

Final- 21 June 2011
Responses to Stakeholder Comments Received on the Delta Mercury Control Program Basin Plan Amendment and Draft Resolution in Preparation for the 21 June 2011 State Water Board Hearing

This document contains the complete text of written stakeholder comments submitted in preparation for the 21 June 2011 State Water Resources Control Board hearing. These letters were received by the 12:00 Noon May 23, 2011 deadline for written comments. Responses to the stakeholder comments are provided after each comment. Each comment is numbered for ease of identification and cross-referencing.

This final version of this document includes revisions for responses to Central Valley Clean Water Association comment #2 (page 27). These revisions are in accordance with State Water Board direction at the 21 June 2011 Board Meeting.

Table of Contents

| | <u>Page #:</u> |
|--|----------------|
| 1. U.S. Environmental Protection Agency, Region IX..... | 1 |
| 2. California State Lands Commission | 5 |
| 3. California Farm Bureau Federation | 11 |
| 4. Central Valley Clean Water Association..... | 26 |
| 5. Clean Water Action | 31 |
| 6. Middletown Rancheria of Pomo Indians of California..... | 44 |
| 7. Phase 1 Stormwater Programs (MS4s) Joint Letter | 45 |
| 8. Sacramento Regional County Sanitation District..... | 50 |
| 9. South Delta Water Agency | 53 |
| 10. Southeast Asian Assistance Center | 69 |
| 11. State Water Contractors, Inc. | 72 |

1. U.S. Environmental Protection Agency, Region IX (USEPA)

Alexis Straus (Director, Water Division)

Letter Date: 18 May 2011

USEPA Comment #1.

Thank you for the opportunity to comment on the proposed approval of an amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin Basins (Basin Plan), to include a program for the control of methylmercury and total mercury in the Sacramento-San Joaquin Delta Estuary. On April 22, 2010, the Central Valley Regional Water Quality Control Board (Regional Board) adopted Resolution No. R5-2010-0043, which included the amendment to its Basin Plan. The amendment adds mercury water quality objectives in methylmercury fish tissue concentrations, and Total Maximum Daily Loads (TMDLs) for methylmercury in the Sacramento-San Joaquin Delta Estuary, to the Basin Plan. We urge the State Water Resources Control Board (State Board) to expeditiously approve the amendment. Our comments on the Regional Board Basin Plan amendment (BPA) are summarized below.

Technical Analyses: We commend Regional Board staff on their rigorous and thorough analyses to support the new fish tissue objectives and TMDLs. We strongly support the new objectives and TMDLs for methylmercury in the Delta Estuary. These objectives and TMDLs use the best available science, and focus on controlling methylmercury, which is linked to methylmercury fish tissue levels, and total mercury, which is the limiting factor in the production of methylmercury. The science supporting these TMDLs clearly indicates that controlling both methylmercury and total mercury will more effectively reduce fish tissue values to safe levels for both wildlife and Delta anglers.

Response: No response necessary.

USEPA Comment #2.

Fish Consumption: The new fish tissue objectives are set to protect consumers of Delta fish eating up to 32 grams per day or approximately 1 fish meal per week. We are aware that subsistence fish consumers consuming more may not be protected. However, language in the BPA states that the Regional Board recognizes that some consumers eat four to five fish meals per week, and that the fish tissue objectives will be re-evaluated during Phase 1 of the Control Program and later program reviews, to determine whether more protective objectives can be attained. Executive Order 12898, dated February 11, 1994, entitled, "Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations" requires agencies to consider patterns of consumption of fish to ensure the protection of populations that principally rely on fish and/or wildlife for subsistence. Therefore, we strongly urge your serious consideration of higher, subsistence consumption patterns of Delta fish, when you consider revisions to the fish tissue objectives during your review of the Phase 1 Control Program and later reviews. Additionally, the U.S Environmental Protection Agency (the EPA) and State Board staff are preparing to conduct a statewide Tribal Fish Consumption Study, to determine the ranges of current and historical fish consumption values for Native Americans in California. This study should provide valuable information on Tribal subsistence fish consumption patterns in the Delta, and should be considered during these reviews of the Delta Program.

Response: The Basin Plan Amendment commits the Central Valley Water Board to consider new information on fish consumption patterns, including the planned statewide Tribal Fish Consumption Study when the TMDL is reviewed at the end of Phase 1 and during later reviews as more is learned about how to effectively control mercury/methylmercury.

USEPA Comment #3.

COMM Beneficial Use: We are pleased to see the commercial (COMM) use adopted as a 'designated beneficial use' for the Delta and Yolo Bypass. However, the designation should be clarified as an existing use, to be consistent with the existing REC-1 use which includes recreational fishing. Existing use designations should be identified either where the use has taken place or the water quality sufficient to support the use has existed since November 28, 1975, or both (see Advance Notice of Proposed Rulemaking, 63 Fed Reg 36754). Recreational and commercial fishing is and has been taking place throughout the Delta; thus, an existing use designation is appropriate. We note that this issue was the topic of several stakeholder discussions, and we include our position here, should this issue be a topic of discussion at the State Board.

Response: This comment was previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 4, as follows:

"Staff purposely proposes designating the use without describing it as existing or potential. We are proposing to designate the COMM beneficial use, which is the use that would normally be associated with people catching and safely eating fish. Regardless of whether we specifically designate the use or not, we already must protect the use of people catching and eating fish. If it is not specifically designated, it is already included as part of the contact recreation beneficial use. The amendment is proposed to protect COMM, regardless of whether it is existing or potential. We received comments to not include the COMM use, to include the use, to add existing in front of designated, and to add potential in front of designated. The question of whether to designate the use as existing or potential has been intensely discussed in several stakeholder meetings. Concentrations of mercury in fish and fishing activities vary across the Delta. Deciding which modifier is appropriate for each Delta subarea could be time and resource consuming and is not necessary for the scope of the current amendment. No federal or state law or regulation requires that the Central Valley Water Board modify a beneficial use to indicate it is existing unless the Central Valley Water Board is de-designating a use. Because the Central Valley Water Board is designating COMM, there is no need to determine if the use is existing or not."

During the development of the Delta TMDL, there was extensive stakeholder, Central Valley Water Board and staff discussion of whether the commercial and sport fishing (COMM) beneficial use was 'existing' or 'potential'. No state or federal law requires the use of 'existing' or 'potential'. Consequently, the Central Valley Water Board designated COMM without using 'existing' or 'potential.' With or without the qualifier, the Board must protect people who catch and eat fish from the Delta.

USEPA Comment #4.

Implementation: We appreciate the Regional Board staff's assistance with specific language changes to the proposed April 2010 BPA regarding two issues: Regional Board action to proceed to Phase 2, and compliance schedules for NPDES permittees. The final adopted BPA on each of these two issues is consistent with our comments, and we request no further changes. However, since we understand these issues may generate discussion at the State Board, we request that the intent of the adopted BPA for each of these two issues remain intact.

1. Regional Board Action to Proceed to Phase 2: The proposed BPA contemplated that implementation of control actions for compliance with allocations (Phase 2) would begin only after formal Regional Board review and action on the development of Control Studies (Phase 1), and after development of tributary TMDLs. The Delta TMDLs would be incomplete if another Regional Board action is required in order for Phase 2, implementation of control actions, to proceed. The adopted BPA contemplates that Phase 2 control actions be implemented when appropriate Phase 1 studies are completed. Regional Board action to proceed is not required. We appreciate Regional Board staff assistance with the language changes.

Response: No response necessary. The Basin Plan Amendment language is consistent with the intent stated above. There is a specific Phase 2 start date in the absence or delay of the Phase 1 review.

USEPA Comment #5.

2. Compliance Schedules for NPDES Permittees: The proposed BPA contemplated that compliance schedules for NPDES dischargers will only start at the beginning of Phase 2, after the Regional Board completes a review of the Phase 1 Control Studies. However, this intent is inconsistent with EPA regulations concerning compliance schedules at 40 CFR 122.47 and with the State Board's 2008 Policy for Compliance Schedules in NPDES Permits, both requiring that compliance schedules, if allowed, be as short as possible. The adopted BPA added the following to Chapter IV, Delta Mercury Control Program, Final Compliance Date, fourth paragraph:

The Regional Board will review the feasibility of meeting wasteload allocations based on reliable data and information regarding variability in methylmercury concentrations and treatment efficiencies and time needed to comply with the wasteload allocations. The Phase 1 Control Studies are designed to provide this information. As needed, the Regional Board shall incorporate the Phase 1 Control Studies into compliance schedules. When Phase 1 studies are complete, the Regional Board will review the need for additional time during Phase 2 for NPDES permittees to comply with the final wasteload allocations.

This language is consistent with both federal requirements for compliance schedules and with the 2008 State Policy. Under the 2008 State Policy, compliance schedules for water quality-based effluent limitations based on the waste load allocations in the TMDLs are authorized only where the Regional Board determines that the Policy's scope and applicability requirements are met and the discharger complies with the compliance schedule application requirements in paragraph 4 of the Policy, demonstrating that additional time to implement actions to comply with the limitations is needed. We request this language remain included in the approved BPA.

Response: No response necessary. No changes are recommended.

USEPA Comment #6.

Stakeholder Process: Lastly, we note that the Regional Board considered a very similar package in April 2008, while adoption took place in April 2010. Regional Board members directed staff to work with stakeholders to resolve concerns about the proposed program, and a significant amount of limited resources was spent on stakeholder meetings for two years. While this process may have been helpful to stakeholders able to expend substantial resources for travel and participation, we note that the objectives did not change and the revised TMDLs are very similar to the originally proposed TMDLs. We are concerned with the two year delay, and are concerned that meaningful participation from stakeholder groups with limited resources may not have been fully considered. Future stakeholder processes must be conducted in a manner that allows all groups to equally participate, and in an expeditious manner. We note our concerns with the process, should a discussion of it arise at the State Board.

Response: The Water Board's Strategic Plan includes implementation of public participation to improve Water Board procedures for adopting policies and regulatory actions. The Central Valley Water Board found the stakeholder process for this Basin Plan Amendment valuable and is committed to using a stakeholder process to implement the Amendment. Regional Water

Boards are encouraged to implement public participation strategies that are as cost effective and efficient as possible.

USEPA Comment #7.

The positions described in this letter are preliminary in nature and do not constitute a determination by EPA under Clean Water Act section 303(e) or 303(d). EPA will make appropriate approval/disapproval decisions following adoption of the water quality standards and the TMDLS, and the State Board's submittal to EPA.

We appreciate the great deal of work that has gone into the development of this Basin Plan Amendment. We appreciate the opportunity to review and comment. If you have any questions, please contact me at (415) 972-3572, or Diane Fleck at (415) 972-3480.

Response: No response necessary.

2. California State Lands Commission (CSLC)

Curtis Fossum (Executive Officer)

Letter Date: 23 May 2011

General Response:

The May 2011 comments submitted by the CSLC are nearly identical to those that it submitted to the Central Valley Water Board in April 2010. In the April 2010 Responses to Stakeholder Comments, the Central Valley Water Board responded to each of CSLC's comments expressed in its April 2010 letter. However, CSLC's May 2011 letter does not refer to the Central Valley Water Board's 2010 responses and does not provide an explanation for why CSLC does not consider the Central Valley Water Board's 2010 responses to be adequate.

CSLC's May 2011 letter is provided in the following pages in its entirety. New text (compared to CSLC's 2010 letter) is identified in yellow-highlighted text marked with brackets – { } – in the margins. New responses are provided for the new text. The Central Valley Water Board's 2010 responses, as well as the page numbers where Central Valley Water Board's 2010 responses can be found, are included following each 2011 CSLC comment that was repeated from the 2010 letter. The April 2010 Responses to Stakeholder Comments are available at the Central Valley Water Board's website:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/april_2010_hg_tmdl_hearing/index.shtml

CSLC Comment #1.

Staff of the California State Lands Commission (Commission) participated in the Delta Methylmercury TMDL and Basin Plan Amendment Stakeholder group during the development of the Basin Plan Amendment by the Central Valley Regional Water Board ("Regional Board"). Prior to the Regional Board's adoption of the Basin Plan Amendment, Commission staff raised our main concern that the Basin Plan Amendment places requirements on individual agencies that may only have control over one factor that contributes to methylmercury. Commission staff would like to reiterate that we believe the Basin Plan Amendment would more effectively confront methylmercury in the Delta if it required the resources agencies as a group to seek funding and develop a strategic approach to studying and reducing methylmercury in the Delta.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 75, as follows:

"The Central Valley Water Board recognizes that the State and Federal Agencies, including the Commission, have jurisdiction for some lands located in the Delta but may have limited ability to control activities. Therefore, the BPA requires the Agencies to conduct Control Studies and evaluate options to reduce methylmercury production in open water under the jurisdiction of the Commission. This will provide information that Central Valley Water Board staff will use during the Phase 1 evaluations to further refine the responsibilities of the State and Federal Agencies."

The Basin Plan Amendment allocations are jointly assigned to the State Lands Commission, the Central Valley Flood Protection Board, and the Department of Water Resources, and it is expected that the agencies will work together to seek funding and to develop a collaborative approach to addressing mercury transport and methylmercury production and transport. The

Basin Plan Amendment also specifies that other agencies that potentially affect the open water allocations could be identified during the first 8 years and would be required to take part in the studies. The Basin Plan Amendment also allows the agencies to work with the other stakeholders in comprehensive, coordinated Control Studies.

The Basin Plan Amendment has requirements to initiate funding strategies, recommends the State Water Board fund a portion of the studies, and recommends the State of California establish the means to fund a portion of the mercury control projects in the Delta and upstream watersheds. The agencies should work together to request budget amendments to fund the Phase 1 activities.

CSLC Comment #2.

The Delta Methylmercury TMDL and Basin Plan Amendment include an implementation plan that seeks to reduce the sources of methylmercury located on lands in the Delta. Lands under the Commission's jurisdiction involve sovereign lands (aka "public trust lands") of the State of California held in trust for the people of California to be used to promote the public's interest in water oriented and water dependent needs and uses. These sovereign lands were acquired by California on September 9, 1850 as an incident of being admitted into the Union as a sovereign state. In 1938 the California Legislature placed these sovereign lands under the newly created State Lands Commission's jurisdiction.

Response: No response needed.

CSLC Comment #3.

The Basin Plan Amendment does not specifically identify the Commission as a non-point source discharger, it treats the Commission as such by assigning a methylmercury allocation to the Commission together with the Department of Water Resources and the Central Valley Flood Protection Board, as managers of open water areas in the Yolo Bypass and Delta. The allocation is described as corresponding to the methylmercury load that fluxes to the water column from sediments in open-water habitats within channel and floodplains in the Delta. While the Commission does have jurisdiction over some of the land located in the Delta, these lands are sovereign land owned by the people of the State of California. The Basin Plan Amendment should be clarified to reflect that the State of California owns the natural beds of its tidal and navigable waterways, including those in the Delta, and is the recipient of discharges of waterborne pollutants made by point and non-point source dischargers into the State's waters.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 75, as follows:

"The Central Valley Water Board appreciates the participation of the California State Lands Commission. The draft BPA assigns the state and federal agencies responsibility for methylmercury loads that enter the water column from the sediments within channels and floodplains in the Delta and Yolo Bypass. The draft BPA does not make the state and federal agencies responsible for the contaminated sediments in the channels and floodplains which may have been discharged by point and non-point source dischargers into the State's waters."

“The Central Valley Water Board recognizes that the State and Federal Agencies, including the Commission, have jurisdiction for some lands located in the Delta but may have limited ability to control activities. Therefore, the BPA requires the Agencies to conduct Control Studies and evaluate options to reduce methylmercury production in open water under the jurisdiction of the Commission. This will provide information that Central Valley Water Board staff will use during the Phase 1 evaluations to further refine the responsibilities of the State and Federal Agencies.”

It should be noted that methylmercury is being generated in open waters under CSLC jurisdiction, and if the TMDL did not set an allocation for that discharge, then the allowable amount of methylmercury production would be zero. CSLC does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

CSLC Comment #4.

The assignment by the Basin Plan Amendment of a methylmercury allocation to the Commission would obligate the Commission to include requirements for future projects, conduct control studies, conduct compliance monitoring and implement methylmercury reductions as necessary to comply with allocations by 2030. More immediately, the Commission would be required to conduct control studies and evaluate options, including inorganic mercury reduction to reduce methylmercury production in open waters under the Commission’s jurisdiction. Compliance monitoring of land in the Delta is to begin within two years of starting Phase 2 and annual reports are to be submitted to the Regional Board. The Basin Plan Amendment suggests that the Commission may be able to satisfy monitoring requirements by participating in a regional monitoring program.

Although the Commission manages certain sovereign lands located in the Delta on behalf of the state, it has neither the legal authority nor the financial authorization to regulate many of the variables that affect methylation rates of mercury on those lands. Factors such as the rate of water flow, turbidity, and the chemical constituents of the water are beyond the Commission’s authority and are regulated by other state or federal agencies. The Commission does not control how much water is flowing through the Delta and its channels or the quality or content of the water. In fact the Commission has sought legislation to amend Public Resources Code Section 6327 to give it the authority to require an application for a permit to construct drainage facilities into navigable rivers, streams, lakes and bays. Presently if a discharger has a permit from a local reclamation district, the Reclamation Board, the Department of Water Resources, the California Debris Commission or the United States Army Corps of Engineers, the Commission is barred from requiring an application. The Legislature has not approved such an amendment. From 1893 through 1986 the responsibility for controlling the flow of material into California’s rivers flowing into the Delta was placed under the authority and responsibility of the California Debris Commission. As such, the State Lands Commission has lacked and continues to lack the ability to prevent discharges that have caused or continue to cause mercury to accumulate in the Delta or to significantly reduce the methylation of the legacy and ongoing accumulation of mercury that exists in the Delta.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 76, as follows:

“The draft BPA has been revised to remove provisions that State and Federal Agencies require projects under their jurisdiction to implement mercury reduction activities. The BPA continues to direct the

State and Federal Agencies to include requirements for projects under their authority to conduct Control Studies and implement methylmercury reductions as necessary to comply with allocations by 2030. The BPA does not require the State and Federal Agencies to control projects that are outside their authority. The BPA also requires the State Lands Commission, Central Valley Flood Protection Board, and Department of Water Resources to conduct Control Studies and evaluate options to reduce methylmercury production in open water under the jurisdiction of the State Lands Commission. This will provide information that Central Valley Water Board staff will use during the Phase 1 evaluations to further refine the responsibilities of the State and Federal Agencies.”

CSLC does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

CSLC Comment #5.

In addition to the previously discussed obligations, the Basin Plan Amendment states that “methylmercury dischargers in the Delta and Yolo Bypass shall participate individually, through their representatives, or through an appropriate entity, in the development and implementation of an Exposure Reduction Program to reduce mercury exposure of people who eat Delta fish.” The dischargers, individually or in the form of a stakeholder group, must work with those in affected communities, community organizations and public health agencies to formulate an exposure reduction workplan. Then the dischargers must implement the plan and submit progress reports every three years to the Regional Board’s Executive Officer. We understand that the Regional Board and the Department of Fish and Game, which regulates the taking of fish, have effective control over these issues.

Insofar as the Commission’s budget is controlled by the Legislature and Governor, the Commission would like to restate that we lack the necessary funding to undertake the tasks that the proposed Basin Plan Amendment assigns to the Commission. While the Commission represents the state as owner of the sovereign lands covered by navigable waterways, the Commission is not in a position to undertake the kinds of projects you suggest without adequate funding. Currently, the Commission does not have staff or expertise to conduct the control studies or monitoring contemplated in the Basin Plan. Furthermore, in the event that funding was to become available, whether to undertake such a project as suggested in the proposed plan would be a decision that must be left to the discretion of the Commission. In an effort to comply with the Basin Plan Amendment, Commission staff did submit a 2010-2011 Budget Change Proposal to fund control studies on methylmercury in the Delta which was denied.

Response: These comments, except for the yellow-highlighted bracketed text above, were previously received during the Central Valley Water Board hearing process and were addressed in the April 2010 Responses to Comments, page 77, as follows:

“The draft BPA requirements for state agencies is consistent with Section 13247 of the California Water Code which states, “State offices, departments and boards, in carrying out activities which affect water quality, shall comply with water quality control plans approved or adopted by the state board unless otherwise directed or authorized by statute, in which case they shall indicate to the regional boards in writing their authority for not complying with such plans.” The California Water Code does not allow other state agencies to use funding as the reason not to comply with a water quality control plan. The draft BPA requires the Commission and the other state and federal agencies to conduct control studies and Central Valley Water Board staff is directed to work with the agencies to develop the studies and evaluate potential mercury and methylmercury control actions.”

CSLC does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

CSLC has made initial efforts to obtain funding for the Phase 1 methylmercury control studies. Once the Basin Plan Amendment is effective (after the U.S. Environmental Protection Agency has approved it), State agencies will have more opportunities for successfully obtaining funding for the studies and should continue to submit budget change proposals to comply with the Basin Plan Amendment requirements. Note that the Basin Plan Amendment allows seven years after the Basin Plan Amendment effective date to obtain funding and complete the studies, as well as a mechanism to allow additional time if warranted:

“If the Executive Officer determines that dischargers are making significant progress towards developing, implementing and/or completing the Phase 1 Control Studies but that more time is needed to finish the studies, the Executive Officer may consider extending a study’s deadlines.

“The Executive Officer may, after public notice, extend time schedules up to two years if the dischargers demonstrate reasonable attempts to secure funding for the Phase 1 studies but experience severe budget shortfalls.” [Basin Plan Amendment page 8]

CSLC Comment #6.

Currently, the proposed Basin Plan Amendment places the bulk of the responsibility on individual stakeholders to formulate a plan for conducting control studies. This seems to limit the role of those with expertise and experience in dealing with California’s water quality problems. The staff of the State Water Board and Regional Water Board have the expertise in water quality testing and monitoring, not the staff of the State Lands Commission. The Regional Water Board is uniquely positioned and should take the lead in deciding what control studies should be carried out and crafting reasonable a solution to the high levels of methylmercury in the Delta. Instead of assigning responsibility to individual State agencies, a more comprehensive solution may be to deal with the California natural resource agencies in a coordinated fashion. Each of the agencies is responsible for resources that are inextricably linked to the others and collectively have an impact on methylmercury levels in the Delta. Since the natural resource agencies are all trustees for the people of the State of California, it seems more efficient to approach the agencies as a group for seeking funding and developing a strategic approach for the State of California to participate in reducing methylmercury in the Delta.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 78, as follows:

“The BPA requires the State and Federal Agencies to conduct their own coordinated Control Studies or may work with the other stakeholders in comprehensive, coordinated Control Studies. So, the Agencies are free to conduct the studies as a group. In addition, the Central Valley Water Board recognizes the water quality expertise of staff so the BPA states that Regional Water Board staff will work with these agencies in conducting studies and evaluating potential mercury reduction actions.”

CSLC does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

CSLC Comment #7.

The Commission staff would like to urge you to help seek funding that will assist the Stakeholder group to work together in the future. We look forward to improving upon this collaborative stakeholder model for developing future TMDLs in the region. If there are any questions, please feel free to contact me at (916) 574-1800 or via email at Curtis.Fossum@slc.ca.gov.

Response: The Central Valley Water Board gave the following response to the above comments in its April 2010 Responses to Comments (page 78):

“The Central Valley Water Board appreciates the participation of the California State Lands Commission. The draft BPA and the resolution directs staff to continue working with stakeholders during the Phase 1 activities and to conclude Phase 1 with a review that considers modification of methylmercury goals, objectives, allocations and/or the Final Compliance Date; implementation of management practices and schedules for methylmercury controls; and adoption of a mercury offset program for dischargers who cannot meet their load and waste load allocations after implementing all reasonable load reduction strategies. The BPA includes a recommendation that the State Water Board consider funding or conducting studies to develop and evaluate management practices to reduce methylmercury production resulting from existing water management activities or flood conveyance projects and a recommendation that the State of California should establish the means to fund a portion of the mercury control projects in the Delta and upstream watersheds.”

No additional response is necessary.

3. California Farm Bureau Federation

Kari Fisher (Associate Counsel)

Letter Date: 23 May 2011

General Response:

California Farm Bureau Federation's May 2011 letter provides one over-arching comment: that Basin Plan Amendment is based on inappropriate and arbitrary standards and does not conform to the requirements and standards set forth by Porter-Cologne. California Farm Bureau Federation submitted this comment in its April 2010 letter to the Central Valley Water Board members prior to the Central Valley Water Board's April 2010 hearing that adopted the Basin Plan Amendment. In the April 2010 Responses to Stakeholder Comments, the Central Valley Water Board responded to California Farm Bureau Federation's comment and the detailed comments expressed in its April 2010 letter. However, California Farm Bureau Federation states simply in its May 2011 letter that "appropriate responses regarding the correct legal standard required were not made" and refers the reader to the April 2010 letter attached to its May 2011 letter. California Farm Bureau Federation does not provide any new or additional information in its May 2011 letter and does not provide an explanation for why it does not consider the Central Valley Water Board's 2010 responses to be appropriate.

