

DELTA METHYLMERCURY TMDL DRAFT BASIN PLAN AMENDMENTS (2 September 2009)

#	July 27 BPA Paragraph	Edits	Notes / Comments	Revised BPA
1	<p>Revise Chapter II (Existing and Potential Beneficial Uses), Table II-1 for Sacramento San Joaquin Delta:</p> <p>Footnote (9) COMM is an EXISTING beneficial use for waterways listed in Appendix 43.</p>		<p>WWTP: The ability to catch fish that meet the mercury fish tissue objective is not an existing use.</p> <p>Unnamed waterbodies should not automatically be given a COMM designation through a “tributary rule” type designation. The Basin Plan should limit designation to waterbodies where COMM is a known actual use. (D. Webster)</p> <p>Also note that Appendix 43 is not readily available on the Basin Plan’s web site and Footnote 9 is in regards to Marsh Creek REC 1 & 2 uses. Unable to verify the impact of the proposed revision.</p> <p>RB: Footnote was revised. The amendment is proposed to protect COMM, regardless of whether it is existing or potential.</p>	<p>Revise Chapter II (Existing and Potential Beneficial Uses), Table II-1 for Sacramento San Joaquin Delta, to add as follows:</p> <p>Sacramento San Joaquin Delta (8,9,e)</p> <p>Footnote: (e) in addition COMM is designated for the Sacramento San Joaquin Delta waterways listed in Appendix 43 and not any tributaries unless specifically designated.</p>
2	<p>Revise Chapter III (Water Quality Objectives), Methylmercury, to add as follows:</p> <p>The following fish tissue objectives apply to the Sacramento-San Joaquin Delta and Yolo Bypass waterways listed in Appendix 43. The average methylmercury concentrations shall not exceed 0.08 and 0.24 mg methylmercury/kg, wet weight, in muscle tissue of trophic level 3 and 4 fish, respectively (150-500 mm total length). These objectives are protective of (a) humans eating 32 g/day of commonly consumed, large fish; and (b) all wildlife species that consume large fish. The average methylmercury concentrations shall not exceed 0.03 mg methylmercury/kg, wet weight, in whole fish less than 50 mm in length. This objective is protective of wildlife species that consume small fish.</p>	<p>CWA: The following fish tissue objectives apply to the Sacramento-San Joaquin Delta and Yolo Bypass waterways listed in Appendix 43. The average methylmercury concentrations shall not exceed XXX and XXX mg methylmercury/kg, wet weight, in muscle tissue of trophic level 3 and 4 fish, respectively (150-500 mm total length). These objectives are protective of (a) humans eating a rate of 142.4 grams/day of commonly consumed, large fish (this is staff’s option 5 and allows for 4 to 5 meals a week of Delta fish which is more in line with subsistence fishing practices) and (b) all wildlife species that consume large fish. The average methylmercury concentrations shall not exceed XX mg methylmercury/kg, wet weight, in whole fish less than 50 mm in length. This objective is protective of wildlife species that consume small fish.</p>	<p>WWTP: Clarify if the “(150-500 mm total length)” applies to the full range of fish in both trophic levels</p> <p>CFBF: We do not necessarily agree with the average methylmercury concentration targets. (K. Fisher)</p> <p>CWA: This section should translate what the g/day means in terms of meals a week for clarity and to demonstrate exactly what it means to fishing communities.</p> <p>I have edited the text to be in line with what CWA is advocating, as we do not believe the current goal is adequate to protect subsistence fishers. Not sure what the actual fish levels would be to fit this goal.</p> <p>Shilling: This consumption rate is too low for many people eating fish in the Delta region. As the Regional Board staff knows, organizations in the Western Delta (People for Childrens Health and Environmental Justice), Northern Delta (Southeast Asian Assistance Center) and Southern Delta (United Cambodian Families) have studied this and report that many people around the Delta eat several fish meals a day. These meals are on the order of ½ lb of fish (240 grams) and most comes from the Delta waterways. A study that I conducted with collaborators from SAAC and with 2 graduate students showed that 50% of anglers fishing</p>	<p>Revise Chapter III (Water Quality Objectives), under “Methylmercury”, to add as follows:</p> <p>The following fish tissue objectives apply to the Sacramento-San Joaquin Delta and Yolo Bypass waterways listed in Appendix 43. The average methylmercury concentrations shall not exceed 0.08 and 0.24 mg methylmercury/kg, wet weight, in muscle tissue of trophic level 3 and 4 fish, respectively (150-500 mm total length). The average methylmercury concentrations shall not exceed 0.03 mg methylmercury/kg, wet weight, in whole fish less than 50 mm in length.</p> <p>A long-term goal is to have a fish tissue objective protective of humans eating four to five meals per week of top trophic level fish. The current objectives protect people eating one meal/week (32 g/day) of Delta fish plus some non-Delta (commercial market) fish. The fish tissue objectives will be reevaluated</p>

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			<p>in the Delta eat more than 32 g/day. The mean rate for Lao people is several times this rate. The BPA refers to subsistence fishers and their families later in this document, but does not use subsistence rates to develop fish tissue objectives. The choice of this rate is thus arbitrary and is not protective of subsistence fishers. It is difficult to overlook the fact that the people being ignored in setting the target are Southeast Asian immigrants, African-Americans, and others without any voice in the “stakeholder process” or other decision processes</p> <p>RB: The Chapter V monitoring text (Line 75) says that trophic level 3 and 4 fish species should be sampled in a range of fish sizes between 150 and 500 mm. For species that have legal catch sizes limits set by CDFG, the legal catch limits apply instead of the 150-500 mm range.</p> <p>In developing water quality objectives, staff looked at quantities of fish that can be safely eaten as well as evidence (within the Delta and in the Western US) that the fish tissue level can actually be met. Staff believes that these recommended water quality objectives are the lowest (i.e., most protective) levels for which we can show reasonable assurance that the objectives will be achieved. The BPA staff report shows four alternatives for fish tissue objectives that the Board will consider when adopting this amendment.</p> <p>Staff added a goal for protection of subsistence fish consumers, a commitment to review the fish tissue objectives after methylmercury control methods are developed and reductions are implemented, and clarified the protective level of the proposed objectives in terms of meals per week.</p> <p>Staff is aware of the surveys showing that many people in the Delta eat more than 32 g/day of locally caught fish. In interpreting what the proposed fish tissue objectives mean for fishing communities, it may be useful to note that there are various ways the meals/week can be calculated. Staff’s equating the proposed objectives with a safe consumption level of one meal/week is a conservative approach: 1) Staff assumed consumers would be also be exposed to methylmercury in commercial fish (meaning the Delta objectives need to be slightly lower); 2) The proposed objectives protect the most sensitive populations of</p>	<p>during the Phase 1 Delta Mercury Control Program Review and later program reviews to determine whether the higher consumption rate can be attained as methylmercury reduction actions are developed and implemented.</p>

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			<p>pregnant and nursing women and young children; and 3) staff did not take into account health benefits of eating fish, such as omega-3 fatty acids, cardiac, and other health benefits that have been reported. In comparison, the California Office of Health Hazard Assessment has calculated safe fish tissue levels for sensitive populations assuming no commercial fish intake and taking into account health benefits of eating fish (OEHHA, 2008, http://www.oehha.ca.gov/fish/gtllsv/crn062708.html). Under RB staff's conservative approach, the proposed objectives are equivalent to one 8-ounce meal/week (32 g/day). Using OEHHA's "advisory tissue level" approach, the same fish tissue levels are equivalent to about 2.5 meals/week. Staff is not recommending changing RB's calculation of safe fish tissue levels.</p> <p>It is also important to note that meeting the proposed fish tissue objectives will mean substantial improvements in safe fish levels in the Delta (~50% in the Sacramento and San Joaquin Delta subareas, >70% in the Yolo Bypass and Cosumnes/Mokelumne subareas). The proposed Basin Plan language would commit the Regional Board to review the possibility of lowering fish tissue objectives after methylmercury methods are developed and again after reductions are begun.</p>	
2.5				<p>Revise Chapter IV (Implementation), under "Mercury Discharges in the Sacramento River and San Joaquin River Basins", to add as follows:</p> <p><i>[The introductory paragraphs in this section will be updated to reflect current conditions.]</i></p>
3	<p>The Delta Mercury Control Program applies to the Delta and Yolo Bypass waterways listed in Appendix 43.</p> <p>This control program was adopted by the Regional Water Quality Control Board on [xxx date] and approved the U.S. Environmental Protection Agency on [zz date] (aka effective date).</p>	<p>WWTP: Suggested edits: "...Program applies <u>specifically</u> to the Delta and Yolo Bypass waterways listed in Appendix 43 <u>and generally to the Delta's watershed via tributary load allocations. The geographic scope of the Phase 1 mercury control studies and allocations should be downstream of major dams.</u>"</p> <p>WWTP(1): Suggested edits: "...Program applies <u>specifically</u> to the Delta and Yolo Bypass waterways listed in Appendix 43. and</p>	<p>WWTP: The program also applies to the Delta's watershed via the tributary load allocations.</p> <p>The edits provide consistency with Principle #11.</p> <p>EPA: When US EPA approves a BPA, its provisions then may be effective for federal CWA purposes.</p> <p>We suggest adding in when the State Board and Office of Administrative Law approve the BPA; this would be the date the BPA provisions may be effective for State purposes.</p>	<p><u>Delta Mercury Control Program</u></p> <p>The Delta Mercury Control Program applies specifically to the Delta and Yolo Bypass waterways listed in Appendix 43.</p> <p>This control program was adopted by the Regional Water Quality Control Board on [date], approved by the Office of Administrative Law on [date], [Effective Date],</p>

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		<p>generally to the Delta's watershed via tributary load allocations. The geographic scope of the Phase 1 mercury control studies and allocations should be downstream of major dams."</p> <p>Regarding the "effective date", (1) clarify here that it is in reference to the zz date [or is it the xxx date?], (2) refer hereafter to "effective date" rather than "the effective date of this amendment" [see first of many uses in row 4].</p> <p><u>TNC: The Delta Mercury Control Program includes mercury and methylmercury control requirements for the Delta and some upstream sources. The Delta Mercury Control Program applies to the Delta and Yolo Bypass waterways listed in Appendix 43.</u></p> <p><u>The Regional Water Board intends to implement the mercury control program in two phases. During Phase 1 ([the effective date of this amendment] through 2017), dischargers shall conduct total and methylmercury characterization and control studies. Phase 1 also includes development and implementation of a mercury exposure reduction program to humans, development of a pilot mercury offset program. At the end of Phase 1, the Regional Water Board will consider: modification of methylmercury goals, objectives, or allocations; adoption of management practices and implementation schedules for methylmercury controls; and adoption of a Mercury Offset Program to compensate for loads in excess of the methylmercury allocations. During Phase 2 (after Regional Board review through 2030), dischargers shall implement methylmercury control programs to achieve compliance by 2030. Compliance monitoring also occurs in Phase 2.</u></p>	<p>TNC: We think the BPA should provide the appropriate level overview. This draft has no context and no overall feel for what the Delta Mercury Control Program is. Example succinct summary provided here. (S. Liu)</p> <p>RB: The State Water Board approval date is not needed.</p> <p>This program applies allocations to the tributaries but does not set allocations for specific sources in the tributaries. Adequate information is not yet available to define allocations for specific methylmercury sources, especially nonpoint sources, in the Delta's tributary watersheds. In addition, a more extensive stakeholder process is needed to adequately encompass the diversity and breadth of stakeholders who would be affected by assigning responsibilities for upstream Control Studies in this BPA. This process will be one of the first tasks in developing the upstream TMDLs. Staff plans to begin outreach efforts to upstream sources and develop stakeholder contact lists for the upstream TMDLs.</p> <p>Other comments were addressed in the revised BPA language.</p>	<p>and approved the U.S. Environmental Protection Agency on [date].</p> <p>Program Overview Additional information must be developed on ways to control methylmercury sources in order to attain waste load and load allocations. Therefore, the Delta Mercury Control Program shall be implemented through a phased, adaptive management approach.</p> <p>Phase 1 spans from [Effective Date] to [8 years after the Effective Date]. Phase 1 emphasizes studies and pilot projects to develop and evaluate management practices to control methylmercury. Phase 1 includes pollution minimization programs for inorganic (total) mercury sources in the Delta and Yolo Bypass, as well as requirements for reducing total mercury loads from the upstream watersheds, to reduce sediment-bound mercury in the Delta and Yolo Bypass that may become methylated in wetland and open-water habitats, and to reduce total mercury loading to San Francisco Bay, as required by Resolution R2-2006-0052.</p> <p>Phase 1 also includes: development of upstream mercury control programs for major tributaries; the development and implementation of a mercury exposure reduction program to protect humans; and development of a pilot mercury offset program.</p> <p>At the end of Phase 1, the Regional Water Board shall conduct a Delta Mercury Control Program Review that considers: modification of methylmercury goals, objectives, and/or allocations for the Delta Mercury Control Program; adoption of management practices</p>

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				<p>and implementation schedules for methylmercury controls; and adoption of a Mercury Offset Program to compensate for loads in excess of the methylmercury allocations. The fish tissue objectives, the linkage analysis between objectives and sources, and the attainability of the allocations will be re-evaluated based on the findings of Phase 1 control studies and other information. The linkage analysis, fish tissue objectives and allocations shall be adjusted at the end of Phase 1, or subsequent program reviews, if appropriate.</p> <p>During Phase 2 (after the Phase 1 Delta Mercury Control Program Review through 2030), dischargers shall implement methylmercury control programs. Compliance monitoring and implementation of upstream control programs also shall occur in Phase 2.</p>
4	<p>Load and Waste Load Allocations: Methylmercury waste load allocations for point sources and load allocations for non-point sources are listed in Tables A-D. New or expanded methylmercury discharges that begin after [the effective date of this amendment] may necessitate adjustments to the allocations.</p>	<p>CWA: Load and Waste Load Allocations: Methylmercury waste load allocations <u>and Phase 1 methylmercury interim limits for dischargers and discharger groups</u> for point sources and load allocations for non-point sources are listed in Tables A-D (<u>need to add interim limits in tables</u>). New or expanded methylmercury discharges that begin after [the effective date of this amendment] may necessitate adjustments to the allocations.</p> <p><u>In addition, the concentration of total mercury in sediment is one factor controlling methylmercury production. Point and nonpoint sources contribute total mercury to the Delta. The control program includes requirements for controlling total mercury discharges from point and nonpoint sources, both to lower mercury in the Delta and to reduce total mercury loading to San Francisco Bay, as required by Resolution R2-2006-0052.</u></p>	<p>CFBF: Question: How are the load allocations derived? Is the current load total mercury or methylmercury? What is the baseline “bare” mercury load (ie: what is the mercury load in the water prior to use on ag lands and how much is then added by ag drainage? How is this reflected in the load allocation numbers on Table A?). (K. Fisher)</p> <p>EPA: The Board/Stakeholders may want to consider including a policy statement concerning increases in discharges.</p> <p>CWA: We remain concerned over the inclusion of new or expanded methylmercury discharges beginning after this BPA goes into effect since there is no assimilative capacity. Certainly allocations would have to be made more stringent to make up for additional inputs from unforeseen new sources, but dischargers should not expand their inputs in the years to come.</p> <p>We are suggesting replacing this 2nd paragraph here because it sets up the understanding early on that there will be total mercury load reductions required during Phase 1 for the Delta itself. It just seems to make sense to include the</p>	<p>Load and Waste Load Allocations Methylmercury waste load allocations for point sources and load allocations for non-point sources are listed in Tables A through D. New or expanded methylmercury discharges that begin after [Effective Date] may necessitate adjustments to the allocations.</p>

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			<p>part about SF Bay here, though you could leave it where you have it further down.</p> <p>Shilling: Because the Board decides to use inaccurate and non-protective consumption rates for subsistence fishing people, all allocations are insufficient as they are tied directly to reducing fish tissue mercury concentrations.</p> <p>RB: The MeHg load allocations were determined by developing a mass balance of current MeHg loads in each subarea of the Delta and the contributions from each type of discharge. The calculations of existing loads used both site-specific MeHg data and estimations based on loads from similar source types. Staff determined how much reduction was needed in each subarea to meet MeHg objectives, and then allocated the reduction to the various sources in the subarea. In particular for loads from agricultural drains, staff subtracted the MeHg loads in source (irrigation) water from the loads in agricultural drain return water (see Section 6.2.4 and Table 6.6 in the Delta TMDL Report). The reduction in load needed to meet objectives was applied to this net MeHg input from agricultural drains.</p> <p>BPA does not propose interim limits for methylmercury; methylmercury reductions will be imposed after total mercury BMPs are developed during Phase 1. Total Hg language is on line 7.</p>	
5	<p>Allocations are specific to Delta subareas, which are shown on Figure xx-x. The load allocations for each Delta subarea apply to the sum of annual methylmercury loads produced by agricultural lands, wetlands, and open-water habitat in each subarea, as well as atmospheric wet deposition to each subarea. The subarea allocations apply to discharges that existed before [the effective date of this amendment] and new discharges that began after [the effective date of this amendment].</p>	<p>WWTP: Suggested edits to last sentence: The subarea allocations apply to <u>all discharges—both existing and future that existed before [the effective date of this amendment] and new discharges that began after [the effective date of this amendment].</u></p>	<p>WWTP: Edited to simplify the text.</p> <p>CFBF: How many years were included to determine the average? Does this include wet, dry, and normal years? There is a need for more scientific studies to determine how much mercury is actually getting methylated versus how much is passing through ag lands.</p> <p>During flood times in the Yolo Bypass, ag should not be held responsible for methylization since ag production is not taking place (ie: DWR is using the lands as flood control). This should be reflected in any liability/responsibility assigned to ag. (K. Fisher)</p> <p>RB: Methylmercury loads for the Delta were calculated for water years 2000-2003, which was a relatively dry period. These years were selected because CalFed, the Regional Board, and other entities collected water samples repeatedly at multiple sites in the Delta for the purpose of</p>	<p>Load allocations are specific to Delta subareas, which are shown on Figure xx-x. The load allocations for each Delta subarea apply to the sum of annual methylmercury loads produced by agricultural lands, wetlands, and open-water habitat in each subarea, as well as atmospheric wet deposition to each subarea (Table A). The subarea allocations apply to both existing and future discharges.</p> <p>Waste load allocations apply to individual NPDES permitted facility and Municipal Separate Storm Sewer System (MS4) discharges (Tables B and C, respectively).</p>

