.
  - *Task 7.2 -- Peer Review Process* – For the regulatory proposal, complete any required peer review activities. As needed, prepare responses to peer review comments and make revisions to the regulatory proposal.
  - *Task 7.3 - Administrative Record* – Prepare the administrative record to support the BPA process.
  - *Task 7.4 – Progress Reports* – Prepare documents or presentation materials, as needed, to support periodic reports on the progress of this BPA to the CVWB.
  - *Task 7.5 – Regional Board Approvals* – Provide support to Regional Board staff during the CVWB BPA adoption process.

## 2.2 Workplan Deliverables and Schedule

**Table 2-1** summarizes the primary task deliverables and review requirements associated with the implementation of the tasks in this Workplan. **Figure 2-1** provides the schedule for completion of Workplan tasks. The schedule assumes the following:

- No additional technical data need to be gathered to fulfill the objectives of this project. If additional data collection needs are identified, the schedule will be revised as needed based on the Supplemental Workplan (see Tasks 3 and 4).
- Per the CV-SALTS Workplan, Task 6 (BPA Preparation) and Task 7 (BPA Process) are expected to occur separately from the BPA(s) planned for the overall CV-SALTS process, e.g., a BPA to adopt the SNMP. If it is determined that the adoption of the BPA anticipated under this Workplan should occur as part of the adoption of BPAs for other CV-SALTS activities, then the scope of work, deliverables and schedule for Tasks 6 and 7 will be modified as needed.

