

Strategic Salt Accumulation Land and Transport Study (SSALTS) Project Revised Phase 3 Draft Report

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Interim Measures Implementation Approach

**CDM
Smith**

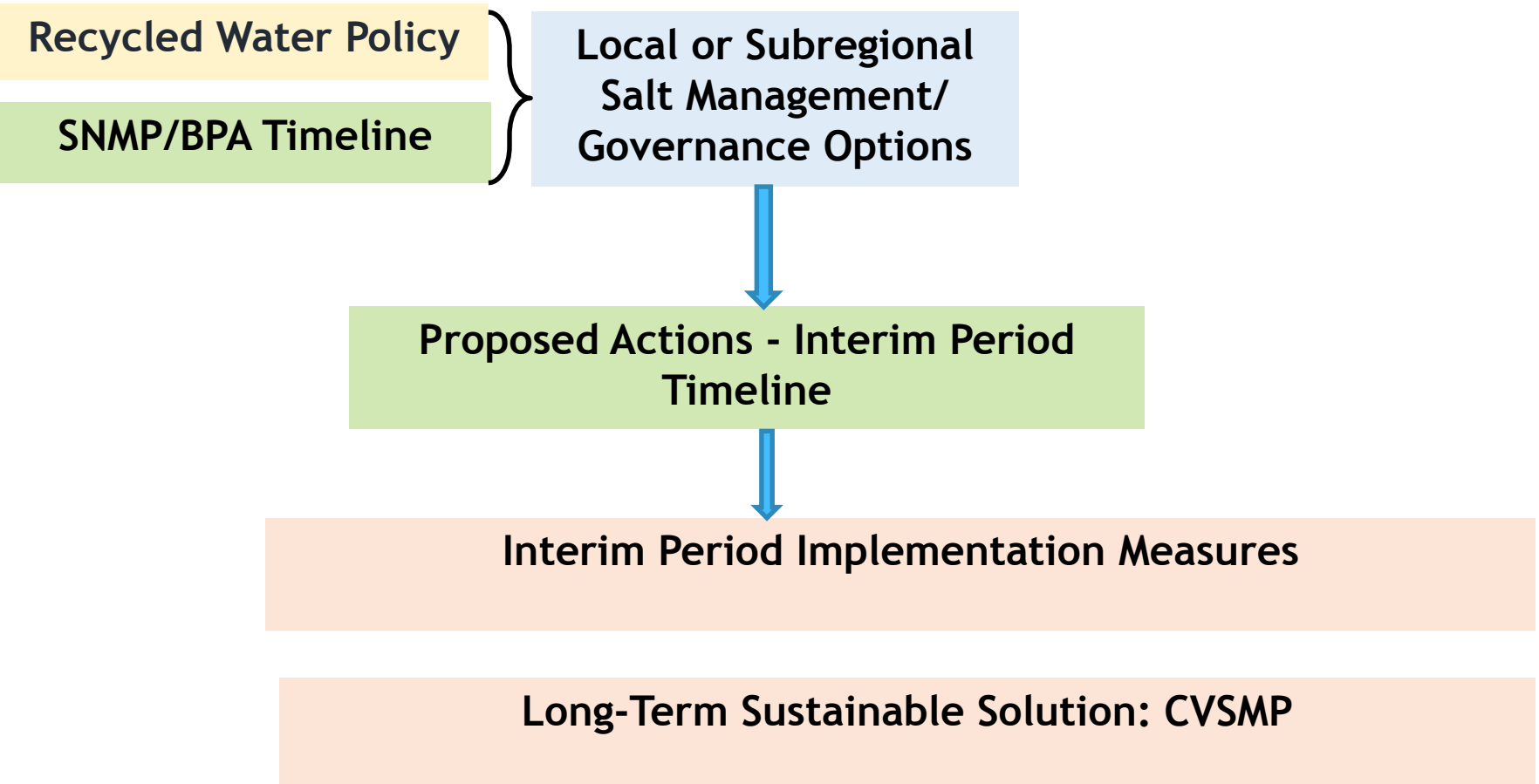
SSALTS Purpose – Identify Salt Disposal Options for Inclusion in SNMP

- Draft Phase 3 Report discussed at TAC meeting on March 27, 2015
- A revised draft is being prepared to address comments.
- There was one key issue/comment that needs further discussion before we finalize the next draft:
 - The interim-period implementation measures need more specific actions and milestones.