As explained in the Central Valley Water Board's April 2010 Responses to Stakeholder Comments, the Basin Plan Amendment and its accompanying documentation complies with all applicable federal and state laws and regulations.

California Farm Bureau Federation's May 2011 letter is provided in the following pages in its entirety. The Central Valley Water Board provided responses to the April 2010 letter in the April 2010 Responses to Stakeholder Comments. The April 2010 letter and responses are provided in their entirety in Attachment A. The April 2010 responses are also available at the Central Valley Water Board's website:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/april_2010_hg_tmdl_hearing/index.shtml

No additional responses are necessary because the 2011 California Farm Bureau Federation letter does not include any new or additional comments, and does not provide an explanation for why California Farm Bureau Federation did not consider the Central Valley Water Board's 2010 responses to be adequate.

Note, California Farm Bureau Federation's 2011 letter states that it also raised its concerns through oral statements during the Central Valley Water Board hearing process. As evidenced by the April 2010 Central Valley Water Board hearing transcript (Attachment B), the California Farm Bureau Federation did not present any new information during oral testimony, nor did it explain why it did not consider the Central Valley Water Board's response to California Farm Bureau Federation's 2010 written comments to be adequate.

California Farm Bureau Federation May 2011 Letter

The California Farm Bureau Federation ("Farm Bureau") is a non-governmental, non-profit, voluntary membership California corporation whose purpose is to protect and promote agricultural interests throughout the state of California and to find solutions to the problems of the farm, the farm home, and the rural community. Farm Bureau is California's largest farm organization, comprised of 53 county Farm Bureaus currently representing approximately 76,500 agricultural and associate members in 56 counties. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources.

Farm Bureau appreciates the opportunity to provide comments on the State Water Resources Control Board's ("State Board") Proposed Approval of Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Methylmercury and Total Mercury in the Sacramento-San Joaquin Delta Estuary. Farm Bureau has been actively engaged in this process, including serving as a stakeholder. Nevertheless, Farm Bureau continues to have questions and concerns regarding the mercury TMDL's overall regulatory effect.

During the public comment period on the Central Valley Regional Water Quality Control Board's ("Regional Board") Basin Plan Amendment for the Control of Methyl and Total Mercury in the Sacramento-San Joaquin Delta Estuary, as well as during the Regional Board's hearing on April 22, 2010, Farm Bureau raised concerns, through written and oral statements, regarding the Regional Board's analysis and standards used in the February 2010 Staff Report and the resulting Basin Plan Amendment ("BPA"). Specifically, Farm Bureau expressed that the BPA does not conform to the requirements and standards set forth by the Porter-Cologne Water Quality Control Act since the BPA is based on inappropriate and arbitrary standards that are incorrectly utilized and relied upon to formulate the fundamental core of the water quality objectives that will be used to control methylmercury in the Delta. Although these comments were raised in a timely manner numerous times before Regional Board staff and Board members, appropriate responses regarding the correct legal standard required were not made. Thus, the legality of the standard used within the BPA remains an open question that should be brought before the State Board, as outlined in the attached comments.

Thank you for the opportunity to provide our comments and concerns. We look forward to further involvement and discussion with the State Board on the development of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Methylmercury and Total Mercury in the Sacramento-San Joaquin Delta Estuary.

Response: California Farm Bureau Federation's comment that the Basin Plan Amendment does not conform to the requirements and standards set forth by Porter-Cologne was previously received during the Central Valley Water Board hearing process and was addressed in the April 2010 Responses to Comments, page 87, as follows:

"Staff disagrees with the Farm Bureau's comment that the documentation for the BPA is inappropriate and arbitrary. The documentation accompanying the BPA complies with all applicable federal and state laws and regulations."

The Central Valley Water Board provided additional detailed responses to each of the California Farm Bureau Federation comments expressed in its 2010 letter, which are provided in Attachment A.



3. California Farm Bureau Federation

RESPONSE TO COMMENTS ATTACHMENT A

California Farm Bureau Federation 7 April 2010 Letter with Central Valley Water Board's April 2010 Responses

CFBF Comment #1.

The California Farm Bureau Federation ("Farm Bureau") is a non-governmental, non-profit, voluntary membership California corporation that's purpose is to protect and promote agricultural interests throughout the state of California and to find solutions to the problems of the farm, the farm home, and the rural community. Farm Bureau is California's largest farm organization, comprised of 53 county Farm Bureaus currently representing approximately 81,000 members in 56 counties. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources.

Response: No response necessary.

CFBF Comment #2.

Farm Bureau appreciates the opportunity to comment on the Central Valley Regional Water Quality Control Board's ("Regional Board") Basin Plan Amendment for the Control of Methyl and Total Mercury in the Sacramento-San Joaquin Delta Estuary ("BPA"). Farm Bureau has submitted comments to the Regional Board throughout the development of the mercury TMDL and Basin Plan Amendment, as well as being an active member in the stakeholder process. Throughout the past several years, Farm Bureau has raised and continues to have serious concerns with various aspects of the proposed BPA. Before getting into specific concerns regarding the contents of the BPA, which we reserve the opportunity to provide at a later date, an overarching concern and fundamental flaw must first be raised and then addressed by staff because such a flaw impacts the entire contents of the BPA and thus, all comments on the contents itself. Specifically, Farm Bureau is greatly concerned with staff's analysis and standards used in the BPA. The BPA does not conform to the requirements and standards set forth by the Porter-Cologne Water Quality Control Act ("Porter-Cologne Act"). Rather, as cited throughout the Staff Report, the BPA is based on inappropriate and arbitrary standards that are incorrectly utilized and relied upon to formulate the fundamental core of the water quality objectives that will be used to control methylmercury in the Delta.

Response:

Staff disagrees with the Farm Bureau's comment that the documentation for the BPA is inappropriate and arbitrary. The documentation accompanying the BPA complies with all applicable federal and state laws and regulations.

CFBF Comment #3.

The Regional Board's Statutory Obligations Under the Porter-Cologne Act

In enacting the Porter-Cologne Act, the Legislature laid out specific goals and objectives for the State's waters. Regional Boards must conform to all such statutory mandates, including the Legislature's objective:

The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to *attain the highest water quality which is reasonable*, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.

(Wat. Code, § 13000, emphasis added.) In a recent decision, the California Supreme Court recently discussed the Legislature's intent, confirming its goal "to attain the highest quality which is reasonable." (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal. 4th 613, 619.)

The use of the term "reasonable" and the "reasonableness" standard is not limited to the express goals laid out in Water Code Section 13000. Rather, the Porter-Cologne Act expressly calls for reasonable actions throughout. Specifically, and of great importance is the direct language in Section 13241, the very section that governs the Regional Board's actions here. Section 13241 states:

Each regional board shall establish such water quality objectives in water quality control plans as in its judgment will ensure *the reasonable protection of beneficial uses* and the prevention of nuisance; however, it is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board in establishing water quality objectives shall include, but not necessarily be limited to, all of the following:

- (a) Past, present, and probable future beneficial uses of water.
- (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
- (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
- (d) Economic considerations.
- (e) The need for developing housing within the region.
- (f) The need to develop and use recycled water.

(Wat. Code, § 13241, emphasis added.) Section 13050(h) further defines "water quality objectives" as "the limits or levels of water quality constituents or characteristics which are established for *the reasonable protection of beneficial uses of water* or the prevention of nuisance within a specific area." (Wat. Code, § 13050(h), emphasis added.) Thus, when analyzing impacts to water quality, preparing or amending basin plans, and in establishing water quality objectives, the Regional Board must comply with and conform to the Legislative intent of the Porter-Cologne Act by applying the "reasonableness standard," that is, evaluate if the activity or control limit will *reasonably* protect the beneficial uses.

Response: The staff report occasionally refers to fully protecting beneficial uses. When adopting water quality objectives, there are a range of potential values that can protect the use. The objective that is adopted needs to fall in the range of values that protects the use (i.e., fully protects the use). The reasonableness factor is applied to determine what value in the range of fully protective values should be selected.

Staff conducted an analysis of whether the fish tissue objectives representing the full protection of the COMM beneficial use can reasonably be achieved. In the analysis, staff looked at global mercury cycling, background concentrations of mercury, current and projected sources of mercury, activities that could be implemented to reduce mercury loads and interrupt the methylmercury cycle, fish consumption statistics, health risks to consumers, fish tissue targets developed in for San Francisco Bay and other areas and many other factors. Staff concluded that the proposed fish tissue objectives could reasonably be achieved, were consistent with targets developed for San Francisco Bay and offered protection for a majority of the people. Staff developed alternative fish tissue objectives that would fully protect the beneficial use and are proposing fish tissue objectives that are consistent with Section 13241 of the Water Code with regards to providing reasonable protection of beneficial uses. The most stringent alternative represents the highest consumption rates reported for some consumers. However, the most stringent alternative is not recommended for adoption since staff was unable to show that fish tissue objectives that protect for the highest consumption rate was reasonably attainable.

CFBF Comment #4.

The Regional Board Applied an Arbitrary and Capricious Standard When Drafting the BPA

Although the Regional Board correctly cited its authority and obligation to “prepare and adopt Water Quality Control Plans, also known as Basin Plans, to regulate water quality,” the Regional Board arbitrarily and capriciously applied its authority when crafting the BPA. (Control of Methylmercury in the Delta, Draft Basin Plan Amendment Staff Report, p. 1 (hereinafter “BPA Staff Report”).) Specifically, the Regional Board did not apply the proper standard when analyzing the water quality impacts and creating the water quality objectives. Instead, as documented throughout the BPA, staff used “fully protect beneficial uses” as the standard in determining compliance limits, water quality objectives, analysis and comparison of alternatives, and in staff’s ultimate decision on the preferred alternative.

The Regional Board correctly summarized the importance of water quality objectives by stating: “Water quality objectives are established in Basin Plans by the Regional Water Boards to protect beneficial uses. Water quality objectives provide a specific basis for the measurement and maintenance of water quality. For this Basin Plan amendment, the objective that needs to be established to protect the beneficial use is methylmercury concentrations in fish tissue.” (BPA Staff Report, p. 13.) However, by failing to use the “reasonableness standard” when determining the water quality impacts and water quality objectives, the “specific basis for the measurement and maintenance of water quality” is improper and invalid.

The Regional Board cites no authority allowing the use of a standard to “fully protect and fully achieve beneficial uses.” Rather, the statutory authority laid out in the Porter-Cologne Act and cited within the BPA clearly and unequivocally calls for the “reasonable” protection of water. By using a different standard, the BPA is fundamentally flawed in its analysis.

Farm Bureau urges the Regional Board to base all conclusions, recommendations, and decisions regarding the methylmercury control program on sound scientific evidence and proper legal standards, and to provide appropriate citations. We look forward to further involvement and discussion with the Regional Board regarding potential controls of methylmercury and total mercury within the Delta and thank you for the opportunity to provide our comments and concerns.

Response:

Please see Board staff’s above response to California Farm Bureau Federation Comment #3. The proposed water quality objectives are consistent with section 13241 of the Water Code.



3. California Farm Bureau Federation

RESPONSE TO COMMENTS

ATTACHMENT B

Transcript of California Farm Bureau Federation Oral Statement and Resulting Discussion at the 22 April 2010 Central Valley Water Board Hearing

The entire 22 April 2010 Central Valley Water Board hearing transcript is available in the Administrative Record.

Transcript Page 132

17 MS. FISHER: Good morning, Chairwoman Hart and
18 Members of the Board. My name is Kari Fisher. I am
19 counsel with the California Farm Bureau Federation. We
20 are located at 2300 River Plaza Drive in Sacramento. The
21 Farm Bureau has numerous concerns regarding the Basin
22 Plan Amendment for mercury within the Delta and the
23 resulting negative impacts that it will have on
24 agricultural.
25 In addition to those concerns raised by my

Transcript Page 133

1 fellow colleagues representing agriculture, the Farm
2 Bureau has numerous legal concerns with the BPA and
3 staff's analysis as stated in the Farm Bureau's comment
4 later. The Farm Bureau questions staff's use of an
5 incorrect legal standard of choosing a fish tissue
6 objective that fully protects beneficial uses. Water
7 Code Section 13241 clearly states that water quality
8 objectives should ensure the reasonable protection of
9 beneficial uses. Rather than using this legally required
10 reasonably protect standard, staff states throughout the
11 staff report that the fish tissue objectives were chosen
12 because they will fully protect beneficial uses.

13 Although staff has responded to these comments
14 raised by Farm Bureau and others, staff responses raise
15 additional and equally disconcerting issues. In comments
16 staff explains that they conducted an analysis of whether
17 the fish tissue objectives representing the full
18 protection of the COMM beneficial use can reasonably be
19 achieved. Such analysis misses the mark of Water Code
20 Section 13241.

21 The analysis should be whether the fish tissue
22 objectives representing reasonable protection of
23 beneficial uses can reasonably be achieved. Now, you may
24 think, okay, they use the word full instead of reasonable
25 -- no big deal -- just a little bit of wordsmithing,

Transcript Page 134

1 however, the difference between "reasonably protect" and
2 "fully protect" is huge. The use of an incorrect legal
3 standard is fundamentally flawed and results in a
4 severely flawed analysis that cannot be relied on for the
5 entire BPA or TMDL.

6 In addition to questioning the use of the
7 standard in developing water quality objectives Farm
8 Bureau is concerned that staff has not and will not
9 complete proper cost analysis of this program to the
10 agricultural sector. Economic consideration of the
11 program are required under Water Code Section 13241 and
12 Section 13141.

13 Section 13141 specifically states, "Prior to any
14 implementation of any water quality control plan, the
15 Regional Board must estimate the title cost of such a
16 program as well as identifying all potential sources of
17 financing." Farm Bureau is concerned that staff is
18 failing to meet their statutory obligations. Rather than
19 conducting proper and detailed cost estimates staff has
20 stated that they're waiting for the phase one control
21 studies to develop better information on cost and
22 feasibility. Such delay tactic is in direct contrast
23 with the provision of the Water Code and further
24 highlights the legal flaws of the BPA.

25 Farm Bureau urges the Board to ensure that all

Transcript Page 135

1 legal and fundamental flaws are corrected prior to the
2 adoption of this program. Thank you.

3 MS. HART: Thank you, Kari. Do we have any
4 questions from Board Members? We have a number of Board
5 Members who you would like to here staff comments to Ms.
6 Fisher's comments.

7 MR. MORRIS: For the last three speakers I think
8 we had some responses to comments. I am not going to
9 provide all the response. I may look to Jerry or Patrick
10 Pulupa to provide some I don't catch on. But back on
11 Mike Wackman's comments that, you know, he is talking
12 about thousands of sources and there's lots of ag lands
13 out there that are potential sources. We have
14 information that shows we do have elevated levels of
15 methylmercury from those ag sources. That's why they're
16 part of this program.

17 And we realize it's going to be difficult to
18 coordinate all of the activities, but that's part of the

19 phase one study plan. We need the ag groups to come
20 together to focus and prioritize where they think those
21 studies should focus on. Not every ag land needs a study
22 -- or not every piece of acreage out there needs a study.
23 But we need that group to work together as a coalition
24 and those farmers out there to work together to figure
25 out where this methylmercury seems to be highest and

Transcript Page 136

1 focus on the control studies on those parcels.
2 Additionally, the exposure reduction program
3 we're not -- we have a backstop in there, you know, if no
4 one wants to get together to work on this exposure
5 reduction program the basin plan says that all
6 dischargers were responsible, but we don't want a
7 thousand different exposure reduction programs from each
8 farmer, from each treatment plant, and from each MS4.
9 That's why we're proposing that strategy for everybody to
10 come together to have to figure out how we're going to
11 develop this exposure reduction plan. So we don't have a
12 bunch of uncoordinated activities going there, but as a
13 backstop if the groups don't come together we have that
14 language in there that each discharger has to be
15 responsible for some type of exposure reduction activity.
16 I was going to let Patrick Pulupa maybe address the issue
17 Paul Buttner had on the cost benefit analysis.
18 And then on Kari's, and then the fully
19 reasonably protect issue perhaps, and last thing I wanted
20 to comment on is that the economic consideration she
21 considered weren't consistent, and we put this
22 information has been on the staff report. We came up
23 with our best estimates. There's a lot of details on how
24 we came up to those estimates. We didn't have any
25 stakeholders give us feedback on what those estimates

Transcript Page 137

1 should have been, you know, where our flaws were when we
2 came up with the assumptions we used and came up with the
3 estimates. We used those estimates based on best
4 professional judgment at that time.

5 MR. PULUPA: I would echo most of Patrick's
6 comments in there. I think that one of the developments
7 we had of the stakeholder process -- what was in response
8 to the thought that the Regional Board would require
9 every single acre of wetland and everything single acre
10 of farmland to do their own individual studies, and the

11 adaptive management approach actually allows for
12 representative samples participation by coalition. So
13 that not everybody is forced -- not every single
14 individual is forced to do a study on their own
15 individual parcel. It's more of a comprehensive approach
16 that can over time zero in on the effects of
17 methylmercury production on their representative parcels.

18 In terms of the evaluation of and alternatives
19 and the scope of the reasonableness requirement under
20 13241, it's something that the Board has been fully
21 cognizant of and the Board staff has been fully cognizant
22 of as they developed the Basin Plan Amendment. I think
23 that you've heard from a range of folks throughout this
24 stakeholder process that talk of consumption levels that
25 are much much higher than talk of certain burdens that

Transcript Page 138

1 are imposed on both the ag community, the wetland
2 community, the other state agencies that are tasked with
3 performing these studies, and the Board -- or the staff
4 evaluated a range of alternatives in the staff report.
5 And really is -- is trying to make the most reasonable
6 assessment of where the -- of both the timing how long we
7 can achieve the proposed objective, and in terms of the
8 suite of control action that would be required to obtain
9 those objectives.

10 Now, there are more expensive and more onerous
11 burdens contained in different alternatives that weren't
12 selected. We -- the -- in terms of formulating the
13 objectives and reasonably protecting them the Board has
14 -- the Board staff has tried to strike a balance of all
15 the competing interests pursuant to 13241, pursuant to
16 our charge to protect the designated uses that are
17 outlined in the basin plan.

18 MS. FISHER: Can I respond to that?

19 MS. HART: Yes. Hold on just a second, Kari.
20 So I think what you're saying, Patrick, is that despite
21 the fully protected language that staff included in the
22 BPA, they have, in fact, contemplated the requirements of
23 13251.

24 MR. PULUPA: 241, correct.

25 MS. HART: I'm sorry, 241. Kari, yes, go ahead

Transcript Page 139

1 with your comments.

2 MS. FISHER: I understand what Patrick is
3 saying. We took water law together. I get it...

4 unfortunately, Patrick, you're confusing -- and I believe
5 staff has done this as well -- confusing two different
6 issues. There's -- your issues of looking at reasonable
7 range of alternatives. Okay. I understand there are
8 higher fish tissue objectives you can get. There are
9 lower. You could say zero. You could say, whatever, a
10 hundred milligrams per whatever. That's one issue.

11 Then there's 13241 that says you are required to
12 look at and adopt objectives that reasonably protect
13 beneficial uses. It doesn't matter what range of all
14 alternatives you look at, if you're looking at the range
15 of alternatives that fully protect, you're missing the
16 mark of the statute. It's two separate things. They're
17 fundamentally flawed if you don't look at the right
18 statute.

19 MR. PULUPA: Yeah, and I think that this is one
20 of the main legal points of contention that in terms of
21 where we stand the analysis conducted by the staff fully
22 comports with both 13241 and the development of case law
23 stemming from 13241 primarily City of Burbank, and City
24 of Arcadia cases that were litigated precisely around
25 this factor that -- that engaged the Los Angeles Regional

Transcript Page 140

1 Board when they were developing TMDLs for their basin.

2 MS. HART: I have a question for Ms. Fisher from
3 Cheryl Maki.

4 MS. MAKI: Well, actually it was for Patrick.

5 MS. HART: I'm sorry.

6 MS. MAKI: That's okay. So Mrs. Fisher quoted
7 something from the Water Code that said we have to
8 identify cost and funding source. Can you address that.

9 MR. PULUPA: Yeah. That language it's -- it's
10 in a number of different areas in terms of where we
11 identify costs. There is no -- you know, to address
12 Paul's concern -- there is no explicit cost/benefit
13 analysis in any of the Water Code statutes or
14 regulations, but we are very sensitive to evaluating and
15 have a statutory mandate to evaluate the both the cost of
16 compliance which I think Patrick has done a very good job
17 at and in addition to parse out the costs of compliance
18 for ag communities. This cost estimates, you know, you
19 heard Paul quoting the 20 something million dollar
20 potential costs, the costs for the ag are spelled out
21 separately in the basin plan staff report. Those costs
22 are more specific and state that the phase one
23 methylmercury control studies will be from a range for

24 the entire ag community from \$290,000 to \$1.4 million,
25 which is substantially less than the cost of the entire

Transcript Page 141

1 group of dischargers point and nonpoint for their
2 studies.

3 MS. MAKI: But the funding source has not been
4 identified?

5 MR. PULUPA: It's in the Basin Plan Amendment.

6 MS. MAKI: You're saying each discharger will be
7 responsible for their own or their coalition or whatever.

8 MR. PULUPA: Give me one moment.

9 MR. BRUNS: Let me just add a generic -- I am
10 Jerry Bruns with the staff at the Regional Board. Just a
11 generic comment on -- on, you know, the -- the studies
12 and everything and the concern that the language in the
13 basin plan we talked about this endlessly in our
14 stakeholder meetings about how specific to be and how
15 general to be and everyone agreed it needed to be general
16 and flexible and something we can work through the
17 process on.

18 So what is going to happen is we're going to
19 start having some stakeholder meetings, meet and try to
20 figure out what kind of a program makes sense, who should
21 pay for it, and at some point in time in the future this
22 is all going to come back to the executive officer and
23 you guys. If there's -- if it looks like for some reason
24 we don't think one group is pulling their weight on this,
25 and it is flexible, and it's not well defined. And it's

Transcript Page 142

1 because mostly that's what the stakeholders wanted in the
2 process, so that's why it is the way it is.

3 MS. FISHER: However, you are obligated for
4 agriculture to identify all of the funding sources and
5 all of the costs prior to implementation of any Basin
6 Plan Amendment -- before -- before.

7 MR. PULUPA: And those costs were solicited.
8 They're actually contained in the Basin Plan Amendment,
9 attachment one to the resolution on page 17 identifies
10 the costs that I stated the 290,000 to \$1.4 million
11 the --

12 MS. FISHER: That's just for phase one.

13 MR. PULUPA: That is for phase one. Phase two
14 is further expounded upon in the staff report and the
15 potential funding sources are identified as the San
16 Joaquin River Subservice, Agricultural Drainage Control

17 Program, and the Pesticide Control Program we will add
18 additional funding sources as they show themselves and
19 become available.

20 MS. HART: Kari, we understand your perspective.
21 Do you have additional information that you think the
22 Board needs to see that has not been submitted in terms
23 of the economics and if so --

24 MS. FISHER: I don't have access to anything
25 like that. I don't have specific farmers who are taking

Transcript Page 143

1 sampling for mercury for the fun of it.

2 MS. HART: Okay. Thank you. Thank you. Yes,
3 we have a question from Ms. Bell.

4 MS. BELL: I am not done. For my clarification
5 I am still not clear. I am going to ask staff to go over
6 this again, fully protect versus reasonably protect and
7 why we're using fully and why we can't use reasonably?

8 MR. BRUNS: Let me give out the -- the staff
9 engineer and environmental scientist's answer and then
10 the lawyers can correct me and argue among themselves
11 about it. I think as part of the Clean Water Act we need
12 to fully protect beneficial uses.

13 Okay. So the way we incorporate the
14 reasonableness requirement and that's part of Porter
15 Cologne -- the reasonableness requirements part of Porter
16 Cologne and the fully protect idea is, we are going to
17 fully protect the beneficial use of eating fish. Where
18 we use the reasonableness is we have a range of
19 objectives that can do that. It can go from all the way
20 from down, you know -- the objective can be anything --
21 there's a range, and we picked the number that we think
22 can reasonably be obtained with the suite of things we've
23 said that need to be done. That's where the
24 reasonableness comes in there and that's how the Clean
25 Water Act and the Porter Cologne get along with each

Transcript Page 144

1 other.

2 MR. PULUPA: I don't have too much correction to
3 make. I mean, where the reasonable language actually
4 comes in from the inception of Porter Cologne in 1969
5 before the Clean Water Act Amendments of 1972 which
6 require that individual provisions such as the
7 protections of beneficial or designated uses and the
8 water quality objectives and standards to meet those
9 designated uses.

10 Now, I think Jerry is entirely right in that we
11 -- what we really focus on is what is the designated
12 uses. What has the Board in exercising it's authority
13 stated what these waterways will be for, can be used for,
14 and then deriving reasonable means of achieving those
15 water quality standards of deriving them for the
16 communities that those uses are designed to protect.

