

## **Water Boards Bay-Delta Team**

### **Strategic Workplan for Delta Actions**

Status of Water Quality Elements

24 April 2008

<b>DEVELOP A REGIONAL MONITORING PROGRAM FOR THE DELTA</b>
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#### ***Stakeholder Comments***

- Survey existing monitoring programs and improving coordination and reporting standards.
- Assess available resources and develop a “best-fit” program.
- Focus on Delta and immediate upstream watershed.
- Management framework must be flexible to respond to new information and changing priorities.
- Program should evaluate whether all beneficial uses are protected.
- Emphasize need for strong stakeholder representation.
- Funding from all levels of government and external sources will be needed.

#### ***Proposed Approach***

The Bay-Delta Team proposes a two-pronged approach to developing a regional monitoring program (RMP) for the Delta:

1. Establish a framework for gathering, compiling, assessing and reporting data on a regular basis, preferably annually. Assessments will be conducted on data already being gathered under Water Board programs and major monitoring programs conducted by other agencies, such as DWR and USGS.
2. In parallel to establishing a regular assessment and reporting framework, the Bay-Delta Team will initiate the long-term planning for a regional monitoring program. The long-term program will require extensive coordination and negotiation among multiple Water Board programs, with outside agencies, and with stakeholders.

#### ***Current Activities***

- The State Water Board contracted with UC Davis to prepare a report synthesizing readily available data on toxicity and contaminants in the Delta.
- The Central Valley Water Board initiated a contract with the Aquatic Science Center to conduct the initial information collection and stakeholder coordination necessary to develop the long-term RMP.
- The Bay-Delta Team are meeting with stakeholders regularly to discuss the proposed approach, ensure coordination with other similar efforts, and receive input.

## MONITORING TO CHARACTERIZE DISCHARGES FROM DELTA ISLANDS

### ***Stakeholder Comments***

- In addition to monitoring drainage, monitoring diversions to Delta islands should be included.
- Ensure monitoring is sufficient to determine whether Delta island drains impact water quality in main Delta channels.
- Some stakeholders proposed specific monitoring and criteria for site selection.

### ***Proposed Approach***

Staff is coordinating with Delta island agricultural representatives through the San Joaquin County and Delta Water Quality Coalition and Reclamation Districts on the Regional Water Board's pyrethroid pesticide source monitoring project. The Bay-Delta Team proposes to continue stakeholder coordination to expand Delta island monitoring to include more constituents and flow.

### ***Current Activities***

As indicated above, staff is coordinating with Delta island agriculture representatives to select and obtain access to sites on Delta islands for pyrethroid pesticide monitoring.

## ASSESS THE POTENTIAL IMPACT OF AMMONIA ON DELTA SPECIES

### ***Stakeholder Comments***

- Impacts of wastewater discharges on Delta water quality should be assessed more holistically to include impacts to all beneficial uses, rather than just pelagic organisms.
- Design of current screening studies is inadequate and that they should be coordinated with the overall suite of studies to evaluate the causes of the Delta pelagic organism decline. For example, food web and fate and transport studies should be conducted. A steering committee should be established to develop the study protocols and review the results.

### ***Proposed Approach***

Conduct screening studies to determine whether ambient ammonia concentrations in the lower Sacramento River and northern Delta reduce the survival of larval delta smelt and inhibit in situ algal primary production. Both the delta smelt and algal primary production experiments are considered screening studies. The results may be conclusive and indicate no possibility of in-stream impairment whereupon no future work will be required. Alternatively, the results may suggest the possibility of in-stream impacts, whereupon further work will be required.

### ***Current Activities***

Staff negotiated with principal investigators the scopes of work for both studies. The study protocol for the Delta smelt study was provided to SRWTP who submitted comments, which will either be addressed through modifications of the study protocol or when study results are assessed and reported.

**COORDINATE WITH DPR AND DELTA COUNTY AGRICULTURAL COMMISSIONERS ON  
IN-DELTA PESTICIDE USE**

***Stakeholder Comments***

- DPR should expedite pyrethroid pesticide re-evaluation with particular focus on urban uses as they may exceed agricultural use.
- It is not known whether pesticides cause substantial toxicity in Delta waterways or whether pesticides are being applied illegally in the Delta. Therefore, there may not be a need for additional enforcement or restrictions on pesticide use. A better approach would be to work with Agricultural Commissioners and chemical producers to develop best management practices for pesticide use.