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			<p>calculating a Delta MeHg budget (inputs minus losses) during this period. CalFed funded a second round of sampling inputs and exports in 2003-2006, which included wetter years (http://mercury.mlml.calstate.edu/reports/reports/). Staff reviewed the second set of data and will incorporate it along with other new Phase 1 study data into the Delta Mercury Control Program Review at the end of Phase 1. Staff agrees that more information about MeHg production and control within agricultural lands is needed. Phase 1 studies are expected to provide information.</p> <p>Ag and wetlands are only responsible for <u>net</u> MeHg production. The subarea load allocations for agricultural lands apply to the net difference between methylmercury loads discharged by agricultural lands during the irrigation season and methylmercury loads in irrigation water applied to the agricultural lands. Similarly, the subarea load allocations for wetlands apply to the net difference between methylmercury loads discharged by wetlands and methylmercury loads in irrigation/source water. The load allocations for agricultural lands and wetlands do not include methylmercury loading from atmospheric wet deposition. Responsibility for net increases has been added to Line 16.</p>	
6	<p>Methylmercury allocations are assigned to tributary inputs to the Delta and Yolo Bypass. Future upstream control programs are planned for tributaries to the Delta through which control actions will be implemented to meet load allocations for tributary inputs assigned by the Delta control program.</p>		<p>CFBF: See comments under #5. As stated above, data is needed specifying levels of mercury in bare river water passing through agricultural lands versus ag lands in production in which mercury methylizes prior to discharge. (K. Fisher)</p> <p>CWA: It is unclear how you will achieve positive results from these allocations given that we do not know the schedule for control programs. Some will require TMDLs which can take years (depending on budget) and others may be implemented without TMDLs but we don't have timing. Is there a table that can be inserted to provide assurance of when/how this will be done?</p> <p>DWR: Methylmercury allocations have already been assigned to Cache Creek upstream of the Delta, The mercury load in the Cache Creek Settling Basin should have been addressed in the Cache Creek TMDL, (M. Kirkland)</p> <p>RB: Please see responses in Lines 4 and 5 regarding calculation of net MeHg agricultural inputs (minus the contribution from source/irrigation water).</p>	<p>Methylmercury allocations are assigned to tributary inputs to the Delta and Yolo Bypass (Table D). Future upstream control programs are planned for tributaries to the Delta through which management practices will be implemented to meet load allocations for tributary inputs assigned by the Delta Mercury Control Program.</p>

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			<p>Please refer to Line 55.5 for completion dates for upstream TMDLs.</p> <p>The Cache Creek TMDL and Basin Plan amendment contained methylmercury allocations for reaches of Cache Creek, including the Settling Basin. The methylmercury allocations were calculated to achieve safe fish tissue levels. Although the TMDL established requirements for total mercury reductions from mines and other activities in the watershed, the Cache Creek TMDL did not include allocations for total mercury. The Cache Creek TMDL also did not set any requirements for mercury retention by the Settling Basin.</p>	
7	<p>The control program includes plans to begin reducing total mercury loading to San Francisco Bay, as required by Resolution R2-2006-0052.</p>		<p>CWA: See comment above</p> <p>RB: Note that point and non-point sources within the Delta are minor contributors of inorganic mercury. Stormwater and WWTPs will have requirements to control total mercury. In addition, the program requires reductions from the Cache Creek Settling Basin and upstream watersheds. Please refer to Line 55.5 for watershed TotHg reductions and completion dates for upstream TMDLs. Because this text seemed to fit better with the introductory overview recommended by TNC, staff edited it in attempt to address CWA comments and then relocated it to Line 3.</p>	<p><i>[Edited and moved to Line 3.]</i></p>
8	<p>Margin of Safety: The Delta Mercury Control program includes an explicit margin of safety of 10%.</p>			<p>Margin of Safety The Delta Mercury Control program includes an explicit margin of safety of 10%.</p>
9	<p>Compliance Date: Methylmercury load and waste load allocations for dischargers in the Delta and Yolo Bypass shall be met as soon as possible, but no later than 2035. Note: The new State Board strategic plan requires compliance by 2030. (Intended to be xx15 years after the Delta Mercury Control Program Review, unless the Regional Board modifies the implementation schedule and final compliance date.)</p>	<p>WWTP: Use the date and reasoning that we agreed to (2035).</p> <p>Rather than use "...after the Delta Mercury Control Program Review" as another scheduling reference, write such things relative to Phase 1 or 2 of the TMDL.</p> <p>CWA: "... shall be met as soon as possible, but no later than 2030..."</p> <p>TNC: <u>Dischargers do not have to begin implementation of methylmercury management practices, developed in Phase 1, until the Regional Water Board has</u></p>	<p>WWTP: The strategic plan is a plan, not a requirement, right?</p> <p>Use 2035, the date and reasoning that we agreed to.</p> <p>CFBF: Concerns with compliance schedule (ie: manner, money, funding, timeline, etc).</p> <p>General concerns with liability assigned to ag for this problem. (K. Fisher)</p> <p>CWA: Date in Feb 08 doc was 2030. We realize that this knocks off the 15 year timeline, but since the State Board strategic plan requires compliance by that date, I don't see how it can be expanded to 2035.</p>	<p>Compliance Date Methylmercury load and waste load allocations for dischargers in the Delta and Yolo Bypass shall be met as soon as possible, but no later than 2030, unless the Regional Water Board modifies the implementation schedule and final compliance date.</p> <p>Nonpoint source dischargers are not required to begin implementation of methylmercury management practices developed in Phase 1 until the Regional Water Board has completed</p>

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		<p><u>reevaluated the allocations and the costs, environmental impacts, and efficacy of methylmercury management practices at the end of Phase 1 and has developed the tributary control programs.</u></p>	<p>Shilling: What is reasoning for this delay? What credit and therefore incentive can dischargers gain by acting sooner. This delay invites delay.</p> <p>TNC: This must be stated, otherwise dischargers are legally required to start implementation. This statement was taken from the Feb 2008 draft. Also, previous drafts in 2009 added condition regarding tributary control programs. " During Phase 1, the Regional Water Board will develop mercury control programs for major tributaries to the Delta. Implementation of Phase 2 control actions for the Delta will not begin until the Regional Water Board has developed the tributary control programs." (S.Liu)</p> <p>RB: Staff removed the reference to the Strategic Plan. The "State Water Resources Control Board Strategic Plan Update: 2008-2012" has a goal of meeting TMDL requirements by 2030. The Strategic Plan Update is a planning document that guides the work of the State and Regional Water Boards; it is not a regulatory or policy document (State Board Resolution 2008-0063 adopting the Strategic Plan). The Regional Board will follow the Strategic Plan as closely as possible, but there may be TMDLs that cannot be achieved by the goal. The compliance date will be reconsidered when the Board reviews the BPA in 2017. The date for some sources could be sooner, while later for other sources.</p> <p>Staff acknowledges that dischargers, including the CFBF, are concerned about having money and time to meet allocations. Simultaneously, other stakeholders are concerned about the compliance schedule becoming too long. Staff tried to balance these concerns by proposing a schedule with a relatively lengthy total compliance period and a commitment for reevaluation before the Board partway, at the end of Phase 1</p> <p>Please see responses in Line 6 regarding responsibility for agricultural stakeholders to address their net MeHg loads in their discharge. Staff recognizes that for agricultural lands that are seasonally inundated for wildlife habitat and/or flood control flood control and wildlife habitat, affected stakeholders will need to coordinate studies and control actions (see Line 41). Staff addressed other comments with revisions to the BPA.</p>	<p>the Delta Mercury Control Program Review and has developed the tributary mercury control programs. However, nonpoint source dischargers should implement reasonable and feasible methylmercury management practices as they are developed.</p>

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10	<p>When implementing the wasteload allocations in this control program, the Regional Water Board may include schedules of compliance in NPDES permits for compliance with water quality-based effluent limits based on the wasteload allocations. The compliance schedules must be consistent with the requirements of the Clean Water Act, EPA regulations 40 CFR 122.476, and State law and regulations.</p>	<p>EPA: The compliance schedules must be consistent with the requirements of the Clean Water Act, EPA regulations 40 CFR 122.476, and State law and regulations [<u>may wish to reference SB Resolution 2008-0025</u>].</p> <p>CWA: When implementing the wasteload allocations in this control program, the Regional Water Board shall include schedules of compliance in NPDES permits for compliance with water quality-based effluent limits based on the wasteload allocations.</p>	<p>CFBF: What will compliance schedules be for non-point sources? (K. Fisher)</p> <p>MS4: Should we have some statement that permits should not require accelerated compliance relative to the TMDL schedule because the wasteload allocations could change at the end of Phase 1?</p> <p>EPA: EPA recommends that the Board ensure that the provisions in the TMDL are consistent with the (EPA approved) State Board's Compliance Schedule provision, concerning when existing dischargers may have the option of a compliance schedule available to them. EPA will work with the State on this issue.</p> <p>RB: "May" was changed to "shall", but some permits may not need compliance schedules if they can meet the allocations. Staff added "as necessary" to address this case.</p> <p>The requirement for "Compliance with NPDES requirements in this program shall be as soon as possible" is balanced in Lines 11, 13, 14 and 16 by requiring Phase 1 implementation of "reasonable" control options for inorganic mercury and/or methylmercury. This should address the concern about accelerated compliance schedules in permits.</p> <p>The statement regarding compliance schedules for meeting waste load allocations is specific to NPDES permits. The BPA contains the Phase 1 study timeline and the final load allocation compliance date, but will not require more detailed compliance schedules for nonpoint MeHg sources. At the start of Phase 2, when nonpoint sources are required to begin implementing controls to meet the MeHg allocations, the Irrigated Lands Regulatory Program may develop interim steps or goals consistent with other IRLP procedures.</p>	<p>When implementing the waste load allocations in this control program, the Regional Water Board shall, as necessary, include schedules of compliance in NPDES permits for compliance with water quality-based effluent limits based on the waste load allocations. The compliance schedules must be consistent with the requirements of the Clean Water Act, EPA regulations 40 CFR 122.47, and State laws and regulations, including State Water Board Resolution 2008-0025. Compliance with NPDES requirements in this program shall be as soon as possible.</p>
11	<p>Implementation Program Additional information is needed on the ability to control mercury and methylmercury sources in order to attain load and waste load allocations. As a result, the Delta Mercury Control Program is implemented through a phased, adaptive approach. Phase 1 spans from [the effective date of this amendment] to</p>	<p>WWTP: The introductory text to Section 3 of the draft MOI should be incorporated into this introductory paragraph. Those are policy-level statements.</p> <p>Add at the end of this introductory paragraph "...and develops upstream TMDLs."</p>	<p>WWTP: General Requirement A1 is consistent with Principle #1. Also, the information described in Principles #3 and 12 should be incorporated in this section, or elsewhere in the BPA.</p> <p>The transition to Phase 2 is marked here as year 2017. But the BPA calls for several activities to have been completed by this point in time. While the phase 1 studies should be</p>	<p>Implementation Program [Introductory text re-located to Line 3.]</p> <p><i>Issue for Stakeholder Discussion:</i> How and where to include Principle #1? [During Phase 1, all dischargers shall implement reasonable control options for inorganic mercury and/or</p>

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	<p>2017 [the Delta Mercury Control Program Review date] and includes a study period to develop and evaluate management practices to control mercury and methylmercury. Phase 2 (after Delta Mercury Control Program Review) requires implementation of management practices after the Regional Water Board reviews the Delta Mercury Control Program.</p> <p>Alternatives: General Requirements for All Sources: Inorganic mercury limit alternatives: A1. All point and non-point sources in the Delta and Yolo Bypass shall not increase their inorganic mercury loads. A2. All point sources in the Delta and Yolo Bypass (Table B) shall not increase their inorganic mercury loads. A3. (No inorganic mercury limits for any source)</p> <p>Alternative: During the first eight years following adoption of the BPA (Phase 1), dischargers shall reduce total mercury and methylmercury levels using available methods, including pollutant minimization programs, operational upgrades, and treatment process enhancements.</p>	<p>Add Principle #8: "The linkage analysis and fish tissue objectives and the attainability of the allocations will be re-evaluated based on the findings of Phase 1 control studies and other information. The linkage analysis, fish tissue objectives and allocations may be adjusted in Phase 2, if appropriate."</p> <p>The POTW community supports alternative A1—assuming that alternative B1 in row 13 is carried forward—and are certainly opposed to the separate "Alternative", which is inconsistent with the stakeholder principles and the concepts embodied in the phased TMDL approach. Point sources should not be required to install treatment during Phase 1 given the uncertainties recognized by all stakeholders regarding the ability to achieve allocations, objectives and uses.</p> <p>Remove the 2017 reference for the end of studies, and base the study period end date as 8 years from Board adoption of the BPA.</p> <p>EPA: EPA recommends: <u>Throughout the control program</u>, additional information is needed <u>should be developed on ways</u> the ability to control mercury ...</p> <p>Phase 1 spans from [the effective date of this amendment] to 2017 [the Delta Mercury Control Program Review date] and includes emphasizes a study period <u>studies and pilot projects</u> to develop and evaluate management practices to control mercury and methylmercury.</p> <p>EPA recommends: ... dischargers shall reduce total mercury and methylmercury levels using <u>all</u> available methods,...</p> <p>CWA: Additional information is, in some cases, needed on the ability to control mercury and methylmercury sources in order to attain load and waste load allocations. As a result, the</p>	<p>completed and synthesized by regulated dischargers, regulators are responsible for completing upstream TMDLs by then as well. The start of Phase 2 should be contingent upon that step's completion as well.</p> <p>We support alternative A3. We could support Alternative A1 if written as a goal, but not a requirement, and are opposed to Alternative A2, which singles out point sources. There are too many unknowns regarding MeHg control and formation at this point to limit to current loading and assure compliance. If written as a requirement, this could cause unintended violations. (D. Webster)</p> <p>Regarding the second Alternative language, this is way too prescriptive and could have unintentional consequences. Suggest keeping with the Principal language "Reasonable control options should be implemented during Phase I for inorganic Hg and/or MeHg." (D. Webster)</p> <p>The POTW community is certainly opposed to the separate "Alternative", which is inconsistent with the stakeholder principles and the concepts embodied in the phased TMDL approach. Point sources should not be required to install treatment during Phase 1 given the uncertainties recognized by all stakeholders regarding the ability to achieve allocations, objectives and uses.</p> <p>Remove the 2017 reference for the end of studies, and base the study period end date as 8 years from Board adoption of the BPA. Reasoning: We should not shortcut the time to figure out BMPs for MeHg control for point and non-point sources. Attempts to control natural methylation processes might lead to serious undesirable environmental side effects, which these studies need to evaluate. Shortcutting the study period could lead to implementation of solutions that do more harm than good.</p> <p>MS4: "During the first eight years following adoption of the BPA (Phase 1), dischargers shall reduce total mercury and methylmercury levels using <u>available methods</u>, ..." "available methods" have to be defined clearly. Regional Board's definition for the "available methods may be very different than that of dischargers.</p> <p>MS4s are to control stormwater pollution to the MEP (Maximum Extent Practicable). It will be necessary to</p>	<p>methylmercury.] (May not fit here.)</p>

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		<p>Delta Mercury Control Program is implemented through a phased, adaptive approach. Phase 1 spans from [the effective date of this amendment] to 2017 [the Delta Mercury Control Program Review date] and includes a study period to develop and evaluate management practices to control mercury and methylmercury.</p> <p>During the first eight years following adoption of the BPA (Phase 1), dischargers shall reduce total mercury and methylmercury levels using available methods, including pollutant minimization programs, operational upgrades, and treatment process enhancements. (←There needs to be specific interim waste load allocations)</p> <p>Phase 2 (after Delta Mercury Control Program Review) requires implementation of full management practices after the Regional Water Board reviews the Delta Mercury Control Program. However, as stated above, this approach does not preclude implementation of methylmercury reduction strategies earlier. Dischargers that begin to reduce their methylmercury loads before Phase 2 will be recognized as having done so. (←I find this paragraph a bit confusing. Can it be more explicit?)</p> <p>TNC: As a result, the Delta Mercury Control Program is implemented through a phased, adaptive <u>management</u> approach. Phase 1 spans from [the effective date of this amendment] to 2017 [the <u>Phase 1 Delta Mercury Control Program Review</u> date] and includes a study period to develop and evaluate management practices to control mercury and methylmercury. Phase 2 (after <u>Phase 1</u> Delta Mercury Control Program Review) requires implementation of management practices after the Regional Water Board reviews the <u>Phase 1</u> Delta Mercury Control Program.</p>	<p>define the program that contains four major considerations (1) technical approach adequacy and effectiveness; (2) legal authority; (3) financial sufficiency; (4) administrative and organizational support. (Municipal Stormwater Management, 2nd Edition, Thomas Debo and Andrew Reese, 2002). All four considerations should be taken into account when defining “available methods” for the implementation of the TMDL.</p> <p>YCFWCWD: How are the alternative supposed to be used. Will one ultimately be included and the others dropped? Will studies determine which one? When and how is the choice made? Pursuing reductions while sorting out other issues seems like a no-brainer provided it is cost effective. Perhaps that alternative should be restated to say methods should be best practicable methods, or most cost effective methods. Also, this probably needs some minimum quantity of Hg to be controlled, e.g. best practicable methods that can attain at least x (e.g. 1g/yr) reduction in MeHg discharge. (S. Lorenzato)</p> <p>CFBF: A proper study period is necessary as is additional sound scientific studies. (K. Fisher)</p> <p>EPA: EPA notes that this first paragraph appears to suggest that insufficient information exists on how to control methylmercury, such that little progress can be made in the early years of Phase 1. However, we understood that Phase 1 would include not only gathering information, but also some implementation of known methods to reduce and control (e.g., MMPs). We suggest rewording this paragraph to include possible early implementation actions.</p> <p>Per US EPA's April 23, 2208 comment letter, US EPA Comment 2.f:</p> <p>NPDES Permit Limits: We support the inclusion of Phase 1 methylmercury concentration limits as interim limits for NPDES dischargers, as included in the proposed [2008] BPA, prior to attainment of final wasteload allocations and corresponding final WQBELs. Interim limits to be used during the compliance schedule period, may be mass-based or concentration-based. Interim, numeric, performance based limits should be calculated to ensure that dischargers are held to current loadings or below. Under the CWA and EPA regulations at 40 CFR 122.47, compliance schedules</p>	

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		<p>Alternatives: General Requirements for All Sources: Inorganic mercury limit alternatives: A1. All point and non-point sources in the Delta and Yolo Bypass shall not increase their inorganic mercury loads. A2. All point sources in the Delta and Yolo Bypass (Table B) shall not increase their inorganic mercury loads. A3. (No inorganic mercury limits for any source)</p> <p>Alternative: During the first eight years following adoption of the BPA (Phase 1), dischargers shall reduce total mercury and methylmercury levels using available methods, including pollutant minimization programs, operational upgrades, and treatment process enhancements.</p>	<p>must include enforceable interim requirements leading to compliance with a final WQBEL. At a minimum, we believe dischargers should be held to current loadings in impaired waters, so as not to further exacerbate the problem. Additionally, it is our understanding that the state compliance schedule policy will require numeric interim limits when compliance schedules exceed one year.</p> <p>We would support interim numeric mass-based or concentration-based, methyl, and/or total mercury limits, as long as they are designed to hold the discharger at current performance levels or below.</p> <p>CWA: We know quite a bit about reducing total mercury. Focus of phase 1 studies is to fill in what we don't know about controlling methylmercury. In the interim, we should apply methods to reduce total mercury based on the current body of knowledge, but always be open, through adaptive mgt. to implement new strategies as more info. comes to light on either form of mercury.</p> <p>The State Board's resolution 2005-0060 contained the following language. While it pertains to SF Bay and the SF Bay Area Regional Board, it reflects a degree of specificity that should be incorporated into this document as well when it comes to pollution prevention requirements:</p> <p><i>"2. Directs the San Francisco Bay Water Board to evaluate effective pollution prevention practices used in other states and the pollution prevention or other appropriate programs of each San Francisco Bay discharger, and their potential effectiveness in reducing mercury in their discharges. The San Francisco Bay Water Board shall revise the TMDL to incorporate requirements for appropriate programs and practices into the TMDL, and require all dischargers to aggressively implement appropriate pollution avoidance practices that are most effective at eliminating or reducing mercury concentrations in their effluent."</i></p> <p>DU: I'm not quite sure what we are to do with the alternatives. Are we "picking one" or is this a list of alternatives to go into the draft, considering some planning documents do include alternatives.</p> <p>As it is, what about sources (wetlands) that switch between</p>	