17 We have a Delta waterway that is impaired for
18 the REC 1 beneficial use because of high elevated mercury
19 concentrations in fish tissue. As staff has said they're
20 actually adding the COMM use not to change any type of
21 our protection, but to clarify it. The COMM use came
22 along a little later. Both of those uses are geared
23 toward protection of people who fish and catch fish.

24 Within protecting that beneficial use we have to
25 conduct an analysis, and we have to be reasonable in our

Transcript Page 145

1 application of the laws and the regulatory authority that
2 we have at our disposal. I think in this context it
3 means that at one end we have to protect the beneficial
4 uses. That's kind of the goal of the whole program. On
5 the other end the reasonable language is a mandate that
6 the Board can't use it's very powerful authority in a way
7 that doesn't consider the other uses of this water
8 course, the other folks who discharge into this water
9 course and can't -- as many of the commenters have stated
10 -- protect the most very sensitive -- most sensitive uses
11 of these water courses.

12 They didn't design the fish tissue objectives
13 based on the four or five meals a week, because it's not
14 reasonable that we could get there from here. We didn't
15 include other, you know, provisions that would accelerate
16 this process, so that, you know, basically going without
17 the phase one studies and implementing these programs
18 immediately. And the Board actually included a provision
19 that says, "For the phase one period all that the
20 dischargers are mainly required to do is figure out what
21 means they can use to control the methylmercury that is
22 generated by activities that they have control over."

23 They do those studies. It comes back to the
24 Board, and before phase two is implemented, and the Board
25 reevaluates all the studies that came in, takes a look at

Transcript Page 146

1 what control measures are effective, what control
2 measures can be effective, and again, that 13241 process

3 will be ingrained into the decisions that the Board makes
4 regarding basin planning at that time as well. I think
5 just reasonable permeates the -- most of the provisions
6 that we enforce under Porter Cologne.

7 MS. OKUN: And just one other point, in
8 considering what is reasonable, economic considerations
9 are not the only factor to be considered. This is a use
10 that is being made of this water. There are people out
11 there who are fishing and consuming the fish. And so to
12 partially protect that use isn't reasonable. Once you
13 determine that that use is there and it needs to be
14 protected, as both Patricks have said, there's a range of
15 alternatives available to the Board. But to just not
16 protect it, isn't reasonable.

17 MS. HART: Thank you. So it's nearing
18 lunchtime. We have certain Board Members that need to
19 eat at certain times, but I do have a card from LaDonna
20 Williams who is the executive environmental justice
21 community group who needs the leave by 1:00, so I would
22 like to take her comments now so we don't miss them.



4. Central Valley Clean Water Association (CVCWA)

Debbie Webster (Executive Officer)

Letter Date: 23 May 2011

CVCWA Comment #1.

The Central Valley Clean Water Association (CVCWA) appreciates the opportunity to provide comments on the Delta Methylmercury TMDL. CVCWA is a consortium of publicly-owned treatment works (POTWs) in the Central Valley. Our primary purpose is to exchange information with our member agencies and provide a unified voice on regulatory issues impacting POTWs throughout the Central Valley. CVCWA members in the Delta will be required via their NPDES permits to comply with relevant requirements in the final Basin Plan Amendment (BPA) in Resolution No. R5-2010-0043 "Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Methylmercury and Total Mercury in the Sacramento-San Joaquin River Delta Estuary".

CVCWA has been an active participant in the Methylmercury Stakeholder Group and have supported this stakeholder process. CVCWA members want to continue to participate in effective solutions to difficult problems such as mercury. It is our intention that our comments below serve to improve the BPA, particularly in recognition that we already serve the public's interest by removing mercury from municipal wastewater and represent a *de minimis* source of methylmercury to the Delta.

Based on our review of the BPA version publicized on April 18, 2011, we wish to bring to the attention of the State Water Resources Control Board (State Water Board) the following comments to:

- Encourage early actions
- Address scheduling constraints that depend on State Water Board action
- Recognize potential inconsistencies in various concurrent regulatory actions.

Response: Responses to each comment are provided below.

CVCWA Comment #2.

Encourage Early Action

The BPA [page 9] states:

The Regional Water Board shall use any applicable new information and results of the Control Studies to adjust the relevant allocations and implementation requirements as appropriate. *Interim limits established during Phase 1 and allocations will not be reduced as a result of early actions that result in reduced inorganic (total) mercury and/or methylmercury in discharges.* (Emphasis added.)

The purpose of this provision is to encourage early actions and not penalize those who reduce their total and/or methylmercury by setting more stringent interim limits based on these reductions.

Recent experiences with NPDES permits reissued for the Sacramento Regional County Sanitation District and the City of Stockton (among others) have shown that this policy is not yet being followed. In those cases, these POTWs achieved significant mercury load reductions by implementing a comprehensive mercury source reduction program (Sacramento) or upgrading its wastewater treatment facility (Stockton). The reductions these two POTWs achieved were used in the calculation of their interim limits, and have led to lower mercury load caps. This could

result in unnecessary NPDES permit violation. Such cases discourage early actions by other POTWs who now fear that any beneficial efforts to reduce total mercury or methylmercury will result in more stringent requirements later. We believe that by repeating this provision in the section applicable to interim limits, it will likely make it more evident to the permit writer that this provision is applicable. Additionally, providing some direction on how to account for these periods when early actions occurred could provide some greater certainty for both the permit writer and NPDES permit holder. One straightforward method to account for these early actions is to exclude monthly load data periods in which these actions have been implemented.

We propose that the State Water Board include the following statement in the paragraph explaining how to calculate interim performance-based limits [page 4] (new text underlined):

During Phase 1, all facilities listed in Table B shall limit their discharges of inorganic (total) mercury to facility performance-based levels. The interim inorganic (total) mercury effluent mass limit is to be derived using current, representative data and shall not exceed the 99.9th percentile of 12-month running effluent inorganic (total) mercury loads (lbs/year). For intermittent dischargers, the interim inorganic (total) mercury effluent mass limit shall consider site-specific discharge conditions. Interim limits established during Phase 1 will not be reduced as a result of early actions that have already reduced inorganic (total) mercury and/or methylmercury in discharges. To implement credits for early reductions, periods in which early actions have been implemented will be excluded from the interim limit calculation. The limit shall be assigned in permits and reported as an annual load based on a calendar year. At the end of Phase 1, the interim inorganic (total) mercury mass limit will be re-evaluated and modified as appropriate.

This comment is new because, based on recent experience with NPDES permits subject to this TMDL, we realized that the Central Valley Regional Water Quality Control Board (Regional Water Board) were not implementing this provision of the TMDL.

Response: ¹ The Basin Plan Amendment already recognizes that early implementation activities should not be discouraged. The intent of the Basin Plan Amendment text quoted above was to not penalize facilities that implement activities to reduce mercury/methylmercury discharges during when calculating interim limits in Phase 1 or when the Board establishes revised TMDL inorganic mercury caps or methylmercury allocations. However, CVCWA is basing its examples of the Sacramento Regional County Sanitation District and the City of Stockton on pre-TMDL approval conditions. Total mercury reduction has been a requirement in Central Valley NPDES permits for Delta dischargers for the past decade. CVCWA's suggestion to not penalize discharger's that have made reductions prior to implementation of the TMDL would be subjective and difficult to implement. Furthermore, it is not consistent with the State Water Board's Compliance Schedule Policy, which states that, "*Numeric interim limitations for the pollutant must, at a minimum, be based on current treatment facility performance or on existing permit limitations, whichever is more stringent.*" (State Water Board Resolution 2008-0025, p. 6) It also is not consistent with the TMDL. The Basin Plan Amendment states that for point sources, "*During Phase 1, all facilities listed in Table B shall limit their discharges of inorganic (total) mercury to facility performance-based levels. The interim inorganic (total) mercury effluent mass limit is to be derived using current, representative data...*" (Basin Plan Amendment, p. 4) CVCWA is correct in that substantial improvements took place during the TMDL development period. This has occurred for most of the Delta dischargers that are subject

¹ The underline and ~~strikeout~~ revisions are in accordance with State Water Board direction at its 21 June 2011 Board Meeting.

to the TMDL. CVCWA's suggestion to use older total mercury data that is not representative of the current discharge would not meet the requirements of the TMDL.

CVCWA Comment #3.

Exposure Reduction Program

CVCWA members continue to be concerned that the exposure reduction program will unfairly rely on publicly owned treatment facilities. The Regional Water Board included language [at BPA page 15] that the State Water Board should develop a statewide policy that defines the authority and provides guidance for exposure reduction programs before dischargers are required to submit exposure reduction workplans [two years after Effective Date]. This language was included because neither the Regional Board staff nor the Dischargers understood why they were being tasked with a program they had no expertise in and was under another state agency's responsibility (i.e., California Department of Public Health).

We urge the State Water Board to commit in its resolution to address the issue of responsibility for public health messages and to work with CDPH on this issue.

This comment is new because the State Water Board did not participate in this discussion at the Regional Water Board's workshops or hearings.

Response: The Basin Plan Amendment has requirements for the Central Valley Water Board to work with stakeholders to develop an exposure reduction strategy and program. There is not the expectation that the State Water Board would develop a statewide policy before work plans must be submitted. The Basin Plan Amendment requirements for exposure reduction activities stem from State Water Board Resolution 2005-0060, which "directs the San Francisco Bay and Central Valley Water Boards to investigate ways, consistent with their regulatory authority, to address public health impacts of mercury in San Francisco Bay/Delta fish, including activities that reduce actual and potential exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in San Francisco Bay-Delta caught fish, such as subsistence fishers and their families." The Central Valley Water Board will work with the State Water Board on exposure reduction strategies and will engage the California Department of Public Health to develop an effective program. Language in the Basin Plan Amendment commits the Central Valley Water Board to working with State and local public health agencies, including California Department of Public Health and California Office of Health Hazard Assessment, as well as county public health and/or environmental health departments (page 14 of the Basin Plan Amendment, last paragraph).

State Water Board staff is currently engaged in a process to develop statewide mercury fish tissue objectives and an associated implementation plan. This effort could certainly include the development of a statewide policy to provide guidance for exposure reduction programs. The State Water Board can consider adding language to the proposed resolution that would re-affirm its commitment to the development of statewide mercury fish tissue objectives, and would commit State Water Board staff to develop an exposure reduction strategy as part of that effort.

Space intentionally left blank.

CVCWA Comment #4.

Scheduling Constraints

This BPA includes several regulatory compliance schedules to which POTWs will be held accountable, but which depend on action by the Regional Water Board and State Water Board. Delays by the regulatory authorities in completing their prerequisite actions could jeopardize a POTW's and/or other entities' ability to comply with mandated compliance schedules. In particular:

- The Regional Water Board needs to select and contract members to a Technical Advisory Committee and to produce a Control Study Guidance Document [at BPA page 7] before significant progress can be made in developing Control Study Workplans [due nine months from the Effective Date].
- The State Water Board should develop a statewide policy that defines the authority and provides guidance for exposure reduction programs [at BPA page 15] before dischargers are required to submit exposure reduction workplans [two years after Effective Date].

We propose that the State Water Board, in its resolution, (1) provided appropriate mechanisms to adjust schedules when adherence with regulatory compliance schedules imposed on POTWs depends on Regional Water Board or State Water Board actions; and (2) include a commitment to support Regional Water Board activities to ensure timely production of prerequisite guidance documents, policy statements, and workplan reviews.

This comment is new because the scheduled items were part of late revision to the BPA and because they apply to the State Water Board.

Response: The Central Valley Water Board included several provisions in the Basin Plan Amendment to allow the Central Valley Water Board Executive Officer to modify time schedules and due dates as appropriate and necessary. In particular, the following provisions on page 8 of the Basin Plan Amendment already provide the schedule adjustment mechanism requested by CVCWA so that any delay by the Central Valley Water Board would not jeopardize the ability of the POTWs and other entities to comply with compliance schedules:

“Within four months of submittal, the Executive Officer must determine if the Workplans are acceptable. After four months, Workplans are deemed approved and ready to implement if no written approval is provided by the Executive Officer, unless the Executive Officer provides written notification to extend the approval process.”

“Dischargers shall be considered in compliance with this reporting requirement upon timely submittal of workplans and revisions.”

“If the Executive Officer determines that dischargers are making significant progress towards developing, implementing and/or completing the Phase 1 Control Studies but that more time is needed to finish the studies, the Executive Officer may consider extending a study's deadlines.”

[Basin Plan Amendment page 8]

While the Basin Plan Amendment states that Central Valley Water Board staff will work with the Technical Advisory Committee to provide a Control Study Guidance Document, the staff is ultimately responsible for providing the document. The stakeholders and Central Valley Water Board staff have already developed a draft adaptive management plan that includes Appendix C, Control Studies Guidance. The plan may be found the Central Valley Water Board's website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/stakeholder_workgroup_mtgs/index.shtml

Implementation of this TMDL is addressed through existing and future budgeted resources and there is no need for commitment from the State Water Board in the resolution.

As a result, there is no recommendation to incorporate CVCWA's suggestions into the resolution.

CVCWA Comment #5.

Urge for Consistency

There are over 100 waterbodies in the Central Valley on the 303(d) list for mercury impairment. Only a handful of TMDLs have been promulgated to address those impairments, yet recent NPDES permits already include mercury load caps. In this light, we urge the State Water Board and Regional Water Board to provide consistent approaches in Central Valley mercury TMDLs that will avoid duplicate and/or conflicting regulatory requirements for dischargers.

The State Water Board appears to be working on two other projects to address mercury impairments: (1) developing statewide mercury fish tissue objective(s), and (2) developing a statewide mercury TMDL addressing the many impaired reservoirs. For these projects, we urge the State Water Board to align these efforts to avoid inconsistent or unachievable regulatory requirements. Also, we urge the State Board to initiate a project to develop an offset program policy [at BPA p. 2, 13-14].

Thank you for this opportunity to comment on this BPA. We sincerely request that the State Water Board review our comments and revise the current BPA to address these concerns. Please feel free to contact me at (530) 268-1338 if you wish to discuss our comments.

Response: It is a goal of the statewide fish tissue objectives and a statewide mercury TMDL projects to avoid duplicate regulatory requirements and to provide consistency for dischargers. The State and Regional Water Boards are collaborating extensively to develop an effective approach to developing statewide objectives and TMDLs. The statewide projects will have staff from multiple Regional Water Boards participating in them and it is anticipated that these will be presented to the State Water Board for adoption. This process is expected to result in statewide consistency. In addition, there will be opportunity for discharger and other stakeholder involvement in both of these projects.

5. Clean Water Action (CWA)

Andria Ventura (Program Manager)

Letter Date: 23 May 2011

General Response:

The May 2011 comments submitted by Clean Water Action are nearly identical to those it submitted to the Central Valley Water Board in April 2010. In the April 2010 Responses to Stakeholder Comments, the Central Valley Water Board responded to each of Clean Water Action's comments expressed in its April 2010 letter. The April 2010 Responses to Stakeholder Comments are available at the Central Valley Water Board's website:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/april_2010_hg_tmdl_hearing/index.shtml

Clean Water Action's May 2011 letter is provided in the following pages in its entirety. New text (compared to Clean Water Action's 2010 letter) is identified in yellow-highlighted text marked with brackets – { } – in the margins. The page numbers for where Central Valley Water Board's responses can be found in the April 2010 Responses to Stakeholder Comments are included following each 2011 Clean Water Action comment that was repeated from its 2010 letter. Additional responses are provided as appropriate.

CWA Comment #1.

On behalf of Clean Water Action (CWA) and our 85,000 California members, I thank you for this opportunity to submit the following comments on the proposed methylmercury total maximum daily load (TMDL) for the Delta and the amendment of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (referred to herein as the 'proposed BPA'). We wish to begin by recognizing that addressing one of the most dangerous and widespread contaminants in the watershed is both complex and difficult. While there are

positive aspects of this plan, particularly the methylmercury emphasis, we do have concerns about the proposed BPA that are serious enough that we cannot support it, despite our desire to move forward and begin addressing this critical environmental problem.

Because the Central Valley Regional Water Quality Control Board (Regional Board) states in their Resolution R5-2010-0043, that this TMDL is the result of a stakeholder process that included environmental and environmental justice representatives (Bullet 28, page 5), we are obligated to begin by informing you that the proposed BPA does not represent a consensus of all stakeholders, especially those most impacted by methylmercury in the Delta and in Delta fish. While we recognize that the Board's decision to establish a public stakeholder process may have been well intentioned and that Staff did attempt to be inclusive, the result was in fact a discharger and government agency (some of whom are also dischargers) driven process. For this reason, we specifically requested that the Regional Board remove this reference from their Resolution out of respect to those who were not able to fully engage in the process. This, as you see, did not happen.

Response: Virtually identical comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments,

pages 115-117. Clean Water Action states that the proposed Basin Plan Amendment does not represent a consensus, especially for those most impacted, and that the stakeholder process favored agencies and dischargers. The Central Valley Water Board heard that community groups and others could not participate in this process to the same level that agencies, dischargers and discharger groups could participate. In an effort to be more inclusive, Central Valley Water Board staff and the independent facilitators contacted community groups outside of the stakeholder meetings in order to gain their perspectives. The stakeholder process was also never portrayed as a consensus-based process. As evidenced by comment letters submitted in April 2010 and May 2011, dischargers, including State and federal agencies, also have disagreements with the Basin Plan Amendment.

R5-2010-0043 Finding #31 provides a general list of entities that “participated in a collaborative stakeholder process with Central Valley Water Board staff that contributed to the development” of the Basin Plan Amendment. The finding does not state that participation was equal or consensus-based. In response to a similar comment from Clean Water Action in April 2010, R5-2010-0043 Finding #31 does not contain “community-based organizations” in the list of participating entities.

CWA Comment #2.

The reality is that community groups are outnumbered by and cannot compete with dischargers and agencies that have dedicated personnel and even budgets for such time intensive processes, held solely in one part of the Delta that is inaccessible to many living in this geographically broad region. An attempt to overcome these problems by holding phone meetings specifically with community groups, while again well intentioned, in fact isolated their concerns and comments, as opposed to integrating them into the larger discussions by the stakeholder group. In addition outreach to tribes, who bring both unique expertise and needs to this process, did not happen until late 2009, meaning that they were left out of the development of the current BPA draft. This is not merely an egregious oversight, but does not comply with Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments, November 2000, http://www.usace.army.mil/CECW/TribalIssues/Documents/eo_13175.pdf)

Response: Nearly identical comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, pages 115-117.

Throughout development of the TMDL, Central Valley Water Board staff used a combination of group meetings and individual contacts to understand the perspectives all interested stakeholders. Specifically for the stakeholder process (mid 2008 – February 2010), Central Valley Water board staff held meetings in different locations (Stockton, downtown Sacramento, Rancho Cordova, and Davis) and provided phone connections for all meetings.

The assertion that Tribes were not involved in the development of the Basin Plan Amendment is incorrect. The California Indian Environmental Alliance provided Central Valley Water Board staff with a Tribal perspective of mercury and fish consumption concerns early in the TMDL development. The California Indian Environmental Alliance is a nonprofit group created by Tribal representatives whose main focus is addressing mercury and other mining legacy problems. The California Indian Environmental Alliance commented on the draft Delta TMDL in

April 2008. In September 2009, California Indian Environmental Alliance provided Central Valley Water Board staff with names of several individual Tribes interested in the Delta TMDL. The Administrative Record indicates that Central Valley Water Board staff immediately held a phone meeting, then a staff workshop with Tribes. Thereafter, Tribal representatives were invited to all and participated in some stakeholder meetings. Comments from Tribal representatives were used for revisions to the Basin Plan Amendment's Exposure Reduction Program and the CEQA evaluation of cultural resource impacts.

During the stakeholder process, Central Valley Water Board staff received guidance from State Water Board's Office of Public Participation, USEPA's Tribal Liaison office, and Tribe representatives themselves on how to improve communication. Central Valley Water Board staff applied these "lessons learned" to inform and involve Tribes at the start of its American River watershed mercury TMDL project, which is ongoing.

CWA Comment #3.

Weaknesses of the proposed TMDL

In the end, what is most important is the development of a TMDL that will reasonably address the mercury contamination in the Delta, and return the watershed to its beneficial uses. We applaud the Regional Board for focusing on methylmercury. The following is a partial list of our concerns with the proposed BPA in its current form.

- 1. The goals of the TMDL, expressed by the fish tissue target, fall short of attaining the true beneficial uses of the Delta and will perpetuate the health threat to communities with high levels of subsistence fishing.***

CWA has consistently, over the years, opposed a fish tissue target in this TMDL that will limit safe consumption of Delta caught fish to one meal a week. The purpose of the TMDL is to remediate the Delta to regain and protect its beneficial uses. The Clean Water Act does not condone only protecting a portion of these beneficial uses or only part of the population that takes advantage of them. Instead, the goal is to protect all populations and provide a clean, safe environment, including the low income communities and communities of color that tend to have higher levels of subsistence fishing.

The proposed BPA even recognizes this responsibility by admitting that "the long-term goal of the mercury program is to enable people to safely eat four to five meals per week (128-160 g/day) of Delta fish (BPA, page 2)", yet the proposed BPA's objective remains at 32 grams/day (one meal a week) of trophic level 3 and 4 Delta fish, plus some commercial fish. This objective is not valid because it is based on averages taken over a large population and ignores the significance of variations of fish consumption within that population. CWA further disagrees with Staff's contention that meeting a more stringent fish tissue target may not be achievable or measurable. Measurement capabilities have, and will continue to improve over time. More importantly, because understanding of how to control methylmercury (the focus of this TMDL) is also expected to grow over time, we believe that reducing fish tissue levels to allow for subsistence fishing, is in fact achievable, as opposed to if we were relying on eradicating total mercury contamination in the watershed. In the end, by ignoring the rates of subsistence fishing in the Delta the proposed fish tissue target is discriminatory, does not set a goal reflective of the watershed's true beneficial uses, and does it comply with the intent of the Clean Water Act.

For these reasons, CWA advocated for adoption of Alternative 5 outlined in the Staff Report as the fish tissue target of this TMDL -- 128-160 g/day of Delta fish—which is in line with the US EPA's recommendation of a rate of 142.4 grams/day and is closer to actual fishing practices in many of the region's communities. We also called for the inclusion of a subsistence fishing designation as a beneficial use for the Delta and the Native American Cultural (CUL) use, in recognition of the communities who rely on such practices to provide basic nutritional and cultural sustenance for their families. We recommended this over the COMM designation suggested by Staff for recreational fishing¹, as it best characterizes the true beneficial uses of the Delta and would protect both recreational and subsistence fishers.

The Regional Board has argued that it will review the possibility of attaining a more stringent fish tissue target over the course of Phase 1 of the Control Program. CWA strongly contends that the needs of subsistence fishers should be reflected in the TMDL and implementation plan now, given that beneficial are not dependent on what the Regional Board believes at present is attainable. If, however, the State Board chooses to adopt the BPA we strongly urge the State Board to hold the Regional Board accountable by requiring them to provide a scientific basis for conclusions that attaining a fish tissue target allowing safe consumption of 4-5 meals a week is unrealistic and to adopt a more stringent target upon State Board review of Phase 1.

Response: Clean Water Action's main points are: 1) the Delta fish tissue objectives do not sufficiently protect the beneficial use, 2) disagreement with Central Valley Water Board's conclusion that objectives based on a subsistence consumption rate cannot be shown to be achievable with current science, and 3) subsistence fishing and cultural beneficial uses should be adopted for the Delta. Please see responses to virtually identical comments from Clean Water Action in the Central Valley Water Board's April 2010 Responses to Comments, pages 118-119, as well as page 167 (comments from Fraser Shilling).

Water quality objectives are established to ensure reasonable protection of beneficial uses taking into consideration, among other factors, the water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality as well as the economic impacts that will result from implementing the objectives. When establishing water quality objectives, the Central Valley Water Board provides information on how it believes the adopted water quality objectives will be met, including the reasonably foreseeable methods of compliance. The Basin Plan Amendment Staff Report Chapter 3.2 describes the scientific basis for the conclusion that the fish tissue objectives based on one meal/week (32 g/day) of trophic level 3 and 4 fish will be met but that more stringent objectives may not be reached. Clean Water Action does not explain what it finds inadequate about the scientific justification nor does it offer different scientific information that indicates more stringent objectives can be attained.

The USEPA and Oregon State University measured mercury in 2,700 large trophic level 3 and 4 fish from 626 streams and river segments in the western United States, including California (Environmental Science and Technology 2007, vol 41 pg 58-65). Compared to the range of mercury concentrations seen across the western US, fish in the Sacramento, San Joaquin, Mokelumne, and Yolo Bypass subareas of the Delta are in the top 25%. These comparisons

¹ http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr.pdf

indicate that Delta fish have elevated concentrations in comparison to unmined and more pristine areas. Of the sampled waterways in the western United States, less than 5% had mercury concentrations that safely allowed consumption of about four meals/week (142 g/day). Therefore, objectives based on 142 g/day consumption may not be attainable. In contrast, about 30% of the sampled waterways had fish with mercury concentrations lower than the Delta objectives, suggesting that the Delta objectives are attainable with implementation of a vigorous control program.