Table 2-1: Workplan Tasks and Deliverables

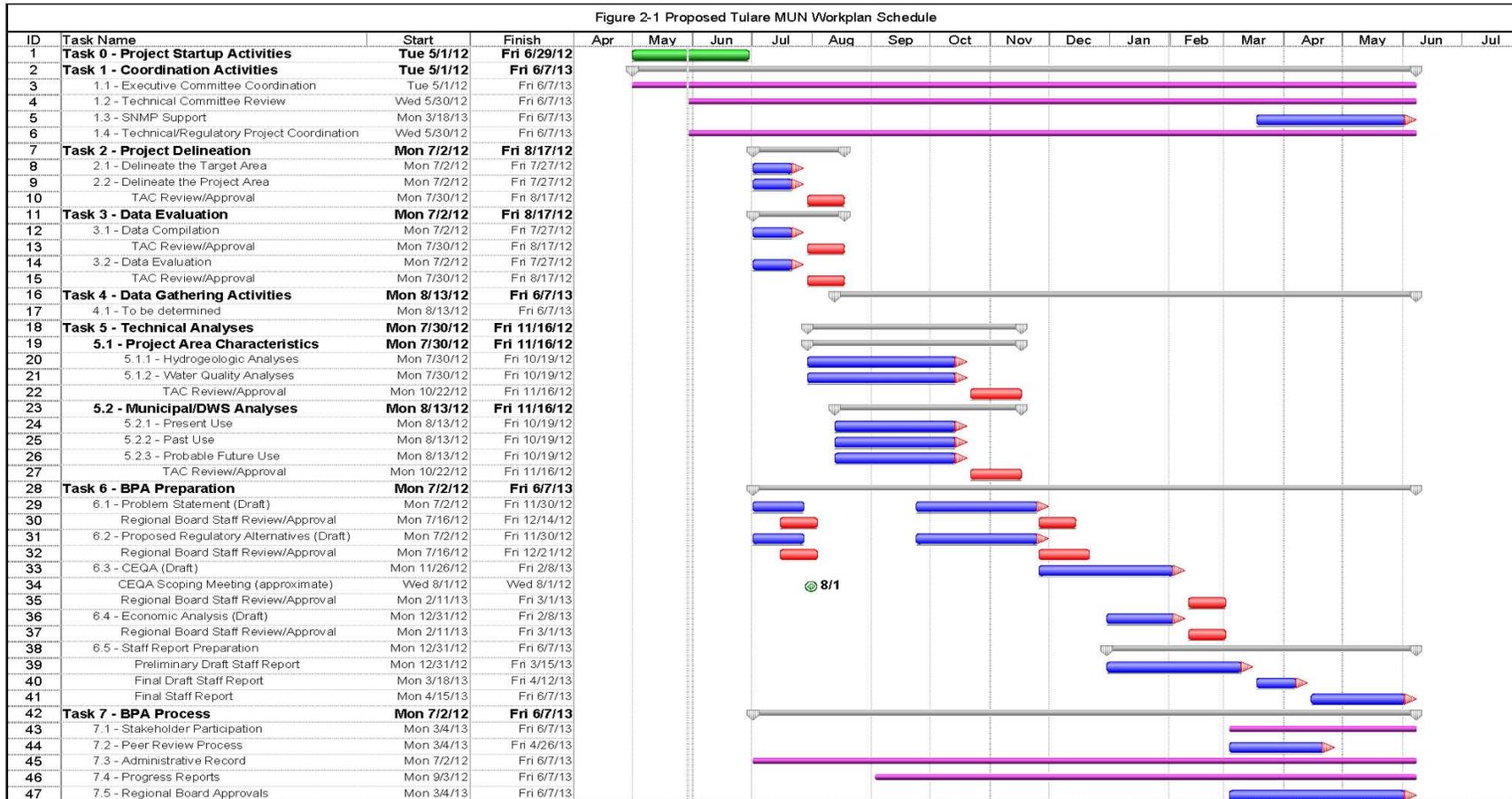
Tasks	Subtasks	Primary Deliverable(s)	Primary Review Requirements
<b>Task 1 – Coordination Activities</b>	1.1 – CV-SALTS Executive Committee Coordination	Briefings, handouts, as requested	Not Applicable
	1.2 – CV-SALTS Technical Committee Review	Briefings, handouts, as requested	Not Applicable
	1.3 – CV-SALTS SNMP Support	Templates, procedures for comparable studies for inclusion in the SNMP	Not Applicable
	1.4 – Technical/Regulatory Coordination	Coordination meetings and teleconferences, as needed, to coordinate technical and regulatory project elements of this Workplan	Not Applicable
<b>Task 2 – Project Delineation</b>	2.1 – Delineate the Target Area	GIS-based map that identifies the specific geographic area to which MUN de-designation would apply	TAC review and approval of Target and Project Area maps
	2.2 – Delineate the Project Area	GIS-based map that identifies the Target Area within the overall Project Area required for completion of technical analyses	
<b>Task 3 – Data Evaluation</b>	3.1 – Data Compilation	Data Compilation Technical memorandum (TM) that summarizes the data identified, gathered and compiled for the project. This TM will include the metadata associated with each data source and how the data will be used to support objectives of the Workplan	TAC review and approval of Data Compilation TM
	3.2 - Data Evaluation	This Task includes the following deliverables: <ul style="list-style-type: none"> <li>TM that identifies the data gaps that must be addressed to accomplish Workplan objectives, <i>or</i>, if no data gaps are identified, a TM will be prepared that provides the basis for the finding that no data gaps exist.</li> <li>Supplemental Workplan, as needed</li> </ul>	<ul style="list-style-type: none"> <li>TAC review and approval of Data Gaps TM</li> <li>If needed, TAC review and approval of Supplemental Workplan</li> <li>TAC review and approval of remaining workplan elements with input from Regional Board Basin Planning Staff</li> </ul>
<b>Task 4 – Data Gathering Activities</b>	To be determined	To be determined	To be determined
<b>Task 5 – Technical Analyses</b>	<b>5.1 – Project Area Characterization</b>	(Note: Revision of the Task 5 scope of work may occur based on the outcome of Task 3.2 and Task 4. TAC review and approval of the Task 5 scope is required prior to initiation)	
	5.1.1 – Hydrogeologic Analyses	Report with appropriate maps, figures, or tables that summarize the findings of the Project Area hydrogeologic analyses	TAC review and approval of the Project Area Characterization Report
	5.1.2 – Water Quality Analyses	Report with appropriate maps, figures or tables that summarize the findings of the Project Area water quality analyses	

