

# **COMMENTS**

# **SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD**

## Draft Framework for CalFed Water Quality Actions

D-035749

### Eliminate Selenium Impacts in the SF Bay/Delta and San Joaquin River (THIS IS JUST AN EXAMPLE—The Tasks, Actions, Dates, etc. Do NOT Necessarily Represent an Approved Approach/Timeline)

**Objective**

**Tasks**

A.

Task	Action Description	Implementing Entity(ies)	Geographic Area	Potential Funding	Indicators of Success	Completion Date	Water Quality Program Plan Reference
	1. Improved monitoring of discharge from San Joaquin		San Joaquin/East Delta	CalFed	Improved estimates of loading from San Joaquin		• C-8
	2. <b>Treat refinery discharge (refineries)<sup>1</sup></b>	RWQCB – Region 2	North Bay	Responsible parties	<b>Reduction of selenium discharges from refineries</b>		• C-8
	3. Continued monitoring of biota in North Bay	USGS	North Bay/Delta	CalFed	Levels of selenium are reduced		•
	4. <b>Fund study of bio-availability of forms of selenium</b>	USGS	North Bay/Delta	CalFed	<b>Improved measures of relationship between loading and impacts</b>		•
	5. <b>Develop tradable loads to give dischargers flexibility in discharge concentrations and volumes (agriculture)</b>				<b>Operational procedures to allow dischargers to trade assimilative capacity and prevent exceedance of water quality objectives</b>		• C-8
	6.						•
	7.						• C-8

<sup>1</sup> Treatment units are in place for all refineries that are sources of selenium from crude sources. Reduction of mercury loading is in place, whether these reductions are adequate will require additional monitoring and studies.

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**Draft Framework for CalFed Water Quality Actions**

<b>Task</b>	<b>Action Description</b>	<b>Implementing Entity(ies)</b>	<b>Geographic Area</b>	<b>Potential Funding</b>	<b>Indicators of Success</b>	<b>Completion Date</b>	<b>Water Quality Program Plan Reference</b>
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**Draft Framework for CalFed Water Quality Actions**

<b>Task</b>	<b>Action Description</b>	<b>Implementing Entity(ies)</b>	<b>Geographic Area</b>	<b>Potential Funding</b>	<b>Indicators of Success</b>	<b>Completion Date</b>	<b>Water Quality Program Plan Reference</b>
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## Draft Framework for CalFed Water Quality Actions

D-035752

### Eliminate PCB Impacts in the SF Bay/Delta and San Joaquin River

These proposed actions are specific to SF Bay, although the geographic area frequently extends beyond the bay

**Objective:**

Reduce PCB's in water and sediment to levels that do not adversely affect aquatic organisms, wildlife, and human health

**Tasks**

A.

Task	Action Description	Implementing Entity(ies)	Geographic Area	Potential Funding	Indicators of Success	Completion Date	Water Quality Program Plan Reference
1.	Short-term study analyzing PCBs in a broad range of estuarine organisms and linking observed levels to concentrations in selected indicator fish species	RWQCB 2/SFEI-RMP	West Delta/North Bay/Central Bay	CalFed	Improved understanding of movement of PCB in the food web	1999	•
2.	Determine levels of Hg in fish tissue that are protective of vulnerable human populations that rely on Bay and Delta fish for sustenance	OEHHA	Delta	CALFED/OEHHA	Target concentration(s) of PCB in fish tissue.	2000	•
3.	Evaluate existing BPTCP database for any known THS's and data collected near major storm drain outfalls.	RWQCB	Bay/Delta Watershed	CalFed	Elimination of suspected sources	2000	•
4.	Develop and implement plan to identify maritime sources (engines room wash down and bilge water).	RWQCB -2	Bay/Delta Watershed	CalFed	Improved estimates of source terms	2001	•
5.	Synthesize source and load information	RWQCB-2	SF Bay segments	CalFed	Draft allocation of loadings	2002	•
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Draft Framework for CalFed Water Quality Actions

