

FINAL Annotated Outline for the Preliminary Draft Central Valley SNMP¹

	Section ²	Estimated Number of Pages	Purpose	Recycled Water Policy Requirements ³	Primary Sources of Information	Potential Data Gaps ⁴
	Executive Summary	5				
Introduction and Background	1. Introduction and Background	5	<p>This section will identify the purpose and need for the SNMP, the objectives and the organization of the document, and the relationship between the Central Valley-wide SNMP and the Regional/Local SNMPS that may be developed.</p> <p>Clarify that the CV-SNMP addresses the Recycled Water Policy, but that it addresses other central valley-related issues including legacy salt and nitrate accumulation.</p>	<p>This section will include a general discussion of the Recycled Water Policy and the specific SNMP requirements contained in section 6 of the Policy.</p>	<p>The primary sources of information for this section may include:</p> <ul style="list-style-type: none"> • Methodologies developed in the ICM Report and refined in Phase II Task 4 • The regulatory documents listed in section 1.c. • CEQA Scoping meeting documents for the SNMP • Other SNMPS that have been developed in California, including, but not limited to the Santa Ana Region Salt Management Plan 	<p>None identified at this time.</p>
	a. Purpose					
	b. Plan Objectives and Organization					
	c. Regulatory Framework					
	<ul style="list-style-type: none"> i. Recycled Water Policy ii. Regional Water Quality Control Plan iii. Resolution 68-16 					
	d. SNMP Development and Implementation					
<ul style="list-style-type: none"> i. Process for the SNMP Development and Approach for Implementation (Appendix A) ii. Process for Regional/Local SNMP Development (Appendix B) and Approach for Implementation 						
	e. SNMP Review and Revision					
Central Valley and Basin Characterization	2. Characterization of the Central Valley¹ (Appendix C)	5	<p>This section will provide an overview of the physical setting of Region 5, including hydrogeologic and hydrologic characteristics of the hydrologic regions and summary information, as available.</p> <p>Clarify that this addresses the valley floor as well as all of Region 5 jurisdiction – address this throughout all sections as needed.</p> <p>The information in this section is not intended to duplicate other published documents or to provide detailed site-specific information.</p>	<p>This section will support the Recycled Water Policy requirements by providing foundational information on a basin-wide basis relating to the management of salt and nitrate at regional and subregional scales for long-term sustainable use of water in California.</p>	<p>This will not be an exhaustive effort, and will refer to previously published works. The primary sources of information would largely cite to:</p> <ul style="list-style-type: none"> • Recycled Water General Permit • ICM Report • CV-SALTS GIS reports and database • DWR’s Bulletin 118 (if available) • DWR’s Water Plan Update (2013) • USGS CVHM Report 	<p>Basins without existing characterization (Bulletin 118) will need to be investigated during the development of a local SNMP.</p>
	a. Overview					
	b. Beneficial Uses and Water Quality Objectives					
	c. Physical Description					
	<ul style="list-style-type: none"> i. Climate ii. Land Cover and Land Uses iii. Water Sources and Demands 					
	<ul style="list-style-type: none"> Surface Water, Delivered Water, Imported Water, Recycled Water 					
	d. Watershed Boundaries					
	e. Basin and Sub-basin Boundaries					
	f. Geology					
	g. Hydrogeology/Hydrology					

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	h. Aquifers (Water Level Trends, Flow Directions, Changes in Storage, Groundwater Production)					
	i. Recharge Areas					
	3. Characterization of the Watersheds/ Groundwater Basin(s)		<p>This section will provide a general characterization of the groundwater basins and surface water systems within the Region 5 boundary.</p> <p>The groundwater portion of this characterization will utilize the delineation of the upper portion of the aquifer in the Central Valley Floor that represents a 20-year travel time as well as the lower aquifer where most groundwater production may occur (ICM results).</p> <p>For groundwater and surface water characterization - information from the 303(d) list will be included or referenced.</p>	<p>This section will include a discussion for the following requirement:</p> <ul style="list-style-type: none"> 6.b.(3)(d) – Salt and nutrient source identification, basin/sub-basin assimilative capacity and loading estimates, together with fate and transport of salts and nutrients. 	<p>The primary sources of information for this section may include:</p> <ul style="list-style-type: none"> ICM Report Methodologies developed in the ICM report and refined in Phase II Task 4 <p>This will not include any additional outreach except as related to Task 4.</p>	<p>The groundwater quality database is limited in information related to well construction information, which constrains the ability to associate most of the groundwater quality values with a particular portion of the aquifer. The exception to this is in the Alta Irrigation District area of Kings Subbasin, where some linkage between well construction and water quality measurements will be performed in Phase II Task 4.</p> <p>To date, there is no integrated, refined, higher resolution characterization of salt and nitrate conditions in groundwater in Region 5. The results from the Phase I IAZ analysis will be provided, but are likely too coarse for management purposes.</p>
	a. Groundwater Quality					
	b. Surface Water Quality					
	c. Delivered Water Quality					
	d. Imported Water Quality					
	e. Recycled Water Quality	10				