The Central hydrologic subarea of the Delta currently meets the Delta objectives, which supports the idea that the objectives can be fully attained throughout the Delta. During Implementation Phase 1, responsible parties must investigate methods of methylmercury control that can be applied to the rest of the Delta. Safe consumption of 142 g/day of large, trophic level 3 and 4 fish is not achieved anywhere in the Delta. Without an understanding of what management practices and treatment technologies are available to reduce concentrations of methylmercury to very low levels, there was no sound scientific rationale for the Central Valley Water Board to adopt more stringent objectives. After Phase 1, the Central Valley Water Board will consider modifying the objectives if new information supports the change.

It is unclear what CWA means by the 32 g/day consumption being “based on averages taken over a large population”. The Delta TMDL Staff Report cites 32 g/day as the 95th percentile consumption rate reported in a survey of San Francisco Bay fish consumers (San Francisco Estuary Institute and California Department of Public Health, 2000).

It is important to remember that a consumer’s methylmercury intake is dependent on the consumption rate and the methylmercury concentration in the particular fish eaten. The Delta objectives apply to large, trophic level 3 and 4 fish (including large catfish and bass) in recognition of the fact that people will likely continue eating these popular fish. Presently, a person can safely eat nearly two meals per week (65 g/day) of Delta fish that are relatively low in mercury (i.e., shad, salmon, sunfish, and steelhead). As methylmercury and mercury controls are implemented, concentrations in all fish are expected to decline and safely allow even greater consumption of low-mercury fish.

The Central Valley Water Board previously responded to Clean Water Action’s call for subsistence fishing and cultural resources beneficial uses to be applied to the Delta. The COMM beneficial use protects “uses of water for commercial or recreational collection...”. As used in the COMM definition, “recreational” does not define the rate of consumption, but refers to fish that are consumed by the angler and/or distributed informally. As described above, the Delta objectives are based on levels that are achievable. At this time, it is unclear if the Delta can realistically support the high levels of fish consumption that would be protected if the beneficial uses of subsistence fishing and cultural resources were established for the Delta. The Central Valley Water Board could designate a subsistence fishing beneficial use for the Delta in the future if it the Board finds that the use is appropriate for the Delta. The Central Valley Water Board indicated that it welcomes information from Tribes and other fish consumers about the degree of subsistence fishing in the Delta.

CWA Comment #4.

- 2. Phase One does not include specific and measurable total mercury reduction requirements for all dischargers while methylmercury control studies are occurring and allows unnecessary delays in implementing methylmercury reductions strategies.*

The proposed BPA establishes a phased approach with a 9-year study period for dischargers to research and develop methylmercury control programs. While we support the study period as a means of optimizing methylmercury reductions, we have consistently expressed concerns about delaying the cleanup process for almost another decade. These concerns have not been allayed given the vague language in the BPA about interim requirements to control total or inorganic mercury. For instance, the BPA states that “during Phase 1, all dischargers shall implement reasonable, feasible controls for inorganic (total) mercury” (BPA, page 3), though there is no definition of “reasonable” or “feasible” and the implication is that enforcement will be performance based and not on attainment of specific numeric reductions. Furthermore, the resolution to adopt the proposed BPA describes a more limited total mercury reduction requirement. It states that the proposed changes to the Basin Plan “require *specific point source dischargers* to implement inorganic mercury controls during the first phase of the control program” (Item #13, page 2, emphasis added), leaving out non-point, tributaries, and potentially some point sources all together. This not only delays efforts to reduce mercury levels in the Delta over the next decade but also threatens to delay implementation of reduction and mitigation measures pursuant to the San Francisco Bay mercury TMDL.

The proposed BPA also permits the Executive Officer undue discretion to extend the duration of mercury control studies beyond nine years in the event it is determined that dischargers are making significant progress (BPA, page 8). Significant progress is not defined. Furthermore, the proposed BPA actually incentivizes delays by stating that dischargers will not be required to implement methylmercury controls before the Board has reviewed the Phase 1 Mercury Control Program and developed upstream control programs for tributaries (BPA, page 3). This could delay implementation beyond the nine year study period, thus extending the threat of mercury exposure to both humans and wildlife.

Nine years is more than an adequate amount of time to develop methylmercury control strategies and should be rigorously enforced. Furthermore, the Executive Officer should also retain the authority to require appropriate best management practices for methylmercury and/or other methylmercury controls at any time during Phase 1 as appropriate. **We urge the State Board to require the Regional Board to clarify the responsibilities of dischargers during Phase 1 to reduce total mercury loads by harmonizing the proposed adoption resolution with the actual BPA and assigning load allocations to all dischargers. The State Board should also require establishment of a process to enable dischargers whose studies demonstrate effective methylmercury controls to begin meeting their methylmercury allocations in advance of Phase 2 when appropriate, and publicly recognizing their achievements as an incentive for them to move forward in as expedient a manner as possible. Finally, we ask that the State Board discourage any extension of control studies beyond the 9 year deadline and to require the Regional Board Executive Director to allow public oversight and comment on any such extension when contemplated.**

Response: Nearly identical comments were received during the Central Valley Water Board’s April 2010 hearing process and addressed in the April 2010 Responses to Comments. Please see the Central Valley Water Board’s detailed response to these comments in pages 120-122 of the Responses to Comments.

The statement that “dischargers will not be required to implement methylmercury controls before the Board has reviewed the Phase 1 Mercury Control Program and developed upstream control

programs for tributaries” is incorrect. The Basin Plan Amendment states, “*implementation of methylmercury management practices identified in Phase 1 is not required for the purposes of achieving methylmercury load allocations for nonpoint sources until the beginning of Phase 2*”. Page 2 of the Basin Plan Amendment defines the beginning of Phase 2, which is after the Central Valley Water Board Phase 1 review, or 11 years after the effective date, whichever ever occurs first. Therefore, the start of the nonpoint source allocation schedule has a firm date and is not dependent on Central Valley Water Board actions to review the program and complete upstream TMDLs. This ‘implement management practices’ provision only applies to nonpoint sources. Methylmercury waste load allocations will be placed in NPDES permits early in Phase 1. Thereafter, NPDES-permitted dischargers must comply with the State and federal compliance schedule policies.

Clean Water Action’s states that, “the resolution to adopt the proposed BPA describes a more limited total mercury reduction requirement. It states that the proposed changes to the Basin Plan “require specific point source dischargers to implement inorganic mercury controls during the first phase of the control program” (Item #13, page 2, emphasis added), leaving out non-point, tributaries, and potentially some point sources all together.” This statement implies that the Basin Plan Amendment ignores significant sources of mercury, and this is misleading. The Delta methylmercury TMDL and Basin Plan Amendment requirements apply to sources in the legal Delta and the Yolo Bypass. The Basin Plan Amendment assigns methylmercury allocations to tributaries at the point that they enter the Delta. Methylmercury sources within the tributaries upstream of the Delta will be subject to future TMDLs. The ‘specific point source dischargers’ that are referred to are the NPDES-permitted sources that discharge to the Delta and Yolo Bypass. No point sources in this area were excluded. The Delta TMDL Report describes how the Central Valley Water Board will comply with requirements of the San Francisco Bay mercury control program in its Basin Plan. The Delta Basin Plan Amendment assigns the total mercury load allocation from the San Francisco Bay TMDL to particular tributaries. The allocation was assigned to tributary inputs to the Delta and Yolo Bypass because within-Delta sources comprise only about 3% of total mercury inputs. Total mercury control measures, including pollution prevention and sediment control, which are required by the Basin Plan Amendment for in-Delta sources, will also aid in reducing total mercury loads to San Francisco Bay.

An additional program to enable nonpoint source dischargers to implement methylmercury practices in Phase 1 is not necessary. The Basin Plan Amendment states that dischargers should implement reasonable and feasible methylmercury management practices as they are identified in the Phase 1 studies. Dischargers can implement projects and meet their allocations early. Because the study process is designed to be collaborative and progress will be reported publicly on an annual basis to the Central Valley Water Board (not just staff), it is expected that effective methylmercury control practices and names of dischargers who are implementing them will become public knowledge.

The Basin Plan Amendment contains a provision that allows the Executive Officer to extend the length of time that will be allowed for Phase 1 Methylmercury Control Studies. This provision is reasonable, and could be part of the annual public review process. The studies may be expensive and technically challenging. Many study participants, including State agencies and wetland restoration entities, were concerned about having sufficient time to find funds for the studies.

There is no need to provide additional direction to the Central Valley Water Board at this time in the resolution or elsewhere.

CWA Comment #5.

3. Progress of the methylmercury reduction programs described in this BPA is subject to minimal input by community interests, and continued disproportionate influence by dischargers.

In order to support an “an adaptive management approach”, the proposed BPA includes the formation of a Stakeholder Group(s) to help review the Control Study Workplan(s) and results (BPA, page 7). While we support a public process, we are concerned that like the stakeholder process discussed above, this group will be largely made up of dischargers. This is inappropriate given that the group will be assessing the workplans that dischargers will be producing to meet their TMDL requirements. In other words, those being regulated will be able to influence decisions on how well they are meeting their regulatory responsibilities.

The BPA also includes the development of a Technical Advisory Committee (TAC) of “independent experts ...to provide scientific and technical peer review of the Control Study Workplan(s) and results, advise the Board on scientific and technical issues, and provide recommendations for additional studies and implementation alternatives developed by the dischargers” (BPA, page 7). We support the development of the TAC and are pleased to see that community groups will be consulted for their recommendations. We note, however, that tribes are not mentioned as well. We are also concerned again with the potential influence the regulated community will have in regard to who will serve on the committee. Such influence puts the independent nature of the TAC in jeopardy and could thus undermine its purpose.

We ask the State Board to instruct the Regional Board to enhance true public input and participation by specifying that the TAC will include tribal and other community and public interest representation. In addition, all TAC meetings and documents should be public and allow for public comment. Finally, final approval of Control Study Workplans should be delegated to the TAC, following public comment.

Response: Nearly identical comments were received during the Central Valley Water Board’s April 2010 hearing process and addressed in the April 2010 Responses to Comments, pages 123-124.

Tribes will be invited to help form the Technical Advisory Committee. Clean Water Action’s current comments are based on the Central Valley Water Board’s February 2010 draft of the Basin Plan Amendment and not the final amendment. In fact, the final amendment addressed this comment by in a late revision. The Basin Plan Amendment states, “The Board shall form and manage the Technical Advisory Committee with recommendations from the dischargers and other stakeholders, including Tribes and community organizations.”

The Central Valley Water Board has a reasonable plan for formation and role of the Technical Advisory Committee. The Technical Advisory Committee will be a panel of independent scientific experts with experience in methylmercury production, transport, and loss. The Technical Advisory Committee will help develop methylmercury control study plans and review results for their scientific integrity. The Technical Advisory Committee will be similar to the Scientific Review Panels used by the California Bay Delta Program. Representatives of Tribes and community groups that also possess scientific expertise in methylmercury would be eligible

for the Technical Advisory Committee. The Technical Advisory Committee is further described in the Basin Plan Staff Report Chapter 4.3.5.

Clean Water Action requests that the Technical Advisory Committee process and documents be open for public comment. The Central Valley Water Board's stakeholder process involved open meetings and release of draft documents for public comment. It is anticipated that the Central Valley Water Board will continue its process throughout the Phase 1 Control Study stakeholder and Technical Advisory Committee activities. In addition, the Basin Plan Amendment requires that Central Valley Water Board staff make a public report annually to the Central Valley Water Board on the progress of the mercury control program, including activities of the Technical Advisory Committee.

Clean Water Action asks that the Technical Advisory Committee have final approval over the Control Study workplans. The Technical Advisory Committee will review the Control Study workplans and provide recommendations to the Executive Officer on the appropriateness of the workplans. The Basin Plan Amendment gives the Central Valley Water Board's Executive Officer final approval over these workplans. Dischargers must submit the Control Study Workplans in partial satisfaction of their legal obligations under the Basin Plan. It is inappropriate for the Central Valley Water Board to delegate to the Technical Advisory Committee the authority of determining whether dischargers have adequately complied.

CWA Comment #6.

4. The proposed BPA lacks clear measurement and enforcement strategies, especially, though not exclusively in relation to non-point sources of mercury.

In a number of cases, it is unclear how the Board will determine that a discharger is in compliance with the proposed BPA's provisions or what the repercussions of non-compliance will or may be. This results in a lack of assurance that the plan will actually achieve the results it intends. For instance:

- The proposed BPA states that "Nonpoint sources shall be regulated through the authority contained in State laws and regulations, including State Water Board's Nonpoint Source Implementation and Enforcement Policy" (BPA, page 4). However, it does not apply the appropriate regulatory authority to various requirements in the BPA.
- It is unclear how implementation by non-point sources in the Delta and Yolo Bypass of "reasonable, feasible actions to reduce sediment in runoff" during Phase 1 will be measured or enforced (BPA, page 5). Nor does the proposed BPA contain definitions or examples of reasonable and feasible actions.
- Dischargers will be considered in compliance with reporting requirements related to their mercury control studies "upon timely submittal of workplans and revisions" (BPA, page 7). However, no mention is made of what the consequences of delayed submittal or non-compliance with the reporting requirements, in general, would or could be.
- It is unclear how Clean Water Act 401 Water Quality Certifications and other requirements related to dredging activity will be enforced. Will such certifications be revoked upon non-compliance?
- The BPA does not explain how the Board will enforce the requirement that "in conjunction with the Phase 1 Control Studies, nonpoint sources, irrigated agriculture,

and managed wetlands shall develop and implement mercury and/or methylmercury monitoring, and submit monitoring reports" (BPA, page 17).

It is particularly not clear what role the Memorandums of Intent that have been promoted through the Stakeholder group process, will actually play in ensuring full cooperation and participation in developing and implementing Control Studies in Phase 1. They are not legally binding and are not therefore an enforcement tool for the Board.

Finally, it is not possible to determine the appropriateness of the wastewater methylmercury allocations. Table B (BPA, page 20) provides a list of the load allocations assigned to each municipal and industrial wastewater facility, but does not indicate what the current load is. Consequently, it cannot be determined how much a reduction, if any, is being required.

While we recognize that enforcement can take a variety of forms depending on circumstances, the BPA needs to provide the public with assurances that its requirements will be enforced to ensure that remediation activities will in fact move forward in a reasonable time period. We therefore recommend that the State Board require the Regional Board to document, at least in general terms, their enforcement strategies, particularly in regard to non-point sources, and make current wastewater load allocations publicly available.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, pages 124-127. Clean Water Action does not provide an explanation for why the previous Board responses were inadequate.

The Water Code and the State Water Board's Nonpoint Source Implementation and Enforcement Policy describe the Board's authority over nonpoint source activities and the State's enforcement mechanisms. The Nonpoint Source Implementation and Enforcement Policy is referenced in the Basin Plan Amendment. The Basin Plan does not need to repeat the available regulatory mechanisms.

Erosion and sediment runoff in the Delta and Yolo Bypass caused by human disturbances will be accomplished through the existing permit requirements and the Irrigated Lands Regulatory Program, which covers managed wetlands. Permits, including 401 Water Quality Certification and Waste Discharge Requirements, contain requirements to comply with the Basin Plan's turbidity and narrative toxicity objectives. Under the Irrigated Lands Regulatory Program, land managers are expected to implement erosion control measures to limit sediment runoff.

The Board will rely on pre-existing authority to implement the Basin Plan's requirements, including the methylmercury control studies. This authority includes, but is not limited to, the ability to issue Orders under Water Code section 13267 to compel Dischargers to develop Technical Reports, and the ability to issue administrative civil liability complaints, if Dischargers do not comply with Board-issued Orders.

Requirements for dredging and dredge material reuse will be enforced through the Central Valley Water Board's 401 Water Quality Certification program. Water Quality Certifications are issued with special and technical conditions designed to implement Basin Plan requirements. In the case of methylmercury, special conditions have included monitoring, testing of management practices, and requirements for meeting the Basin Plan's turbidity objective. A discharger that is

noncompliant with the 401 Certification could be subject to enforcement mechanisms provided by Water Code.

The Basin Plan Amendment states that the methylmercury and mercury monitoring by nonpoint sources in Phase 1 will occur in conjunction with the Phase 1 Control Studies. The Board may issue 13267 Orders and prescribe individual waste discharge requirements to nonpoint sources, which may compel these Dischargers to participate in monitoring and control studies. The Irrigated Lands Regulatory Program provides an example of regional monitoring that could be extended to mercury. The Central Valley Water Board has also required methylmercury monitoring of habitat restoration projects through 401 Water Quality Certifications.

Wasteload allocations are in Table B of the Basin Plan Amendment. Existing methylmercury loads for NPDES permittees are in the TMDL Staff Report Table 8.4, which continues to be publicly available on the Central Valley Water Board's website.

The Memorandum of Intent is not part of the Basin Plan Amendment and is not needed as an enforcement mechanism nor was intended to be regulatory. The Memorandum of Intent, later called the Adaptive Management Approach document, was initiated in the stakeholder process. As indicated on the Central Valley Water Board's website, the Adaptive Management Approach document is a repository of shared principles and ideas for cooperative and adaptive implementation:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/stakeholder_workgroup_mtgs/index.shtml

CWA Comment #7.

5. The BPA inappropriately allows offsets during Phase One

CWA has consistently expressed concern over the assumption that dischargers may develop offsets programs to meet their load allocations because of the potential environmental justice implications of such schemes. As we noted in our comments to the Regional Board dated November 13, 2006, "while offset programs are often touted as resulting in aggregate environmental benefits, they have also often resulted in disproportionate impacts on local, usually disadvantaged communities of color and can discourage dischargers from reaching optimum pollution reductions. Consequently...[offsets] should be seen as generally undesirable and a last resort."

The proposed BPA does state "on or before [9 years after Effective Date], the Regional Board will consider adoption of a mercury (inorganic and/or methyl) offsets program" (BPA, page 13). We are pleased to see some of our key principles reflected in the proposed BPA, specifically that offsets should only be available to "fulfill a discharger's responsibility to meet its (waste) load allocation after reasonable control measures and pollution prevention strategies have been implemented" and that they should not be allowed "in cases where local human or wildlife communities bear a disparate or disproportionate pollution burden as the result of the offset" (BPA, page 13). However, we have two specific concerns that should be addressed in the proposed BPA and in any potential policy that the Board establishes down the road, namely that since this is a methylmercury TMDL, offsets should focus on reducing methylmercury loads and that pilot offset projects should not occur during Phase 1 as stated in this draft.

We object to offsets in Phase 1 for the following reasons:

1. No offsets should be approved before the Board has established a policy with explicit parameters.
2. Offsets are meant to assist dischargers who cannot, after reasonable effort, meet their wasteload allocations to fulfill their mercury reduction obligations. Phase One is specifically meant to study how best to do just that. Consequently, it makes no sense to establish an offset program when it is not yet clear that a discharger will be in violation of their waste load allocations in Phase 2. As we stated above, Phase 1 should be focused on developing strategies to reduce methylmercury, and certainly, not on developing offsets.
3. Phase 1 does require dischargers to meet load allocations for total mercury. Such controls are well understood and, thus dischargers can be held accountable to reduce or maintain current levels.

Another concern arises not out of the BPA language, but out of discussions of the Offsets Workgroup that comprised part of the Stakeholder process. While CWA was only able to participate in such discussions on a very limited basis, we were deeply concerned with proposals that pollution trading would be an acceptable strategy under an offsets program. We are absolutely opposed to pollution trading schemes that allow one discharger to trade credits with another. This serves only to move pollution around, discourage optimum pollution reductions, and can further contaminate local communities situated near or around the discharger who has obtained the extra credits.

We ask to the State Board to instruct the Regional Board to not approve offsets during Phase 1. We ask the State Board to further specify that if an offsets policy is developed for Phase 2, it will be done through a public process that is accessible to impacted communities and is approved by the State Board, focus on reducing methylmercury loads in line with the TMDL, and prohibit pollution trading that allow one discharger to sell or trade credits to discharge total or methylmercury into the watershed.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 130. Clean Water Action does not provide an explanation for why the previous Board responses were inadequate.

The Basin Plan Amendment states that any mercury offset projects and program shall be based on key principles, including the following:

- *Offset credits should only be available to fulfill a discharger's responsibility to meet its (waste) load allocation after reasonable load reduction and pollution prevention strategies have been implemented.*
- *Offsets should not be allowed in cases where local human or wildlife communities bear a disparate or disproportionate pollution burden as a result of the offset.*

The Basin Plan Amendment also states that pilot offset projects (occurring in Phase 1) and a mercury offset program will be approved by the Central Valley Water Board, which conducts its approval activities in public meetings. At that time, the Central Valley Water Board would be establishing policies and parameters for offset projects. The offset program will need to be designed to address the concerns about pollutant trading and local community and

environmental impacts near sites that earn credits. All stakeholders will have the opportunity to help develop any offsets program.

Dischargers may not be able to demonstrate that they cannot meet their load allocations until after the end of the Phase 1 studies. However, there is no need to direct the Central Valley Water Board to disapprove offset projects in Phase 1. Acceptable demonstration of inability to meet an allocation at the discharger's location is a prerequisite for approval of an offset project, no matter when it is approved.

The Basin Plan Amendment's requirements for offset projects and offset program address the environmental and public process concerns expressed by Clean Water Action. An offsets project does not need to be limited to methylmercury because NPDES facilities already have effluent limits for inorganic mercury and, in general, reducing total mercury is one method for reducing methylmercury. The Basin Plan does not eliminate the idea of pollution trading, but does require that load reductions from offset projects be real and verifiable, in addition to meeting the requirements quoted above. No direction by the State Water Board is necessary.

CWA Comment #8.

6. Exposure Reduction language recommendations

CWA appreciates the efforts by Staff to include language to clarify responsibilities of dischargers to support and help facilitate the development of interim exposure reduction strategies to protect subsistence fishing populations over the time the TMDL is being implemented (directed by the State Board in Resolution 2005-0060). **We encourage the State Board to request full reporting during Phase 1, on the progress of these efforts.**

Again we wish to recognize the hard work Regional Board Staff has put into this proposed BPA, despite our criticisms. We submit these comments and recommendations in the spirit of making this an effective and successful TMDL that will, over time, return the Delta to a state in which it will fulfill its true beneficial uses. Thank you for your consideration of our comments and for the opportunity to express them. We are available to clarify any of the points herein or provide more specific recommendations as necessary.

Response: The Basin Plan Amendment directs the Central Valley Water Board staff to report on the entire Delta mercury control program at two points in Phase 1. (Please refer to Basin Plan Amendment page 9.) These points are midway (four years after the start of Phase 1) and at the final Program Review. The Exposure Reduction Program is not specifically named in the list of activities that may be included in the "comprehensive report" at the mid-point. However, the Exposure Reduction Program is an important component of Phase 1 activities and would logically be included in the progress and final report. In addition, the annual Executive Offer reviews to the Central Valley Water Board will include updates about the exposure reduction activities.

6. Middletown Rancheria of Pomo Indians of California

Carl Rivera (Tribal Council Chairman)

Letter Date: 23 May 2011

Comment:

Thank you for the opportunity to comment on Resolution No# R5-2010-0043: Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Methylmercury and total Mercury in the Sacramento-San Joaquin Delta Estuary.

Middletown Rancheria Band of Pomo Indians is located in the Upper Putah Creek Watershed which feeds Lake Berryessa. Elevated levels of mercury have been documented in the lake and several tributaries feeding the lake, including Putah Creek.

The Tribe is currently undertaking a watershed assessment of surface waters in the Upper Putah Creek Watershed utilizing EPA funding under the Clean Water Act (CWA). Very little is known about the location or extent of mercury loads in our area. It is our hope that this study will contribute significant understanding of the Upper Putah Creeks role in the transport and deposition of mercury from the watershed.

Therefore, Middletown Rancheria supports the amendments to the above referenced plan and hope that our contribution of data to support the plan helps to gain some understanding of the location and extent of Putah Creek's mercury load.

Once again we would like to thank you and look forward to continuing our support of the State Water Quality Control Boards Water Quality Control Plan.

Please contact Chris Simon our Environmental Director at [707-987-3670](tel:707-987-3670) x117 if further information is needed

Response: This letter supports the Basin Plan Amendment. There are opportunities for Middletown Rancheria to become involved in the Delta methylmercury program's Methylmercury Control Studies and other stakeholder activities. In addition, it may be beneficial for the Middletown Rancheria to coordinate with Central Valley Water Board staff as Middletown Rancheria conducts watershed assessments and any other activities to address mercury in the Putah Creek Watershed. Putah Creek downstream of Monticello Dam, Lake Berryessa, and several tributaries in the upper Putah Creek watershed have been identified under Clean Water Action Section 303(d) as impaired by mercury. The Basin Plan Amendment specifies that the mercury control program will be developed for Putah Creek by 2016.