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			<p>discharging methylmercury and sequestering methylmercury?</p> <hr/> <p>DWR: Methods for selecting alternatives and structure of alternatives is unclear. (M. Kirkland)</p> <hr/> <p>Shilling: Additional information is not needed before any action can start. Actions can be phased in that are also learning actions. Adaptive management has been around for decades and is not rocket-science. Some actions can be carried out immediately that we know will reduce methylmercury going into the Delta – mine cleanup, sediment detention basin cleanup/re-operation, reducing methylation exacerbation (nutrient loading from agricultural lands).</p> <p>Agricultural and urban areas can contribute wastewater through discharge and runoff that exacerbate methylation conditions in receiving and downstream waterways. For other pollution conditions (e.g., low dissolved oxygen), the contributing factors are the regulated conditions, not the output or outcome. Methylmercury is the product of inorganic mercury and methylation conditions. Therefore, methylation conditions must be part of the regulation environment.</p> <p>By how much? What about new methods that are developed for trapping or sequestering mercury/Me-Hg?</p> <hr/> <p>TNC: Regarding Alternatives: Phase 1 does NOT require these mercury reductions; they are to begin in Phase 2. This has been a given in all previous drafts and stakeholder meetings. This statement: During the first eight years following adoption of the BPA (Phase 1), dischargers shall reduce total mercury and methylmercury levels using available methods, including pollutant minimization programs, operational upgrades, and treatment process enhancements. flies in the face of all past work. Is this supposed to be specific to NPDES permit interim requirements? Is this supposed to be inorganic mercury only? It is NOT applicable to NPS. (S.Liu)</p> <hr/> <p>RB: Staff added text describing the approach to control inorganic mercury loads with the goal of reducing sediment-bound mercury in the Delta/Yolo Bypass and inorganic mercury loads discharged to San Francisco Bay. Interim</p>	

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			<p>allocations for MeHg or total mercury are not proposed. Compliance with the requirement will be based on demonstration that pollutant minimization programs are in place, available BMPs to control dischargers of mercury enriched runoff are being used (i.e., erosion control practices), and completion of MeHg control studies.</p> <p>Because much of this text seemed to fit better with the introductory overview recommended by TNC, staff edited it in attempt to address stakeholder comments and then relocated it to Line 3. Text regarding specific inorganic mercury reduction requirements for point and nonpoint sources was relocated to Lines #13, 14, and 16, and text specific to interim total mercury mass limits for WWTPs is in Line 13.</p>	
12	<p>Point Sources The regulatory mechanism to implement the Delta Mercury Control Program for point sources shall be through NPDES permits. Each NPDES permit assigned a waste load allocation shall be reopened or amended at re-issuance, in accordance with applicable laws, to incorporate the applicable waste load allocations and interim limits as a permit requirement.</p>	<p>WWTP: Suggested edits: “Each NPDES permit assigned a waste load allocation shall be reopened or amended at re-issuance” and “to incorporate the applicable waste load allocations and or interim limits as a permit requirement”.</p>	<p>WWTP: Don’t the regs require that NPDES permit limits be consistent with adopted TMDLs and allocations? If so, should the BPA use the precise wording from the regs?</p> <p>EPA: All sources, including all NPDES facilities, must be assigned a wasteload allocation; if a facility is not assigned a numeric allocation, its allocation is zero.</p> <p>RB: NPDES permits will be consistent with the TMDL and BPA. Staff corresponded with WWTP (Stephen McCord) to obtain clarification on the WWTP comment ‘should the BPA use the precise wording from the regs?’. McCord noted that he meant to indicate that this language may not need to be included in the BPA. Because NPDES permits have re-opener language to add waste load allocations and associated interim limits as permit requirements, staff agrees and deleted the second sentence.</p> <p>Staff agrees with EPA comment. Only sources identified in Table B can discharge. New sources will require a specific allocation. Table B footnotes provide explanations on how new sources can use the ‘unassigned allocation’ in order to discharge.</p>	<p><u>Point Sources</u> The regulatory mechanism to implement the Delta Mercury Control Program for point sources shall be through NPDES permits.</p>
13	<p>WWTPs Requirements: By [six months after the effective date], all facilities listed in Table B shall implement a pollutant minimization program.</p> <p>Interim Limit Alternatives:</p>	<p>WWTP: Suggested edit to allow better planning: “...all facilities listed in Table B shall implement <u>submit</u> a pollutant minimization program <u>work plan for approval by the Executive Officer.</u>”</p> <p>The interim limit should be edited from</p>	<p>WWTP: We need to clarify what “implementation of a PMP” means – is it submittal of a PMP work plan for approval? If not, what is it?</p> <p>Note that for many NPDES PMP programs or other studies, EO approval is first required. Need to determine if approval is appropriate here or if a NPDES holder should just move</p>	<p><i>Requirements for NPDES Permitted Facilities</i> NPDES permitted facilities listed in Table B shall implement reasonable, feasible actions with the goal of reducing inorganic mercury discharges. By [six months after Effective Date], all facilities listed in Table B shall submit individual pollutant minimization</p>

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	<p>B1. No interim limits for methylmercury. BPA to contain interim limits for inorganic mercury based on current facility performance. The 12-month running average effluent total recoverable mercury loading shall not exceed XX lbs/month as an interim mass limit. The interim mass limit is to be derived using current, representative data as follows: XX lbs/month = 99.9th percentile running annual average THg load. The limitations will be re-evaluated each permit renewal.</p> <p>B2. BPA to contain interim limits for methylmercury. BPA to contain interim limits for mercury, see B1.</p> <p>Other Alternatives: “Unassigned allocations for new discharges” The permittee shall be required to first evaluate whether it is possible for growth to occur without exceeding its WLA (i.e., whether it would be possible to offset growth through more effective source or treatment control) before disbursement of unassigned allocations.</p>	<p>alternative B1 as follows: “No interim limits for methylmercury. BPA to contain interim limits for inorganic mercury based on current facility performance. The 12-month running average effluent total recoverable mercury loading shall not exceed XX lbs/month as an interim mass limit. The <u>This interim mass limit is to be derived using current, representative data as follows: XX lbs/month = 99.9th percentile running annual average THg load. The limitations will shall be re-evaluated each assigned in Phase 1 during permit renewal.”</u></p> <p>The “Other Alternative” should be added to footnote (d) of Table B with the following edits: “The permittee shall be required to first evaluate whether it is possible for growth to occur without exceeding its WLA (i.e., whether it would be possible to offset the feasibility of <u>offsetting</u> growth through more effective source or treatment control) before disbursement of <u>accessing</u> unassigned allocations.”</p> <p>EPA: EPA recommends: As soon as possible but no later than [six months after the effective date] ...</p> <p>CWA: By [three months after the effective date], all facilities listed in Table B shall implement a pollutant minimization program.</p> <p>Add: B2. BPA to contain interim limits for methylmercury that reflects reductions from current levels. BPA to contain interim limits for mercury that reflects reductions in currently permitted levels, see B1.</p> <p>City of Roseville: B1. No interim limits for methylmercury. BPA to contain interim limits for inorganic mercury based on current facility performance or CTR requirement of 0.05ug/l, whichever is higher. The total recoverable mercury loading shall not exceed; 1. xx lbs/month based on the 12-month running</p>	<p>forward on its program. This approach should be consistent for all sources. If a formal approval is required, there may need to be a passive approval process if RWB workload does not allow for timely review and response. (D. Webster)</p> <p>CVCWA opposes Alternative B2. See NPDES Workgroup summary for discussion of issues. (D. Webster)</p> <p>EPA: See US EPA's April 23, 2008 comment 2.f. reiterated above.</p> <p>CWA: Feb. 2008 plan had 3 month timeline. Why the different timeline? Whatever timeline is, how will it be enforced and how will minimization program be evaluated by Board?</p> <p>Regarding the interim limits, both should reflect reductions as a result of the pollutant minimization program.</p> <p>Regarding the section on WWTP requirements, including the section called “Other Alternatives”, we would again refer you to State Board Resolution 2005-0060, the concepts of which should be integrated into this TMDL as well. How will Water Board evaluate whether a discharger’s claim that growth is not viable without disbursement of an unassigned allocation is valid? What is the criteria? This sort of detail needs to be included; we need the basic game plan on how decisions will be made (such as you do with the calculation you include here) and enforced.</p> <p>“ 3. <i>Directs the San Francisco Bay Water Board to evaluate and consider the effectiveness of any existing wastewater treatment technology that enhances the removal of mercury. The San Francisco Bay Water Board shall revise the TMDL to establish individual wasteload allocations, after reconsidering the appropriateness of the policy assumptions used by the Regional Water Board to derive the original wasteload allocations. In establishing such wasteload allocations, the San Francisco Bay Water Board shall incorporate provisions that acknowledge the efforts of those point sources whose effluent quality demonstrates good performance, and require improvement by other dischargers.</i></p> <p>City of Roseville: The City of Roseville is concerned that the current language will result in an interim limit that penalizes</p>	<p>program workplans to the Regional Water Board. The dischargers shall implement their respective pollutant minimization programs by 30 days after Executive Officer approval of the workplans. The dischargers shall submit annual progress reports on pollution minimization activities implemented and evaluation of their effectiveness, including mercury and methylmercury monitoring results.</p> <p>During Phase 1, all facilities listed in Table B shall limit their discharges of inorganic (total) mercury. The 12-month running average effluent total recoverable mercury loading shall not exceed XX lbs/month. This interim mass limit is to be derived using current, representative data as follows: XX lbs/month = 99.9th percentile running annual average mercury load. The limit shall be assigned in permits.</p> <p>The applicability and effectiveness of the total mercury limit will be re-evaluated at the end of Phase 1.</p> <p>NPDES permitted facilities that begin discharging to the Delta or Yolo Bypass during Phase 1 shall comply with the above requirements.</p>

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		<p>average effluent mass loading or 2. xx lbs/month based on the facilities maximum rated discharge volume and the CTR requirement of 0.05ug/l, whichever is higher. (This would avoid penalizing those plants with extremely low levels of mass loading of mercury.)</p>	<p>those facilities with existing low level total mercury loadings. We would suggest the following language for alternative B1. [See language inserted in the column to the left.]</p> <hr/> <p>Shilling: The index period should be clearly stated and shown to be representative across years.</p> <hr/> <p>RB: Staff recommends that interim limits be total mercury mass caps (load limits) to hold facilities at existing performance and that these interim limits apply throughout Phase 1.</p> <p>A cap based on a facility's maximum design flow and the CTR would result in increased total mercury discharges over existing conditions. The draft control program proposes to hold facilities at their current performance and not increase mercury loading. Implementation of PMPs will be used to help maintain, and possibly reduce, current loadings. Allowing facilities with low levels of mercury to increase is not consistent with antidegradation policies. In addition, the State Water Board's compliance schedule policy requires that interim limits be based on facility performance; therefore the design flow or the CTR criterion could not be used.</p> <p>At the end of Phase 1, the appropriateness and effectiveness of the total mercury caps will be evaluated. The methylmercury concentration limits in the Feb 2008 report were based on a limited data set (only a few samples for some facilities) and, until we know how to control MeHg at each facility – even facilities that already achieve their respective proposed allocations – there is the potential that MeHg limits could not be maintained during Phase 1. Phase 1 monitoring and studies will better define effluent methylmercury concentrations and determine how methylmercury can be controlled.</p> <p>Annual progress reports could be used to evaluate the effectiveness of the PMPs. This report may be submitted as part other monitoring reports required of the discharger.</p> <p>Before allowing unassigned MeHg allocations to be distributed for growth, the discharger would be required to evaluate and report to the Board the feasibility of additional pollution and treatment controls.</p>	

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14	<p>Placeholder for Urban runoff: <i>[Below text is from February 2008 draft BPA. Changes may result from upcoming MS4 workgroup meeting]</i></p> <p><i>Urban runoff: For interim requirements, MS4 dischargers listed in Table C shall implement best management practices to the maximum extent practicable to control erosion and sediment discharges containing mercury. The Sacramento MS4 (CAS082597), Stockton MS4 (CAS083470), and Tracy MS4 (CAS000004) permittees shall implement pollution prevention measures and best management practices to the maximum extent practicable to minimize total mercury discharges. These MS4s shall submit a mercury plan by [one year after the effective date of this Basin Plan amendment] for Executive Officer approval. The mercury plan shall include a description of the discharger's existing mercury control efforts, a description of all mercury sources contributing, or potentially contributing, to the mercury loading in MS4 discharges, and an analysis of potential prevention and control actions that could minimize mercury loading.</i></p>	<p>MS4 dischargers listed in Table C shall implement best management practices to control erosion and sediment discharges consistent with their existing permits and orders.</p> <p>The Sacramento MS4 (CAS082597) and Stockton MS4 (CAS083470) permittees shall implement pollution prevention measures and best management practices to minimize total mercury discharges. This requirement shall be implemented through mercury reduction strategies required by their existing permits and orders.</p> <p>The Sacramento MS4 (CAS082597) 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 their and orders, and to develop and evaluate additional BMPs as needed to reduce mercury and methylmercury discharges.</p> <p>MS4: Replace with draft text discussed.</p>	<p>WWTP: Assuming this text will be replaced.</p> <p>EPA: We recommend requiring MS4s to implement a program to quantitatively measure loadings of total mercury and methylmercury, as well as provide quantitative estimates of the reductions in loading provided by the measures they are taking. In the absence of an interim numeric limit, we recommend an interim numeric "goal" in total and/or methyl mercury. This is to better ensure that meaningful measures will be taken to reduce the loading of total and methyl mercury.</p> <p>CWA: Reg. Board may not be able to be or want to be overly prescriptive, but they can make suggestions as to appropriate actions./best practices</p> <p>MS4: Sacramento MS4s has a stormwater permit (R5-2008-0142) which includes detailed requirements for Mercury study and control. See WDR Order R5-2008-0142 page 56 Provision 27 b. (Page 56) and Monitoring and Reporting Program II G 2. (Page 13). A mercury plan was developed for the Sacramento MS4s in 2004 and the mercury reduction strategies identified in the plan has been implemented and will continue to be implemented to meet the stormwater Permit requirement. The efforts of the Sacramento MS4s should be recognized and the language in the BPA should be consistent with the stormwater Permit.</p> <p>RB: The existing MS4 permits for Sacramento and Stockton require total Hg and MeHg monitoring and estimates of BMP effectiveness. The TMDL does not propose interim numeric limits, but instead requires BMPs to control erosion and total mercury discharges and requires development of new BMPs to control MeHg. This is consistent with existing permits.</p>	<p><u>Requirements for NPDES Permitted Urban Runoff Discharges</u></p> <p>NPDES-permitted MS4 dischargers listed in Table C shall implement reasonable, feasible inorganic mercury control actions with the goal of reducing inorganic mercury discharges. MS4 dischargers listed in Table C shall implement best management practices (BMPs) to control erosion and sediment discharges consistent with their existing permits and orders.</p> <p>The Sacramento MS4 (CAS082597) and Stockton MS4 (CAS083470) permittees shall implement pollution prevention measures and best management practices to minimize total mercury discharges. This requirement shall be implemented through mercury reduction strategies required by their existing permits and orders. Annually, the dischargers shall submit a report on the results of monitoring and a description of implemented pollution prevention measures and their effectiveness.</p> <p>The Sacramento MS4 (CAS082597) 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 mercury and methylmercury discharges.</p>
15	<p>Nonpoint Sources</p> <p>Nonpoint sources shall be regulated through the authority contained in Water Code sections 13263 and 13269, and in conformance with the State Water Resources Control Board's Nonpoint Source Implementation and Enforcement Policy.</p>			<p><u>Nonpoint Sources</u></p> <p>Nonpoint sources shall be regulated through the authority contained in Water Code sections 13263 and 13269, and in conformance with the State Water Resources Control Board's Nonpoint Source Implementation and Enforcement Policy.</p>

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16	<p>Compliance with load allocations will be determined by comparing subarea loads with the allocations. For subareas not in compliance with allocations, the Regional Water Board may develop load allocations for individual sources and require individual monitoring and waste discharge requirements.</p>	<p>YCFCWCD: Compliance with <u>Attainment of load allocations will be determined by comparing subarea loads with the allocations monitoring data for each area with loads specified in Table A and Table D.</u> For subareas not in compliance with allocations, the Regional Water Board may develop load allocations for individual sources and require individual monitoring and waste discharge requirements.</p> <p>CWA: Compliance with load allocations will be determined by comparing subarea loads with the allocations. For subareas not in compliance with allocations, the Regional Water Board <u>shall</u> develop load allocations for individual sources and require individual monitoring and waste discharge requirements.</p> <p>TNC: Compliance with load allocations will be determined by comparing subarea loads with the allocations. For subareas not in compliance with allocations, <u>compliance will be enforced in Phase 2. Based on the Delta Mercury Control Program Review of the the Phase 1 Control Studies' results, the Regional Water Board will require discharger implementation of the mercury and methylmercury controls developed in Phase 1. The Regional Board may</u> develop load allocations for individual sources and require individual monitoring and waste discharge requirements.</p>	<p>YCFCWCD: The load allocations are prescribed for general categories not specific permits. Compliance is a permit notion, i.e. whether specifications in a permit are being met. Without a permit the RB seeks to determine if the allocations have been attained, i.e whether we have reached those goals. Also, the notion of subareas only confuses here. Better to cite the specific tables so that the allocations are clear. For example Table A contains an allocation for Atmospheric Wet deposition. This isn't really a sub area or a compliance issue, but is an allocation that will be tracked.</p> <p>CFBF: See comments under # 4, 5, and 6. (K. Fisher)</p> <p>CWA: If the Reg. Board does not develop load allocations in such a case, how is it going to ensure compliance? That needs to be explained in the BPA if setting such allocations is just an option.</p> <p>DU: This may be difficult for wetlands, unless more definitive understanding of what controls methylmercury production comes from studies, as methylmercury may vary widely on an area-wide basis over a given time span, such as from year to year.</p> <p>TNC: On its own, the 2nd sentence does not seem to be in line with the rest of the Delta Mercury Phase 1 and 2 Control Program. The statement is too vague about who, when (Phase 2), how to determine who will be targeted.</p> <p>For nonpoint sources, are we requiring each and every discharger to implement controls or are we keeping with the subarea collaborative approach (i.e., watershed approach), where the collective we can determine the best way to meet the allocation for the subarea? TNC thinks this approach is preferable. (S.Liu)</p> <p>RB: Allocations for nonpoint sources are not individual allocations; the recommended approach is to assign a combined allocation to all sources within each subarea and then the sources within each subarea work together to design and implement the methylmercury studies and monitoring. The default is that if the subarea allocations are not met, then individual sources would be subject to individual monitoring and waste discharge requirements.</p>	<p>Non-point sources are responsible for discharges that contribute to net increases in methylmercury and/or inorganic mercury loading to Delta and Yolo Bypass waterways listed in Appendix 43.</p> <p>During Phase 1, all nonpoint sources in the Delta and Yolo Bypass shall implement 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.</p> <p>Attainment of methylmercury load allocations at the end of Phase 2 will be determined by comparing monitoring data and documentation of methylmercury management practice implementation for each subarea with loads specified in Table A and Table D.</p> <p>For subareas not in compliance with allocations by 2030, the Regional Water Board shall develop load allocations for individual sources and require individual monitoring and waste discharge requirements.</p>