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Basin Evaluation	4. Basin Evaluation – Water Balance	10	This section will broadly describe water budget components at the Central Valley and regional hydrologic unit scales, along with summaries of water budget components at the IAZ scale. The basis for computing assimilative capacity at regional/subregional scales will be described.	This section will include a discussion for the following requirement: <ul style="list-style-type: none"> 6.b.(3)(d) – Salt and nutrient source identification, basin/sub-basin assimilative capacity and loading estimates, together with fate and transport of salts and nutrients. 	The primary sources of information for this section may include: <ul style="list-style-type: none"> ICM Report 	Outside of the Central Valley Floor, these balance calculations have not been performed, and will need to be performed for the local SNMP.	
							a. Conceptual Model
							b. Basin Inflow/Outflow
							c. Water Movement within the Basin
							d. Infiltration, Evaporation, Evapotranspiration
							e. Recharge Mechanisms
	f. Baseline Condition						
	5. Basin Evaluation – Salt and Nitrate Balance	20	This section will describe the integrated relationship between surface and groundwater resources in Region 5. It will provide a broad description of salt and nitrate sources and loading estimates in the Valley Floor as developed by the Phase I work. This section will describe estimated assimilative capacities on the IAZ scale and also provide guidance for future local SNMPs applications.	This section will include a discussion for the following requirement: <ul style="list-style-type: none"> 6.b.(3)(d) – Salt and nutrient source identification, basin/sub-basin assimilative capacity and loading estimates, together with fate and transport of salts and nutrients. 	The primary sources of information for this section may include: <ul style="list-style-type: none"> ICM Report Methodologies developed in the ICM Report and refined in Phase II Task 4 	No loading estimates exist for outside of the Central Valley Floor.	
							a. Conceptual Model
							b. Salt and Nitrate Source Identification and Loading Estimates
							c. Import/Export
							d. Assimilative Capacity (Existing and Projected)
							e. Fate and Transport
	f. Baseline Condition						
	6. Basin Evaluation - Projected Water Quality	10	This section will summarize groundwater and surface water quality trends and projected water quality (qualitatively), especially for the central Valley Floor. In basins and subbasins outside the Valley Floor, water quality trends have not been analyzed.	This section will include a discussion for the following requirement: <ul style="list-style-type: none"> 6.b.(3)(d) – Salt and nutrient source identification, basin/sub-basin assimilative capacity and loading estimates, together with fate and transport of salts and nutrients. 	The primary sources of information for this section may include: <ul style="list-style-type: none"> ICM Report Methodologies developed in Phase II Task 4 	No future projected water quality outside of the Central Valley Floor.	
							a. Groundwater and Surface Water Quality Trends
							b. Projected Groundwater and Surface Water Quality

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Management and Implementation	7.	Salt and Nitrate Management Goals	5	This section will present the goals and objectives for using recycled water and stormwater within the Region 5 jurisdiction. Information from the Statewide General Permit for Recycled Water that was just adopted will be referenced. This section will also define additional goals, as needed, on a regional/local basis.	This section will include a discussion for the following requirement: <ul style="list-style-type: none"> 6.b.(3)(c) – Water recycling and stormwater recharge/use goals and objectives. 	The primary sources of information for this section may include: <ul style="list-style-type: none"> CEQA Scoping meeting documents for the SNMP Stormwater Permits 	None identified at this time.
		a. Water Recycling					
		b. Stormwater Recharge and Use					
		c. Other goals					
	8.	Salt and Nitrate Management Strategies and Implementation Measures	10	This section will present potential salt and nitrate management strategies aligned with the goals and objectives for long-term sustainable use of water in California. This section will address the approach that may be used for areas that have assimilative capacity versus those that do not. This section will also recognize the need to define the specific implementation measures and best management practices (BMPs) on a regional/local basis and the need to consider integrated approaches.	This section will include a discussion for the following requirement: <ul style="list-style-type: none"> 6.b.(3)(e) – Implementation measures to manage salt and nutrient loading in the basin on a sustainable basis. 	The primary sources of information for this section may include: <ul style="list-style-type: none"> Methodologies developed in Phase II Task 4 SSALTS Documents Information from the work being completed for the Lower San Joaquin River Committee Information from the work completed by the Management Practices Subcommittee 	None identified at this time.
		a. Ongoing Management Programs					
		b. Implementation Measures and BMPs					
		c. Integration with Other Programs					
		d. Implementation Schedule					
	9.	Basin Monitoring Program	Not Applicable	This section will be developed as a part of the Phase III CV-SALTS Workplan.	This section will include a discussion for the following requirement: <ul style="list-style-type: none"> 6.b.(3)(a) – A basin/sub-basin wide monitoring plan that includes an appropriate network of monitoring locations..... 6.b.(3)(b) – A provision for annual monitoring of Constituents of Emerging Concern..... 	N/A	N/A
	a. Goals and Objectives						
	b. Monitoring Program Approach (Appendix E)						
	c. Reporting						

