

11/6/98
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Charlie Krater

Proposed Project Prioritization

CALFED Water Quality Program

How to prioritize - we need feedback

We have received suggestions from Sacramento County, CUWA, and DWR.

We have suggested some characteristics that should be considered. Are there others?

Regarding the water quality actions and sections, how would you rank the 11 sections?
Which three actions in each section are most critical?

Prioritization should consider the following:

1. Program wide overlap - impacts to other CALFED programs such as Levee Stability, Eco System Restoration
2. Impacts to Human Health
 - Acute toxicity/reproductive toxicity
 - Chronic toxicity
 - Carcinogenicity
3. Impacts to environmental health
 - Acute Toxicity
 - Chronic toxicity
4. Multiple benefits from single actions
5. Redirected impacts to other programs and other portions of the WQ Program
6. Probable Feasibility
7. Costs -capital and O&M

Water Quality Program Stage 1 (First 7 years)		
	1-3	1-11
Action Item	Top Three Actions	Rank of Each Section
<p>Low Dissolved Oxygen/Nutrients work</p> <ul style="list-style-type: none"> • 2 Complete studies of causes for DO sag in San Joaquin River • 3 Define and implement corrective measures for DO sag <ul style="list-style-type: none"> • Encourage regulatory activity to reduce nutrients discharged by unpermitted dischargers. • Develop inter-substrate DO testing in conjunction w/ERPP • Channel restoration programs to lower water temperature • 1 Study nutrient effects on beneficial uses 		10
<p>Drinking Water Work</p> <ul style="list-style-type: none"> • Control TOC contribution through control of algae, aquatic weeds, ag runoff, and watershed improvement. • Study Bromide and disinfection byproduct control and implement at affected sites. • Monitor Drinking Water Constituents of Concern • Control of pathogens through control of cattle, urban sw, sewage, boat discharge, and possibly recreational swimming. Includes various projects depending on area of impact. • Study rec swimming impacts, wild animal impacts. • Relocate Barker slough/Tracy intakes. • MTBE reductions in various areas. • Address water quality problems in terminal reservoirs • Develop a plan sufficient to meet forthcoming EPA and DHS standards for brominated DBPs 	<p>1 Determine impact of flooding Delta islands on THM formation</p>	1
<p>Mercury Work</p> <p>Cache Creek work</p> <ul style="list-style-type: none"> • Risk appraisal and advisory (human health impacts of mercury) • Determine bioaccumulation effects in creek and delta • 1 Source, transport, inventory, mapping and speciation of mercury. <ul style="list-style-type: none"> • Information Management/Public Outreach • participate in stage 1 remediation of mercury mines if federal Good Samaritan protection obtained (drainage control) • 2 Investigate sources of high levels of bioavailable mercury. <ul style="list-style-type: none"> • Participate in remediation of bioavailable mercury <p>Sacramento River Work</p> <ul style="list-style-type: none"> • 1 Investigate sources of high levels of bioavailable mercury, inventory, map, and refine other models • Participate in remedial activities 		2

Water Quality Program Stage 1 (First 7 years)		
Action Item	Top Three Actions	Rank of Each Section
<p>Delta studies related to mercury:</p> <ul style="list-style-type: none"> • 1 Research methylization process in delta (part of bioaccumulation) • Determine sediment mercury concentration in areas that would be dredged during levee maintenance or conveyance work. • 2 Determine potential of ecosystem restoration work on mercury levels in lower and higher trophic level organisms. 		3
<p>Pesticide work</p> <ul style="list-style-type: none"> • Develop diazinon and chlorpyrifos hazard assessment criteria with DFG • 1 Develop BMPs for dormant spray and household uses. • Support implementation of BMPs • 3 Monitor to determine effectiveness. • 2 conduct similar studies and activities for other toxic pesticides as toxicity reduction demands 		4
<p>Sediment reduction work/organochlorine pesticides</p> <ul style="list-style-type: none"> • 1 Participate in implementation of USDA sediment reduction program • Promote sediment reduction in construction arenas and urban SW, and other specific sites • Implement stream restoration and revegetation work • Coordinate with ERP on sediment needs 		5
<p>Salinity reduction</p> <ul style="list-style-type: none"> • 1 Develop and implement supply water quality management activities to improve supply quality • 2 Develop and implement a management plan to reduce drainage and reduce salt imports to the valley • Conduct pilot studies to evaluate the feasibility of water re-use, through agroforestry of various concentrations of fresh to saline water • Study feasibility of desalination methods including Reverse Osmosis • Study Cogeneration desalination • 3 Implement realtime management of salt discharges 		11

Water Quality Program Stage 1 (First 7 years)		
Action Item	Top Three Actions	Rank of Each Section
<p>Selenium Work</p> <ul style="list-style-type: none"> • 2 Conduct selenium research to fill data gaps in order to refine regulatory goals of source control actions. Determine bioavailability of selenium under several scenarios. • Research interactions of mercury and selenium. • 3 Refine and implement real-time management of selenium discharges. • 1 Expand and implement source control and reuse programs • Coordinate with other programs (eg. SJVDIP, CVPIA) for retirement of lands with drainage problems not subject to other correction measures. 		6
<p>Metals Work</p> <ul style="list-style-type: none"> • 1 Determine spatial and temporal extent of metal pollution • Determine ecological significance and extent of copper contamination. • review impacts of other metals such as cadmium, zinc, and chromium • Participate in Brake Pad consortium to reduce introduction of copper • Develop standards for detention basin design, operation • Partner with Municipalities on evaluation and implementation of SW control facilities. • Participate in remediation of mine sites as part of local watershed restoration and delta restoration. 		7
<p>Turbidity and Sediment</p> <ul style="list-style-type: none"> • Implement protection action in upper watershed to reduce sedimentation of fish spawning habitat • Implement erosion control BMPs in upper watershed • Construct sedimentation basins in urban and suburban areas • Evaluate use of head control structure on lower Dominici Creek • 1 Perform quantitative analysis of river sediment loads, budgets, and sources • Coordinate with ERP on sediment needs 	2 - implement BMPs to reduce sediment from ag. lands	9
<p>Toxicity of Unknown Origin</p> <ul style="list-style-type: none"> • Participate in identifying unknown toxicity and addressing as appropriate 		8

I immediate 0-2 yrs.
 N near-term 3-7 yrs.
 L long-term > 7 yrs.