#	July 27 BPA Paragraph	Edits	Notes / Comments	Revised BPA
16.5	NEW LINE		<p><u>New line:</u></p> <p>RB: To improve document flow, this text was moved from Line 25.</p>	<p>In subareas needing reductions in methylmercury, proponents of new wetland and wetland restoration projects scheduled for construction after [Effective Date] shall (a) participate in Control Studies as described below, or shall implement site-specific study plans, that evaluate practices to minimize methylmercury discharges, and (b) implement methylmercury controls as feasible. Wetland projects may include pilot projects and monitoring to evaluate management practices that minimize methylmercury discharges.</p>
17	<p>Mercury Control Studies Point and nonpoint source dischargers shall conduct mercury and methylmercury control studies (Control Studies) to develop and evaluate management practices to control mercury and methylmercury discharges. The Control Studies final report shall include a description of methylmercury and/or mercury control methods; an evaluation of the effectiveness, costs, and potential environmental effects of identified control actions; and proposed implementation activities and schedules to comply with methylmercury allocations.</p>	<p>WWTP: Suggest changing “develop” to “identify”.</p> <p>Edit goal of studies: “...to develop <u>identify</u> and evaluate management practices to control mercury and methylmercury discharges <u>the actions needed to comply with WLAs and, for dischargers that need to reduce their methylmercury loadings, evaluate the feasibility of potential methylmercury load reductions that could be achieved</u>”</p> <p>Use consistent terminology. Seems like these all intend to mean the same thing: management practices, control methods [also in row 19], control actions and implementation activities.</p> <p>Edit the last statement as follows: “ and proposed implementation activities and schedules to comply with methylmercury allocations <u>minimize loads to the extent practicable</u>”</p> <p>YCFCWCD: <u>Stakeholders, including but not necessarily limited to, Ppoint source and nonpoint source dischargers shall conduct mercury and methylmercury control studies (Control Studies) to develop and evaluate management practices to control mercury and methylmercury discharges. The Control</u></p>	<p>WWTP: The characterization studies listed in the MOI should be mentioned in the BPA to give them some authenticity and some commitment for the Board to participate. They could be listed here as voluntary studies that will be conducted by stakeholders as needed.</p> <p>YCFCWCD: The proposed change supports the stakeholder process without reducing commitments of dischargers</p> <p>CFBF: Who pays for the studies? If funding is left solely to those to be regulated, is there a way to ration the costs according to percent of contribution (pro rata system)? (K. Fisher)</p> <p>EPA: If the approach for this TMDL will be similar to the Regional Board 4 approach, we suggest the Board include a clear set of default targets, schedules and responsibilities (e.g., a table with report due-dates and other important, required milestones).</p> <p>CWA: See comments above (#11)</p> <p>DU: Such studies should be conducted by or in partnership with real full-time long term wetlands managers, wetlands engineers and practicing wetlands restoration specialists (as opposed to university researchers alone, or consulting firm consultants alone). Some consideration needs to be given to an alternatives/costs evaluation, where the benefits of restored wetlands are considered in the context of methylmercury control. Do we sacrifice all benefits of</p>	<p><u>Control Studies</u> Point and nonpoint source dischargers, working with other stakeholders, shall conduct methylmercury control studies (Control Studies) to identify existing control methods and, as needed, develop new control methods to comply with the methylmercury load and waste load allocations.</p> <p>The Regional Water Board will use the Phase 1 Control Studies’ results and other information to consider amendments to the Delta Mercury Control Program during the Delta Mercury Control Program Review.</p> <p>Dischargers may evaluate inorganic mercury controls as a method of controlling methylmercury discharges.</p> <p>Dischargers may conduct characterization studies to inform and prioritize the Control Studies. Characterization studies may include, but not be limited to, evaluations of methylmercury and total mercury concentrations and loads in source waters, receiving waters, and discharges, to determine which discharges act as net sources of methylmercury, and which land</p>

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		<p>Studies final report shall include a description of methylmercury and/or mercury control methods; an evaluation of the effectiveness, costs, and potential environmental effects of identified control actions; and proposed implementation activities and schedules to comply with methylmercury allocations.</p> <p>CWA: Point and nonpoint source dischargers shall conduct mercury and methylmercury control studies (Control Studies) to develop and evaluate management practices to control mercury and methylmercury discharges. The Control Studies final report shall include a description of methylmercury and/or mercury control methods; an evaluation of the effectiveness, costs, and potential environmental effects of identified control actions; and proposed implementation activities and schedules to comply with methylmercury allocations.</p> <p>DU: . Point and nonpoint source dischargers shall conduct mercury and methylmercury control studies (Control Studies) to develop and evaluate management practices to control mercury and methylmercury discharges. The Control Studies final report shall include a description of methylmercury and/or mercury control methods; an evaluation of the effectiveness, costs, and potential environmental effects of identified control actions; <u>in the case of wetlands and agriculture lands include an evaluation (costs/benefits) of the incremental adverse environmental impact of not restoring or maintaining wetlands and not maintaining agriculture lands as a consequence of avoiding methylmercury production</u>; and proposed implementation activities and schedules to comply with methylmercury allocations.</p> <p>TNC: Point and nonpoint source dischargers shall conduct mercury and methylmercury control studies (<u>Characterization and Control</u></p>	<p>restoring ecological function for the sake of a single constituent that tends to form and dissipate as it moves through aquatic systems?</p> <p>Shilling: These can be carried out while beginning to reduce mercury in the watershed and learning from that doing process.</p> <p>TNC: There is a fatal error here for irrigated lands/wetlands projects. While point sources such as NPDES permittees have been monitoring for total and methylmercury in influent and effluent, nonpoint sources have not. The draft Feb 2008 TMDL/BPA make it very clear that loading estimates are general and further characterization is necessary ("... agricultural loads have not been fully characterized. Staff recommends that a follow-up study be undertaken to more fully monitor and characterize loads from the Delta Islands and upland areas within and upstream of the legal Delta and, if elevated, determine the primary land uses responsible for methylmercury production", p.92 of Draft TMDL Feb 2008 Report; 2008 CALFED conceptual reduces wetland loads from 2.7 g/d to 0.15 g/d. Is this sufficient characterization for wetlands? Should we to devise control studies for these lower loading rates? We don't think so). The reality is we CANNOT devise control programs when it is not known what the exact source loading is and it is burdensome and can lead to project failure for managers if they overdesign (or under design) control structures. Therefore, characterization studies are an essential first phase for nonpoint source control studies. In addition, if the Characterization Studies demonstrate that the irrigated lands or managed wetlands do NOT act as a net source, control studies are not required. We need to make the distinction clear in the BPA and with the corresponding timetable, as presented in the Draft Feb 2008 report. (S.Liu)</p> <p>RB: Staff recognizes that stakeholders other than dischargers need to be part of the Phase 1 studies and activities but cannot be held liable for discharges. Hopefully the first sentence reflects this.</p> <p>The characterization studies can be voluntary studies as they may not be required for all sources, and could be part of a coordinated control study program. While the characterization studies may not be a requirement, there is nothing limiting groups from gathering this information. The</p>	<p>uses result in the greatest net methylmercury production and loss.</p> <p>Final reports for Control Studies shall include a description of existing and/or newly developed methylmercury and/or organic mercury management practices; an evaluation of the effectiveness, costs, potential environmental effects, and overall feasibility of the control actions; and proposed implementation plans and schedules to comply with methylmercury allocations.</p> <p>Final reports for Control Studies for wetlands and agriculture lands may include a cost-benefit analysis or other evaluation of the incremental adverse impact of implementing control actions to reduce methylmercury discharges when such implementation would negatively affect the ecological function of the wetlands or would result in conversion of agricultural crop lands to different crops or to non-agricultural use.</p> <p>If the Control Study results indicate that achieving a given methylmercury allocation is infeasible, then the discharger, or an entity representing a discharger, shall provide an implementation plan and schedule to achieve partial compliance along with detailed information on why full compliance is not achievable.</p>

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		<p>Studies) to develop and evaluate management practices to control mercury and methylmercury discharges. <u>Nonpoint sources shall first perform Characterization Studies to evaluate methylmercury and total mercury concentrations and loads in source waters, receiving waters, and discharges. Control Studies are required for nonpoint sources that act as a net source of methylmercury, based on the Characterization Studies. Control Studies shall identify variables that control methylmercury production; develop methylmercury control methods; evaluate the effectiveness, costs, and potential environmental effects of identified methylmercury control actions; and propose implementation schedules to comply with methylmercury allocations. The Control Studies final report shall include a description of methylmercury and/or mercury control methods; an evaluation of the effectiveness, costs, and potential environmental effects of identified control actions; and proposed implementation activities and schedules to comply with methylmercury allocations.</u></p> <p>[To keep parallel structure, I've used active language from the Draft Feb 2008 report. It is very awkward to discuss the "final report" when you are talking about the program.]</p>	<p>characterization studies could be used to inform and prioritize the control studies; if a particular land use or land management practices does not create net MeHg increases, then control studies would not be required and efforts could be refocused elsewhere in the subarea. Even so, areas or practices that do not act as net MeHg sources could still be evaluated if study designers thought it would be possible to further decrease MeHg discharges (e.g., increase MeHg loss processes) from the areas/practices as an effective MeHg control option.</p> <p>Staff recommends 'develop' studies as this indicates the need to look at existing methods and propose new methods to control MeHg, rather than 'identify' only current methods to control MeHg. Staff edited the text to indicate more clearly that if existing methods are adequate to achieve the allocations, developing new methods is not required. EPA requires the program to achieve the allocations; therefore the studies must be designed with this requirement in mind. The TMDL review will determine if the allocations and requirements need to be readjusted based on the Phase 1 studies' results.</p> <p>Inorganic mercury reduction may be used as one means to control MeHg, so the final report could discuss how dischargers would use inorganic mercury controls as a means of controlling MeHg loads.</p> <p>The next section provides the Control Study schedule and milestones (beginning at Line 26).</p> <p>Funding the Control Studies is ultimately the responsibility of dischargers required to conduct the studies. See Line 22 regarding Regional Board commitment to help develop and find funding for studies.</p>	
18	<p>Methylmercury and total mercury Control Studies are required for:</p> <p>a. Irrigated agricultural lands, managed wetlands, and wetland restoration projects that discharge to the Yolo Bypass and Delta subareas that require methylmercury source reductions.</p> <p>b. Existing NPDES permitted facilities in the Delta and the Yolo Bypass (listed in Table B).</p>	<p>WWTP: A control study for open water sources must be included in the BPA.</p> <p>MS4: Remove reference to the City of Tracy</p> <p>CWA: Methylmercury and total mercury Control Studies are required for all sources, including</p> <p>CWA: include section for wetlands restoration managers since not all of them are from</p>	<p>WWTP: We will have only a marginally better sense of feasibility if open water control studies are not done (and are conclusive).</p> <p>YCFCWCD: Reference to State and Federal agencies is too general. One option is to define the requirement for Agencies/programs whose projects effect the release or transport of Hg or MEHg through the Yolo Bypass and Delta. This may still be too general. Is the intent to have the NRCS cost share programs provide studies, or the USDA ag subsidy programs? (Do away with Rice subsidies</p>	<p><i>Sources and Activities for which Control Studies Are Required</i></p> <p>Control Studies are required for:</p> <p>a. Irrigated agricultural lands that discharge to the Yolo Bypass and Delta subareas that require methylmercury source reductions</p> <p>b. Managed wetlands and wetland restoration projects that discharge to the Yolo Bypass and Delta subareas that require</p>

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	<p>c. Sacramento Area Municipal Separate Storm Sewer System (MS4), Stockton MS4, and Tracy MS4 service areas within and upstream of the legal Delta boundary.</p> <p>d. New projects or changes to existing projects related to flood conveyance, water management, and salinity control that have the potential to increase ambient mercury and/or methylmercury levels in the Delta or Yolo Bypass.</p> <p>e. State and Federal Agencies</p>	<p>agencies</p>	<p>and the Hg profile looks a lot different!) If not then the wording should be more focused. It could be limited to State and Federal water supply and flood management programs, but this would leave out the Restoration Programs. Best approach may be to simply list the agencies/programs RB wants to assign this responsibility to, with a clause that new programs will be reviewed as they evolve.</p> <hr/> <p>DWR: The burden of the control studies (cost, human resources) is concerning. It's uncertain that anything but very long term studies would accurately discern causal relationships. (M. Kirkland)</p> <hr/> <p>CFBF: Irrigated agriculture should not be treated or viewed in the same manner as wetlands. Methylmercury and the methylization process is very different in wetlands than in ag areas.</p> <hr/> <p>EPA: To which federal agencies does the Board refer? We suggest identification of which agencies are targeted if possible, and/or for what reason (e.g., US FWS for wetlands management).</p> <hr/> <p>CWA: See comments #11</p> <p>Why are only these stormwater agencies required to do studies?</p> <p>Studies should be required to ensure that new projects or changes in current projects will not contribute more methylmercury to the watershed <i>before</i> those projects/project changes are implemented. The results of such studies is a factor in decisions to move ahead with such plans</p> <hr/> <p>TNC: Item e clearly was not fully written out. Assume you mean open water habitat managed by state and federal agencies? Please clarify. (S.Liu)</p> <hr/> <p>RB: The BPA studies and allocations apply to agency and non-agency managed wetlands and wetland restoration projects.</p> <p>Only the two largest MS4s are required to conduct the studies because they have monitoring programs in place</p>	<p>methylmercury source reductions.</p> <p>c. Existing NPDES permitted facilities in the Delta and the Yolo Bypass (listed in Table B).</p> <p>d. Sacramento Area MS4 and Stockton MS4 service areas within and upstream of the legal Delta boundary.</p> <p>e. State and Federal agencies whose projects effect the transport of mercury and the production and transport of methylmercury through the Yolo Bypass and Delta, or manage open water areas in the Yolo Bypass and Delta, including but not limited to Department of Water Resources, State Lands Commission, Central Valley Flood Protection Board, and U.S. Bureau of Reclamation.</p> <p>f. Proposed new projects or changes to existing projects related to flood conveyance, water management, and salinity control that have the potential to increase ambient mercury and/or methylmercury levels in the Delta or Yolo Bypass.</p>

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			<p>and have requirements in their permits to address mercury. Smaller MS4s could implement the BMPs developed during Phase 1.</p> <p>New projects related to flood conveyance and water management will be required by CEQA to evaluate their impacts on MeHg production and MeHg levels in fish, even if a mercury control program for the Delta were not adopted. For example, the CEQA evaluation for the Record of Decision (ROD) for the California Bay-Delta Authority identified that extensive restoration efforts and other CALFED projects in the Delta have the potential to increase MeHg exposure for people and wildlife and required the development of mitigation measures.</p> <p>Open water studies for agencies were expanded to include fate and transport of mercury and MeHg from water and land management activities.</p>	
19	<p>Control Studies shall be implemented through Implementation Workplan(s). The Implementation Workplan(s) shall include details on how dischargers will develop and evaluate methylmercury and/or mercury control methods.</p>	<p>WWTP: Edit "...develop and evaluate <u>the feasibility and effectiveness of methylmercury...</u>"</p> <hr/> <p>YCFCWCD: Control Studies shall be implemented through Implementation Workplan(s). The Implementation Workplan(s) shall include details on how dischargers will develop and evaluate methylmercury and/or mercury control methods <u>will be developed and evaluated.</u></p> <hr/> <p>CWA: The Implementation Workplan(s) shall include details on how dischargers will develop and evaluate methylmercury and/or mercury control methods.</p>	<p>WWTP: Isn't the key to evaluate the <u>feasibility and effectiveness</u> of controls?</p> <hr/> <p>YCFCWCD: Since studies are already assigned in paragraph 18, no need to use "discharger" to define the responsible party here. This is a requirement for the content of the plan, reference to people could be eliminated.</p> <hr/> <p>CFBF: See comment # 17 re funding question. (K. Fisher)</p> <hr/> <p>EPA: We suggest including more detail/summarizing the details of the important elements in the IW (e.g., purpose; studies to be completed; schedule; monitoring,).</p> <hr/> <p>CWA: See # 11</p> <hr/> <p>RB: Staff attempted to edit the BPA language to reflect stakeholders' comments.</p> <p>The next section provides the Control Study schedule and milestones (beginning at Line 26).</p> <p>The BPA does not prescribe specific studies to be conducted; this will be in the workplans. The stakeholder groups can develop and prioritize their studies and monitoring based on source types and reductions needed.</p>	<p><i>Control Study Workplans and Technical Advisory Committee</i></p> <p>Control Studies shall be implemented through Control Study Workplan(s). The Control Study Workplan(s) shall provide detailed descriptions of how methylmercury control methods will be identified, developed, and monitored, and how effectiveness, costs, potential environmental effects, and overall feasibility will be evaluated for the control methods.</p>
20	Point and nonpoint source dischargers may	WWTP: To be consistent with row 21, state	WWTP: See comment regarding approval under # 13	Control Study Workplans can be developed