**Table 2-1: Workplan Tasks and Deliverables**

Tasks	Subtasks	Primary Deliverable(s)	Primary Review Requirements
<b>Task 5 – Technical Analyses</b>	5.2 – Municipal/Domestic Water Supply Analyses		
	5.2.1 – Present Use	Single report that documents the past, present and probable future use of the Target Area with regards to MUN	TAC review and approval of MUN use report
	5.2.2 – Past Use		
	5.2.3 – Probable Future Use		
<b>Task 6 – Basin Plan Amendment Preparation</b>	6.1 - Problem Statement	<ul style="list-style-type: none"> <li>Preliminary Problem Statement for use in CEQA Scoping Meeting</li> <li>Revised Problem Statement for inclusion as a section in the BPA Staff Report that addresses the purpose and need and regulatory basis of the proposed BPA and describes the proposed content and applicability of the BPA</li> </ul>	Regional Board staff review and comment on combined submittal <sup>1</sup>
	6.2 – Proposed Regulatory Alternative	<ul style="list-style-type: none"> <li>Preliminary proposed Regulatory Alternative statement for use in CEQA Scoping Meeting</li> <li>Revised proposed Regulatory Alternative for inclusion as a section of the BPA Staff Report</li> </ul>	
	6.3 – California Environmental Quality Act	<ul style="list-style-type: none"> <li>CEQA Scoping Meeting</li> <li>Draft SED with Environmental Checklist Analysis</li> </ul>	Regional Board staff review and comment on combined submittal <sup>1</sup>
	6.4 – Economic Analysis (13241 Factors)	Draft Economic Evaluation consistent with Section 13241	
	6.5 – Staff Report Preparation	Draft, final draft and final Staff Report. Draft Staff Report incorporates comments received on Tasks 6.1 through 6.4	Regional Board staff review and comment on at least two drafts <sup>1</sup>
<b>Task 7 – Basin Plan Amendment Process</b>	7.1 – Stakeholder Participation	Workshops or stakeholder meetings (number to be decided)	Regional Board staff review and comment on deliverables <sup>1</sup>
	7.2 – Peer Review Process	Request to Peer Reviewers; Response to comments from peer reviewers	
	7.3 – Administrative Record	Ongoing record-keeping/data upload to ensure administrative record is complete	
	7.4 – Progress Reports	Periodic presentations/reports to Regional Board on development of BPA	
	7.5 – Regional Board Approvals	As needed support to facilitate the Regional Board approval process	

<sup>1</sup> Assumes 3<sup>rd</sup> party preparation of BPA documents and presentation materials

Figure 2-1 Proposed Tulare MUN Workplan Schedule



**Note:** Schedule and deliverables for Tasks 6 and 7 are based on the assumption that the outcome from this Workplan will be a separate BPA (see text in Section 2.2).

Project: Tulare MUN Archetype Date: Version 3 - May 29, 2012	Startup Activities	Review/Approval Task	Meetings (Estimated Dates)
	Task with Deliverable	Periodic Activity	Project Summary



## Section 3

# Workplan Execution

### 3.1 Roles and Responsibilities

This Workplan will address the objectives described above through the completion of seven key tasks. Table 3-1 summarizes the key entity responsible for completion of each Task (as known at this time). All project participants will support Task 1.

**Table 3-1. Primary Responsibility for Task Execution**

Tasks	Subtasks	Primary Responsibility for Execution
<b>Task 1 – Coordination Activities</b>	1.1 – CV-SALTS Executive Committee Coordination	All entities responsible for any key task will support or participate in coordination activities, as requested
	1.2 – CV-SALTS Technical Committee Review	
	1.3 – CV-SALTS SNMP Support	
	1.4 – Technical/Regulatory Coordination	
<b>Task 2 – Project Delineation</b>	2.1 – Delineate the Target Area	Michael Nordstrom has recommended that this work be completed by John Minney and/or Ken Schmidt
	2.2 – Delineate the Project Area	
<b>Task 3 – Data Evaluation</b>	3.1 – Data Compilation	Michael Nordstrom has recommended that this work be completed by John Minney and/or Ken Schmidt
	3.2 - Data Evaluation	Work to be completed in collaboration with Michael Nordstrom and entities responsible for Tasks 6 and 7
<b>Task 4 – Data Gathering Activities</b>	To be determined	To be determined
<b>Task 5 – Technical Analyses</b>	5.1 – Project Area Characterization	Michael Nordstrom has recommended that this work be completed by John Minney and/or Ken Schmidt
	5.2 – Municipal and Domestic Water Supply Analyses	Michael Nordstrom has recommended that this work be completed by John Minney and/or Ken Schmidt
<b>Task 6 – Basin Plan Amendment Preparation</b>	6.1 - Problem Statement	To be determined
	6.2 – Proposed Regulatory Action	To be determined
	6.3 – California Environmental Quality Act	To be determined
	6.4 – Economic Analysis	To be determined
	6.5 – Staff Report Preparation	To be determined
<b>Task 7 – Basin Plan Amendment Process</b>	7.1 – Stakeholder Participation	To be determined
	7.2 – Peer Review Process	To be determined
	7.3 – Administrative Record	To be determined
	7.4 – Progress Reports	To be determined
	7.5 – Regional Board Approvals	To be determined

To be developed further

## **Section 4**

# **Workplan Budget**

### **4.1 Task Budgets**

To be developed