Phase 3 Report Salt Management Options

- Components of the SNMP (long-term and interim period)
 - Strategic land management
 - Source control BMPs
 - Extract/treat water
 - Storage and disposal options
- Interim menu of storage and disposal options: local and subregional scale
 - Salt management and disposal areas (SJRIP, evaporation ponds, ZLD)
 - Deep well injection
 - Truck/rail brine
 - Hydraulic fracturing
- Long-term sustainable solution – includes regional treatment facilities and out-of-valley export (regulated ocean disposal): Central Valley Salt Management Project (CVSMP)

SSALTS Implementation Summary



Recycled Water Policy

6.a.(2) The State Water Board finds that the appropriate way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans ...

6.b.(1) ...local water and wastewater entities, together with local salt/nutrient contributing stakeholders, will fund locally driven and controlled, collaborative processes open to all stakeholders that will prepare salt and nutrient management plans for each basin/sub-basin in California, including compliance with CEQA and participation by Regional Water Board staff.

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.

6.b.(3)(e) Implementation measures to manage salt and nutrient loading in the basin on a sustainable basis. ***(No Implementation schedule in RWP)***

SNMP/BPA Timeline

- SNMP Due: May 2016
- BPA: Begin public hearing process: May 2017
- State Water Board/ OAL: May 2018
- USEPA: May 2019

Local or Subregional Salt Management/ Governance Options

- Before an implementation schedule can be determined, options for mechanisms to implement must be considered.
 - SGMA—GSAs
 - Assembly Bill (AB) 3030
 - Creation of special districts
 - City or county ordinances
 - Court adjudications
 - Integrated Regional Water Management (IRWM)
 - ILRP coalitions
 - Memoranda of understanding/ agreement
 - Non-profit corporations

Proposed Interim Period Timeline (Years After BPA Effective Date)

1 Year: Determine the “how” mechanism, e.g., SGMA, IRWM, ILRP coalition, or other

2 Years: Develop Local/Subregional Salt Management Strategy

Where salt management projects identified by Salt Management Strategy:

5 Years: Complete conceptual design and establish funding

10 Years: Complete environmental/permitting and design

15 to 25 Years: Complete construction/operate facility(ies)

*~ WDR renewal will consider Salt Management Strategy
implementation progress ~*

Proposed Local/ Subregional Salt Management Strategy

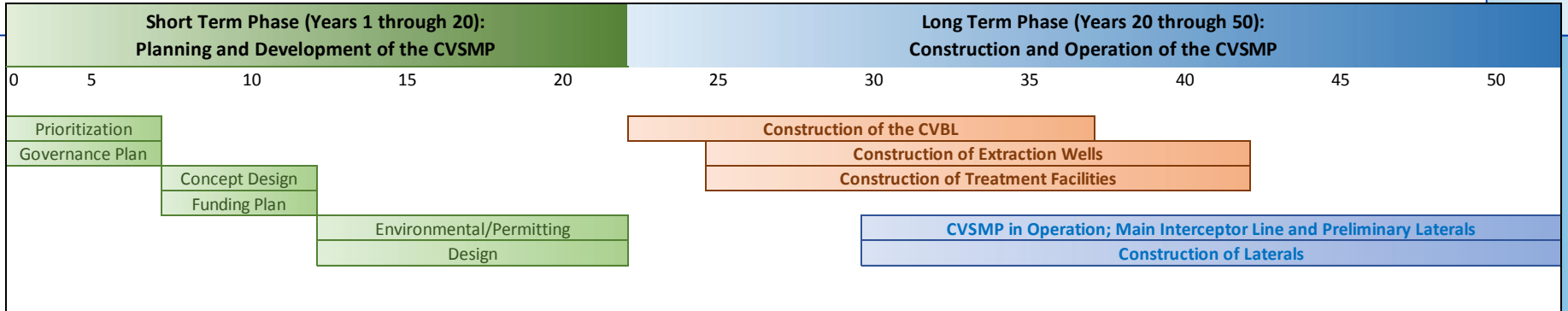
- After the Salt Management Coalition is formed, the coalition will produce a Salt Management Strategy document which addresses:
 - How the entity plans to begin to achieve long term sustainability
 - Target salt management goal if different than the default
 - Interim actions planned
 - Milestones for those actions
 - Description of the long-term strategy, *e.g.*, participation in the CVSMP – which is the bridge interim and long-term plans