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	<p>work together through a collaborative approach to develop the Implementation Workplan(s). Implementation Workplans can be developed through a stakeholder group approach or other collaborative mechanism, or by individual dischargers. The Implementation Workplan(s) shall include details for organizing, planning, developing, prioritizing, and implementing the Control Studies.</p>	<p>here that Workplans shall be submitted to the Regional Board and subject to approval by the Executive Officer.</p> <p>YCFWCWD: Point and nonpoint source dischargers may work together through a collaborative approach to develop the Implementation Workplan(s). Implementation Workplans can be developed through a stakeholder group approach or other collaborative mechanism, or by individual dischargers. The Implementation Workplan(s) shall include details for organizing, planning, developing, prioritizing, and implementing the Control Studies.</p> <p>TNC: Point and nonpoint source dischargers may work together through a collaborative approach to develop the Implementation Workplan(s). Dischargers may work individually or develop collaborative Characterization and Control Studies. The Characterization and Control Studies Implementation Workplans can be developed through a stakeholder group approach or other collaborative mechanism, or by individual dischargers. For nonpoint sources, <u>individual dischargers are not required to do studies if the individual discharger joins a collaborative study group. Representative nonpoint sources will be selected amongst the study group members for control studies.</u> The <u>Characterization and Control Studies</u> Implementation Workplan(s) shall include details for organizing, planning, developing, prioritizing, and implementing the Control Studies.</p>	<p>above.</p> <p>YCFWCWD: redundant</p> <p>CWA: While this says that regional Board will work w/ dischargers to develop plans, is there an enforcement mechanism? Needs to be specified.</p> <p>How will the Reg. Board/TAC determine if the coordinated studies will provide accurate information/strategies in different locations? <u>This needs to be clarified in the BPA.</u> Wouldn't there be cases where the physical characteristics of a particular local impact methylation?</p> <p>TNC: The goal is the Characterization and Control Studies. To change the focus to developing the Implementation Workplan (a report) is emphasizing the wrong thing. (S.Liu)</p> <p>Explicit text added to make it clear that individual dischargers are not required to do studies.</p> <p>RB: The next section (beginning at Line 26) provides schedules and approval requirements. Staff did not include WWTP's suggested text in this line in order to avoid redundancy.</p> <p>Line 27 and the schedule provide a check to see if the plans are being developed and submitted and a time schedule for EO approval. Dischargers not in compliance could be issued 13267 Orders.</p> <p>Staff expects that the coordinated studies in each Delta subarea may be different based on the various sources and physical characteristics. Staff and the TAC will use their technical expertise and best professional judgment in reviewing the plans and working with the stakeholders. Staff edited the BPA text in Line 21 to attempt to address the intent of CWA's concern.</p> <p>Staff changed "Implementation Workplan" to "Control Study Workplan" throughout the BPA to avoid confusion.</p>	<p>through a stakeholder group approach or other collaborative mechanism, or by individual dischargers. Individual dischargers are not required to do individual studies if the individual discharger joins a collaborative study group.</p> <p>The Control Study Workplan(s) shall include details for organizing, planning, developing, prioritizing, and implementing the Control Studies.</p>
21	<p>The Implementation Workplan(s) can be adaptable. Dischargers may amend the Implementation Workplan(s) with Executive Officer approval.</p>	<p>YCFWCWD: The Implementation Workplan(s) can be adaptable. Dischargers may be amended the Implementation Workplan(s) with Executive Officer approval.</p>	<p>WWTP: See comment regarding approval under # 13 above.</p> <p>YCFWCWD: Conveys the point with fewer words.</p>	<p>The Control Studies will be conducted using an Adaptive Management approach. This includes the formalization of a Stakeholder</p>

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		<p><u>TNC: The Control Studies will be conducted using an Adaptive Management approach. Implementation Workplan(s) can be adaptable. This includes the formalization of a Stakeholder Group and a Technical Advisory Committee (TAC). The Regional Board commits to supporting an Adaptive Management approach and will provide, along with the TAC, technical study guidelines and framework to stakeholders. The TAC will review Phase 1 study designs submitted by the Regional Board and affected stakeholders. The TAC will provide recommendations for study design, adaptive management actions, additional studies, and implementation alternatives. As new information becomes available from the Control Studies or outside studies that result in redirection of existing studies, dischargers may amend the Implementation Workplan(s) with Executive Officer approval.</u></p>	<p><u>TNC: Again, the workplan is just a document. It is the entire process, the Control Studies, that will be conducted using an Adaptive Management approach. It is very important to stakeholders that the Adaptive Management approach be clearly stated and important elements such as the Stakeholder Group, TAC, collaborative studies, adaptively changing course with new science, be listed. As Carolyn Yale mentioned early on (3/19/09), the Adaptive Management approach needs to be clearly institutionalized in the BPA [to ensure commitment and support by the Regional Board (comment by S.Liu)]. (S.Liu)</u></p> <p><u>RB: Lines 21 and 22 are combined per TNC's suggestion. Board staff will be working with the stakeholders in the development of the study designs, but will not be developing their own study plan. The TAC will not be developing adaptive management actions or implementation alternatives.</u></p>	<p>Group and a Technical Advisory Committee (TAC). The Regional Water Board commits to supporting an Adaptive Management approach and will provide, along with the TAC, technical study guidelines and framework to stakeholders.</p> <p>The TAC shall be comprised of independent experts who would convene as needed 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. The Board shall form and manage the TAC with recommendations from the dischargers and other stakeholders, including community organizations.</p> <p>Board staff shall work with the TAC and Stakeholder Group to review the Control Study Workplan(s) and results. As new information becomes available from the Control Studies or outside studies that result in redirection of existing studies, dischargers may amend the Control Study Workplan(s) with Executive Officer approval.</p>
22	Regional Water Board staff will work with dischargers in the development and implementation of the Implementation Workplans and work with dischargers to evaluate the study results.	<p><u>WWTP: Add at the end of the sentence "" to evaluate the study results and modify the TMDL objectives, allocations, and requirements as appropriate.""</u></p> <p><u>YCFCWCD: Regional Water Board staff will work with dischargers-stakeholders in the development and implementation of the Implementation Workplans and work with dischargers to evaluate the study results.</u></p> <p><u>TNC: Regional Water Board staff will work with dischargers in the development and implementation of the Implementation Workplans and work with dischargers to</u></p>	<p><u>YCFCWCD: referring to stakeholder maintains breadth of community involvement and bridges from TMDL development to implementation. Some stakeholders like DWR may not consider themselves dischargers (after all the Settling basin is taking Hg out of the system not putting it into the system) and be more responsive if they are cast as a stakeholder. Naming specific agencies considered dischargers would clarify, see note to paragraph 18.</u></p> <p><u>DWR: In what capacity will Regional Board work with dischargers? Reviewers? Partners? Funded researchers? (M. Kirkland)</u></p> <p><u>TNC: Combined this sentence with the above so it is about the Adaptive Management approach and how it works (i.e.,</u></p>	<p><i>Combined with Line 21.</i></p>

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		<p>evaluate the study results.</p>	<p>stakeholder group, TAC, Regional Board interaction). (S.Liu)</p> <p>RB: This line was combined with Line 21. Board staff will work with stakeholders in the development of the study plans. We plan to draft a series of questions that the study plans could consider. Staff will be working on the upstream control programs during Phase 1. Staff is already evaluating opportunities for funding options (e.g., grants, low-interest loans, supplemental environmental projects, funding from cleanup and abatement fines).</p>	
23	<p>The Regional Water Board will use the Control Studies' results and other information to amend the Delta Mercury Control Program during the Delta Mercury Control Program Review.</p>	<p>WWTP: See comment in row 9 re scheduling references.</p> <p>MS4: Refer to the <u>Phase 1</u> Control Studies</p> <p>EPA: EPA recommends: ... the Control Studies' results and other information <u>to consider amendments to amend</u> the Delta Mercury Control Program...</p> <p>TNC: <u>The Control Studies final report shall include a description of methylmercury and/or mercury control methods; an evaluation of the effectiveness, costs, and potential environmental effects of identified control actions; and proposed implementation activities and schedules to comply with methylmercury allocations.</u></p> <p><u>If the studies indicate that achieving a given methylmercury allocation is infeasible, then the discharger, or an entity representing a discharger, shall provide a management plan and implementation schedule to achieve partial compliance along with detailed information.</u></p> <p>The Regional Water Board will use the Control Studies' results and <u>the scientific, management, and policy findings from CALFED and other relevant studies</u> other information to amend the Delta Mercury Control Program <u>TMDL and BPA</u> during the Delta Mercury Control Program Review. <u>The</u></p>	<p>EPA: As it is drafted, it assumes amendments will be made; this may not be the case.</p> <p>We suggest clarifying that the Board will be the final arbiter on technical and policy issues.</p> <p>CWA: This is simply not clear to us. Is the expectation here that study results will include some game-changes (for example, affordable and effective ways to reduce methylation in wetlands) which will then allow a reappraisal of all of the allocations and development of a new plan for achieving the WQS? What happens if the results are not as clear?</p> <p>DWR: Concern that meaningful/robust results may not be available at that time. (M. Kirkland)</p> <p>TNC: We want assurances language here on the Review. We would like to see consideration of public trust values, in particular, the broader ecological concerns of Delta ecological restoration. The Board should consider exemptions for the ecological restoration. (S.Liu)</p> <p>RB: The review of the TMDL at the end of Phase 1 will be used to determine whether, and how, the allocations should be redistributed based on the Phase 1 studies' determination of the feasibility of achieving the allocations for different sources. If the studies are not done or there is no new information, the allocations and implementation plan will not be changed. If the studies show that progress is being made but more time may be needed for 'watershed activities' the Board could consider adjusting the final compliance date. Phase 2 is not the end of the program; there could be future adaptive changes to the program based on Phase 2 activities.</p>	<p><i>Combined with Line 17.</i></p>

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		<p><u>Regional Water Board will evaluate the completed studies, the effectiveness and costs of identified methylmercury controls, preferred management practices, implementation schedules, environmental effects of potential methylmercury control actions, and whether methylmercury allocations can be attained. The Regional Water Board will consider: modification of methylmercury allocations; adoption of management practices and implementation schedules for methylmercury controls; and adoption of a Mercury Offset Program to compensate for loads in excess of the methylmercury allocations.</u></p> <p><u>The Executive Officer will consider granting exceptions to the no net increase requirement in methylmercury concentration if: 1) dischargers provide information that demonstrates that all reasonable management practices to limit discharge concentrations of methylmercury are being implemented and 2) the projects are being developed for the primary purpose of enhancing fish and wildlife beneficial uses. In granting exceptions to the no net increase requirement, the Executive Officer will consider the merits of the project and whether to require the discharger to propose other activities in the watershed that could offset the incremental increases in methylmercury concentration in the creek. The Regional Water Board will periodically review the progress towards achieving the objectives and may consider prohibitions of methylmercury discharge if the plan described above is ineffective.</u></p>	<p>Line 17 contains a description of the Control Studies' final report, with addition of the partial compliance language.</p> <p>Line 3 contains a description of what the Board will review at the end of Phase 1 in response to TNC comment (3rd paragraph).</p> <p>Staff added text to Line 33.5 to address the last paragraph of TNC's comment with respect to the Board considering whether implementation of some control methods would have negative effects on other beneficial uses (including but not limited to habitat enhancement) when re-evaluating the allocations. As noted by US EPA during several stakeholder meetings, we won't know if there is a conflict between beneficial uses until the Control Studies have been completed.</p> <p>To improve document flow, staff moved the BPA text in Line 23 to Line 17.</p>	
24	The Regional Water Board will form a technical advisory committee (TAC) to review all Control Study results. The TAC will be comprised of independent experts who would convene as needed to provide technical peer review, advise the Board on technical issues, and provide recommendations for additional studies and implementation alternatives developed by the dischargers. The Board will	<p>WWTP: The TAC should advise stakeholders as well as the Board.</p> <p>CWA: The Regional Water Board will form a technical advisory committee (TAC) to review all Control Study results. The TAC will be comprised of independent experts who would convene as needed to provide technical peer review, advise the Board on technical issues,</p>	YCFWCWD: RB should clarify criteria for sitting on TAC. Not sure what "independent" means here. Is USGS independent if they receive \$ to conduct studies but are not under waste discharge requirements? Does RB mean experts not on the staff of parties responsible for funding studies, or not involved in studies? At some point we will end up with all out-of-state people. Not sure if that is a good thing.	<i>Combined with Line 21.</i>

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	<p>form and manage the TAC with guidance and recommendations from the dischargers and other stakeholders.</p>	<p>and provide recommendations for additional studies and implementation alternatives developed by the dischargers. The Board will form and manage the TAC with guidance and recommendations from the dischargers and other stakeholders.</p> <p>TNC:-The Regional Water Board will form a technical advisory committee (TAC) to review all <u>Characterization and Control Study Studies</u> results. The TAC will be comprised of independent experts who would convene as needed to provide technical peer review, advise the Board on technical issues, and provide recommendations for additional studies and implementation alternatives developed by the dischargers. <u>The TAC's goals include providing an overall study strategy review to inform stakeholders that sufficient, directed studies and their outcome measures will provide the most beneficial use for regulatory decision-making, in addition to evaluating proper study design & methodology.</u> The Board will form and manage the TAC with guidance and recommendations from the dischargers and other stakeholders.</p>	<p>CFBF: How much "guidance" will stakeholders/dischargers have over the TAC? (K. Fisher)</p> <p>EPA: We suggest a few more details concerning the TAC (e.g., who will choose participants; who will fund).</p> <p>CWA:CWA respects the fact that many dischargers are working in good faith to control their total and methylmercury contributions into the Delta. However, we do not believe that they should extend influence over the makeup of a body meant to evaluate what they are proposing in terms of Control Studies. Members of the TAC should be 3rd party and regulatory representatives who are not affected by decisions related to the study plans</p> <p>Shilling: I suggest that the TAC include community organizations as experts in the affected community, who should be the main beneficiary of the TMDL. Also, this TAC should conduct integrated review of control studies, exposure reduction, offsets, and any other activity proposed under the TMDL. Saying that "other stakeholders" will recommend TAC members without stating that this includes community groups is insulting. A common misconception is that community organizations don't have the technical ability to participate in these processes (this being the most palatable reason why their exclusion occurs). The organizations listed above have educated me about the nature of fishing and fish consumption practice in the Delta and I am sure they could educate others. As an example of technical competence, here is an excerpt from a recent proposal written by a community group: "To a certain degree, modern etiological principles are lacking in the medicinal belief system of traditional Cambodian culture. A lingering language barrier would also tend to discourage familiarization with the etiologies of cancer, birth defects, neurological conditions and other health problems linked with contaminated water and fish."</p> <p>TNC: It is essential to stakeholders that there be an integrated, coordinated, cost-effective Control Study approach, such that we avoid duplicative studies, studies that don't provide sufficient, quality data, or designs that invalidate practical study goals. We think the TAC should be used to provide that overall design, overview, and examination of the Control Studies. Our revisions are made in our attempt to ensure that rigorous, overall review occurs.</p>	

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			<p>(S.Liu)</p> <p>RB: The primary purpose of the TAC is to provide an independent review of the technical studies as needed so that Board staff is not the only one informing the Board if studies and conclusion are adequate or if additional studies should be conducted. Therefore the recommended purpose of the TAC is to be the Board's advisor. The Board will provide funding for the TAC and staff will manage the TAC contracts. Staff will take initial steps to identify TAC members, but stakeholders will have opportunities to suggest TAC members with expertise to review the studies, and to provide comments on the selected participants. TAC members need to be independent so that they can provide neutral opinions on the studies and are not tied directly to a discharger. Similar to the State Board's peer review process, the TAC members will fill out a conflict of interest disclosure and this will be available to the public. The Executive Officer will have final approval authority of the TAC members. The stakeholder committee (referred to in the MOI) will be charged with integrating and coordinating the studies. The TAC could be consulted after initial study plans are developed. The staff report will reflect these details. The staff report contains more details about TAC development.</p> <p>In the context of the BPA, 'other stakeholders' refers to 'non-dischargers' or the non-regulated community. The BPA has specific requirements for dischargers, but the Board cannot regulate areas outside of water quality (e.g., air quality, health departments, and community groups). Staff agrees that all stakeholders need to be part of this control program and added "community organizations". There may need to be a separate TAC to coordinate with exposure reduction efforts.</p> <p>To improve document flow, staff combined this line with Line 21.</p>	
25	Proponents of new wetland and wetland restoration projects scheduled for construction after [the effective date of this amendment] either shall participate in Control Studies as described above or shall implement a site-specific study plan, evaluate practices to minimize methylmercury discharges, and implement newly developed	YCFCWCD: Proponents of new wetland and wetland restoration projects scheduled for construction after [the effective date of this amendment] either shall participate in Control Studies as described above or shall implement a site-specific study plan, evaluate practices to minimize methylmercury discharges, and implement newly developed management	<p>YCFCWCD: Should not restrict practices to new stuff. Some of what we do now may be appropriate.</p> <p>DWR: Concerned about the cost burden. (M. Kirkland)</p> <p>CWA: Again, such plans should be proactive so that work doesn't move forward with the result that more MeHg enters the system</p>	Text moved to Line 16.5.