7. Joint Letter from Phase 1 Stormwater Programs (MS4s)

Letter Date: 23 May 2011

Marty Hanneman
City of Sacramento

Jeff Willet
City of Stockton

Thomas Dalziel
Contra Costa Clean Water Program

Michael L. Peterson
County of Sacramento

R. Mitch Avalon
Contra Costa County Public Works Dept.

MS4s Comment #1.

The Sacramento Municipal Separate Storm Sewer System (MS4) (CAS082597), East Contra Costa County MS4 (CAS083313), and Stockton MS4 (CAS083470) will be required via their Phase I NPDES permits to comply with relevant requirements in the final Basin Plan Amendment (BPA). Based on our review of the BPA version publicized on April 18, 2011, we provide to the State Water Board the following comments:

- Address policy issues with the Exposure Reduction Program and scheduling constraints that depend on State Water Board action
- Account for the fact that our MS4 service areas overlap areas covered in other TMDLs
- Recognize potential inconsistencies in various concurrent regulatory actions

Each comment is explained below along with proposed edits to the BPA.

Response: Responses to each comment are provided below.

MS4s Comment #2.

Exposure Reduction Program

We agree with the following language in the BPA: “The State Water Board should develop a statewide policy that defines the authority and provides guidance for exposure reduction programs, including guidance on addressing public health impacts of mercury, activities that reduce actual and potential exposure of, and mitigating health impacts to those people and communities most likely to be affected by mercury.” The Regional Water Board drafted this text in response to State Water Board Resolution 2005-0060 and subsequent comments from dischargers. However, without the clarity to be provided by such policy, the Exposure Reduction Strategy will be an uncertain process.

We propose that the BPA be revised so that the Exposure Reduction Strategy and Workplans follow the State Water Board’s statewide policy as follows [suggested deletions are struck through; additions are underlined]:

- BPA page 14: “By [six months after development of statewide policy that defines the authority and provides guidance for exposure reduction programs], Regional Water Board staff shall work with dischargers...to complete an Exposure Reduction Strategy.”

- BPA page 15: “The dischargers...shall submit an exposure reduction workplan for Executive Officer approval by [~~two years after Effective Date~~ one year after completion of the Exposure Reduction Strategy].”

We raised this specific comment in our April 2010 comment letter to the Central Valley Water Board [see below Attachment 1, at page 3 of 5] but the response was inadequate in that the schedule does not recognize the need to have the statewide policy in place and the language in these bullet points was part of a late change to the BPA made subsequent to our 4/1/2010 comment letter.

Response: As the MS4s noted, these comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 185, as follows:

“Although the Regional Water Board asks that the State Water Board develop such a policy and guidance, the State Water Board has not committed to doing so and it could take several years to develop such a policy. The ERP is intended to protect fish consumers while source controls are being implemented, which means that the ERP should start as soon as possible.”

The Delta TMDL Basin Plan Amendment has requirements for the Central Valley Water Board to work with stakeholders to develop an exposure reduction strategy and program. The Delta TMDL Basin Plan Amendment requirements for exposure reduction activities stem from State Water Board Resolution 2005-0060, which “directs the San Francisco Bay and Central Valley Water Boards to investigate ways, consistent with their regulatory authority, to address public health impacts of mercury in San Francisco Bay/Delta fish, including activities that reduce actual and potential exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in San Francisco Bay-Delta caught fish, such as subsistence fishers and their families.” The Central Valley Water Board will work with the State Water Board on exposure reduction strategies and will engage the California Department of Public Health to develop an effective program. Currently, State Water Board staff is developing statewide mercury fish tissue objectives and implementation plan, and this could include a statewide policy that defines the authority and provides guidance for exposure reduction programs.

The MS4s comments state that a statewide policy is needed before the effort to develop an Exposure Reduction Strategy (ERP) specific to the Delta can move forward. However, while a statewide policy would be useful, a statewide policy is not a necessary step for Delta Exposure Reduction Strategy development efforts to move forward, as demonstrated by the ongoing efforts to develop a strategy for the San Francisco Bay.

MS4s Comment #3.

Regulated Service Areas

This TMDL applies to dischargers in the legal Delta boundary. **We propose** that the BPA be modified to state that Control Studies are required for [BPA page 6] as follows “d. Sacramento Area MS4, Stockton MS4, and East Contra Costa County MS4 service areas within and/or upstream of the legal Delta boundary.”

We raised this issue before in discussions the Central Valley Water Board. The language was changed in one section, but missed in the referenced text. Adding “/or” allows us to account for studies conducted within our service area but not necessarily in the subwatershed draining directly to the Delta.

Response: In their April 2010 letter, the MS4s requested that changes be made to text on page 4 of the draft Basin Plan Amendment, as shown below in the excerpt from 2010 letter:

BPA Page #4 “Requirements for NPDES Permitted Urban Runoff Discharges”

“The Sacramento MS4 (CAS082597), Contra Costa County MS4 (CAS083313), and Stockton MS4 (CAS083470) shall continue to conduct mercury control studies to monitor and evaluate the effectiveness of existing BMPs per existing requirements in permits and orders, and to develop and evaluate additional BMPs as needed to reduce their mercury and methylmercury discharges within and upstream of the legal Delta boundary.”

While we will continue to improve our stormwater management programs and participate in the TMDL’s Phase 1 implementation, there is no basis in this TMDL for determining “as needed” reductions upstream of the legal Delta boundary.

Agencies with jurisdictional area located in the upstream of the legal Delta boundary will benefit from developing programs to control mercury. In developing future TMDLs, agencies that have conducted studies should not be required to conduct additional studies for any future mercury TMDLs.

Proposed Solution: Delete “and upstream of” from the text. Existing NPDES permit requirements already address the interest in reducing mercury loadings from the MS4s into upstream waters.

The Central Valley Water Board provided the following response in their April 2010 Responses to Stakeholder Comments:

“Staff concurs with removing “within and upstream of the legal Delta Boundary” and replacing it with “into the Delta and Yolo Bypass.” The draft BPA does contain a statement that dischargers who participate in the Control Studies will be exempt from conducting equivalent studies that may be required by the upstream TMDLs (BPA page 5).”

While the Basin Plan Amendment text on page 4 was edited to reflect the MS4s comment, a similar change was not made to the Basin Plan Amendment text on page 6. Central Valley Water Board staff indicates this was intentional to include the entire MS4 service areas rather than portions of the service areas in the control studies.

MS4s Comment #4.

Control Study Scheduling Constraints

This BPA includes several regulatory compliance schedules to which MS4s will be held accountable, but that require action by Regional Board to complete. Delay by the Regional Board in completing its necessary actions could jeopardize the ability of MS4s to comply with compliance schedules. In particular:

- The Regional Board needs to select and contract members for the Technical Advisory Committee and to produce a Control Study Guidance Document [BPA page 7] before significant progress can be made in developing Control Study Workplans [due nine months from the Effective Date].

- Board staff shall work with the TAC and Stakeholder Group(s) to review the Control Study Workplan(s) and results [BPA page 7] Within four months of submittal, the Executive Officer must determine if the Workplans are acceptable [BPA page 8].

We propose that the State Board, in its resolution, recognize that where adherence with regulatory compliance schedules imposed on MS4s depends on Regional Board actions, that mechanisms should be provided to adjust schedules appropriately. In addition, the State Board should include a commitment to support Regional Water Board activities to ensure timely production of the prerequisite guidance document and review of workplans.

This comment is new because the scheduled items were part of late revision to the BPA.

Response: The Central Valley Water Board included several provisions in the Basin Plan Amendment to allow the Central Valley Water Board Executive Officer to modify time schedules and due dates as appropriate and necessary. In particular, the following provisions on page 8 of the Basin Plan Amendment already provide the schedule adjustment mechanism requested by the MS4s so that any delay by the Central Valley Water Board would not jeopardize the ability of the MS4s to comply with compliance schedules:

“Within four months of submittal, the Executive Officer must determine if the Workplans are acceptable. After four months, Workplans are deemed approved and ready to implement if no written approval is provided by the Executive Officer, unless the Executive Officer provides written notification to extend the approval process.”

“Dischargers shall be considered in compliance with this reporting requirement upon timely submittal of workplans and revisions.”

“If the Executive Officer determines that dischargers are making significant progress towards developing, implementing and/or completing the Phase 1 Control Studies but that more time is needed to finish the studies, the Executive Officer may consider extending a study’s deadlines.” [Basin Plan Amendment page 8]

While the Basin Plan Amendment states that Central Valley Water Board staff will work with the Technical Advisory Committee to provide a Control Study Guidance Document, the staff is ultimately responsible for providing the document. The stakeholders and Central Valley Water Board staff have already developed a draft adaptive management plan that includes Appendix C, Control Studies Guidance. The plan may be found at the Central Valley Water Board’s website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hq/stakeholder_workgroup_mtgs/index.shtml

Implementation of this TMDL is addressed through existing and future budgeted resources and there is no need for commitment from the State Water Board in the resolution.

Please also note that the “Mercury Control Studies Schedule” text in the Basin Plan Amendment did not have any late revisions between February 2010 and the hearing in April 2010 that affected schedule dates.

MS4s Comment #5.

Urge for Consistency

Each of the Phase I Stormwater programs already are (or eventually will be) impacted by other mercury TMDLs (e.g., Morrison Creek and American River for Sacramento Area; San Joaquin and Mokelumne Rivers for City of Stockton/ County of San Joaquin; San Francisco Bay for Contra Costa County, its 19 incorporated cities and towns, and the Contra Costa Flood Control and Water Conservation District). In this light, **we urge** the State Water Board and Regional Water Boards provide consistent approaches and avoid duplicate regulatory requirements for dischargers.

The State Water Board appears to be working on two projects to address mercury impairments: (1) developing a statewide mercury fish tissue objective(s) and (2) developing a statewide mercury TMDL addressing the many impaired reservoirs. **We urge** the State Water Board to align these efforts to avoid duplicative effort and conflicting regulatory requirements.

Thank you for this opportunity to comment on this BPA. We sincerely request that the State Water Board review our comments and revise the current BPA to address these concerns.

Response: It is a goal of the statewide fish tissue objectives and a statewide mercury TMDL projects to avoid duplicate regulatory requirements and to provide consistency for dischargers. The State and Regional Water Boards are collaborating extensively to develop an effective approach to developing statewide objectives and TMDLs. The statewide projects will have staff from multiple Regional Water Boards participating in them and it is anticipated that these will be presented to the State Water Board for adoption. This process is expected to result in statewide consistency. In addition, there will be opportunity for discharger and other stakeholder involvement in both of these projects. The statewide mercury project is consistent with one of the key provisions of the Basin Plan Amendment to develop TMDLs for upstream watersheds.

8. Sacramento Regional County Sanitation District (SRCSD)

Terrie Mitchell (Manager, Legislative & Regulatory Affairs)

Letter Date: 23 May 2011

SRCSD Comment #1.

Thank you for the opportunity to review and provide comments on the Delta Methylmercury TMDL (TMDL). The following comments are being provided by the Sacramento Regional County Sanitation District (SRCSD). SRCSD owns and operates the Sacramento Regional Wastewater Treatment Plant and provides sewer conveyance and treatment to over 1.3 million residents and businesses in the greater Sacramento region. SRCSD is regulated as a discharger and is directly affected by the Delta Methylmercury TMDL.

SRCSD staff and management participated in the stakeholder process for several years during development of the TMDL documents and Basin Plan Amendment (BPA). Although the process was time consuming and resource intensive, we concur with many of the other stakeholders that it was a valuable process that we would recommend for similar future complex water quality issues. In addition, we are appreciative of the efforts of both the Central Valley Regional Water Quality Control Board and the State Water Resources Control Board in their commitment to working with the stakeholders to make the TMDL and Basin Plan Amendment adaptive and workable.

SRCSD provides the following comments related to the subject document and future implementation process:

1. We encourage ongoing stakeholder collaboration with continued involvement of the State and Regional Water Board staff and management to ensure successful implementation.

Response: The Basin Plan Amendment includes an adaptive management approach that encourages collaborative methylmercury studies among the various stakeholders, including dischargers and community, environmental and tribal groups. In addition, the control program review at the end of the study period will include a formal public review process. Resolution R5-2010-0043 directs Central Valley Water Board staff to continue working with the stakeholders in the development and implementation of the methylmercury studies and implementation activities.

SRCSD Comment #2.

2. The State Water Board and Regional Water Board should oversee implementation of the TMDL and encourage continued feedback from the regulated entities to ensure that affected rate payers, utilities and dischargers do not pay more than their fair share of the costs for methylmercury control.

Response: Each discharger is ultimately responsible for their individual methylmercury discharge and costs associated with future methylmercury management. The Basin Plan Amendment does contain requirements for the state and federal agencies whose water and/or land management activities may contribute to the production and transport of mercury/methylmercury. A portion of the mercury reduction program has been assigned to the state and federal governments and therefore the utilities and other agencies will not bear the entire burden of the program. As the stakeholder groups form to conduct the studies and develop an exposure reduction program, it is anticipated that the stakeholders will also work towards developing an equitable control program. The Basin Plan Amendment requires Central Valley Water Board staff to report annually to the Central Valley Water Board the progress of the actions required in the Basin Plan Amendment. In addition, the Basin Plan Amendment has a formal public review process at the end of the study period in which new information, including the results of stakeholder studies, will be considered. At that time, the Central Valley Water Board may revise objectives, allocations, implementation provisions and schedules, as well as the final compliance date.

SRCSD Comment #3.

3. The State Water Board and Regional Water Board should continue to accept feedback from regulated dischargers to ensure that the provisions of the TMDL and BPA, such as “no penalty for early load reductions”, are being applied fairly and consistently and in accordance with the written documents.

Response: NPDES permits and waste discharge requirements implement applicable basin plan provisions, and the Central Valley Water Board aims for fairness and consistency in the requirements that are imposed in these permits. Permits and waste discharge requirements are adopted in a public process. Dischargers and stakeholders may identify inconsistencies for Water Board deliberations when the permits and waste discharge requirements are considered. The Basin Plan Amendment recognizes that early implementation activities should not be discouraged: “Interim limits established during Phase 1 and allocations will not be reduced as a result of early actions that result in reduced inorganic (total) mercury and/or methylmercury in discharges.” [page 9]

SRCSD Comment #4.

4. SRCSD supports a complete re-evaluation of the TMDL and BPA after completion of Phase 1. The results of the control studies should be evaluated in a holistic manner and an integrated fashion. Any changes to the documents and any further actions mandated or required as a result of the control studies should be vetted through a collaborative stakeholder process. In addition, required controls or other regulatory requirements should not place an inequitable financial burden on dischargers – they should be in proportion to the discharger’s contribution to the loading within the receiving waters. And only those controls that result in a measurable mercury or methylmercury reduction and quantifiable and meaningful water quality benefit should be required.

Response: The approach adopted by the Central Valley Water Board includes a comprehensive re-assessment of the entire TMDL (methylmercury goals, fish tissue objectives, load and waste load, allocations, compliance date, implementation of management practices and schedules for implementation of controls) at the end of the Phase 1 study period, and this re-assessment will be a process that will be open to the public. The review will utilize new information developed during Phase 1, including studies developed by the stakeholder group(s) that will help determine the most cost-effective inorganic mercury and methylmercury controls. There will be opportunities for stakeholders to work together and with Board staff to develop programs, such as mercury offsets or watershed allocations, that will help equitably distribute the costs of the control program.

SRCSD Comment #5.

5. Mercury and methylmercury in the Sacramento – San Joaquin Delta are predominantly due to legacy sources. NPDES dischargers make up only a small fraction of the mercury/methylmercury loads. As compliance with the TMDL will be costly for all dischargers, the State and Regional Water Boards should continue to assist communities find funding to offset the added costs for the mercury/methylmercury control studies and reduction efforts, exposure reduction efforts and other requirements included in the BPA.

Response: Funding the mercury studies, exposure reduction program, and other Basin Plan Amendment requirements is an issue for all dischargers and stakeholders, both within the Delta and in its upstream watersheds. The Central Valley Water Board adopted several recommendations for funding in the Basin Plan Amendment, including having the State of California fund a portion of the mercury control projects in the Delta and its tributaries, and having state and federal grant programs give priority to projects that reduce upstream non-point sources of methylmercury and total mercury. The Central Valley Water Board committed its staff to continue looking for funding opportunities for the mercury studies and activities.

SRCSD Comment #6.

Additionally, SRCSD supports the comments provided by the Central Valley Clean Water Association on this same topic. Thank you for the opportunity to comment on the Delta Methylmercury TMDL. If you or your staff has any questions, please do not hesitate to contact me at (916) 876-6092 or Lysa Voight at (916) 876-6038.

Response: Please see responses to the Central Valley Clean Water Association letter.

9. South Delta Water Agency (SDWA)

John Herrick (Counsel & Manager)

Letter Date: 20 May 2011

General Response:

SDWA's May 2011 comments are nearly identical to those it submitted to the Central Valley Water Board in April 2010. The new text in SDWA's 2011 letter states that the Central Valley Water Board did not fully address SDWA's comments in its 2010 Responses to Comments. However, SDWA does not provide any new or additional information to support its comments.

For example, SDWA stated in its 2010 comments and again in its 2011 comments that irrigated in-Delta agricultural lands contribute only a small portion of the methylmercury problem and that consequently irrigated in-Delta agricultural lands should not be required to implement studies or control actions. The Central Valley Water Board responded in great detail to SDWA's concern in the April 2010 Response to Stakeholder Comments, but the Board's response was not reflected in SDWA's 2011 comments. The Central Valley Water Board included the following explanation in the April 2010 Response to Stakeholder Comments:

"The methylmercury source analysis described in the April 2010 TMDL Report indicates that reducing or eliminating any one source (or source category) is unlikely to result in achieving the proposed fish tissue objectives throughout the Delta. As a result, an allocation strategy that assigns an equal percent reduction to sources to each of the Delta/Yolo Bypass subareas is the most equitable distribution of responsibility. With only a few exceptions (see Chapter 8 in the February 2010 TMDL Report), point and nonpoint source discharges are assigned an equal percent reduction by the proposed allocations on a subarea basis. A decision to establish allocations that incorporate reductions for some sources while allowing others to stay the same or increase would be based solely on a subjective evaluation of which dischargers are more valuable to the citizens of California, an evaluation that Board staff cannot make. In addition, without the completion of additional methylmercury control studies, and characterization of point and nonpoint sources in the tributary watersheds, it is very difficult to determine which sources are the most feasible and cost-effective to control. A phased approach that focuses on control studies and total mercury reduction activities during the first phase of the control program is a reasonable approach, given the federal requirements for TMDLs, the high number of small individual sources, and the sheer magnitude of the river flows through the Delta.

For example, the Sacramento River is the largest river in California and drains a 27,000 square-mile area – almost one fifth of the State of California and about one half of the Central Valley. It is not surprising that two of the largest individual methylmercury inputs to the Delta identified in the TMDL Report (Cache Creek Settling Basin [137 g/yr] and SRCSD Sacramento River WWTP [161 g/yr]; see Tables 6.2 and 6.5 in the February 2010 TMDL Report) are each only about 7% and 8%, respectively, of the Sacramento River's input to the Delta at Freeport (2,026 g/yr during the relatively dry WY2000-2003 TMDL period). However, as noted as early as 1997 in the Sacramento River Mercury Control Planning Project report prepared for SRCSD by Larry Walker Associates, "... mercury sources in the study area appear to be diffusely distributed without any significant "hotspots" ..." (LWA, 1997, page 31). This is expected to be true for both methylmercury and inorganic mercury sources in the Sacramento River watershed and other watersheds that drain to the Delta.

When discussing the importance of different sources, many stakeholders have focused on the amount of loading by source category and by individual discharge. However, staff recommends that additional factors be considered. Given how many individual discharges there are in each source category in the Delta, almost all of the individual discharges are small. And, although the

tributary inputs are substantial, available information indicates that they also contain a similar distribution of individual discharges. It is the sum of all of the individual discharges in the Delta and its tributary watersheds that impairs the Delta. Each of the individual discharges has its own intrinsic value and financial constraints. As a result, the significance of different methylmercury and total mercury sources could be defined by: (a) their load, (b) their distance from an impaired area, (c) how big of a reduction is needed to achieve safe fish mercury levels in a given impaired area, (d) whether they can be controlled, (e) whether they can be controlled without impacting habitat function, (f) the cost to control them, and (g) the resources available to the responsible parties to implement controls. It is conceivable that the control program will need to focus on just a few large projects in some watersheds, but many small projects in other watersheds, to achieve safe fish mercury levels throughout the Delta.”

The above points are core to the conceptual foundation of the Delta mercury TMDL control program. Further, it was not the Central Valley Water Board’s intent to imply that focusing only on in-Delta sources, or only on agricultural sources in the Delta, would resolve the Delta mercury impairment. The Delta mercury TMDL control program is a comprehensive program that addresses in-Delta open water sources, managed wetlands, municipal and industrial waste water, and urban stormwater runoff, and includes a schedule for completing control programs for the tributary watersheds to reduce their contributions to the Delta impairment. Each of these source categories has a responsibility under this Basin Plan Amendment and will be required to develop and implement methylmercury control studies.

SDWA’s May 2011 letter is provided in the following pages in its entirety. New text (compared to SDWA’s 2010 letter) is identified in **yellow-highlighted** text marked with brackets – { } – in the margins. New responses are provided for the new text. For each aspect of SDWA’s disagreement with the Delta mercury control program and TMDL approach stated in its 2010 letter, the Central Valley Water Board provided a detailed and comprehensive response in the April 2010 Responses to Stakeholder Comments. The Central Valley Water Board’s 2010 responses, as well as the page numbers where detailed responses can be found, are included following each 2011 SDWA comment that was repeated from the 2010 letter. The April 2010 Responses to Stakeholder Comments are available at the Central Valley Water Board’s website:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/april_2010_hg_tmdl_hearing/index.shtml

SDWA Comment #1.

On behalf of the South Delta Water Agency, I am submitting the following comments to the Methylmercury (“MeHg”) TMDL and Basin Plan Amendment developed and adopted by the Regional Board. Our agency has been involved in the process since it began and has given input when necessary.

The Regional Board staff originally presented an initial draft TMDL approximately three years ago. At the public hearings on that draft, many stakeholders objected to the proposed TMDL. This resulted in the Regional Board directing staff to reconsider its recommendations through a stakeholder process. That process has played out over the two years, resulting in the adoption of the subject TMDL and Basin Plan Amendment by the Regional Board. Although there are some differences between the original draft and this final version, they are not substantive.

Although staff has been diligent (and competent) throughout the stakeholder process, and many parties participated, the final products do not address the issues raised when the earlier draft was criticized over two years ago. Instead, the stakeholder process appeared to have two main foci, one being an attempt to get the stakeholders to work together to comply with the TMDL, and the other to convince the stakeholders that the originally proposed TMDL was indeed the best way to address the MeHg problem. From this I conclude the stakeholder process accomplished very little and would caution the Board to take pause when considering any future stakeholder process.

The problems I previously identified remain unchanged in the current TMDL. The Responses to Comments by the Regional Board staff clearly do not address the issues I raised. The underlying cause of this appears to stem from the Regional Board and SWRCB's adoptions of the Strategic Plans which focused on in-Delta issues.¹ Such an approach would only be justified or effective if in-Delta activities were indeed the cause of the particular problem being addressed. When in-Delta activities are not the cause, we end up with expensive, time consuming efforts which achieve little or nothing while the underlying problem remains.

¹ This focus on in-Delta activities is a direct result of the undue influence of export interests including the SWP and CVP. Those parties have inexplicably convinced the Regional Board and the SWRCB that the current Delta problems are a result of "other factors" including in-Delta diversions, contaminants, etc., rather than the yearly violations of DWR and USBR permits, lack of necessary CESA take permits, and failure of the SWRCB require such compliance.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, pages 196 and 197, as follows:

"The Central Valley Water Board appreciates the participation of the South Delta Water Agency in the stakeholder process to date. While the Central Valley Water Board did adopt a resolution in 2007 that Delta beneficial uses must be protected and agreed to implement certain actions, the mercury impairment of the Delta predates the Delta Strategic Plan. In 1990, the State Water Board adopted the Clean Water Act 303(d) list that identified the Delta as impaired due to mercury pollution. The Regional Water Board Toxic Hot Spots Clean-up Plan (California Water Code section 13394), adopted by the State Water Board in 1999, identified mercury in the Delta as a toxic hot spot. The mercury impairment was based on human health advisories. Note that Finding 26 in the draft resolution before the Board points out that a "fishery with mercury-contaminated fish is an environmental justice issue and a threat to wildlife." The Central Valley Water Board decided that the mercury impairment in the Delta is a priority due to its impact on people and wildlife that eat Delta fish and not because of the current issues in the Delta."