***Proposed Approach***

Staff proposes to coordinate with DPR and the Agricultural Commissioners to determine whether and what additional information is needed to evaluate the need for best management practices, additional restrictions, or increased enforcement of pesticide use in the Delta. This work will be coordinated with the action to comprehensively assess impacts of discharges from Delta islands and with the Irrigated Lands Regulatory Program's requirements for developing management plans upon exceedance of water quality objectives.

***Current Activities***

- A consortium of pesticide registrants, the Pyrethroid Working Group (PWG), submitted to DPR proposals to address data gaps related to the more persistent class of pyrethroid pesticides (type 3). Staff submitted comments on the proposed studies and DPR is working with the PWG to address stakeholder comments.
- The IEP and the Water Boards are cooperating in a monitoring study to measure toxicity in Delta waters and to measure pesticides associated with any toxicity observed. The San Joaquin County and Delta water quality coalitions also are conducting monitoring under the Irrigated Lands Regulatory Program.
- The Water Board, with funding from the SWAMP, is conducting pyrethroid pesticide monitoring of potential sources of those pesticides to the Delta.

**ADDRESS POTENTIAL IMPACTS OF ONCE-THROUGH COOLING AT THE CONTRA  
COSTA POWER PLANT**

***Stakeholder Comments***

- The Contra Costa Power Plant NPDES permit should be issued immediately and terms should be consistent with recent court decisions. The Regional Water Board should not await the State Water Board's statewide policy.
- The Regional Water Board should assess information produced through studies being conducted under the Bay Delta Conservation Plan to determine whether additional studies are needed.
- Regional Water Board actions are premature considering the State Water Board's statewide policy development and the San Francisco Bay Regional Water Board's permit process, both of which currently are underway.

***Proposed Approach***

The Bay-Delta Team proposes to coordinate with the Department of Fish and Game and the Interagency Ecological Program to review studies being conducted for the Bay Delta Conservation Plan to determine whether additional study is needed. In addition, staff will review results to develop terms needed in the NPDES permit.

***Current Activities***

Staff plan to meet with DFG and BayKeeper to discuss the current studies and determine how best to coordinate the Water Boards' actions.

Summary of Regional Water Board actions to protect beneficial uses in the Sacramento-San Joaquin River Delta estuary.

<i>Water Board Activity</i>	<i>Action</i>	<i>Current Activities Related to Action</i>	<i>Effected (or potentially effected) Entity(ies)</i>	<i>Existing Commitment</i>	<i>Additional Resources Needed</i>
Planning	Develop regional monitoring & assessment program	<ul style="list-style-type: none"> <li>- Some funding identified</li> <li>- SRWP &amp; CVCWA developing pilot RMP</li> <li>- CALFED Science Program funding project to develop Delta monitoring strategy</li> <li>- EPA &amp; Regional Board developing directory of monitoring in the San Joaquin basin</li> </ul>	<ul style="list-style-type: none"> <li>- Agencies</li> <li>- Wastewater dischargers</li> <li>- Stormwater dischargers</li> <li>- Agriculture</li> </ul>	✓	✓
Planning	Determine need for interim regulatory measures for addressing impacts of power plant diversion		<ul style="list-style-type: none"> <li>- Contra Costa power plant</li> </ul>		✓
Planning	Develop salt & boron control program for San Joaquin River upstream of Vernalis		<ul style="list-style-type: none"> <li>- Agencies</li> <li>- Wastewater dischargers</li> <li>- Stormwater dischargers</li> <li>- Agriculture</li> </ul>	✓	
Planning	Develop & adopt control program for mercury in the Delta	<ul style="list-style-type: none"> <li>- Regional Board will consider for adoption in April 2008</li> </ul>	<ul style="list-style-type: none"> <li>- Agencies</li> <li>- Wastewater dischargers</li> <li>- Stormwater dischargers</li> <li>- Agriculture</li> </ul>	✓	
Planning	Develop Central Valley Drinking Water Policy	<ul style="list-style-type: none"> <li>- Water Boards are working with interested stakeholders to evaluate policy alternatives</li> </ul>	<ul style="list-style-type: none"> <li>- Wastewater dischargers</li> <li>- Stormwater dischargers</li> <li>- Agriculture</li> </ul>	✓	