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	10. References	3				
Other Supporting Documentation	Antidegradation Analysis (This will be developed as a part of Phase III for the BPA) a. Regulatory Requirements b. Methodology c. Results d. Conclusions	Not Applicable	Meet requirements of State and federal antidegradation policies as required for Basin Plan Amendment and Recycled Water Policy BPTC – Identify how you make this determination for ag	This section will include a discussion for the following requirement: <ul style="list-style-type: none">6.b.(3)(f) – An antidegradation analysis demonstrating that the projects included within the plan will, collectively, satisfy the requirements of Resolution No. 68-16.		None identified at this time.
	CEQA	Not Applicable				
Appendices	A. Stakeholder Process for Development of the Central Valley Preliminary Draft SNMP	3	Describe CV-SALTS stakeholder process and active participants	N/A	The primary sources of information for this section may include: <ul style="list-style-type: none">ICM reportCEQA Scoping DocumentsCV-SALTS Outreach MaterialsInformation developed in Phase II Task 2 Deliverables	None identified at this time.
	B. Guidance for the Development of a Regional/Local SNMP	10	Provide direction and guidance for local entities seeking to develop a local SNMP	N/A	The primary sources of information for this section may include: <ul style="list-style-type: none">Phase II Task 4 Deliverable	None identified at this time.
	C. Methodology for Determining Existing Water Quality, Best Water Quality Attained Since 1968, and Assimilative Capacity	20	Provide the methodology for determining existing water quality, best attainable water	N/A	The primary sources of information for this section may include:	Examples will be limited to existing information and results for the ICM

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			quality attained since 1968, and assimilative capacity.		<ul style="list-style-type: none"> Information developed in ICM Report and refined in Phase II Task 4 Deliverables 	focus areas (Modesto region and Kings Subbasin) and the Management Zone area application for Phase II Task 4.
	D. Methodology for Delineating Management Zones	5	Provide discussion of factors to be considered when delineating a Management Zone boundary, which may also serve as the area of interest for purposes of a local SNMP. The delineated Management Zone may also serve as one of many Management Zones under the umbrella of a larger regional SNMP or IRWMP.		<p>The primary sources of information for this section may include;</p> <ul style="list-style-type: none"> ICM Task 4 Report Archetype area analysis with Alta Irrigation District Management Zone application and related considerations for other Management Zone scales from Phase II Task 4 	The Management Zone is Alta Irrigation District. The delineation of Management Zones will be based on hypothetical examples and considerations.
	E. Guidance for the Development of a Basin Monitoring Program (To Be Developed as a part of Phase III)	Not Applicable	N/A	N/A	N/A	None identified at this time.
Total Number of Pages		121				

¹ CV-SALTS is currently targeting a length of approximately 100-125 pages for the Central Valley SNMP. This annotated table of contents illustrates the type of information planned for inclusion within the SNMP; however, this is just a guide. For additional information regarding level of effort budgeted for preparation of the preliminary draft of the SNMP, refer to the *CV-SALTS Phase II Conceptual Model Workplan* that was approved by CV-SALTS in March 2014.

¹ – This characterization will include the entire Central Valley Regional Water Quality Control Board jurisdiction

³ – The items in **red** are required pursuant to the Recycled Water Policy

⁴ – CV-SALTS Executive Committee has requested that the CV-SALTS Technical Project Manager evaluate options to resolve data gaps that exist for areas within the jurisdiction of the Central Valley Regional Water Quality Control Board that are outside of the Valley Floor.