"The Central Valley Water Board did direct staff to hold a stakeholder process to obtain and incorporate stakeholder comments into the Basin Plan Amendment to control mercury in the Delta. The Central Valley Water Board did not direct staff to put aside the control program for the mercury in the Delta and work on mercury issues elsewhere in the Central Valley region. As explained above, addressing the mercury impairment in the Delta is a priority. Staff evaluated all comments to improve the draft Basin Plan amendments and made revisions that address stakeholder concerns while maintaining the priority of developing a control program for the Delta."

SDWA does not provide an explanation for why the 2010 responses are inadequate. Because responses have already been provided, additional responses are unnecessary.

SDWA Comment #2.

The TMDL/Basin Plan Amendment (hereinafter “TMDL”) itself provides the proof of this. The TMDL lists the inputs of MeHg to the Delta. Those inputs include: Tributaries at 8.2 g/day; Wetlands at 2.7 g/day; Urban runoff at 0.05 g/day; Municipal WWTP’s at 0.6 g/day; Open Water at 2.4 g/day; Atmospheric Deposition at 0.06 g/day; and Ag Return flows at 0.3 g/day (page iv). This makes in-Delta Ag Return flows approximately 2% of the MeHg input. Tributaries and Open Water contribute approximately 74%. This is specifically confirmed in the TMDL wherein it states “As noted . . . tributary inputs to the Delta are the largest sources of methyl mercury and total mercury.” (page 16). The Response to Comments muddles this point by noting that “agricultural sources contribute from 1% up to 35.8% of the sum of the methylmercury loads in each subarea . . .” (Emphasis added). You will note I commented that agricultural lands purportedly contribute 2% of the methylmercury in the Delta and staff answered by stating those lands contribute from 1-35.8% of the loads of each area. Hence the staff did not address the question of why any actions are needed to address this (near) smallest contributor of MeHg. Staff statements are misleading as well as non-responsive

To address this problem, the TMDL program starts in the Delta, and (eventually) requires load reductions. For example, the San Joaquin River subarea (which includes generally the area of the southern Delta) has a goal of reducing its current Ag Return flow (estimated) MeHg load of 23 g/year (note this is a *yearly* contribution, whereas the above referenced amounts were *per day* contributions) down to 8.3 g/year; a reduction of approximately 64%.

The other in-Delta ag is to reduce their contributions to load in varying amounts of 0%, 0%, 45%, 65%, 80%, and 82% 18%.

Response: On page 197 in the 2010 Response to Stakeholder Comments, the Central Valley Water Board explained how although Executive Summary page iv in the TMDL Report refers to the average daily methylmercury inputs to the Delta/Yolo Bypass as a whole, later sections of the report and the Basin Plan Amendment allocations (Tables A through D) refer to source contributions to different areas of the Delta/Yolo Bypass:

“The methylmercury TMDL divides the Delta into “subareas” based on the hydrologic characteristics and mixing of source waters. Each subarea has its own unique set of methylmercury and inorganic mercury sources. Staff developed a separate methylmercury allocation scheme for each hydrologic subarea of the Delta because the levels of impairment within, and the methylmercury sources that discharge to, each subarea are different. The contribution from agricultural sources varies from 1% up to 35.8% of the sum of all contributions (including from tributaries and wetlands) to each subarea. The required load reductions are based on local methylmercury concentrations in the subarea waterways. So, for subareas that do not meet the proposed fish tissue methylmercury objectives, local sources should, and therefore must, control mercury discharges. Fish methylmercury concentrations in the Central Delta and West Delta subareas already achieve or nearly achieve the proposed fish tissue objectives. As a result, sources (including agricultural contributions) in those subareas are not required by the proposed source load allocations developed specifically for those sources to make reductions.”

In other words, the BPA consists of seven TMDLs (one for each Delta subarea) because the sources that contribute to each subarea are different. A different set of TMDL allocations was developed for each subarea and included in the Basin Plan Amendment. For example, as detailed in Table 8.4d in the TMDL Report, irrigated agriculture in the Sacramento River subarea of the Delta contributes about **1.5%** of all methylmercury loading to that subarea. To achieve the fish tissue objectives in Sacramento River fish, all sources to the Sacramento River subarea need to be reduced by about 44%. For comparison, as detailed in Table 8.4b in the

TMDL Report, irrigated agriculture in the Marsh Creek subarea of the Delta contributes about **35.8%** of all methylmercury loading to that subarea (not an insignificant amount). To achieve the fish tissue objectives in Marsh Creek fish, all sources to the Marsh Creek subarea need to be reduced by about 82%. Different percent source reductions are needed for different Delta subareas because the level of impairment is different in each subarea.

For additional information about the subarea delineations, fish consumption patterns and fish mercury concentrations in the different subareas, and sources and allocations specific to each subarea, please refer to the following sections and tables in the TMDL Report:

- Section 2.2.2 TMDL Scope & Delta Subareas (pages 12-14)
- Section 4.6.3 Consumption of Fish from Various Trophic Levels & Sources (page 47)
- Table 4.7: Mercury Concentrations in Trophic Level Food Groups Sampled in the Delta (page 54)
- Table 4.8: Percent Reductions in Fish Methylmercury Levels Needed to Meet Numeric Targets (page 54)
- Table 5.1: Fish and Water Methylmercury Values by Delta Subarea (page 68)
- Chapter 6 Source Assessment – Methylmercury (in particular Section 6.2 Methylmercury Sources, pages 78-117)
- Section 8.1 Methylmercury Load Allocations, in particular:
 - Table 8.1: Aqueous Methylmercury Reductions Needed to Meet the Methylmercury Goal of 0.06 ng/l (page 175)
 - Table 8.2: Assimilative Capacity Calculations for Each Delta Subarea (page 175)
 - Tables 8.4a through 8.4g, which list the methylmercury allocations for tributary inputs and in-Delta nonpoint sources and individual point sources that discharge to each subarea (pages 189-194)
 - Table 8.5: Methylmercury Load and Waste load Allocations for Each Delta Subarea by Source Category (page 195)

The Central Valley Water Board's 2010 response was intended to provide clarification. It was not the Board's intent to muddle the discussion of SDWA's concern about why actions are needed to address irrigated in-Delta agriculture. The Central Valley Water Board responded directly to SDWA's concern following SDWA Comment #4 on pages 199 and 200 in the 2010 Response to Stakeholder Comments; that discussion is repeated in the earlier "General Response" to SDWA's 2011 letter in this 2011 response document.

SDWA Comment #3.

These reductions by the contributors (purportedly 2% of the problem) would be required *before* there is any obligation that the tributary and open water contributions to MeHg load (74% of the problem) be reduced. Put another way, the staff recommend that we attempt to reduce some in-Delta agriculture MeHg production by as much as 82% of 2% of the total MeHg in the Delta while not trying to reduce that which contributes 74% of the total MeHg! A 5% decrease of that 74% would decrease in-Delta MeHg by 3.7% rather than the 1%+ decrease sought from ag. I apologize if these numbers are confusing, but why would one focus one's efforts to reduce the smallest contributor and not the larger contributors?

Response: The yellow-highlighted text is new since the 2010 comments, but expresses the same concern already expressed in the 2010 comments. The Central Valley Water Boars responded to this comment on page 198 of the 2010 Response to Stakeholder Comments:

“Board staff worked with stakeholders during the formal stakeholder process to develop the language in the draft Basin Plan amendments that specifically commits the Board to develop mercury control programs for the major tributaries during Phase 1, which will assign source reduction requirements to upstream dischargers. Also, the draft Basin Plan amendments contain load allocations for open-water habitat in all Delta subareas that incorporate the same percent reductions required for other point and nonpoint sources that discharge to those subareas (rather than setting open water allocations equal to existing average annual methylmercury loads, as was done in the February 2008 draft amendments). The draft Basin Plan amendments contain language that requires state and federal agencies whose projects affect the transport of mercury and the production and transport of methylmercury through the Yolo Bypass and Delta, or who manage open water areas in the Yolo Bypass and Delta, to conduct methylmercury control studies during Phase 1, and to meet the open water allocations by the end of Phase 2. The draft Basin Plan amendments also include requirements for a 110 kg/yr reduction in total (inorganic) mercury loads from the tributary watersheds, with the recommendation to initially focus on watersheds that export the most mercury-contaminated sediment (e.g., the Feather, American and Cosumnes Rivers and Cache and Putah Creeks). The TMDL control programs developed for upstream watersheds will focus on how to comply with the tributary methylmercury allocations and watershed total mercury load reduction requirements included in the Delta TMDL, including requirements for control actions for individual sources within the tributary watersheds.”

The Central Valley Water Board also responded to SDWA’s concern following SDWA Comment #4 on pages 199 and 200 in the 2010 Response to Stakeholder Comments; that discussion is repeated in the earlier “General Response” to SDWA’s 2011 letter in this 2011 response document. SDWA does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

SDWA Comment #4.

There can be, and is not, any reasonable basis for approaching a problem by trying to control 2% of it and not 74%. No explanation (and certainly no Response to Comments) can change the illogical and ineffective manner by which the MeHg problem is being addressed. Even if the in-Delta agricultural interests can somehow find a way to reduce their alleged contribution to total load by half, that would result in a 1% reduction in MeHg in the Delta. Again, there can be no justification for initially trying to make a 1% reduction.²

The TMDL program therefore seeks to impel the landowners of the 500,000+ acres of agricultural lands in the Delta to spend money on investigations and reports (and be limited in other actions and activities) with a best case scenario that it leads to a decrease in MeHg in the Delta by 1%. This, while the largest contributions of MeHg in the area remain unaddressed, and under no mandatory obligations. Such a situation cannot be justified.

It does not matter that “we have to start somewhere” or “we have decided to move from downstream to upstream” (itself an illogical approach to pollution), or that the TMDL begins with investigations and more studies and not immediate requirements for reductions. If one desires to address the MeHg problem, one can only start with the largest part of the problem, not the most insignificant. Surely it would be more effective, as well as more fair if the upstream contributors were required to fund the initial studies and investigations rather than burden those who contribute the smallest amount.

² I realize that this initial TMDL effort includes wetland contributions, but there is little doubt in my mind that the Board will not restrict the ability of wetlands to function.

Response: The yellow-highlighted text is new since the 2010 comments, but expresses the same concern already expressed in the 2010 comments. The Central Valley Water Board responded to this comment on pages 199 and 200 of the 2010 Response to Stakeholder Comments:

“... the Delta was divided into subareas based on the local sources of methylmercury and inorganic mercury to each subarea. Agricultural discharge contributions vary from 1% to 35.8% of the total methylmercury loads in each subarea. Each source load calculated for the TMDL is based on methylmercury concentration and discharge volume data specific to each source. The methylmercury source analysis described in the TMDL Report indicates that reducing or eliminating any one source (or source category) is unlikely to result in achieving the proposed fish tissue objectives throughout the Delta.”

“As a result, an allocation strategy that assigns an equal percent reduction to sources to each of the Delta/Yolo Bypass subareas is the most equitable distribution of responsibility. With only a few exceptions (see Chapter 8 in the February 2010 TMDL Report), point and nonpoint source discharges are assigned an equal percent reduction by the proposed allocations on a subarea basis. A decision to establish allocations that incorporate reductions for some sources while allowing others to stay the same or increase would be based solely on a subjective evaluation of which dischargers are more valuable to the citizens of California, an evaluation that Board staff cannot make. In addition, without the completion of additional methylmercury control studies, and characterization of point and nonpoint sources in the tributary watersheds, it is very difficult to determine which sources are the most feasible and cost-effective to control. A phased approach that focuses on control studies and total mercury reduction activities during the first phase of the control program is a reasonable approach, given the federal requirements for TMDLs, the high number of small individual sources, and the sheer magnitude of the river flows through the Delta.”

“For example, the Sacramento River is the largest river in California and drains a 27,000 square-mile area – almost one fifth of the State of California and about one half of the Central Valley. It is not surprising that two of the largest individual methylmercury inputs to the Delta identified in the TMDL Report (Cache Creek Settling Basin [137 g/yr] and SRCSD Sacramento River WWTP [161 g/yr]; see Tables 6.2 and 6.5 in the February 2010 TMDL Report) are each only about 7% and 8%, respectively, of the Sacramento River’s input to the Delta at Freeport (2,026 g/yr during the relatively dry WY2000-2003 TMDL period). However, as noted as early as 1997 in the Sacramento River Mercury Control Planning Project report prepared for SRCSD by Larry Walker Associates, “... mercury sources in the study area appear to be diffusely distributed without any significant “hotspots” ...” (LWA, 1997, page 31). This is expected to be true for both methylmercury and inorganic mercury sources in the Sacramento River watershed and other watersheds that drain to the Delta.”

“When discussing the importance of different sources, many stakeholders have focused on the amount of loading by source category and by individual discharge. However, staff recommends that additional factors be considered. Given how many individual discharges there are in each source category in the Delta, almost all of the individual discharges are small. And, although the tributary inputs are substantial, available information indicates that they also contain a similar distribution of individual discharges. It is the sum of all of the individual discharges in the Delta and its tributary watersheds that impairs the Delta. Each of the individual discharges has its own intrinsic value and financial constraints. As a result, the significance of different methylmercury and total mercury sources could be defined by: (a) their load, (b) their distance from an impaired area, (c) how big of a reduction is needed to achieve safe fish mercury levels in a given impaired area, (d) whether they can be controlled, (d) whether they can be controlled without impacting habitat function, (f) the cost to control them, and (g) the resources available to the responsible parties to implement controls. It is conceivable that the control program will need to focus on just a few large projects in some watersheds, but many small projects in other watersheds, to achieve safe fish mercury levels throughout the Delta.”

“It was not staff’s intent to imply that focusing only on in-Delta sources, or only on agricultural sources in the Delta, would resolve the Delta mercury impairment. As noted earlier, to address SDWA and other stakeholder concerns, staff and stakeholders developed draft BPA language that would not require implementation of methylmercury management practices identified in Phase 1 for the purposes of achieving methylmercury allocations until the Regional Water Board has completed the Phase 1 Delta Mercury Control Program Review and has developed mercury control programs for the major tributary inputs.”

“Staff recognizes that the cost of control studies is substantial and identified this concern in Section 7.4 (Economic Factors) in the California Environmental Quality Act (CEQA) evaluation in Chapter 7 of the February 2010 draft BPA Staff Report. Staff recognizes that additional funds will be needed to conduct the Phase 1 control studies. A variety of different funding sources was identified in Chapter 7 that could contribute towards study, monitoring and implementation costs:

- Developing a project for consideration as a Supplemental Environmental Project;*
- State or federal grants or low-interest loan programs;*
- Single-purpose appropriations from federal or State legislative bodies;*
- Bonded indebtedness or loans from governmental institutions;*
- Surcharge on water deliveries to lands contributing to a methylmercury or total mercury discharge;*
- Ad Valorem tax on lands contributing to a methylmercury or total mercury discharge;*
- Taxes and fees levied by a water district created for the purpose of drainage management; and*
- U.S.D.A. Agricultural Stabilization and Conservation Service.”*

SDWA’s new text indicates that the TMDL program seeks to impel landowners to “be limited in other actions and activities”. This is not the intent of the TMDL program. The intent of the mercury control program is to reduce mercury levels in Delta fish, not to limit agricultural activities in the Delta. To address the mercury problem, numerous sources need to make reductions in inorganic mercury and methylmercury discharges. The Delta methylmercury TMDL does not focus solely on irrigated agriculture as the source of the mercury impairment, nor does it require only irrigated agriculture to address its discharges. The Delta methylmercury TMDL is a comprehensive program that addresses open-water, managed wetlands, municipal and industrial waste water, urban Stormwater runoff, and those tributary watersheds which contribute to the impairment. Each of these source categories has a responsibility under this TMDL and will be required to develop and implement methylmercury control studies. Irrigated agriculture is not the only entity required to fund studies. The Basin Plan Amendment specifically allows the control studies to be developed through a stakeholder group approach or other collaborative mechanism.

Implementation of methylmercury control actions for the purpose of achieving the TMDL allocations is not required for nonpoint sources for at least another nine years. During that time, the Central Valley Water Board will be developing the upstream control programs (TMDLs) while at the same time the Delta sources will be evaluating management practices to control methylmercury. Timing is always an issue when developing numerous TMDLs in multiple watersheds. The Delta methylmercury TMDL recognizes that a significant portion of the mercury problem originates from upstream watersheds. Consequently, in-Delta sources are only responsible for their net contribution to the methylmercury loading in Delta waterways. In addition, because there is a significant portion of the population that uses Delta fish as a food source, the Central Valley Water Board adopted this TMDL while aware that there are numerous methylmercury sources in the Delta and its upstream watersheds that need to be addressed to protect the fish consuming public.

SDWA does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses for SDWA's 2011 comments that repeat the 2010 comments are unnecessary.

SDWA Comment #5.

The process is even more remarkable in that the assumed contributions from southern Delta agricultural return flows are likely incorrect, and *overstated*.

The TMDL cites a recent study of in-Delta ag return flows, and from that data calculates the contributions of agriculture. "The study results indicated . . . mineral soils had a lower net methylmercury loads than . . . (Delta ag lands) dominated by organic soils." (Page 104). The southern Delta is to a very large degree dominated by those mineral soils, with much less peat (organic soils). This means that calculations from the study data should result in less calculated contribution from the southern Delta than the central Delta, and the TMDL *may* be saying that. However, because other factors suggest the central Delta is a MeHg sump, the central Delta agricultural interests will not be required to decrease MeHg production (on their lands which produce more MeHg) while the southern Delta agriculture interests will have to reduce their MeHg production by 64%.

It should be noted that the agricultural return flow study cited in the TMDL sampled/tested drains on Empire Tract, Lower Jones Tract, Staten Island, Twitchell Island, and Upper Jones Tract. I believe those islands are well below sea level and largely made of peat soils. None of them are similar to the majority of lands within the southern Delta. It is doubtful that any calculation about MeHg loading based on this study would accurately reflect conditions and MeHg production in our area.

Response: These comments were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 201, as follows:

"As noted in staff's response to SDWA Comment #4, the proposed source reduction requirements entail different percent reductions for sources in different subareas based on what is needed to achieve the proposed fish tissue objectives in each subarea."

"Staff made use of the only data available at the time the TMDL was developed to calculate estimates of methylmercury discharges from agricultural areas in the Delta, and acknowledged in the February 2010 draft report and earlier drafts that agricultural loading appeared to be a relatively small portion of overall loading. As stated in the February 2010 draft TMDL report, underlining added to highlight text that addresses SDWA's comments:

"A recent study evaluated methylmercury production on and discharges from eight farmed Delta islands (Farmed Islands). In exchange for access to the properties, the study authors did not include Farmed Island names or sampling locations in the report. The study results indicated that Farmed Islands in the northern/central Delta dominated by mineral soils had lower net methylmercury loads than Farmed Islands dominated by organic soils (Heim et al., October 2009), with an overall annual loading rate (0.1 g/day x 365 = 36.5 g/yr) lower than that estimated by the above method for the WY2000-2003 period (123 g/yr). Even though there is a three-fold difference in the two methods' resulting annual loads, their similarity is encouraging given very different method approaches and concentration data sets were used. In addition, both methods indicate that agricultural runoff contributes a relatively small portion of all methylmercury loading to the Delta/Yolo Bypass (2.4% versus about 1%)."

“As further detailed in the TMDL Report (see below text from page 105 of the February 2010 draft report), neither the recent study nor previous study included upland areas. Because of this, and because the authors of the recent study did not include Farmed Island names or sampling locations in the report recent in exchange for access to the properties, staff acknowledged the need for additional studies during Phase 1.

“During Phase 1 of the proposed implementation program outlined in Chapter 4 of the draft Basin Plan Amendment staff report, staff would need to work with the study authors and Farmed Island landowners to determine which specific areas in the Delta and Yolo Bypass are acting as a net source and which areas are acting as a net sink in order to update the TMDL methylmercury source analysis.”

“Heim and others’ October 2009 study focused exclusively on farmed islands and did not evaluate upland areas in the periphery of the Delta. A review of the upland areas mapped in DWR’s Delta Atlas (DWR, 1995) indicates that upland areas may comprise about 20% or more of the Delta and Yolo Bypass. Staff recommends that a follow-up study be undertaken to characterize loads from the upland areas within and upstream of the legal Delta and, if elevated, determine the primary land uses responsible for methylmercury production. The study should be done in cooperation with agricultural interests in the Delta region.”

SDWA does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

SDWA Comment #6.

Further, I am unaware of any process occurring during normal agricultural irrigation and drainage practices in our area which would methylize mercury. Channel water is diverted, applied to the land, that which is not taken up by the crop either enters a drainage ditch or enters the ground water, and the drainage water is pumped back into the Delta. It may be possible that subsurface processes methylize mercury, but those are not controllable by farmers. The Responses to Comments state some studies show that intermittent wetlands produce more MeHg than other wetlands, and thus periodically wetted agricultural fields (irrigation) might also function similarly. Again, the Response miss the point. If the irrigated in-Delta lands contribute only 2% of the problem it is irrelevant that irrigated in-Delta lands might be producing more MeHg than un-irrigated in-Delta lands.

Response: The first three sentences of the above comment paragraph were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, pages 201 and 202, as follows:

“Also, as noted in the previous response, methylmercury studies specific to agriculture in the southern Delta have not yet been conducted. However, studies elsewhere have indicated that frequent wetting and drying of soil can stimulate methylmercury export.¹ As a result, repeated irrigation of agricultural

¹ For example, but not limited to:

Ackerman, J.T. and C.A. Eagles-Smith. 2010. Agricultural Wetlands as Potential Hotspots for Mercury Bioaccumulation: Experimental Evidence Using Caged Fish. *Environmental Science & Technology*, 44: 1451-1457

Gustin, M.S., P.V. Chavan, K.E. Dennett, E.A. Marchand, and S. Donaldson. 2006. Evaluation of Wetland Methyl Mercury Export as a Function of Experimental Manipulations. *Journal of Environmental Quality*, 35: 2352-2359.

Roulet, M., J.R.D. Guimaraes, and M. Lucotte. 2001. Methylmercury production and accumulation in sediments and soils of an Amazonian floodplain - effect of seasonal inundation. *Water Air Soil Pollution*, 128: 41-60.

Gilmour, C., D. Krabbenhoft, W. Orem and G. Aiken. 2003. 2004 Everglades Consolidated Report, Appendix 2B-1: Influence of Drying and Rewetting on Mercury and Sulfur Cycling in Everglades and

lands may lead to methylmercury discharges that would not otherwise occur during the dry season. If the Phase 1 studies indicate that agriculture in any particular subarea does not contribute methylmercury, then, during the Phase 1 review, the Central Valley Water Board can refine the load and waste load allocations and implementation provisions and schedules among other elements of the proposed Basin Plan amendments.”

It was the Central Valley Water Board’s intent to indicate that there are processes that occur during normal agricultural irrigation and drainage practices that could methylate mercury that would not otherwise become methylated during the dry season.

The new text highlighted in yellow is a reiteration of SDWA’s concern stated earlier in the 2010 and 2011 letters. Responses to this concern are provided in the earlier “General Response” to SDWA’s 2011 letter as well as in the response to “SDWA Comment #4”.

SDWA Comment #7.

In the southern Delta, artificially salty water enters from the San Joaquin River. This salt is a result of the CVP (in conjunction with the SWP) delivering 500,000 - 800,000 tons of salt a year to the valley, and 300,000 - 500,000 tons of this salt draining into the River and then the Delta. Because of this salt (at high concentrations) local farmers must apply a certain amount of additional water for leaching purposes in an attempt to control salt in the root zone. This problem is complicated by the shallow ground water which is directly connected to the channel water, such that the ground water rises and drops with the tides. This process makes the leaching of salts difficult, while the export projects inhibit the flushing of the channels by altering net flows.

The point of this is to explain that local farmers have few if any options regarding their irrigation practices. This means that there are likely no best management practices (“BMP’s”) which could address MeHg without adversely affecting the necessary leaching of the root zones. The approach taken by the TMDL suggests that those who may be 2% of the problem should consider practices that hinder crop production. Although we may find we can do some things, it is unrealistic to base future load reductions on BMP’s unknown at this time.

Response: These comments, with the exception of the yellow-highlighted text, were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, page 201, as follows:

“Based on similar comments in SDWA’s 2008 letter and during the 2009 stakeholder process, staff revised the staff reports to provide more information about factors known to control methylmercury production and degradation and reasonably foreseeable methods of compliance with methylmercury reduction requirements. For more information, please see the TMDL Staff Report Chapter 3 and Basin Plan Amendment staff report Chapter 4.3 implementation alternatives, Chapter 7 environmental evaluation, and Appendix C cost estimates. Staff also used information in SDWA’s 2008 and 2009 comments to revise the discussion of potential use of tailwater recovery (Basin Plan Staff Report sections 4.3.10 (in Chapter 4) and 7 II.A (in Chapter 7)), particularly for the southern Delta and potential effects on salt leaching.”