Task	Action Description	Implementing Entity(ies)	Geographic Area	Potential Funding	Indicators of Success	Completion Date	Water Quality Program Plan Reference
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D-035753

D-035753

**Draft Framework for CalFed Water Quality Actions**

<b>Task</b>	<b>Action Description</b>	<b>Implementing Entity(ies)</b>	<b>Geographic Area</b>	<b>Potential Funding</b>	<b>Indicators of Success</b>	<b>Completion Date</b>	<b>Water Quality Program Plan Reference</b>
23							•
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25							•
26							•

## Draft Framework for CalFed Water Quality Actions

### Evaluate and Abate Mercury Problems in SF Bay

These proposed actions are specific to SF Bay, although the geographic area frequently extends beyond the Bay

#### Objective

Reduce mercury in water and sediment to levels that do not adversely affect aquatic organisms, wildlife, and human health  
(Water Quality Program Plan, pg. 4-2; Bundle #'s 21,22, 50)

#### Tasks

- A. Determine Threshold Levels of Mercury to Protect Human Health and Wildlife (Adaptive Management Step 2 – from Phase II report)
- B. Determine Sources, Fate, and Transport of Mercury (AM Steps 1 and 3)
- C. Determine Applicability of Existing Federal and State Statutory Requirements and Need for Additional Legislation (AM Steps 2 and 4)
- D. Develop a Mercury Control and Remedial Action Plan that meets Federal and State requirements (AM Step 4)
- E. Implement Mercury Control and Remedial Action Plan (AM Step 5)
- F. Evaluate the Effectiveness of Mercury Control and Remedial Activities (AM Step 6)
- G. Update A,B,D-F as Necessary (AM Step 7)

Task	Action Description	Implementing Entity(ies)	Geographic Area	Potential Funding	Indicators of Success	Completion Date	Water Quality Program Plan Reference
A	1. Implement monitoring for mercury at Bay Delta interface	SFEI/RMP RWQCB 2	West Delta/North Bay	CalFed	Reduced uncertainty in loadings to Bay from riverine sources and bioavailability of mercury from riverine sources		•
A	2. Pollution Prevention	RWQCB/Local agencies	Bay/Delta	CalFed	Identification of sources and possible reductions and product substitutions to reduce mercury loadings		•
B	3. Air borne source inventory and monitoring	SFEI-RMP/CARB/U SEPA	Watershed	CalFed/USE PA	Improved estimates of aerial deposition and source inventory		•

**Draft Framework for CalFed Water Quality Actions**

D-035756

<b>Task</b>	<b>Action Description</b>	<b>Implementing Entity(ies)</b>	<b>Geographic Area</b>	<b>Potential Funding</b>	<b>Indicators of Success</b>	<b>Completion Date</b>	<b>Water Quality Program Plan Reference</b>
D	4. <b>Develop tradable loads to give dischargers flexibility in discharge concentrations and volumes</b>	RWQCB 2	watershed	CalFed	<b>Operational procedures to allow dischargers to trade assimilative capacity or removal credits and prevent exceedance of water quality objectives</b>		•
D	5. <b>Determine potential impact of wetland restoration on methylation rates</b>	RWQCB 2/USEPA	North Bay	CalFed	<b>Improved understanding of elevated methyl mercury in North Bay embayments</b>		•
F	6. <b>Study relationship between bioavailability and transformation of forms of mercury</b>	UC/USGS/RWQCB	Bay/Delta watershed	CalFed	<b>Established links between bioavailable forms of mercury and transformation of mercury</b>		•
	7. <b>Study bioaccumulation mechanisms and determine indicator organisms</b>	UC/USGS/RWQCB	Bay/Delta watershed	CalFed	<b>Selection of an organism that helps to predict whether actions have impacts on mercury levels in consumed fish tissue</b>		•
	8. <b>Evaluate fish consumption patterns to better characterize public health hazard</b>	Cal DHS OEHHA	Bay/Delta watershed	CalFed/USEPA	<b>Reliable demographic and consumption to identify high-risk portions of population</b>		•
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