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	<p>management practices as feasible. Wetland projects may include pilot projects to demonstrate which management practices minimize methylmercury discharges. Projects shall include monitoring to demonstrate effectiveness of management practices.</p>	<p>practices as feasible. Wetland projects may include pilot projects to demonstrate which management practices minimize methylmercury discharges. Projects shall include monitoring to demonstrate effectiveness of management practices.</p> <p>DU: Proponents of new wetland and wetland restoration projects larger than XXX acres scheduled for construction after [the effective date of this amendment] either shall participate in Control Studies as described above or shall implement a site-specific study plan, <u>conduct an alternatives analysis</u>, evaluate practices to minimize methylmercury discharges, and implement newly developed management practices as feasible. Wetland projects may include pilot projects to demonstrate which management practices minimize methylmercury discharges. Projects shall include monitoring to demonstrate effectiveness of management practices.</p> <p>TNC: Proponents of new wetland and wetland restoration projects scheduled for construction after [the effective date of this amendment] either shall participate in Control Studies as described above or shall implement a site-specific study plan [This is redundant since "as described above" lists the two options of collaborative or individual study], <u>evaluate and implement known control</u> practices to minimize methylmercury discharges, and implement newly developed management practices as feasible. Wetland projects may include pilot projects to demonstrate <u>evaluate which newly developed management practices that</u> minimize methylmercury discharges. Projects shall include monitoring to demonstrate effectiveness of management practices.</p>	<p>DU: Many wetlands projects are small. A size criteria should be established in advance. For example, if a 14-acre rice field was to be restored to wetlands. Is the incremental potential for methylmercury production (or maybe a reduction) such that studies or monitoring really need to be done. Consider such projects cost relatively little, versus the large cost of studies and methylmercury analysis. Yet the benefits of even small wetlands restorations can be significant, such as improvements to water quality, groundwater recharge, and species. In particular such benefits can be large relative to small increases in the potential for methylation of mercury.</p> <p>Since many wetlands restoration projects may be in areas already subject to methylmercury regulation, these projects should be treated differently. There should there be an alternatives analysis, as wetlands restoration may actually result in a decrease in methylmercury production over ambient conditions.</p> <p>TNC: This requirement combines a lot of possible actions and is not clear what is required or not. I have rewritten to list requirements first and then the desired element.</p> <p>However, TNC does not agree with 2 elements:</p> <ul style="list-style-type: none"> TNC does not agree with that wetlands in <i>all</i> subareas should be studied <i>in Phase 1</i>. Based on Table A, the Central Delta and West Delta either have a high capacity for absorbing MeHg loads and/or the ag/wetland loading estimates are not accurate. It is not evident that these site-specific studies are necessary; we are concerned over delaying these restoration projects and adding costs unnecessarily. Leveraging off of studies of different wetland types in other subareas that require MeHg control is sufficient for Phase 1. This decision should then be revisited during the Phase 1 Delta Mercury Control Program Review. Monitoring should NOT be required for <i>all</i> new wetland/wetland restoration projects. This can be an onerous requirement for some of our small wetland restoration projects. For instance, at Cosumnes, a proposed small restoration project of 20 acres and \$45K budget could be sidelined by a 	

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			<p>\$10k/yr monitoring burden. It is reasonable for these small projects to join a collaborative Control Study program (for instance, ILRP requires costs of \$2/acre to participate, which are more reasonable costs given the size of this project), but not require individual monitoring.</p> <p>I have added/deleted language to address these elements. (S.Liu)</p> <p>RB: The Basin Plan does not prescribe a size limit for the studies. Each subarea is subject to the allocations and the studies requirement. At this time, individual non-point projects are not subject to individual allocations or studies. The developers of the coordinated studies will need to determine which areas and projects should be part of the monitoring and studies. Project proponents will need to demonstrate that new projects being considered in the development of the comprehensive plan. The comprehensive plan should describe how various projects are participating in the studies (e.g., water or fish monitoring, sediment data, vegetation, seasonal or permanent...).</p> <p>The BPA leaves an option for independent studies for those areas which choose not to conduct collaborative studies. BPA was edited to exclude areas not needing MeHg reductions.</p> <p>Monitoring for all projects was removed, but note that the comprehensive plans need to include monitoring to evaluate MeHg discharges from new projects and to demonstrate effectiveness of management practices.</p> <p>Staff moved the resulting text to Line 16.5 to improve document flow.</p>	
26	<p>Mercury Control Studies Schedule</p> <p>1. By [three months after the effective date], dischargers, or entities representing Control Studies shall submit for Executive Officer approval either: (1) a report describing how groups of dischargers plan to organize to develop a coordinated, comprehensive Implementation Workplan(s), or (2) a report describing how individual dischargers will</p>	<p>WWTP: Suggest deleting as overly prescriptive.</p> <p>YCFWCWD: 1. By [three months after the effective date], dischargers, or entities representing dischargers, required to conduct Control Studies shall submit for Executive Officer approval either: (1) a report describing how groups of dischargers <u>stakeholders</u> plan to organize to develop a coordinated,</p>	<p>WWTP: Is this step necessary to regulate? 3 months may be too short for some location/groups.</p> <p>Agree that 3 months is too short to have something together for approval. Would work better if rolled into six month requirement. (D. Webster).</p> <p>YCFWCWD: See notes for paragraph 18 and 22</p> <p>DWR: The proposed three month requirement does not</p>	<p><u>Mercury Control Studies Schedule</u></p> <p>1. By [six months after the Effective Date], entities required to conduct Control Studies shall submit for Executive Officer approval either: (1) a report(s) describing how dischargers and stakeholders plan to organize to develop a coordinated, comprehensive Control Study Workplan(s), or (2) a report describing how individual</p>

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	<p>develop individual Implementation Workplans. For dischargers conducting coordinated studies, the report shall include a list of participating dischargers. Dischargers shall be considered in compliance with this reporting requirement upon written commitment to either be part of a group developing an Implementation Workplan or develop an individual Implementation Workplan.</p>	<p>comprehensive Implementation Workplan(s), or (2) a report describing how individual dischargers entities will develop individual Implementation Workplans. For dischargers conducting coordinated studies, the report shall include a list of participating dischargers. Dischargers shall be considered in compliance with this reporting requirement upon written commitment to either be part of a group developing an Implementation Workplan or develop an individual Implementation Workplan.</p> <hr/> <p>DWR: 1. By three-six months after the effective date], dischargers, or entities representing dischargers, required to conduct Control Studies shall submit....(M. List, N. Lerner)</p> <p>EPA: EPA recommends: As soon as reasonably possible, but in any event no later than [three months / six months / etc. after the effective date] ... dischargers, or entities representing dischargers shall...</p> <hr/> <p>TNC: By three months <u>one year</u> after the effective date],</p>	<p>allow sufficient time for parties to reach any meaningful agreements for proposed actions. (M. List, N. Lerner, M. Kirkland) (D Fua)</p> <hr/> <p>CFBF: The three month time period seems inappropriate for certain dischargers. (ie: for irrigated agriculture, since more scientific studies should be conducted to figured out contributions, a 3 month tieline to develop a workplan seems implausible. (K. Fisher)</p> <hr/> <p>EPA: The time allowed to conduct studies and then make changes based on the results of the studies are all part of the compliance period; activities during the compliance period should be scheduled "as soon as possible."</p> <hr/> <p>TNC: The one year milestone is more realistic given the time it will take to even ensure that all irrigated lands/managed wetlands people are on the same page, decide what forum will be used, or create a new structure, if necessary. It is unreasonable to assume otherwise. While some stakeholders are engaged already, the larger community is not and will not be until the BPA is promulgated. The one year milestone is in keeping with the Draft Feb 2008 BPA. (S.Liu)</p> <hr/> <p>RB: The realistic "effective date" of the BPA is about 1 year after the Board adopts the BPA so if this is adopted in early 2010, the earliest is would become effective is early 2011. This first milestone is partially started with the stakeholder process led by CCP and the rough drafts of the charter and MOI for stakeholder coordination. This requirement is not for submittal of the Control Study Workplan(s). It requires dischargers to indicate how they plan to participate in the studies. Is there a way the Stakeholder group can start working to engage the larger nonpoint source community during the year between 2010-2011?</p> <hr/> <p>In response to comments, staff changed the deadline for reporting intent for study participation from three to six months.</p> <hr/> <p>The term "discharger" is retained in some BPA sections because the overarching "stakeholder" designation includes groups that are not dischargers and therefore are not subject to regulations or BPA requirements.</p>	<p>dischargers will develop individual Control Study Workplans. For dischargers conducting coordinated studies, the report shall include a list of participating dischargers, stakeholders and community groups. Dischargers shall be considered in compliance with this reporting requirement upon written commitment to either be part of a group developing a Control Study Workplan or develop an individual Control Study Workplan.</p>

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			NOTE: Line 18 contains the list of stakeholders that are required to conduct the studies.	
27	<p>2. By [six months after the effective date of this amendment], dischargers, discharger groups, or entities representing dischargers, shall submit Implementation Workplans to the Regional Water Board. The Implementation Workplan(s) shall contain detailed descriptions of all the studies that need to be done for the Control Studies and a detailed work plan for the work to be accomplished in the following three years. Regional Water Board staff and the TAC will review the work plans and provide recommendations for revising workplans if necessary. Final work plans will be approved by the Executive Officer. Dischargers shall be considered in compliance with this reporting requirement upon written commitment to follow the workplan and Executive Officer approval.</p>	<p>WWTP: It seems that the MOI should be referenced here, if that is consistent with legal advice on the matter.</p> <p><u>Regional Water Board staff and the TAC will review the work plans and provide recommendations for revising workplans if necessary. Final work plans will be approved by the Executive Officer. Dischargers shall be considered in compliance with this reporting requirement upon written commitment to follow the workplan and Executive Officer approval timely submittals of workplans and revisions.</u></p> <hr/> <p>YCFCWCD: 2. By [six months after the effective date of this amendment], dischargers, discharger groups, or entities representing dischargers, shall submit Implementation Workplans <u>shall be submitted</u> to the Regional Water Board <u>within [six months of the effective date of this amendment]</u>. The Implementation Workplan(s) shall contain detailed descriptions of all the studies that need to be done for the Control Studies and a detailed work plan for the work to be accomplished in the following three years. Regional Water Board staff and the TAC will review the work plans and provide recommendations for revising workplans if necessary. Final work plans will be approved by the Executive Officer. Dischargers shall be considered in compliance with this reporting requirement upon written commitment to follow the workplan and Executive Officer approval.</p> <hr/> <p>DWR: 2. By [six-nine] months after the effective date of this amendment], dischargers, discharger groups, or entities representing dischargers, shall submit</p> <hr/>	<p>WWTP: It is unclear how EO approval ties into the schedule.</p> <p>Please note that this timeframe is probably the absolute minimum, and may not be conducive to larger group efforts. There should be some provision for getting additional time to coordinate when dealing with multiple agencies. (D. Webster)</p> <p>The last sentence is problematic as written. We can implement the workplan we submit, but cannot agree to implement an unknown workplan. As written, it appears that we would be out of compliance if we did not agree to all terms the EO may put on the plan and would not have another recourse (D. Webster)</p> <hr/> <p>CFBF: See comment for 27 re timeline issues. (K. Fisher)</p> <hr/> <p>CWA: What is the expected timeline by which the Exec. Director and TAC would approve or not approve workplans? This needs to be included so we don't run into a situation where the discharger(s) cannot meet their timelines because of a delay in getting the necessary approval.</p> <hr/> <p>DWR: This adds three months to the proposed schedule based on the previous comment. (M. List, N. Lerner)</p> <hr/> <p>TNC: The two year milestone is more realistic given the above comment on Item 26, and the necessary time it will take to develop the studies and then the detailed work plans. It is unrealistic to expect that to be done in six months within a collaborative process. The two year milestone is in keeping with the Draft Feb 2008 BPA. Also, the TAC is supposed to review the Workplans; what is its timeframe for formation? The draft 6-18-09 BPA had a 16 month milestone for TAC formation. (S.Liu)</p> <hr/> <p>RB: Some stakeholders indicated that they would not be able to enter into an MOI agreement, so that was removed from the BPA. The BPA is flexible so that the stakeholders could develop the Control Study Workplan(s) individually or as a combined set of stakeholders without signing an MOI. Stakeholders may agree that the workplans need some written commitment from other stakeholders on their</p>	<p>2. Control Study Workplans shall be submitted to the Regional Water Board within [nine months of the Effective Date of this amendment]. The Control Study Workplan(s) shall contain a detailed plan for the Control Studies and the work to be accomplished in the following three years. Regional Water Board staff and the TAC will review the workplans and provide recommendations for revising workplans if necessary.</p> <p>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.</p> <p>Dischargers shall be considered in compliance with this reporting requirement upon timely submittal of workplans and revisions.</p>

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		<p>EPA: Same as above.</p> <hr/> <p>TNC: By six months two years after the effective date of this amendment], dischargers, discharger groups, or entities representing dischargers, shall submit Implementation Workplans to the Regional Water Board. <u>The Implementation Workplan(s) shall include details for organizing, planning, developing, prioritizing, and implementing the Control Studies.....</u></p>	<p>respective roles and responsibilities.</p> <p>A schedule for staff review of the workplan was added. Compliance with this task was changed to submissions of the workplan within the schedule.</p> <p>Staff included TNC's suggested text, "... Workplan(s) shall include details for organizing, planning, developing, prioritizing, and implementing the Control Studies", in Line 20.</p>	
28	<p>3. By [three years after the effective date of this amendment], dischargers, or entities representing dischargers, shall submit a report to the Regional Water Board documenting progress towards complying with the Implementation Workplan(s). The report shall include amended workplans for any additional studies needed to address methylmercury and/or total mercury controls. The TAC will review the progress reports and may recommend what additional studies should be undertaken to complete the objectives of the Control Studies. Staff will review the progress reports and recommendations of the TAC and provide a progress report to the Regional Water Board.</p>	<p>YCFWCWD: By [three years after the effective date of this amendment], dischargers, or entities representing dischargers, responsible for implementing Implementation Workplans shall submit a report to the Regional Water Board documenting progress towards complying with the Implementation Workplan(s). The report shall include amended workplans for any additional studies needed to address methylmercury and/or total mercury controls. The TAC will review the progress reports and may recommend what additional studies should be undertaken to complete the objectives of the Control Studies. Staff will review the progress reports and recommendations of the TAC and provide a progress report to the Regional Water Board.</p> <hr/> <p>EPA: Same as above.</p> <hr/> <p>CWA: "The report shall include amended workplans for any additional studies needed to address methylmercury and/or total mercury controls. "</p> <hr/> <p>TNC: By three four years after the effective date of this amendment], dischargers, or entities representing dischargers, shall submit a report to the Regional Water Board documenting progress towards complying with the Implementation Workplan(s). The report shall include amended workplans for any</p>	<p>YCFWCWD: To support the collaborative work the BPA should focus on the work and outcomes. The permit structure will take care of the compliance and ensuring discharges are participating. It may be that the dischargers and entities responsible for implementing work plans are one and the same, but it is not a given unless the RB restricts the process to dischargers. That would be a lost opportunity.</p> <hr/> <p>DWR: Concerned that the time frame is not sufficient. (M. Kirkland)</p> <hr/> <p>CWA: See number 11</p> <hr/> <p>TNC: See above comments. Four year milestone more realistic and matches Draft Feb 2008 BPA. (S. Liu)</p> <hr/> <p>RB: Changes to the BPA were made.</p>	<p>3. By [three years after the Effective Date], entities responsible for implementing Control Study Workplan(s) shall submit report(s) to the Regional Water Board documenting progress towards complying with the Control Study Workplan(s). The report shall include amended workplans for any additional studies needed to address methylmercury reductions. The TAC will review the progress reports and may recommend what additional or revised studies should be undertaken to complete the objectives of the Control Studies. Staff will review the progress reports and recommendations of the TAC and provide a progress report to the Regional Water Board.</p>

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		additional <u>or revised</u> studies needed to address methylmercury and/or total mercury controls.		
29	4. By [seven years after the effective date of this amendment], the dischargers, or entities representing dischargers, shall complete the studies and submit to Regional Water Board staff a Control Studies final report that presents the results and descriptions of methylmercury control options, their preferred methylmercury controls, and proposed implementation schedules for achieving methylmercury allocations.	<p>YCFCWCD: By [seven years after the effective date of this amendment], the dischargers, or entities representing dischargers <u>responsible for Implementation Workplans</u>; shall complete the studies and submit to Regional Water Board staff a Control Studies final reports that presents the results and descriptions of methylmercury control options, their preferred methylmercury controls, and proposed implementation schedules for achieving methylmercury allocations.</p> <p>EPA: Same as above.</p>	<p>WWTP: Does this schedule need to connect with the EO approval?</p> <p>This needs to be tied with the review process that will take place at the end of Phase I.</p> <p>CFBF: Who pays? (K. Fisher)</p> <p>DWR: Concerned that the time frame is not sufficient. (M. Kirkland)</p> <p>RB: This schedule is tied to the TMDL review and will be revised to coincide with the TAC and EO review and approval schedules.</p> <p>Point and non-point sources will be responsible for the studies. Board staff is evaluating funding opportunities to help with the studies, such as grants.</p>	4. By [seven years after the Effective Date], entities responsible for Control Study Workplans shall complete the studies and submit to the Regional Water Board Control Studies final reports that present the results and descriptions of methylmercury control options, their preferred methylmercury controls, and proposed implementation schedules for achieving methylmercury allocations. In addition, final report(s) shall propose points of compliance for non-point sources.
29.5	NEW LINE		<p><u>New line:</u></p> <p>RB: This text was added in response to comments made in Line 34.</p>	If the Regional Water Board determines that dischargers are making significant progress towards completing the Phase 1 Control Studies but that more time is needed to finish the studies, the Regional Water Board may consider extending the time for the studies' completion.
30	Dischargers in the Central Valley that are not subject to the Delta Mercury Control Program but may be subject to future mercury control programs in upstream tributary watersheds should consider participating in the coordinated Delta mercury control studies. If such dischargers actively participate in the Control Studies, they may be exempt from conducting their own individual studies as part of any future upstream mercury control program.	WWTP: Change "should consider participating" to "are encouraged to participate"	<p>CFBF: Note: A quick read of this leads one to think this is almost like a threat to coerce others to participate now. Although I see the reason for such a statement, such a statement may "turn off" future potentially regulated dischargers, especially those who are still waiting for additional science to conclude that their operations are adding to the problem. (K. Fisher)</p> <p>EPA: We suggest the Board explain in more detail the terms of any exemption in return for current participation.</p> <p>CWA: As commented above, how will the Reg. Board/TAC determine if the coordinated studies will provide accurate information/strategies in different locations? <u>This needs to</u></p>	Dischargers in the Central Valley that are not subject to the Delta Mercury Control Program but may be subject to future mercury control programs in upstream tributary watersheds are encouraged to participate in the coordinated Delta Control Studies. If such dischargers actively participate in the Control Studies, they will be exempt from conducting Control Studies required by future upstream mercury control programs.