“While we may not be able to identify the specific agricultural management practices that will effectively reduce methylmercury loads from south Delta agricultural discharges, the proposed Basin Plan

amendments provide an opportunity for the south Delta agricultural dischargers to conduct studies to assess the current situation and to identify opportunities to reduce the methylmercury in the south Delta. If no management practices are identified that would allow the local farmers to continue farming, then the stakeholders need to provide that information for the Phase 1 Program Review by the Central Valley Water Board. The Phase 1 review provides an opportunity to refine the load and waste load allocations and implementation provisions and schedules among other elements of the proposed Basin Plan amendments.”

SDWA stated in its 2010 text, “The approach taken by the draft TMDL is to find, test and select the BMP’s which will allow the stakeholders to meet the future load reductions.” SDWA replaced this 2010 text with the following 2011 text: “The approach taken by the TMDL suggests that those who may be 2% of the problem should consider practices that hinder crop production.” As noted in the Central Valley Water Board’s 2010 response above, the Delta methylmercury control program includes a study period to identify a range of methods to reduce methylmercury discharges, which may or may not include practices that hinder crop production. It is a goal of the Phase 1 studies to evaluate potential methylmercury management practices; this evaluation could include an evaluation of whether these practices could hinder crop production or have any other possible adverse agricultural or environmental impacts. Text included in the Basin Plan Amendment Staff Report’s California Environmental Quality Act (CEQA) analysis (Chapter 7.3.II.A Agricultural Resources, which was cited in the above 2010 response) further addresses SDWA’s comment:

“Phase 1 of the proposed Project requires studies to develop management practices to reduce the methylmercury load in agricultural drainage to surface waters and the implementation of reasonable, feasible actions to reduce sediment in runoff with the goal of reducing inorganic mercury loading to the Yolo Bypass and Delta, in compliance with existing Basin Plan objectives and requirements, and Irrigated Lands Regulatory Program requirements. Methylmercury control studies would not require conversion of any farmland to non-agricultural use nor conflict with existing zoning for agricultural use or a Williamson Act contract. In addition, reduction of sediment in runoff is a baseline requirement under existing regulations and programs; that is, it is not a new requirement.

Phase 2 of the proposed Project requires that management practices be implemented to reduce identified agricultural sources of methylmercury that discharge to areas of the Delta and Yolo Bypass where fish methylmercury levels exceed the proposed fish tissue objectives. Compliance methods could include, but not be limited to, modifying agriculture return water discharge patterns to decrease the methylmercury concentration of the return water entering the receiving waters, and utilizing drip irrigation or tail-water recovery systems or other water efficient systems to curtail or limit irrigation runoff and discharge volume to the receiving waters.

These management practices have already been developed and are readily implemented to manage other pollutants such as pesticides and to conserve water. The effects and costs associated with these management practices have been previously evaluated (e.g., Karkoski et al., 2003; Beaulaurier et al., 2005; McClure et al., 2006; and Hann et al., 2007). These management practices are not expected to conflict with existing zoning for agricultural use or a Williamson Act contract or involve further changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use because it is likely that only a relatively small subset of agricultural areas will need to implement methylmercury management practices during Phase 2 and methylmercury management practices are not expected to result in significant impacts to Farmland.

The proposed Basin Plan amendments do not require methylmercury load reductions for agricultural discharges in the Central and West Delta TMDL subareas. In addition, the proposed Basin Plan amendments assign subarea allocations for agricultural discharges rather than individual allocations. This allows growers within each subarea that needs methylmercury

reductions to comply with subarea allocations to focus methylmercury reduction efforts on agricultural discharges for which reasonable management practices are possible. That is, growers would be able to choose an approach appropriate to crops and fields that will minimize costs and allow them to continue farming while achieving and maintaining the proposed methylmercury allocations. The subarea allocations do not require that every individual grower implement methylmercury management practices.

Utilizing drip irrigation, tail-water recovery systems or other water conservation systems to curtail or limit irrigation runoff and discharge volume to the receiving waters are not expected to adversely impact agricultural practices, the environment, or management practices used to control other pollutants, with one exception. It is likely that not all agricultural areas would be able to make use of water conservation methods such as tailwater recovery systems or drip irrigation systems, especially areas with shallow, highly saline groundwater. This could be of particular concern in the San Joaquin River TMDL subarea in the southern Delta (Herrick, 2009). Phase 1 control studies are needed to identify and evaluate additional management practices for agriculture and other sources, with the goal of determining effective methylmercury management practices that protect beneficial uses of Delta waters and current agricultural land uses.

Potentially, some water quality management practices such as buffer strips and constructed wetlands may need to be evaluated and, if needed, modified or limited to reduce or at least not increase methylmercury production. However, there are other water management practices available that address the same goals as buffer strips and constructed wetlands.

The Phase 1 methylmercury control studies are expected to increase the number of possible control options for agricultural sources of methylmercury and possible measures to mitigate potential impacts (e.g., the potential for water conservation practices to cause decreased crop yields due to salt accumulation in southern Delta mineral soils [Herrick, 2009]). The environmental effects of new control options would be evaluated during future Basin Planning efforts at the end of Phase 1. If the potential methods of compliance described above and developed by the Phase 1 studies are unable to adequately achieve the proposed methylmercury allocations, growers may be able to participate in an offset program (if one is approved by the Central Valley and State Water Boards and USEPA; see Section 4.3.9). If the Phase 1 studies are not able to develop feasible and reasonable methylmercury management practices for all areas of the Delta/Yolo Bypass (e.g., areas with shallow, highly saline groundwater in the San Joaquin River subarea in the southern Delta) and a legally viable, long-term offset program is not possible, the Board would need to modify the allocations so that sources with feasible methylmercury control methods would be required to make greater reductions. Methylmercury loading in agricultural discharges in the San Joaquin River subarea is a relatively small portion (about 4%; see Table 8.4e in the TMDL Report) of all methylmercury sources to that subarea during the relatively dry TMDL period (water years 2000-2003). In addition, a recent study that evaluated methylmercury production on and discharges from farmed Delta Islands indicated that farmed islands in the northern/central Delta dominated by mineral soils had lower net methylmercury loads than islands dominated by organic soils (Heim et al., 2009), with an overall annual loading rate lower than that estimated in the TMDL Report for the WY2000-2003 period. As a result, it is expected that if the currently proposed, equitable allocation scheme is not possible because there are no feasible methylmercury management practices for agricultural methylmercury discharges in the San Joaquin River subarea and a viable offset program is not possible, than the Board should be able to modify allocations in a way that still achieves the fish tissue objectives in the San Joaquin River subarea. The proposed Basin Plan amendments include language that commits the Board to conducting a "Delta Mercury Control Program Review" after the Phase 1 studies are completed and TMDL control programs for the major tributary inputs are developed. The Program Review includes assessing: (a) the effectiveness, costs, potential environmental effects, and technical and economic feasibility of potential methylmercury control methods; (b) whether implementation of some control methods would have negative impacts on fish and wildlife habitat or other project benefits; (c) methods that can be employed to minimize or avoid potentially significant negative impacts that may result from control

methods; (d) implementation plans and schedules proposed by the dischargers; and (e) whether methylmercury allocations can be attained.”

SDWA does not provide an explanation for why the 2010 responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

SDWA Comment #8.

I appreciate the opportunity to comment. I'm sure you understand our position given the above. We believe the better approach would be an analysis to determine if the problem is in large part of function of the historic mercury in the system, which is slowly flowing out to the Bay and ocean. If MeHg production from that source is the main contributor to in-Delta loads, we might then conclude the problem rests with the State as a whole, rather than with a small group of stakeholders. Clearly, the problem will not be solved by trying to cut in half that which produces 2% of the MeHg. Any sort of cost/benefit analysis would quickly indicate there is no point in forcing in-Delta agricultural interest to spend money and time on research.

Each of the above comments were previously and timely raised with the Regional Board and its staff. As explained above the specific Responses to these issues in a way addressed or answered them. Please feel free to contact me if you have any questions.

Response: These comments, with the exception of the yellow-highlighted text, were previously received during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments, pages 204 and 205, as follows:

“As explained in responses above, agricultural sources contribute from 1% up to 35.8% of the sum of the methylmercury loads in each Delta subarea and are not an insignificant contributor. In addition, legacy² mercury may comprise only about 30% of total mercury entering the Delta [“Staff’s Initial Responses to Board and Stakeholder Questions and Comments at the April 2008 Hearing”³ (see item A-1, pages 3 through 12)]. As a result, even if legacy mercury loads could be reduced to zero, we would still need to be concerned about activities in and around the Delta that contribute methylmercury. Also, as illustrated in Tables 7.17 and 8.6 in the TMDL Report, the San Joaquin River at Vernalis has suspended sediment mercury concentrations that are substantially lower than those in exports from other watersheds with a high density of mercury and gold mine sites, and are more comparable to exports from watersheds that do not have a high density of mine sites (e.g., Colusa Basin). This indicates that focusing only on projects to control legacy mercury in the San Joaquin River watershed likely would not enable the reductions in fish methylmercury concentrations in the southern Delta needed to comply with the proposed fish tissue objectives.”

“The Basin Plan Amendment provides an opportunity for the south Delta agricultural dischargers to conduct studies to assess the current situation and to identify opportunities to reduce the methylmercury in the south Delta. These stakeholders can submit the results of these studies to the Central Valley Water Board during Phase 1; the Board will consider adjustment of load and waste load allocations and implementation provisions and schedules during the Phase 1 Program Review.”

² Central Valley Water Board staff refers to mercury from historic mining operations in the Coast Ranges and Sierra Nevada that was released to Central Valley waterways by historic operations as well as by past and present erosion of excavated overburden and tailings as “legacy mercury”.

³ Available at: http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/stakeholder_meetings/25nov08_hearing_rtc.pdf

SDWA does not provide an explanation for why the 2010 responses to the SDWA text that was previously submitted in 2010 were inadequate. Because responses have already been provided, additional responses are unnecessary.

SDWA states in its new text, “Any sort of cost/benefit analysis would quickly indicate there is no point in forcing in-Delta agricultural interest to spend money and time on research.” However, available information indicates that there is a need for additional research about inorganic mercury and methylmercury management practices for most, if not all, of the point and nonpoint sources in and upstream of the Delta. And, as noted in the earlier response to SDWA Comment #3, it would be inequitable and ineffective to exclude any source from study requirements because:

- Reducing or eliminating any one source (or source category) is unlikely to result in achieving the fish tissue objectives throughout the Delta and Yolo Bypass.
- A decision to establish study requirements and load reductions for some sources while allowing others to do no studies or control actions would be based solely on a subjective evaluation of which dischargers are more valuable to the citizens of California.
- Without the completion of additional methylmercury control studies, including the characterization of point and nonpoint sources in the Delta and its tributary watersheds, it is very difficult to determine which sources are the most feasible and cost-effective to control.
- Almost all of the individual point and nonpoint discharges in and upstream of the Delta are small.
- Each of the individual discharges has its own intrinsic value and financial constraints.

A review of economic factors is included as part of the environmental analysis in Chapter 7 of the Basin Plan Amendment Staff Report (see Section 7.4) that recognizes the potential economic impacts on agriculture, municipalities, wetland managers, and other entities required to conduct methylmercury control studies, monitoring, and methylmercury management practices. Section 7.4 identifies a variety of different funding sources that could contribute towards study, monitoring and implementation costs:

- Developing a project for consideration as a Supplemental Environmental Project;
- State or federal grants or low-interest loan programs;
- Single-purpose appropriations from federal or State legislative bodies;
- Bonded indebtedness or loans from governmental institutions;
- Surcharge on water deliveries to lands contributing to a methylmercury or total mercury discharge;
- Ad Valorem tax on lands contributing to a methylmercury or total mercury discharge;
- Taxes and fees levied by a water district created for the purpose of drainage management; and
- U.S.D.A. Agricultural Stabilization and Conservation Service.

Also, the Basin Plan Amendment includes specific language that allows dischargers, including agricultural landowners, to conduct control studies using a stakeholder group approach or other collaborative mechanism, instead of requiring individual studies, which would reduce Phase 1 studies cost.

In its closing statement, SDWA states, “As explained above the specific Responses to these issues in no way addressed or answered them.” However, SDWA does not provide any new or additional information to support its statement, and does not point to any specific deficiencies. Because responses have already been provided, additional responses are unnecessary.

10. Southeast Asian Assistance Center (SAAC)

Laura Leonelli (Executive Director)

Letter Date: 20 May 2011

SAAC Comment #1.

Thank you for the opportunity to submit comments on the proposed approval of amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) to include a program for the control of methylmercury and total mercury in the Sacramento-San Joaquin Delta Estuary.

Response: No response necessary.

SAAC Comment #2.

Regarding the Chapter IV – Implementation amendment: In April 2008 our agency submitted comments both at the Public Hearing and in writing, regarding two issues: 1) that our research with the Sacramento area Southeast Asian communities, conducted in collaboration with UC Davis Environmental Science and Policy Department, demonstrated that many households are consuming fish once per day rather than once per week. This research has been done and has been published (by Dr. Fraser Shilling), and 2) it is disappointing to find that the Delta Mercury Control plan will only modify its protective standards after another 8 year research period, the duration of Phase 1 Implementation. We feel that this is overly cautious and conservative, and is based more on the concerns of cost and difficulty of implementation, rather than public health priorities. In the next 8 years, how many pregnant women and young children will be exposed to toxic levels of mercury by eating contaminated fish, and what is an acceptable number? As the economy continues to decline - and as you know the local area suffers the highest rate of unemployment statewide - more families will participate in subsistence fishing, not fewer.

Response: The Central Valley Water Board responded to similar comments submitted by the Southeast Asian Assistance Center in 2008 and 2010. For the Central Valley Water Board's detailed responses, please see page 237 of the Central Valley Water Board's April 2010 Responses to Stakeholder Comments, which are available at:
http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/april_2010_hg_tmdl_hearing/index.shtml

Water quality objectives are established to ensure reasonable protection of beneficial uses taking into consideration, among other factors, the water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area and economics. The Central Valley Water Board provides information on how it believes the adopted fish tissue objectives will be met, including the reasonably foreseeable methods of compliance. The Basin Plan Amendment itself "recognizes that some consumer eat four to five meals per week (128-160 g/day) of a variety of Delta fish species." (*Amendment to Chapter IV, Program Overview, page 2*). The Basin Plan Amendment commits the Central Valley Water Board to evaluating objectives after Phase 1 and in later program reviews to determine whether objectives protective of a higher consumption rate can be attained. The State's Porter-Cologne Water Quality Control Act requires that new or revised water quality objectives must be accompanied by an implementation plan that describes how the objectives will be achieved. The current scientific understanding of methylmercury in the Delta and known management measures indicate that fish tissue objectives based on the consumption of

32 g/day of trophic level 3 and 4 fish can be achieved, but more stringent objectives may not be achievable. Phase 1 of implementation provides an opportunity to develop additional methylmercury control measures and further assess options for lowering the fish tissue objectives.

The Central Valley Water Board recognized that people will continue to eat Delta fish for custom and need. The Basin Plan Amendment directs formation of an exposure reduction program that is intended to protect consumers as methylmercury and mercury levels are being controlled. The program could include strategies to aid consumers in finding safe fish areas. The most recent Delta fish advisories identify some fish and shellfish that may safely be eaten at three servings per week by the most sensitive groups (pregnant and nursing women and children).

SAAC describes Phase 1 as a “research phase”. Phase 1 also requires actions to reduce total mercury loads during this initial phase:

- NPDES facilities must meet total mercury mass limits and implement pollutant minimization programs;
- MS4s must apply best management practices to control sediment and pollution and implement prevention programs; and
- Nonpoint sources must implement practices to control sediment in runoff.

SAAC Comment #3.

It is amazing to me that under the Basin Plan, dischargers will be able to design and implement their own mercury reduction plans, and will have 4 years to evaluate their impact. The communities that our agency represents would prefer that the Delta Mercury Control Plan would adopt an a more regulated approach that would combine research with reduction methods that will result in measurable decrease in levels of all forms of mercury in water as well as fish tissue, within the Phase I implementation period. The inclusion of upstream mitigation is also welcome, especially with increased runoff in recent years that is draining the legacy mining areas. Public reporting of these actions and their results will continue to inform and engage affected communities in this process.

Response: By “dischargers designing and implementing their own mercury reduction plans”, SAAC seems to be referring to discharger participation in the Methylmercury Control Studies. These studies are just one component of the Phase 1 requirements.

The Basin Plan Amendment takes a pragmatic regulatory approach, assigning numeric methylmercury load and waste load allocations to dischargers and prescribing a schedule for those dischargers to meet their allocations. The Basin Plan Amendment also gives Dischargers a number of years to more fully develop methods for controlling methylmercury, as this is still an emerging field of research.

Methylmercury allocations are expected to be met by a combination of control measures for methyl and total mercury. Measures to control mercury are largely known, and the Basin Plan Amendment requires that within-Delta dischargers implement actions to control total mercury during Phase 1. However, although the control of mercury is generally understood, there is a great deal more uncertainty when it comes to methylmercury control measures. Previous methylmercury studies were used to identify source categories and estimate methylmercury and total mercury loads. Earlier studies also showed that some wetlands and wastewater treatment plants produce large amounts of methylmercury, but some do not. More studies are needed to

identify the particular characteristics of low-methylmercury wetlands, treatment facilities and other discharges and determine whether these characteristics can be applied elsewhere.

In addition, Water Code section 13360 prohibits the Central Valley Water Board from specifying manner of compliance with the mercury caps and methylmercury allocations. The dischargers will be required to develop their own plans to be in compliance with the Basin Plan requirements and time schedules.

The Central Valley Water Board committed to review the entire program, including allocations and fish tissue objectives, after the methylmercury study period. Any changes to the fish tissue objectives, allocations, or other requirements of the Delta mercury control program will be made through a public process.

SAAC recognizes the importance of addressing mercury sources upstream of the Delta. This Basin Plan Amendment commits the Central Valley Water Board to develop TMDLs for tributary watersheds.

11. State Water Contractors (SWC)

Terry Erlewine (General Manager)

Letter Date: 23 May 2011

General Response:

SWC submitted written comments to the Central Valley Water Board in April 2010 during the Central Valley Water Board's hearing process. In its 2010 letter, SWC supported the comments submitted by the California Department of Water Resources (DWR). SWC incorporated the DWR comments by reference in their 2010 letter. In their 2011 letter, SWC refers to the 2010 DWR comments as their own and provides remarks on issues they believe were not adequately addressed by the Central Valley Water Board responses to the 2010 DWR comments.

SWC's May 2011 letter is provided in the following pages in its entirety. New text (compared to the SWC and DWR 2010 letters) is identified in **yellow-highlighted** text marked with brackets – { } – in the margins. New Board responses are provided for the new text. The Central Valley Water Board's 2010 responses, as well as the page numbers where Central Valley Water Board's 2010 responses can be found, are included following each 2011 SWC comment that was repeated from the 2010 DWR letter. The April 2010 Responses to Stakeholder Comments are available at the Central Valley Water Board's website:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/april_2010_hg_tmdl_hearing/index.shtml

SWC Comment #1.

The State Water Contractors, Inc., ("SWC") submit this letter on behalf of the SWC and its 27 member agencies.¹ The SWC or any of its member agencies may participate in these proceedings in the future. These comments address the State Water Resources Control Board's approval of amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) to include a program for the control of methylmercury and total mercury in the Sacramento-San Joaquin Delta Estuary. The Central Valley Regional Water Quality Control Board ("Regional Board") has already adopted the Basin Plan Amendments ("BPA") to the Water Quality Control Plan for the Sacramento-San Joaquin Delta Estuary TMDL for Methylmercury and associated Staff Report dated April 2010.

¹ The SWC members are: Alameda County Flood Control & Water Conservation District; Zone 7; Alameda County Water District; Antelope Valley East Kern Water Agency; Casitas Municipal Water District on behalf of the Ventura County Flood Control District; Castaic Lake Water Agency; Central Coast Water Authority on behalf of the Santa Barbara County Flood Control & Water District; City of Yuba City; Coachella Valley Water District; County of Kings; Crestline-Lake Arrowhead Water Agency; Desert Water Agency; Dudley Ridge Water District; Empire West Side Irrigation District; Kern County Water Agency; Littlerock Creek Irrigation District; The Metropolitan Water District of Southern California; Mojave Water Agency; Napa County Flood Control & Water Conservation District; Oak Flat Water District; Palmdale Water District; San Bernardino Valley Municipal Water District; San Gabriel Valley Municipal Water District; San Geronimo Pass Water Agency; San Luis Obispo County Flood Control & Water Conservation District; Santa Clara Valley Water District; Solano County Water Agency; and, Tulare Lake Basin Water Storage District.

Response: No response is necessary.

SWC Comment #2.

The SWC requests that the State Water Resources Control Board not approve the above referenced documents because the Regional Board failed to adequately address comments and the suggested actions are not reasonable.

Response: Responses to the specific concerns described later in the SWC letter are provided in the following pages.

SWC Comment #3.

On April 7, 2010 the SWC provided comments to the Regional Board and generally joined the Department of Water Resources (“DWR”) comments regarding the Central Valley Regional Water Quality Control Board’s proposed BPA and associated Staff Report. As previously stated, the SWC generally support the Central Valley Regional Water Quality Control Board’s efforts to identify methods to control methylmercury in the Delta.

The SWC support certain portions of the proposed BPA and TMDL for controlling both methyl and total mercury to reduce fish tissue values to levels that are safe for fish, wildlife and Delta anglers. In particular, the SWC agree it is important to identify actions to reduce production of methylmercury from dredging and habitat restoration activities. However, the Regional Board’s responses do not adequately address the comments previously submitted.

Response: No response needed.

SWC Comment #4.

For example, the SWC commented that a majority of the mercury occurring in the Delta was due to historical activities, not water management. Thus, it was not appropriate to assign the entire open water allocation to DWR and two other State agencies. Specifically, a large portion of the mercury occurring in the Delta is due to mercury abundance in naturally occurring minerals and rocks of the California Coast Range and Sierra Nevada, which will continue to erode and be deposited in the State’s water bodies through natural processes. Another major contributor to mercury issues in the Delta is from anthropogenic activities, primarily historic mercury mining concentrated in the Coast Range, and gold recovery concentrated in the Sierra Nevada foothills and eastern valley. As detailed below, the Regional Board’s comments do not adequately respond to these comments.

Response: The above comment is a paraphrased version of broader comments in the April 2010 DWR and SWC letters submitted during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments (pages 41-42 and 208, respectively). The full 2010 DWR and SWC comments and 2010 Central Valley Water Board responses are provided in the following paragraphs.

DWR's 2010 Letter Comment #5:

The Regional Water Board staff responded to this position by assigning the open water allocations to the three state agencies, with the apparent belief that the State's responsibility would be appropriately fulfilled by those agencies. DWR and the Flood Board do not dispute that some of our activities, such as dredging or wetland and aquatic habitat restoration, may affect methylmercury production in the open-water. However, we strongly oppose being solely responsible for meeting the open water allocations simply because we are State agencies.

Importantly, DWR and the Flood Board do agree with the rationale in the Comment Letter for the State responsibility due to mercury contamination as an unfortunate legacy for our State. Mercury is abundant in naturally occurring minerals and rocks of the California Coast Range and Sierra Nevada, which will continue to erode and be deposited in the State's water bodies through natural processes, atmospheric deposition, as well as from anthropogenic activities (primarily historic mercury mining concentrated in the Coast Range, and gold recovery concentrated in the Sierra Nevada foothills and eastern valley). To address this legacy issue, which affects the citizens of California as a whole, the Agencies believe a comprehensive mercury characterization and control program identified with appropriate legislative authority to fund and staff a statewide effort is required. Until such a comprehensive, legislatively authorized and funded approach is developed, the Agencies do not support portions of the proposed BPA that hold them responsible for reducing methylmercury that is not caused by our activities. The Agencies have attached an edited BPA with comments and proposed changes reflecting this position.

The Agencies also believe that the proposed BPA open water allocations narrowly assign responsibility to only State agencies, and that when using the underlying logic of the BPA, federal agencies also should be assigned responsibility. The proposed BPA describes the types of activities that will be subject to the open water methylmercury allocations, including "water management and storage in and upstream of the Delta and Yolo Bypass, maintenance of and changes to salinity objectives, dredging and dredge materials disposal and reuse, and management of flood conveyance flows." (See BPA at 10.) The BPA then identifies the agencies that are responsible for the various activities, including DWR, SLC, the Flood Board, U.S. Bureau of Reclamation, U.S. Army Corps of Engineers and the State Water Resources Control Board (State Water Board). However, despite recognizing that there are numerous other agencies responsible for the types of activities affecting open-water methylmercury production and transport, the proposed BPA assigns responsibility to meet the allocations to only the three State agencies. We believe this is arbitrary and unreasonable.