Target Mass of TDS Managed to Achieve Sustainability by IAZ

Central Valley Zone	IAZ	Description	Square Miles	Target TDS	GW [TDS] mg/L
				Mass Managed tons per year	
Northern Central	1	Sacramento River above Red Bluff	611	53,444	370
	2	Red Bluff to Chico Landing	1,163	68,070	201
	3	Colusa Trough	1,112	275,481	583
	4	Chico Landing to Knights Landing Proximal to the Sacramento River	560	55,248	761
	5	Eastern Sacramento Valley foothills near Sutter Buttes	957	53,295	329
	6	Cache-Putah area	1,044	640,619	1,060
	7	East of Feather and South of Yuba Rivers	534	27,143	398
Middle Central	8	Valley floor east of the Delta	1,362	82,665	438
	9	Delta	1,181	113,335	961
	10	Delta-Mendota Basin - Northwest Side	282	220,837	842
	11	Modesto and southern Eastern San Joaquin Basin	664	302,639	565
	12	Turlock Basin	540	331,055	825
	13	Merced, Chowchilla, and Madera Basins	1,648	211,655	648
Southern Central	22	Delta-Mendota Basin - Grassland	801	890,640	1,160
	14	Westside and Northern Pleasant Valley Basins	1,071	1,131,114	3,375
	15	Tulare Lake and Western Kings Basin	1,423	158,720	1,000
	16	Northern Kings Basin	478	69,485	575
	17	Southern Kings Basin	569	155,682	520
	18	Kaweah and Tule Basins	1,358	228,940	598
	19	Western Kern County and Southern Pleasant Valley Basin	1,365	1,489,447	11,300
	20	Northeastern Kern County Basin	705	140,691	870
	21	Southeastern Kern County Basin	1,105	303,940	335
Total/Average			20,533	7,004,146	

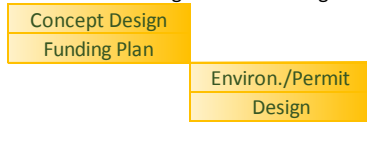
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Conceptual Phased Implementation – Interim vs. Long Term Strategies



Implementation of Local and Subregional Salt Management Measures in the Interim Period

- Subregional Salt Coalition Formed, if Parties do not Join a GSA
- Subregional Salt Management Strategy
 - Subregional Salt Management Plans: Must Integrate with GSPs and CVSMP



- Salt Sustainability Achieved at Subregional Scale

Relationship to Sustainable Groundwater Management Act Timeline and Milestones

- 2017 - Deadline to Form a GSA
 - 2020 - GSPs Required for Critically-Overdrafted Basins
 - 2022 - GSPs Required for the Remaining High and Medium Priority Basins
 - 2040 - Sustainability Achieved for Previously Critically-Overdrafted Basins
 - 2042 - Sustainability Achieved for High and Medium Priority Basins

CVBL - Central Valley Brine Line
 CVSMP - Central Valley Salt Management Plan
 GSA - Groundwater Sustainability Agency
 GSP - Groundwater Sustainability Plan

Notes:

Prioritization and optimization is the initial study to finalize a plan for locating desalters and connections to the CVBL to maximize beneficial uses to the people of the state of California
 Concept design will include a determination of the efficacy of utilizing an existing, permitted wastewater treatment plant or an alternate CVBL outfall for discharge of brine.
 Funding plan explicitly confirms the existence of federal, state, local, and permittee funding.

Summary

- Commitments to specific implementation measures/ projects begin after the BPA is adopted and effective.
- Proposed Salt Management framework includes:
 - Opportunity to form a coalition or group to achieve salt management targets (several options for subregional governance/ management structures).
 - Salt management targets to be achieved.
 - By IAZ, but can be translated to targets for a groundwater subbasin or management zone.
 - Targets based on balancing net inflows/outflows of salt using the results of the ICM. These are default targets. They can be modified with new technical work to increase certainty.

Summary (cont.)

- Proposed Salt Management framework includes:
 - Timeline for the interim period is based on years after the BPA is adopted and effective.
 - Milestones and specific plans will be developed in the Local/Subregional Salt Management Strategy
 - Target salt management goal if different than the default
 - Description of the long-term strategy, *e.g.*, participation in the CVSMP – which is the bridge interim and long-term plans
 - Timeline and conceptual phasing for the long-term, sustainable CVSMP.
 - Preference is for local control/ management; default for non-compliance is state management at the IAZ-level.

Next Steps

- Moving to finalize SSALTS Phase 3 Report
- Seeking discussion on proposed interim implementation approach with milestones
- We plan to take the results of this discussion to provide a final draft SSALTS Report that addresses all comments on previous draft and the outcome of this discussion
- After final review/edits will produce a Final Phase 3 SSALTS Report for approval
- Interim and long-term measures will be incorporated into SNMP



Questions?