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			<p>be clarified in the BPA. Wouldn't there be cases where the physical characteristics of a particular local impact methylation?</p> <p>How will upstream dischargers know that they may be subject to doing studies later on? Will Regional Board do outreach or contact those they are aware of to encourage that they act now. <u>Again, this needs to be addressed explicitly in the BPA.</u></p> <p>RB: Staff addressed CWA's first comment in Line 20.</p> <p>The purpose of this BPA text was to allow upstream entities to participate in the Delta studies to share data and resources rather than having the upstream dischargers conduct duplicate studies. Participation on a larger scale study could lower an individual's study costs while providing potentially valuable information for like sources.</p> <p>Which individual upstream sources will need to make reductions and the magnitude of those reductions cannot be known until TMDLs have been drafted for the upstream water bodies identified as mercury-impaired on the 303(d) List. Even so, Board staff has been approached by several entities responsible for upstream sources regarding the desire to conduct both individual and collaborative studies sooner rather than later. Staff expects to begin outreach efforts to upstream sources within the next 6 to 12 months, as we develop stakeholder contact lists for the upstream TMDLs.</p> <p>Staff edited the BPA language in an attempt to address the intent of stakeholders' comments.</p>	
31	<p>Interim Progress Reports Annually, staff shall report to the Regional Water Board progress of upstream TMDL development, discharger and stakeholder coordination, Implementation Workplans, implementation of Control Studies, actions implemented or proposed to meet TMDL load and waste load allocations, and the status of the formation and activities of the TAC.</p>	<p>CWA: Annually, staff shall publicly report to the Regional Water Board progress of upstream TMDL development, discharger and stakeholder coordination, Implementation Workplans, implementation of Control Studies, actions implemented or proposed to meet TMDL load and waste load allocations, and the status of the formation and activities of the TAC.</p>	<p>RB: "...Publicly" report can include the Executive Officers written report to the Board (provided and discussed at each Board meeting). The Executive Officers Report is available to the public, on the website, and part of each meeting's agenda.</p>	<p>Annually, staff shall publicly report to the Regional Water Board progress of upstream TMDL development, discharger and stakeholder coordination, Control Study Workplan status, implementation of Control Studies, actions implemented or proposed to meet TMDL load and waste load allocations, and the status of the formation and activities of the TAC.</p>
32	By October 2014, the Executive Officer shall	WWTP: Instead of a fixed date, reference the	WWTP: Some implementation actions to meet final WLAs	By [four years after the Effective Date], the

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	<p>provide a comprehensive report to the Regional Water Board on the progress of upstream mercury control program development, Control Studies, and actions implemented or proposed to meet Delta Mercury Control Program load and waste load allocations, and the status and progress of the TAC. The Executive Officer will consider modifications to the Delta Mercury Control Program if progress is insufficient, including issuing individual waste discharge requirements, or requests for technical reports and management plans.</p>	<p>effective date [also applies to rows 33, 34, and 36-38].</p> <p>Suggested edit: "...report to the Regional Water Board on the progress of <u>actions expected to occur under Phase 1</u>: upstream mercury..."</p> <p>EPA: EPA recommends: The Executive Officer will consider <u>and make recommendations to the Board for</u> modifications to the Delta Mercury Control Program if progress is insufficient, including issuing individual waste discharge requirements, or requests for technical reports and management plans.</p>	<p>won't be implemented until Phase 2 – this should specifically refer to actions expected to occur under Phase 1.</p> <p>EPA: The way it is drafted, it allows the EO to make changes to the BPA; changes to the BPA should be publicly noticed through a Board action.</p> <p>CWA: While this seems to provide a useful mid-course check-in regarding the progress on the studies and is apparently intended to maintain the threat of WDRs if things aren't kept moving, we do not see this provision as an acceptable substitute for interim allocations.</p> <p>Shilling: What is the standard of sufficiency for progress?</p> <p>RB: Staff agrees with the referencing the Effective Date, however recommends the 2030 date be fixed. CWA comment is noted, however at this time staff is proposing interim limits for inorganic mercury for the WWTPs. Progress would be measured if milestones for requirements were met. If the studies are not completed, the Executive Officer would consider 13267 Orders for submission of technical reports, leading to enforcement actions for non-compliance.</p>	<p>Executive Officer shall provide a comprehensive report to the Regional Water Board on Phase 1 progress, including progress of upstream mercury control program development, Control Studies, actions implemented or proposed to meet Delta Mercury Control Program load and waste load allocations, and the status and progress of the TAC.</p> <p>If dischargers do not comply with Control Study implementation schedules, the Executive Officer will consider issuing individual waste discharge requirements or requests for technical reports and management plans.</p>
33	<p>Delta Mercury Control Program Review By October 2017 at a public hearing, and after a scientific peer review and public review process, the Regional Water Board shall reconsider the Delta Mercury Control Program and shall consider modification of objectives, allocations, implementation provisions and schedules, and the final allocation compliance date. 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. The Regional Water Board shall require implementation of appropriate management practices.</p>	<p>EPA: EPA recommends: ..., the Regional Water Board shall <u>review and reconsider if appropriate</u> the Delta Mercury Control Program and shall <u>may</u> consider modification of objectives, allocations, implementation provisions and schedules, and the final allocation compliance date.</p> <p>TNC: By October 2017 at a public hearing, and after a scientific peer review and public review process, the Regional Water Board shall reconsider the Delta Mercury Control Program and shall consider modification of objectives, allocations, implementation provisions and schedules, and the final allocation compliance date. <u>The Regional Water Board will consider the technical and economic feasibility of potential total mercury and methylmercury control methods and to minimize or avoid significant negative impacts</u></p>	<p>CFBF: Note: Adjustment should include relaxation of requirements if appropriate and warranted in the future. (K. Fisher)</p> <p>EPA: The way it is drafted, it assumes that changes will be made. We do not know if changes should be made at this point; changes may not be necessary.</p> <p>DWR: Concerned that the time frame is not sufficient. (M. Kirkland)</p> <p>RB: It is unknown how the program could change at the end of Phase 1; allocations could be adjusted up or down depending on the results of the Phase 1 activities, new information, and the legal/technical viability of a long-term Offset Program. There maybe future revisions to the control program after Phase 2; text was added to Line 37.5 to reflect this.</p>	<p>Delta Mercury Control Program Review By [eight years after Effective Date] at a public hearing, and after a scientific peer review and public review process, the Regional Water Board shall review and reconsider, if appropriate, the Delta Mercury Control Program and may consider modification of objectives, allocations, implementation provisions and schedules, and the final allocation compliance date.</p> <p>The Regional Water Board shall assess: (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 other</p>

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		<p>to the environment that may results from <u>control methods.</u> 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. The Regional Water Board shall require implementation of appropriate management practices.</p>		<p>beneficial uses; (c) methods that can be employed to minimize or avoid potentially significant negative impacts to beneficial uses that may result from control methods; (d) implementation plans and schedules proposed by the dischargers; and (e) whether methylmercury allocations can be attained.</p> <p>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. The Regional Water Board shall require implementation of appropriate management practices.</p>
33.5	NEW LINE		<p><u>New line:</u></p> <p>RB: The text in this new line is adapted from a TNC comment provided on Line 23. The TNC text was modified from 'no net increase' to 'adjusting the allocation' to be consistent with the concept that each subarea has a non-point source allocation that needs to be attained. Methylmercury discharges from individual nonpoint sources may vary so long as the subarea allocation is met. The Board can re-balance the allocations to allow some sources to increase their discharges.</p> <p>In addition, as noted by US EPA during several stakeholder meetings, we will not know if there is a conflict between beneficial uses until the Control Studies have been completed during Phase 1.</p>	<p>As part of the Phase 1 Delta Mercury Control Program Review and subsequent program reviews, the Regional Water Board may consider adjusting the allocations to allow methylmercury discharges from existing and new wetland restoration and other aquatic habitat enhancement projects if dischargers provide information that demonstrates that 1) all reasonable management practices to limit methylmercury discharges are being implemented and 2) implementing additional methylmercury management practices would impair fish and wildlife beneficial uses. The Regional Water Board will consider the merits of the project(s) and whether to require the discharger(s) to propose other activities in the watershed that could offset the methylmercury. The Regional Water Board will periodically review the progress towards achieving the allocations and may consider additional conditions if the plan described above is ineffective.</p>
34	If the Regional Water Board does not receive information to review and update the Delta	EPA: EPA recommends: By October 2017, if sufficient progress has not	EPA: An approvable TMDL will already require load allocations and wasteload allocations to be met as soon as	If the Regional Water Board allows an extension for the Control Studies' schedule,

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	<p>Mercury Control Program, the program shall not be changed. By October 2017, the Regional Water Board shall consider requiring management plans or issuing waste discharge requirements for meeting the allocations and compliance date.</p>	<p>been made, the Regional Water Board shall consider <u>mandatory steps to ensure that allocations are met as soon as possible</u>, requiring management plans or issuing waste discharge requirements for meeting the allocations and compliance date.</p> <p>CWA: "By October 2017, the Regional Water Board shall consider requiring management plans or issuing issue waste discharge requirements for meeting to ensure that the allocations and compliance dates are met."</p> <p>TNC: If the Regional Water Board does not receive information to review and update the Delta Mercury Control Program, the program shall not be changed. By October 2017, the Regional Water Board shall consider requiring management plans or issuing waste discharge requirements for meeting the allocations and compliance date. <u>If the Regional Water Board determines that existing and new dischargers are making significant progress towards completing the Phase 1 Characterization and Control Studies but that more time is needed to finish the studies, the Regional Water Board may consider extending the time for the studies' completion and implementation of control options. If insufficient progress is made by October 2017, the Regional Water Board may consider a prohibition of individual methylmercury discharges, issuing individual waste discharge requirements, or other control options. In addition, if no acceptable characterization and control studies are undertaken, then the methylmercury allocations and Phase 1 methylmercury concentration limits specified in the following sections will remain in effect for Phase 2.</u></p>	<p>possible, but no later than a certain date.</p> <p>CWA: TMDLs establish what the watershed requires in reductions and limits for dischargers based on that requirement. We believe it is therefore implied that a discharger who must reduce their methylmercury load will implement their control plan. We need to ensure in the BPA that they are not just asked to institute best practices, which may or may not get us to the numeric (and physical) goals set out by this TMDL; thus the edits we have made.</p> <p>MS4: Can we anticipate the decision to be made in 2017 if most sources conclude that WLAs cannot be met? Should the information received be sufficient for conducting a Use Attainability Analysis per USEPA policy?</p> <p>TNC: TNC prefers the more nuanced language of the Feb 2008 draft BPA. (S.Liu)</p> <p>RB: Staff recommends the BPA contain the requirement for WDRs and management plans if the Phase 1 work is not completed. We also added the provision here and in Line 29.5 that allows more time if significant progress is being made but more time is needed for the studies, to respond to TNC's comments regarding Phase 1 study progress and DWR's comments on the BPA about how 7 years may be insufficient time for their studies.</p> <p>Staff requests US EPA's recommendations for information requirements for a UAA.</p>	<p>the Board may consider extending the schedule for the Delta Mercury Control Program Review and implementation of methylmercury control methods to comply with the allocations.</p> <p>If the Regional Water Board does not receive information to review and update the Delta Mercury Control Program, the program shall not be changed. Then, by [eight years after Effective Date], the Regional Water Board shall issue waste discharge requirements or requests for management plans for meeting the allocations and compliance date.</p>
35	Delta Mercury Control Program review shall not exempt sources from allocations, but allocations may be adjusted based on the Control Studies results and other information.	WWTP: Delete this unnecessary constraint	<p>WWTP: Why include this constraint?</p> <p>Note that there should be some assurance that early implementation of actions should not be "taken against" if/when allocations are adjusted. (D. Webster)</p>	<p>Line deleted.</p> <p><i>Need stakeholder discussion about how to address the need for some assurance that</i></p>

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			<p>CFBF: If additional and future studies show liability/responsibility as current allocated is no longer appropriate or necessary (ie: low threat discharges), adjustments including exemptions should be allowed. (K. Fisher)</p> <p>EPA: All sources must have an allocation; do you mean to say that no source shall be alleviated from a reduction of some kind? Or that some sources may be assigned allocations based on existing levels?</p> <p>RB: This text was included because all sources need to have an allocation in order to discharge. Adjustments to the allocations can be made based on new information. Staff deleted this text and addressed stakeholder comments with new text in Line 33.5.</p> <p>Staff needs help from stakeholders in drafting language that addresses Webster's concern regarding the need for some assurance that early implementation of actions will not be "taken against" if/when allocations are adjusted.</p>	<p>early implementation of actions will not be "taken against" if/when allocations are adjusted.</p>
36	<p>By [one year after the Board reviews the Delta Mercury Control Program], but no later than October 2019, dischargers shall implement mercury and methylmercury controls.</p>	<p>WWTP: Delete – doesn't seem consistent with the phased approach</p> <p>YCFWCWD: By [one year after the Board reviews the Delta Mercury Control Program], but no later than October 2019, dischargers shall implement mMercury and methylmercury controls shall be initiated no later than 2019 or within one (1) year of review of the Delta Mercury Control Program by the Regional Board.</p> <p>EPA: EPA recommends: As soon as possible, but not later than ...</p> <p>CWA: By [one year after the Board reviews the Delta Mercury Control Program], but no later than October 2019, dischargers shall implement mercury and methylmercury controls.</p> <p>TNC: Phase 2 By [one year after the Board reviews the Delta Mercury Control Program], but no later than</p>	<p>WWTP: If controls are intended to meet allocations, this seems to be saying that allocations have to be met by October 2019. How could this requirement be implemented?</p> <p>YCFWCWD: Some measures may take more than 1 year to put in place. Also need to eliminate conflict with paragraph 37.</p> <p>CFBF: A placeholder of "if feasible" should be added. (ie: by one year after review, if feasible....") (K. Fisher)</p> <p>CWA: Total mercury reductions should have been instituted when the BPA goes into effect (if not sooner), not after the methylmercury control studies. Obviously, new strategies may come available to dischargers for both methyl and total mercury in future and should be implemented when appropriate, but the way this reads, it sounds like we are backing off from the requirement that discharges of total mercury be addressed immediately based on current knowledge and strategies</p> <p>TNC: TNC prefers the more nuanced language of the Feb 2008 draft BPA, including the consideration of upstream control program adoption. Throughout the stakeholder</p>	<p>Methylmercury controls developed in Phase 1 shall be initiated as soon as possible, but no later than 2019 or within one (1) year of review of the Delta Mercury Control Program.</p>

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		<p>October 2019, dischargers shall implement mercury and methylmercury controls. Phase 2 will start one year after the Board reviews and considers amendments to the Delta Mercury Control Program [date], but no later than October 2019, and after upstream control programs are adopted. Phase 2 requires discharger implementation of the mercury and methylmercury controls developed in Phase 1.</p>	<p>process, there has been recognition that the tributary TMDLs will be ongoing at the same time. We would like to see that language remain in the BPA. (S.Liu)</p> <p>QUESTION/ISSUE – For nonpoint sources, are we requiring each and every discharger to implement controls or are we keeping with the subarea collaborative approach (i.e., watershed approach), where the collective we can determine the best way to meet the allocation for the subarea? TNC thinks this approach is preferable. (S.Liu)</p> <p>RB: The intent of this phrase was to initiate control actions. Inorganic Hg controls were addressed in Line 11. Watershed inorganic Hg reductions and schedules for upstream TMDLs are described in Line 55.5. These were unintentionally left out of the July 2009 draft BPA. The purpose of the Control Studies is to identify feasible MeHg control practices. After the program review, dischargers should be able to begin implementation so that allocations will be met no later than 2030.</p> <p>The proposed implementation plans and schedules included in the final Control Study reports should describe which individual sources will be implementing which MeHg management practices to meet the subarea load allocation for wetlands and other nonpoint sources. This BPA does not specify which individual nonpoint sources must implement management practices for MeHg. If allocations are not met by the compliance date (2030), then additional sources may need to implement MeHg management practices.</p>	
37	<p>If the Regional Water Board does not review the Delta Mercury Control Program by 2020, the compliance date shall be extended by five years.</p>	<p>EPA: EPA recommends: The Regional Water Board will make all reasonable efforts to complete its review of the Control Program by 2020; if it does not, the Board will consider extending compliance dates to the extent necessary to facilitate its review.</p> <p>CWA: If the Regional Water Board does not review the Delta Mercury Control Program by 2020, the compliance date shall be extended by five years</p>	<p>WWTP: Reference to “the compliance date” here confirms the previous comment.</p> <p>Still need assurances that the review will occur.</p> <p>MS4: We won’t know if the review is done until 2020, but row 36 already requires controls by 2019.</p> <p>EPA: The Board will need to take an action to extend compliance dates.</p> <p>CWA: This is precisely why we asked above what the timeframe for Reg. Board review of the control programs is and advocated that it be put into the BPA. This language is problematic for two reasons: 1) dischargers could move forward with reduction actions</p>	<p>The Regional Water Board shall make all reasonable efforts to complete its review of the Control Program by 2020; if it does not, the Regional Water Board will consider extending the compliance date to the extent necessary to facilitate its review. In this case, methylmercury controls shall be initiated within one (1) year of review of the Delta Mercury Control Program.</p>

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			<p>while awaiting final approval (though we recognize that they would not want to put resources into a plan that may be rejected.)</p> <p>2) More importantly, the Reg. Board has the responsibility to ensure that strategies to address methylmercury move forward in an expedient fashion. If they require, as they should, dischargers to produce their plans on time and begin implementation ASAP, the Board has to act in the same fashion.</p> <p>5 years delay is 5 more years of people and wildlife dependent on mercury laden fish to be at risk. This was one of our initial problems with the 8 year time-line. We cannot accept further delay beyond that, esp. when we believe that in the interim there are known or very promising strategies to address methylmercury in the more immediate future.</p> <p>RB: The BPA specifies time frames for the Board's program review, see Line 33. If the Board does not conduct a review, it could be subject to lawsuits.</p>	
37.5	NEW LINE		<p><u>New line:</u></p> <p>RB: Staff added this text in response to comments made in Line 33.</p>	The Regional Water Board shall review this control program every 10 years after the Phase 1 Delta Mercury Control Program Review .
38	<p>Compliance Monitoring By January 2028, methylmercury dischargers assigned load and waste load allocations shall monitor methylmercury loads and concentrations and report to the Regional Water Board compliance towards meeting applicable load or waste load allocations. Dischargers shall report the results to the Regional Water Board by October 2029. The point of compliance for waste load allocations for point sources shall be effluent discharge. The points of compliance for non-point sources shall determined during the Control Studies.</p>	<p>WWTP: How could one accurately monitor MeHg sediments flux or from wetland systems? The last sentence could be deleted, unless there's some reasonable reason why compliance points would be different than those discussed in row 73.</p> <p>YCFWCWD: By January 2028, methylmercury dischargers assigned load and waste load allocations shall monitor methylmercury loads and concentrations and entities responsible for mercury and methylmercury monitoring shall report to the Regional Water Board compliance regarding progress towards meeting attaining applicable load allocations or and compliance with waste load allocations. Dischargers shall report the results to the Regional Water Board by October 2029. The points of compliance for waste load allocations</p>	<p>WWTP: There should be some provision that monitoring from all sources is reported. It seems as if there may not be the information needed if most sources do not have to report results of monitoring until 2029. Note that this comment is not intended to add monitoring requirements but to make sure that information is available and coordinated. CVCWA has supported a regional monitoring approach to further this. (D. Webster)</p> <p>YCFWCWD: This seems unduly restrictive. We could have a regional monitoring program in place, but this would require dischargers to monitor separately.</p> <p>Compliance is a black or white determination. "Compliance towards" doesn't make sense – should be progress towards compliance</p> <p>EPA: We suggest clarifying monitoring requirements prior to</p>	<p><u>Compliance Monitoring</u> Starting in 2022, entities responsible for meeting load and waste load allocations shall monitor methylmercury loads and concentrations and submit annual reports to the Regional Water Board. The points of compliance for waste load allocations for NPDES facilities shall be the effluent monitoring points described in individual NPDES permits. The points of compliance for MS4s required to conduct methylmercury monitoring are those locations described in the individual MS4 NPDES permits or otherwise determined to be representative of the MS4 service areas and approved by the Executive Officer on an MS4-specific basis. The points of compliance and monitoring</p>