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Planning	Develop Central Valley salinity management plan	<ul style="list-style-type: none"> <li>–Water Boards formed committees to assist in developing policy</li> <li>–Contracts are in place to evaluate economic impacts of not addressing salinity, assessing data gaps, and developing a video documentary</li> </ul>	<ul style="list-style-type: none"> <li>–Agencies</li> <li>–Wastewater dischargers</li> <li>–Stormwater dischargers</li> <li>–Agriculture</li> </ul>	✓	
Monitoring	Characterize discharges from Delta islands	<ul style="list-style-type: none"> <li>–Delta Team staff working with Irrigated Lands Regulatory Program staff to coordinate monitoring needs</li> </ul>	<ul style="list-style-type: none"> <li>–Delta agriculture</li> </ul>		✓
Monitoring	Assess impact of ammonia on Delta species	<ul style="list-style-type: none"> <li>–Contract in place to conduct studies on Delta smelt</li> <li>–Delta Team staff negotiating scope of work for phytoplankton studies</li> </ul>	<ul style="list-style-type: none"> <li>–Wastewater dischargers</li> </ul>	✓	
Monitoring	Pyrethroid pesticide source monitoring	<ul style="list-style-type: none"> <li>–Study to monitor potential sources of pyrethroid pesticides was initiated in 2008</li> </ul>	<ul style="list-style-type: none"> <li>–Wastewater dischargers</li> <li>–Stormwater dischargers</li> <li>–Agriculture</li> </ul>	✓	
Monitoring	Modify discharge permits to ensure sufficient data collection	<ul style="list-style-type: none"> <li>–Stockton and Sacramento stormwater permits include higher frequency of toxicity monitoring</li> </ul>	<ul style="list-style-type: none"> <li>–Stormwater dischargers</li> </ul>	✓	

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Monitoring	Monitor Delta waterways for contaminants & toxicity	<ul style="list-style-type: none"> <li>- Interagency Ecological Program funded toxicity and contaminant monitoring in Delta waterways</li> <li>- Delta Team staff worked with contractor to develop plans for follow-up when toxicity is detected</li> </ul>	<ul style="list-style-type: none"> <li>- Identified sources of contaminants or toxicity</li> </ul>	✓	
Monitoring & Assessment	Determine whether Delta waterways are impaired due to selenium	<ul style="list-style-type: none"> <li>- Regional Board funded analyses of fish tissue samples</li> </ul>	<ul style="list-style-type: none"> <li>- San Joaquin River agriculture</li> </ul>	✓	
Assessment	Gather & assess existing contaminants & toxicity data	<ul style="list-style-type: none"> <li>- Contract in place to gather &amp; assess surface water data</li> </ul>	<ul style="list-style-type: none"> <li>- Wastewater dischargers</li> <li>- Stormwater dischargers</li> <li>- Agriculture</li> </ul>	✓	
Implementation	Determine need for additional enforcement of restrictions on in-Delta pesticide use	<ul style="list-style-type: none"> <li>- Delta Team staff briefed Department of Pesticide Regulation and Department of Food &amp; Agriculture staff on Delta action</li> </ul>	<ul style="list-style-type: none"> <li>- Agriculture</li> </ul>		✓
Implementation	Implement organophosphorus pesticide control program (TMDL)	<ul style="list-style-type: none"> <li>- Require management plans</li> </ul>	<ul style="list-style-type: none"> <li>- Wastewater dischargers</li> <li>- Stormwater dischargers</li> <li>- Agriculture</li> </ul>	✓	
Implementation	Implement salt & boron control program (San Joaquin River at Vernalis)		<ul style="list-style-type: none"> <li>- Wastewater dischargers</li> <li>- Stormwater dischargers</li> <li>- Agriculture</li> </ul>	✓	

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Implementation	Implement control program for oxygen demand in the Stockton Deep Water Ship Channel		<ul style="list-style-type: none"> <li>– Agencies</li> <li>– Wastewater dischargers</li> <li>– Stormwater dischargers</li> <li>– Agriculture</li> </ul>	✓	
Implementation	Implement control program for pathogens in Stockton urban creeks	– Pathogen control program requirements were incorporated into the Stockton stormwater discharge permit in December 2007	– Stockton stormwater dischargers	✓	
Implementation	Notify dischargers of Delta issues	– Staff sent letters to wastewater and stormwater dischargers notifying them of the Delta fisheries crisis and warning them to be vigilant in complying with their permit requirements and avoiding accidental spills of toxic pollutants into Delta waterways.	<ul style="list-style-type: none"> <li>– Wastewater dischargers</li> <li>– Stormwater dischargers</li> </ul>	✓	