Board's 2010 Response to DWR's 2010 Letter Comment #5:

"Staff agrees that the methylmercury that is generated in the open waters of the Delta is in general the result of inorganic mercury in the sediment of the Delta channels and that a substantial portion of that mercury likely comes from historic mining activities. However, water management activities can influence how much methylmercury is generated at a particular site. Staff has provided additional clarification in the draft BPA that the requirements apply only to activities that can influence how much methylmercury is generated in the open channels in the Delta (not upstream). Also, the BPA includes an adaptive management framework (lasting seven years) that describes how Board staff intends to work with DWR and others prioritizing and implementing studies to determine how land and water management activities affect methylmercury. If, during the adaptive management phase, the Board receives information indicating that none of DWR's actions significantly influence methylmercury production in the open channels, then no control actions will need to be undertaken. The adaptive framework purposely does not include many details because, after numerous discussions, stakeholders agreed that flexibility was desirable. The Central Valley Water Board will assign responsibility for the open water loads to other parties if and when they are identified during the adaptive management process (Phase 1, seven years). Other parties that are identified do not have to be State agencies."

SWC's 2010 Comment #3:

We understand the desire of some stakeholders to have the control of methylmercury assumed by the State. In some respects this may be necessary, however it should not be undertaken without first considering whether there are entities that today or in the past (where such responsible entities or their insurance policies still exist) are responsible for contributing to or exacerbating the historical existence of mercury. When allocating responsibilities, the Regional Board must do so in a way that does not simply transfer this responsibility from one set of water users to another. Neither the State Water Project nor the Central Valley Project are responsible for the mercury that exists in the system. In fact, it may well be that the retention times for water stored by the projects actually reduces methylization. Nevertheless, any program of implementation that seeks to impose this obligation on the State must do so in a manner that does not redirect this obligation to either the SWP or CVP.

Board's 2010 Response to SWC's 2010 Comment #3:

"Staff agrees that the methylmercury that is generated in the open waters of the Delta is in general the result of inorganic mercury in the sediment of the Delta channels and that a substantial portion of that mercury likely comes from historic mining activities. However, water management activities can influence how much methylmercury is generated at a particular site. Staff has provided additional clarification that this requirement applies only to activities that can influence how much methylmercury is generated in the open channels in the Delta (not upstream). Also, the BPA includes an adaptive management framework (lasting seven years) that describes how Board staff intends to work with federal and state agencies to prioritize and implement studies to determine how land and water management activities affect methylmercury. If, during the adaptive management phase, it turns out there are no activities that seem likely to be significantly influencing methylmercury production in the open channels, then no control actions will need to be implemented. The adaptive framework purposely does not include many details because, after numerous discussions, stakeholders agreed that flexibility was desirable. The draft BPA assigns joint responsibility for working on the open water allocation to the three state agencies that have responsibility for water management activities in and around the Delta. Other agencies that are identified in Phase 1 that implement actions and activities that have the potential to contribute to methylmercury production in open water will be required to take part in the studies. In the Phase 1 Program Review, the Board will add, as appropriate, other entities to the current list of entities that are responsible for meeting the open water allocation. The Central Valley Water Board will assign responsibility for the open water loads to other parties if and when they are identified during the adaptive management process (Phase 1, seven years). Other parties that are identified do not have to be State agencies."

SWC states in its 2011 comment, "As detailed below, the Regional Board's comments do not adequately respond to these comments." However, SWC does not provide an explanation in its 2011 letter for why the 2010 Central Valley Water Board responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

Note, the Basin Plan Amendment does the following:

- Assigns methylmercury allocations to tributary watershed inputs to the Delta and Yolo Bypass that require substantial reductions from current loads;
- Includes requirements for a substantial reduction (110 kilograms/year, a 28% load reduction) in total (inorganic) mercury loads from the tributary watersheds, with the recommendation to initially focus on watersheds that export the most mercury-contaminated sediment (e.g., the Feather, American and Cosumnes Rivers and Cache and Putah Creeks); and
- Provides a schedule for development of the tributary mercury TMDL control programs.

Methylmercury contributions from in-Delta/Yolo Bypass open water areas are expected to decrease as mercury reduction projects take place in the tributary watersheds that result in decreasing the mercury concentration of sediment deposited throughout the Delta and Yolo Bypass. The Delta TMDL control program described in the Basin plan Amendment acknowledges that mercury control actions will be required for both in-Delta and upstream sources.

SWC Comment #5.

The Regional Board allocates DWR a portion of the open water allocation for its water management activities. However, the Regional Board does not have jurisdiction over DWR's operation of the State Water Project ("SWP") because these activities do not constitute a "discharge" under the Clean Water Act. The mere movement of water is not "loading" that should be subject to the TMDL. Specifically, 40 CFR section 130.2(e), which defines the terms "load" or "loading" to mean an "amount of matter . . . that is *introduced into* a receiving water." While "loading" may occur through man-caused (pollution loading) or natural (natural background loading), the definition requires the introduction of something "into" the receiving water. Here, all that is occurring is the movement of water through the system, an activity that would occur regardless of DWR/SWP activities. Thus, it is inappropriate for DWR, and in turn the SWP contractors represented by the SWC, to be responsible as discharging entities for purposes of funding Phase I implementation studies. Yet the BPA requires "dischargers of methylmercury" including DWR, and in turn the SWP contractors, to conduct studies related to control methods.

Response: The above comment is a paraphrased version of broader comments in DWR's April 2010 letter submitted during the Central Valley Water Board hearing process and addressed in the April 2010 Responses to Comments (pages 43 and 44). The full 2010 DWR comments and 2010 Central Valley Water Board response are provided in the following paragraphs.

DWR's 2010 Letter Comment #7:

The last, and extremely important issue the Agencies have with the open water allocations is that it improperly includes flood control and "water management" as activities that are subject to the open water methylmercury allocations. The Agencies interpret the term "water management" to mean activities related to the movement of flows through confined, established Delta conveyance tributaries and channels. Such flow is subject to, and largely the result of, precipitation, snow melt, and other natural processes. Movement of water through the fluvial system will occur regardless of flood control and water management activities and DWR and the Flood Board do not believe that the mere movement of water through established channels should be included in an open water allocation, or any other allocation. The Agencies understand that water management activities may affect the distribution and potentially the resident time of mercury and methylmercury. However, we do not agree that affecting the distribution of methylmercury should be, or legally can be, considered a loading factor.

The "water management activities" described in the BPA cannot be considered point sources or nonpoint sources because they do not add any pollutant to navigable waters, and therefore cannot be regulated in the manner proposed in the BPA. The Regional Water Board staff seem to acknowledge this on page 50 of the Staff Report, which states, in pertinent part: "There are several challenges in developing equitable and effective methylmercury allocations... TMDL regulations and guidance focus on controlling discharges of pollutants to address water quality impairments, and do not clearly address how to handle other contributing factors such as water management activities." In other words, the Regional Water Board staff recognized that water management activities do not discharge mercury or methylmercury into the State's water bodies, which is what a TMDL is designed and intended to address. Therefore, the open water allocations set forth in the BPA pertaining to activities that only affect flow in the Delta channels should not be addressed through a TMDL.

Board's 2010 Response to DWR's 2010 Letter Comment #7:

"The open water allocations apply to flood control and water management activities because their activities have the potential to influence how much methylmercury is generated in open water areas, not merely the distribution of methylmercury, as the Commenter contends. If, during the adaptive management period (Phase 1), DWR submits new information, and the Central Valley Water Board agrees, that there are no activities that are being implemented or proposed that could influence methylmercury production, then no in-depth studies are needed.

DWR comments that the water management activities cannot be considered point sources or nonpoint sources, and therefore cannot be regulated by a BPA. The Commenter misreads the federal regulations pertaining to the establishment of a TMDL, which considers a TMDL to be "[t]he sum of the individual [waste load allocations] for point sources and [load allocations] for nonpoint sources and natural background." (40 C.F.R. § 130.2(i)).

Point sources are explicitly defined in the Clean Water Act to mean, "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." (33 U.S.C.A. § 1362). Non-point sources are defined in the negative, as sources which are not point sources. One federal regulation pertaining specifically to a restoration program managed by federal agencies defines non-point sources as "Pollution sources which generally are not controlled by establishing effluent limitations under sections 301, 302, and 402 of the Act." (40 C.F.R. § 35.1605-4). Pollution, in the federal regulations relevant to TMDLs, is defined as, "[t]he man-made or man-induced alteration of the chemical, biological, and radiological integrity of water." (40 C.F.R. § 130.2(c)).

It is undisputed that much of the mercury-laced sediment that underlies the Delta channels and floodplains is in place due to the actions of humans. Furthermore, to the extent that the Commenters' activities influence the production and flux of methylmercury to the open water in Delta channels, they are altering the chemical and biological integrity of the water. It follows that since the actions of the Commenters are neither point sources nor attributable to natural background, for the purpose of the TMDL, the Commenters' actions are appropriately regulated as non-point sources.

Adding further support for this proposition are the federal regulations that define Best Management Practices to be, "[m]ethods, measures or practices selected by an agency to meet its nonpoint source control needs. [Best management practices] include but are not limited to structural and nonstructural controls and operation and maintenance procedures." (emphasis added) (40 C.F.R. § 130.2(m)). Flood control and water management activities influence how much methylmercury is generated in open water areas and may even influence where mercury is deposited. It is clear that the regulatory authority over these activities is considered an integral tool in the implementation of a TMDL. It is important to look at these activities to see if there are different ways of managing the activities to minimize methylmercury production."

DWR's 2010 Attachment Comment #12 (first paragraph):

It is unclear how the Regional Water Board can place requirements on agencies conducting State legislated and federally mandated operations and maintenance activities. Sediment migration is a natural process, even in areas with flood and water conveyance and control facilities. This is especially an issue for open water allocations. The identified agencies had no part in the introduction of mercury into the wetted system (natural processes and historic mining practices did), and there is unlikely to be any reasonable solutions for reducing mercury loads in the open water/flood control system, as sedimentation and sediment migration is a natural fluvial function of every wetted system.

Board's 2010 Response to DWR's 2010 Attachment Comment #12:

"The Central Valley Water Board cannot supersede statute. The BPA requirements for State Agencies is consistent with Section 13247 of the California Water Code which states, "State offices, departments and boards, in carrying out activities which affect water quality, shall comply with water quality control plans approved or adopted by the state board unless otherwise directed or authorized by statute, in which case they shall indicate to the regional boards in writing their authority for not complying with such plans." The BPA does not interfere with the responsibilities of the State Agencies which is generally to carry out their mandated activities without significant impact to the environment. State Agency activities that increase methylmercury concentrations are a significant impact to the environment and compliance with the BPA requirements provides the mitigation measures that the Agencies must conduct to reduce or eliminate these impacts.

Staff agrees that controlling methylmercury in the open waters of the Delta may not be straightforward. Therefore, the BPA includes an adaptive management framework (Phase 1, lasting seven years) that describes how Board staff intends to work with DWR and others prioritizing and implementing studies to determine how land and water management activities affect methylmercury. If, during the adaptive management phase, it turns out that none of DWR's activities seem likely to be significantly influencing methylmercury production in the open channels, then no control actions will need to be done."

Water management activities have the potential to increase methylmercury production and loss in open water areas, not just simply transport methylmercury loads. As a consequence, the Central Valley Water Board determined that DWR can and should conduct control studies to evaluate what modifications can be done to existing and proposed water management activities to reduce methylmercury production and maintain (or even increase) methylmercury loss processes while continuing to carry out federal and state mandated operations. At the end of the adaptive management period, the Central Valley Water Board plans to weigh whether any of the open water options (if any are identified) make sense to implement, compared to control options for the other source categories.

In its new 2011 text (highlighted in yellow), SWC identifies a specific water management project, the State Water Project. However, SWC does not provide additional information that explains how the State Water Project is different from other water management activities encompassed by the Central Valley Water Board's 2010 response. Nor does SWC provide an explanation in its 2011 letter for why the 2010 Central Valley Water Board responses were inadequate. Because responses have already been provided, additional responses are unnecessary.

Note, whether State Water Project contractors represented by SWC will be required to fund and/or conduct Phase 1 studies may need to be negotiated with DWR. The Basin Plan Amendment contains text that specifically allows the Phase 1 studies to be developed through a stakeholder group approach or other collaborative mechanism to reduce the cost of the studies and improve their overall coordination and effectiveness. DWR and SWC members have the option of working together and with other stakeholders to collaboratively fund and conduct the Phase 1 studies.

SWC Comment #6.

Furthermore, despite the Regional Board recognizing several other agencies are responsible for the type of activities affecting open water methylmercury production and transport, they assigned responsibility only to DWR and two other State agencies. Specifically, the proposed BPA describes the activities subject to the open water methylmercury allocation as “water management and storage in and upstream of the Delta and Yolo Bypass, maintenance of and changes to salinity objectives, dredging and dredge materials disposal and reuse and management of flood conveyance flows.” (Resolution No. R5-2010-0043 at p. 11.) The BPA goes on to identify the agencies responsible for the activities listed above and includes, U.S. Army Corps of Engineers, State Water Resources Control Board and the U.S. Bureau of Reclamation. (*Ibid.*) Despite the recognition that several other entities engage in the same activities, only DWR, the Central Valley Flood Protection Board and the State Lands Commission were assigned the open water allocation. In its response to comments, the Regional Board completely fails to address this issue. (See Response to DWR Letter Comment #5.)²

² To the extent responsibility is assigned to DWR acting in its capacity other than as the operator of the SWP, such that the SWC are not charged for this activity, the SWC has a similar, but somewhat muted objection. In other words, numerous agencies are responsible for activities affecting open water methylmercury production and transport and responsibility should be allocated accordingly. If the state chooses to allocate responsibility to General Fund departments and activities, such that taxpayers are held responsible for the legacy portion of the problem, the SWC has less objection. However, the SWC does recommend that efforts be made to first identify those actors who are directly responsible for current and historical actions that cause mercury to be introduced into the system as well as those actions that affect open water methylmercury production and transport.

Response: The Central Valley Water Board addressed the above concern in its “Response to DWR Letter Comment #5” in the April 2010 Responses to Comments, (page 42), as follows:

“The Central Valley Water Board will assign responsibility for the open water loads to other parties if and when they are identified during the adaptive management process (Phase 1, seven years). Other parties that are identified do not have to be State agencies.”

The Central Valley Water Board also addressed SWC’s above concern in its “Response to DWR Letter Comment #3” and “Response to DWR Letter Comment #4” in the April 2010 Responses to Comments (page 40), as follows:

Board’s 2010 Response to DWR’s 2010 Letter Comment #3:

“The Board has assigned joint responsibility to the three state agencies for the open water allocation because these agencies share responsibility for the management of the water running through Delta channels and floodplains and management of the lands underlying these channels and floodplains. As such, it is appropriate for the Board to assign these agencies the responsibility to study the impact that their activities have on the generation of methylmercury in these channels and floodplains, and to implement control actions that reduce the generation and transport of methylmercury in these waterbodies. Staff has added language to the proposed BPA indicating that the Board will add other responsible parties, as appropriate, at any time in the future when they are identified.”

Board’s 2010 Response to DWR’s 2010 Letter Comment #4:

The assignment of load allocations to the State was included because State agencies implement actions that have an impact on the generation and transport of methylmercury. In DWR Letter Comment #9 and DWR Attachment Comment #20, DWR suggests that the State Water Board should be the lead funding agency, and that legislation would be the appropriate vehicle for establishing and funding a mercury characterization and control program because the State as a whole should be responsible. These comments support the concept of assigning load allocations to the State.

While the mercury sources include both naturally occurring mercury and legacy sources related to mining activities, activities conducted by land management agencies transport and/or concentrate total mercury and can affect methylmercury concentrations. Since these agencies are the experts on these activities, and because these agencies permit and manage these activities, it is reasonable for the Board to compel these agencies to evaluate the practices that are feasible under their land management mandates to reduce the concentrations and loads of total and methylmercury. Staff believes that it is appropriate to assign the load allocations to the specific agencies that have jurisdiction over land as the responsible parties. The draft BPAs have been revised to allow other responsible parties to be added to the allocations as they are identified in Phase 1.

While SWC does not provide an explanation in its 2011 letter for why the 2010 Central Valley Water Board responses were inadequate, their comment seems directed towards questioning why the federal agencies were not specifically identified as responsible for the load allocations. The Basin Plan Amendment allows for the addition of other agencies as they are identified so the Central Valley Water Board can include the federal agencies in the load allocation after the amendment becomes effective.

Note, the Basin Plan Amendment text cited by SWC Comment #6 actually states “*Activities including water management and impoundment in the Delta and Yolo Bypass...*”, not “*Activities including water management and storage in and upstream in the Delta and Yolo Bypass...*”. This reflects late revisions made to the Basin Plan Amendment before the April 2010 Central Valley Water Board hearing.

SWC Comment #7.

SWC previously commented that SWP operations actually help reduce mercury in the Delta. However, in its response to comments, the Regional Board failed to acknowledge or address this issue adequately, and instead simply assigned responsibility to DWR, and in turn the SWP contractors, for water management operations. Again, it should be noted that DWR’s operation of the SWP are actually beneficial to containing methylmercury and mercury. As noted in the April 2010 Staff Report, “sediment yield is reported to have declined by 50 percent since 1957.” The April 2010 Staff Report attributes these reductions to “the reduced supply of erodible material since cessation of hydraulic mining and increased trapping of sediment in reservoirs.” (Staff Report, p. 134.) Thus, SWP operations help trap sediment, including mercury, in upstream reservoirs so it is not released downstream into the Delta.

Response: The above comment paraphrases and expands upon broader comments in DWR’s and SWC’s April 2010 letters submitted during the Central Valley Water Board hearing process.

SWC included the following text embedded in a broader comment in their 2010 letter, “*In fact, it may well be that the retention times for water stored by the projects actually reduces methylization*”, as highlighted in blue with brackets – [] – in the following excerpt.

SWC's 2010 Comment #3:

We understand the desire of some stakeholders to have the control of methylmercury assumed by the State. In some respects this may be necessary, however it should not be undertaken without first considering whether there are entities that today or in the past (where such responsible entities or their insurance policies still exist) are responsible for contributing to or exacerbating the historical existence of mercury. When allocating responsibilities, the Regional Board must do so in a way that does not simply transfer this responsibility from one set of water users to another. Neither the State Water Project nor the Central Valley Project are responsible for the mercury that exists in the system. In fact, it may well be that the retention times for water stored by the projects actually reduces methylization. Nevertheless, any program of implementation that seeks to impose this obligation on the State must do so in a manner that does not redirect this obligation to either the SWP or CVP.

DWR's 2010 letter attachment Comment #12 similarly referred to open-water processes in the Delta that cause methylmercury reductions. (Please refer to pages 54-56 in the April 2010 Responses to Stakeholders Comments for DWR's full comment text.) In their 2010 comment, DWR requested that the Basin Plan Amendment allocations for open water be changed so that they encompass the net flux of methylmercury, not just the methylmercury load that enters the water column from sediments in open-water habitats within channels and floodplains in the Delta and Yolo Bypass. The Central Valley Water Board provided the following response to DWR's 2010 comment:

"Staff did not make DWR's suggested changes to the open water allocations because if the open-water habitat allocation were to be "credited" with the amount of "all mercury species leaving" a subarea, allocations for other sources would need to be reduced by an equivalent amount to compensate, which would not be an equitable distribution of responsibility. The intent of the control program is to reduce methylmercury concentrations in ambient Delta water so that Delta fish methylmercury concentrations are reduced. Staff expects that the suite of potential control activities may vary for different Delta areas depending on the nature of the methylmercury and inorganic mercury sources and potential negative environmental effects that could result from possible control actions. Control actions could include some combination of actions specific to different Delta areas, e.g., actions that reduce inorganic mercury in Delta channel sediment; reduce methylmercury production in channel open water, wetland and floodplain habitats; and/or reduce inputs of methylmercury to the channels. The commenter is correct in that open water habitats are a source (flux from the sediment) and a sink (photodegradation and particle settling from the water column) for methylmercury, and in that methylmercury and inorganic mercury are lost by way of transport downstream. The proposed allocation and control strategy included in the draft BPA account for these sources and losses. The proposed allocations are assigned to sources, not sinks. All the sources – including sediment in open-water habitat – contribute to methylmercury in the water column of Delta waterways (a.k.a. open water habitat), not just flux from open-water habitat sediments. The sum of all the methylmercury sources needs to be reduced to reduce methylmercury in the water column and in fish. One way to reduce the effect of the sum of methylmercury source contributions on water column methylmercury concentrations could be to enhance loss processes (photodegradation and particle settling from the water column). However, if the open-water habitat allocation were to be "credited" with the current "loss" amount, allocations for other sources would need to be reduced by an equivalent amount to compensate, which would not be an equitable distribution of responsibility. Based on the 2003 and 2008 CalFed Delta methylmercury transport and cycling studies it is obvious that loss processes are important, which is why the draft Basin Plan amendments include requirements for state and federal agencies to evaluate their activities' effects on ambient methylmercury concentrations in Delta open water areas and floodplain areas. Loss processes need to be maintained at their current levels (or, if possible, enhanced). If new water management or flood management activities caused methylmercury loss processes to decline (resulting in higher water column methylmercury concentrations), additional control actions would be needed to compensate."

As SWC commented in its 2011 letter, available information does indeed indicate that in general upstream reservoirs help trap sediment and mercury and reduce the amount of mercury ultimately transported to the Delta. The sum result of reservoir releases and other anthropogenic and natural processes that occur downstream of the reservoirs are addressed by the Basin Plan Amendment allocations for the tributary watersheds assigned to the points where the tributaries enter the Delta and Yolo Bypass. The Basin Plan Amendment allocations and control strategy account for the tributary watershed inputs to the Delta/Yolo Bypass as well as sources and losses within the Delta/Yolo Bypass. The Basin Plan Amendment includes a schedule for completing TMDL control programs for the tributary watersheds to reduce their contributions to the Delta impairment

SWC's 2011 comment seems to request that the Basin Plan Amendment allocations for open water in the Delta and Yolo Bypass somehow include credits for the amount of mercury load trapped by the upstream reservoirs. This raises the same concerns expressed by the Central Valley Water Board in their 2010 responses to DWR's request to incorporate credit for in-Delta activities that reduce methylmercury loads. Doing so would require that allocations for other sources, including tributary watershed inputs, be reduced by an equivalent amount to compensate, which would not be an equitable distribution of responsibility.

Also, there is no need to further expand the scope of the Basin Plan Amendment to include upstream loss processes because the TMDL control programs for the tributary watersheds will address specific inorganic mercury and methylmercury sources and loss processes within the watersheds upstream of the Delta and Yolo Bypass. Moreover, as explained at the end of the response to SWC Comment #6, in April 2010 the Central Valley Water Board made a late revision to the Basin Plan Amendment in response to DWR comments so that the scope of water management agencies' responsibilities would focus only on in-Delta/Yolo Bypass activities, rather than also include upstream water management and storage activities. This helps enable greater flexibility and reduce redundancy and possible confusion when the upstream TMDL control programs are developed.

SWC Comment #8.

SWC also expressed concerns that “the implementation of the TMDL not interfere with or cause to become infeasible (including financially infeasible) the development of large scale habitat programs to benefit the Delta system.” The Regional Board comments do not adequately respond to this comment. Specifically, while the Regional Board recognizes the importance of restoration projects and states that it will work with parties “to assure restoration efforts move forward while at the same time doing studies to determine how to effectively reduce methylmercury and inorganic mercury sources,” it does not provide support for such assurances. It is insufficient for the Regional Board to just defer addressing restoration assurances by only referring to required analysis at an unspecified date.

If you have any questions regarding the SWC comments, please contact at (916) 447-7357, ext. 203.

Response: SWC requests assurance that implementation of the TMDL will not interfere with habitat restoration projects. SWC does not suggest what type of additional assurance is needed. The Basin Plan Amendment enables wetland restoration projects to proceed, with appropriate consideration of potential impacts on methylmercury and beneficial uses of fish consumption. The Basin Plan Amendment allows habitat restoration projects to proceed during Phase 1 as long as project proponents a) participate in the Methylmercury Control Studies and

b) implement methylmercury controls as feasible as the controls are identified. During development of the Basin Plan Amendment, the Central Valley Water Board issued 401 Water Quality Certifications allowing restoration projects in the Delta to proceed. These 401 Certifications contained requirements to evaluate and monitor methylmercury, but did not prevent the projects from proceeding.

Also, the Basin Plan Amendment commits the Central Valley Water Board to an extensive review process at the end of Phase 1 that includes evaluation of the potential public and environmental benefits and potential negative impacts of methylmercury controls on projects such as habitat restoration, water supply, flood protection, and fish consumption (Basin Plan Amendment pages 8 and 9.) Based on their evaluation, the Central Valley Water Board will determine whether to adjust methylmercury allocations and control program requirements for wetland restoration projects and others.

Central Valley Water Board's response on pages 207-208 of the Responses to Comments for the April 2010 Central Valley Water Board Hearing describes both the difficulty in balancing water quality and endangered species benefits and its commitment to careful review of the potential negative impacts of imposing methylmercury controls on a variety of projects, including habitat restoration.