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		<p>for point sources shall be effluent discharge. The points of compliance for non-point sources shall <u>be</u> determined during the Control Studies.</p>	<p>"compliance monitoring" (e.g., who will be responsible for monitoring what before January 2028).</p> <p>CWA: It would be disturbing to get to 2028 and find out that we were not making the progress we expected. We would advocate for annual monitoring to indicate progress toward reaching waste load allocations by specified date. In addition, while measuring effluent will be one mark of success, the total mercury leaving a source (point and non-point) can be more subject to methylation. This needs to be studied and accounted for. Would not fish tissue measurements need to be included in such a monitoring plan?</p> <p>RB: Staff attempted to edit the BPA language to address stakeholder comments.</p> <p>Line 73 contains fish monitoring locations. Waste load allocation monitoring needs to be at the discharge point. If a regional monitoring program (RMP) is developed, then there can be an integration of point and nonpoint monitoring efforts for receiving waters. The proposed program does not require individual nonpoint sources to conduct monitoring. The coordinated Phase 1 studies could further the development of an RMP that provides a reasonable and effective monitoring program. The RMP text was moved from line 68.</p>	<p>plans for non-point sources shall be determined during the Control Studies. Compliance with the load allocations for nonpoint sources and waste load allocations for MS4s may be documented by monitoring methylmercury loads at the compliance points or by quantifying the annual average methylmercury load reduced by implementing pollution prevention activities and source and treatment controls.</p> <p>Entities will be allowed to comply with their mercury receiving water monitoring requirements by participating in a regional monitoring program, when such a program is implemented.</p> <p>Chapter V, Surveillance and Monitoring, contains additional monitoring guidance.</p>
39	<p>Allocations and Requirements for State and Federal Agencies Open water allocations are assigned jointly to the State Lands Commission and the Department of Water Resources.</p>	<p>WWTP: Clarify that we are talking about the diffuse in-stream mercury sources in sediments, wetlands, etc. that contribute to the MeHg getting into Delta fish.</p>	<p>YCFCWCD: Note comment to paragraph 18.</p> <p>Open water needs to be more carefully defined in time and space.</p> <p>Seems like the Central Valley Flood Protection Board should be in this list.</p> <p>DWR: Why are there no federal or local agencies mentioned? (M. Kirkland)</p> <p>Shilling: The BPA should state clearly that licensed dams and reservoirs that contribute to methyl mercury in the Sacramento and San Joaquin rivers by providing methylation environments in the benthos will be allocated loads. The permits and licensing of these dams and reservoirs to control water and discharge water in and to the waters of California should hinge upon their mercury performance.</p>	<p><u>Allocations and Requirements for State and Federal Agencies</u> Open water allocations are assigned jointly to the State Lands Commission, the Department of Water Resources, and the Central Valley Flood Protection Board. Open water allocations apply to the methylmercury load that fluxes to the water column from sediments in open-water habitats within channels and floodplains in the Delta and Yolo Bypass.</p>

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			<p>RB: Staff edited the BPA text in Lines #39 and 40 to attempt to clarify open-water sources. The BPA assigns allocations jointly to the SLC, DWR, CVFPB, and the next line assigns responsibility for MeHg control studies and reductions to these and several other state and federal agencies. The Delta TMDL does not assign load allocations to specific upstream sources such as reservoir releases because contributions from upstream sources are included in the tributary inputs to the Delta and Yolo Bypass, which are assigned allocations. The upstream TMDLs will assign allocations to the individual methylmercury sources within the upstream watersheds, including reservoir releases. Methylmercury produced in open-water sediments contributes to the fish methylmercury impairment.</p>	
40	<p>Activities including changes to water management and storage in and upstream of the Delta, changes to salinity objectives, dredging and dredge materials disposal and reuse, and changes to flood conveyance flows are subject to the open water methylmercury allocations. Agencies responsible for these activities include Department of Water Resources, U.S. Bureau of Reclamation, and U.S. Army Corps of Engineers (USACE), and the State Water Resources Control Board. These agencies shall include requirements for projects under their authority to conduct Control Studies and implement methylmercury reductions as necessary to comply with the allocations by 2030. These agencies may participate in the coordinated Control Studies.</p>	<p>WWTP: Use “shall” rather than “may” in the last sentence.</p> <p>EPA: EPA recommends: <u>Discharges resulting from certain</u> activities including.... are subject to the open water methylmercury allocations. Agencies responsible for these activities <u>may</u> include... These agencies shall include requirements for projects under their authority to conduct Control Studies and implement methylmercury reductions as necessary to comply with the allocations <u>as soon as possible but no later than by 2030</u></p>	<p>YCFCWCD: Seems to be an implication of open water allocations being measured during low flows in delta channels. If that is the case, it should be stated. Large flood flows in the Yolo Bypass probably do not fit within the open water allocation. Certainly rare event (e.g. above the 25 year storm flow) probably do not contribute greatly to annual Hg exposure and in any event cannot be accurately measured to determine compliance with any waste discharge requirement. Recommend clarifying where and when the open water allocation applies.</p> <p>DWR: May not be able to link cause and effect because there are so many variables that effect water flow and water quality in the Delta and many of these variables will change all at the same time. (M. Kirkland)</p> <p>CWA: How will Reg. Board ensure that these agencies fulfill these obligations and what is the timeline? Needs to be said in BPA.</p> <p>CVFPB: The Central Valley Flood Protection Board feels that they may have been left off this list in error, as the CVFPB is later mentioned in the BPA. Also feel that tracking changes to so many different variables all at the same time is unfeasible and will not yield representative results. (D. Fua)</p> <p>RB: Any entity, public or private, is not required to participate in the coordinated studies. Staff recommends all entities participate in a comprehensive study approach to be the most effective, but the Board cannot compel state and federal agencies to do so. Entities not part of a coordinated</p>	<p>The transport and deposition of mercury-contaminated sediment and water management activities contribute to the Delta fish mercury impairment. State and Federal projects affect the transport of mercury and the production and transport of methylmercury. Activities 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 are subject to the open water methylmercury allocations. Agencies responsible for these activities in the Delta and Yolo Bypass include Department of Water Resources, State Lands Commission, Central Valley Flood Protection Board, U.S. Bureau of Reclamation, and U.S. Army Corps of Engineers (USACE), and the State Water Resources Control Board. These agencies shall include requirements for projects under their authority to conduct Control Studies and implement methylmercury reductions as necessary to comply with the allocations by 2030. These agencies may conduct their own coordinated Control Studies or may work with the other stakeholders in comprehensive, coordinated Control Studies.</p>

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			<p>study will still be required to address their MeHg contribution and should make their findings publicly available. The timeline for the agencies is the same as the other entities' timeline.</p> <p>Open water acreages were estimated using the 2006 National Wetland Inventory coverage for the Delta region (USFWS, 2006; see Figure 6.4 in the TMDL Report), which mapped riverine and flooded-island open water areas but did not include floodplain acreage that is not permanently inundated. This approach made sense given the TMDL period, water years 2000-2003, was a relatively dry episode. As described in Section 6.2.7 of the TMDL Report, we identified "methylmercury flux from floodplain sediments when floodplains are inundated" as a potential source, particularly in the Yolo Bypass. The Yolo Bypass typically floods in more than half of water years; for an average of two months every other year; complete inundation of the floodplain approximately doubles the wetted area of the Delta and is equivalent to about one-third the area of San Francisco and San Pablo Bay. During Phase 1, staff plans to update the TMDL to include data collected during wet years and will update the open-water allocation as necessary to reflect inputs from floodplain inundation within the Delta and Yolo Bypass.</p> <p>Staff agrees with the DWR and CVFPB comments that there are many variables that effect water flow and quality. Staff expects that a variety of study types may be needed to understand the interplay of different factors, e.g., field monitoring, laboratory sediment sulfate-amendment experiments, and use of a GIS-based watershed model that simulates hydrology plus the fate and transport of non-conservative compounds, such as the WARMF methylmercury water/fish model developed for the Lake Superior Basin, and WARMF models underway for flow, suspended sediment, organic carbon and dissolved oxygen in the Sacramento and San Joaquin Rivers.</p> <p>The compliance date for the reductions is 2030 and the state and federal agencies are assigned responsibility to reduce MeHg. Line 18 and subsequent lines provide the time schedule and milestones for the agencies.</p>	
41	The responsible parties should coordinate with wetland and agricultural landowners to characterize existing methylmercury	CWA: The responsible parties <u>shall</u> coordinate with wetland and agricultural landowners to characterize existing methylmercury	CFBF: For lands immersed for flood control, irrigated ag dischargers should not be held responsible to pay for the studies and control measures. le: the responsible party	The responsible agencies should coordinate with wetland and agricultural landowners to characterize existing methylmercury

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	<p>discharges to open waters from lands immersed by managed flood flows and develop methylmercury control measures to control the increase produced by project changes.</p>	<p>discharges to open waters from lands immersed by managed flood flows, <u>as well as with other dischargers who release methyl or total mercury into open waters</u> and develop methylmercury control measures to control the increase produced by project changes.</p> <p>DWR: The responsible parties should coordinate with wetland and agricultural landowners to characterize existing methylmercury discharges to open waters from lands immersed by managed flood flows and develop methylmercury control measures to control the increase produced by project changes. (M. List, N. Lerner)</p>	<p>(DWR for example) should bear the costs of such activities since they are using the lands for flood control. (K. Fisher)</p> <p>CWA: It is not clear to me what “to control the increase produced by project changes” means here. If changes in wetland and agricultural practices change, methylmercury control must be done to ensure there is not increase. There is no assimilative capacity to increase. Wouldn’t the landowners be responsible for this?</p> <p>DWR: The bypasses are natural features that historically received flood flows. Except for the Sacramento Weir, the weirs in the Sacramento River Flood Control Project are passive features that create an erosion resistant overflow into the bypasses and do control flows. Flowage easements in the bypasses are not held in the name of the Department of Water Resources and the Department has no authorization for controlling discharges from agricultural lands or wetlands. Depending upon the control actions instituted this could impact future flood control projects in the bypasses with consequences for public safety. (M. List, N. Lerner)</p> <p>DWR cannot ensure private entity cooperation. (M. Kirkland)</p> <p>CVFPB: CVFPB agrees with the statement from DWR above, and as the flowage easement holder in the bypasses and the Cache Creek Settling Basin, and feels that future control actions may have significant impacts on flood control projects’ completion, timing and funding and therefore has the possibility to impact public safety. (D. Fua)</p> <p>RB: As a non-point source, wetlands and irrigated agriculture are responsible for Control Studies and meeting the group subarea allocations for the net amount of MeHg produced and discharged by wetlands and agriculture. Those allocations do not include MeHg transported from wetlands and agricultural lands by flood flows in the Yolo Bypass.</p> <p>In addition, as noted in Line 41, the open water allocation for the Yolo Bypass subarea does not incorporate floodplain acreage that is not permanently inundated because the TMDL period, waters 2000-2003, was a relatively dry episode. However, during Phase 1 staff plans to update the TMDL to include recent data collected during wet years and</p>	<p>discharges to open waters from lands immersed by managed flood flows and develop methylmercury control measures.</p>

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			<p>will update the open-water allocation as necessary to reflect inputs from floodplain inundation within the Delta and Yolo Bypass.</p> <p>While the BPA does not require agencies to work with the private landowners, it would be more effective if stakeholders worked together to use recent CalFed study results about MeHg sources within the Yolo Bypass as a starting point and further evaluated how much and where MeHg is produced and possible controls to prevent its generation (including identifying the sources of the mercury in the sediment that gets methylated) and/or transported by flood flows. Key goals of such a control study would be to identify controls that would not negatively impact the function of existing or future flood control projects, slow down the completion of future projects, or otherwise negatively impact the current wetland functions and agricultural uses of the Yolo Bypass. Also, although Fremont Weir is a passive feature, it is a managed feature; DWR periodically dredges around the weir to restore flow capacity, and BDCP and others have discussed modifying the weir to increase the frequency and duration of spring flooding in the Yolo Bypass to improve aquatic habitat. The latter is an example of a type of activity that would need to be evaluated under CEQA for effects on flood protection, agricultural land use, and MeHg impairment, and could be evaluated as part of a MeHg control study.</p>	
42	<p>The State Lands Commission and Department of Water Resources shall conduct Control Studies and evaluate options to reduce methylmercury production in open waters under jurisdiction of the State Lands Commission. Evaluations shall include inorganic mercury reduction projects. Regional Water Board staff will work with these agencies in conducting these studies.</p>	<p>SLC: Change language to: "California State Lands Commission will comply with all aspects of its' legal obligations as funding is appropriated by the Legislature."</p> <p>Department of Water Resources- State Resources Control Board shall conduct Control Studies and evaluate options to reduce methylmercury production in open waters under jurisdiction of the State Lands Commission. Evaluations shall include inorganic mercury reduction projects. Regional Water Board staff will work with these agencies in conducting these studies. (M. List, N. Lerner)</p>	<p>YCFCWCD: Seems like CVFPB should be included</p> <p>CWA: Timeline? How enforced?</p> <p>DWR: The State Water Resources Control Board is responsible for water rights allocation and water quality for the State of California. The Department of Water Resources does not have authority for open water allocations as defined in the proposed Basin Plan Amendment (M. List, N. Lerner)</p> <p>RB: A schedule was added for the agencies to seek funding for the studies. The time line for the studies is the same schedule as the other Control Studies (starting with Line 18).</p> <p>The State Water Board is named on Line 40 as having responsibility to require projects under their authority to conduct Control Studies and reduce MeHg discharges. The</p>	<p>The State Lands Commission, Central Valley Flood Protection Board, and Department of Water Resources shall conduct Control Studies and evaluate options to reduce methylmercury production in open waters under jurisdiction of the State Lands Commission and floodplain areas inundated by managed flood flows. Evaluations shall include inorganic mercury reduction projects. By [three months after Effective Date] these agencies shall submit to the Legislature a budget proposal to fund Control Studies and mercury reduction actions. Regional Water Board staff will work with these agencies in conducting these studies and evaluating potential mercury reduction actions.</p>

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			State Water Board does not own or operate the projects that manage water.	
43	For development projects requiring Clean Water Act Section 404 permits that involve compensatory and/or mitigation wetlands, the USACE, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration (NOAA) Fisheries, and California Department of Fish and Game shall ensure that replacement wetland projects comply with the subarea allocations for wetlands in the Delta and Yolo Bypass.	<p>WWTP: These entities should be required to perform control studies that can be evaluated to assess the feasibility of controls on MeHg, just like other sources.</p> <p>YCFWCWD: For development projects requiring Clean Water Act Section 404 permits that involve compensatory and/or mitigation wetlands, the USACE, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration (NOAA) Fisheries, and California Department of Fish and Game shall ensure that replacement wetland projects comply with the subarea allocations for wetlands in the <u>Central Delta, West Delta, and Yolo Bypass in Table A.</u></p> <p>DFG: For development projects requiring Clean Water Act Section 404 permits that involve compensatory and/or mitigation wetlands, the USACE, U.S. Fish and Wildlife Service, and and National Oceanic and Atmospheric Administration (NOAA) Fisheries, and California Department of Fish and Game shall ensure that replacement wetland projects comply with the subarea allocations for wetlands in the Delta and Yolo Bypass. (C. Dibble/T. Stevens--DFG)</p>	<p>WWTP: How could these entities possibly ensure compliance? What if they can't ensure compliance? Or if they say they can but in fact can't?</p> <p>YCFWCWD: This does not allow any balancing between mitigation and Hg exposure. Seems like there should be some opportunity for over-riding considerations, otherwise the Hg program could be subject to ESA compliance for species dependent on wetlands (e.g. the requirement to impose Hg controls at any cost could cause harm or injury to a listed species). And as far as I can tell, there is no effort to engage in consultation on this program.</p> <p>This sets up some double standards. Compensatory or mitigation wetlands must comply. Restoration is not included. Is that the intent? If so, how does the DWR advanced mitigation program, or more generally, mitigation banking fit in. In these cases there is restoration until a time when the area is assigned a mitigation requirement. So it would switch character at some point. Or would it be considered mitigation from the outset?</p> <p>The term "development projects" is not defined and could be limited to expanding urban development, but could also include developing floodways for conveyance, or water supply systems. The intent needs to be clarified to understand how the requirement works.</p> <p>DWR: How will the agencies ensure that replacement wetland projects comply? There are no teeth to this if monitoring is not a requirement. (M. Kirkland)</p> <p>DFG: The Department of Fish and Game (Department) has jurisdiction under Fish and Game Code, for example Section 1600 et seq. to review and condition, for impacts to fish and wildlife resources, projects that may impact bed and bank of streams, lakes, and some, but not all, wetlands. At this point it is unclear exactly how and whether the Department would and should be required to ensure ("shall ensure") that development project mitigation wetlands comply with methyl-mercury allocations under federal or State water quality laws. (T. Stevens/C. Dibble--DFG)</p> <p>EPA: Please clarify whether this is intended to include</p>	Agencies that fund or implement new wetland, floodplain, and other aquatic habitat restoration and enhancement projects, including but not limited to USACE, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fisheries, U.S. Environmental Protection Agency, California Department of Water Resources, and California Department of Fish and Game, shall require that projects comply with all applicable requirements of this program, including conducting or participating in Control Studies and complying with allocations.

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			<p>wetlands development through the BDCP.</p> <p>RB: Line 43 has been edited to require state and federal agencies to comply with study and allocation requirements for wetland projects. Compliance with the BPA and monitoring could be required by Clean Water Act 401 Water Quality Certification conditions, 13267 Orders, and other means. Monitoring plans need to be developed as part of the Phase 1 studies.</p>	
44	<p>Dredging and Dredge Material Reuse The following requirements apply to dredge projects in the Delta where a Clean Water Act 401 Water Quality Certification or other waste discharge requirements are required. The Clean Water Act 401 Water Quality Certifications shall include the following conditions:</p>		<p>CFBF: Statutory delta? Primary zone? Secondary zone? (K. Fisher)</p> <p>DWR: There should be an exemption for small projects. (M. Kirkland)</p> <p>RB: These requirements apply to the statutory Delta and Yolo Bypass north of the Delta. The comment regarding an exemption for small project is addressed in Line 45.</p>	<p><i>Dredging and Dredge Material Reuse</i> The following requirements apply to dredge projects in the Delta and Yolo Bypass where a Clean Water Act 401 Water Quality Certification or other waste discharge requirements are required. The Clean Water Act 401 Water Quality Certifications shall include the following conditions:</p>
45	<p>1. Dredging activities and activities that reuse dredge material in the Delta should minimize increases in methyl and total mercury discharges to Delta waterways (Appendix 43). Proponents shall conduct studies to evaluate methylmercury and mercury discharges from dredging and dredge material reuse, and develop and evaluate management practices to minimize increases in methyl and total mercury discharges. The proponents may submit a comprehensive study plan rather than conduct studies for individual projects.</p>	<p>EPA: EPA recommends: Dredging activities and activities that reuse dredge material in the Delta shall should minimize increases in methyl and total mercury discharges to Delta waterways (Appendix 43).</p>	<p>EPA: We prefer the Feb 2008 version.</p> <p>CWA: Need to repeat timelines, approval process, and enforcement for non compliance in this section</p> <p>DWR: There should be an exemption for small projects. (M. Kirkland)</p> <p>CVFPB: CVFPB agrees with the statement above from M. Kirkland, as future flood control modifications, maintenance, and improvements need to be made in the essence of public safety, these operations should not be held up further by required additional time consuming studies prior to work. (D. Fua)</p> <p>RB: Project proponents can develop an exemption list for small projects as part of a comprehensive study plan. A schedule was added for the Control Studies.</p>	<p>1. Dredging activities and activities that reuse dredge material in the Delta should minimize increases in methyl and total mercury discharges to Delta waterways (Appendix 43).</p> <p>By [two years from Effective Date] project proponents shall submit a study workplan(s) to evaluate methylmercury and mercury discharges from dredging and dredge material reuse, and to develop and evaluate management practices to minimize increases in methyl and total mercury discharges. The proponents may submit a comprehensive study workplan rather than conduct studies for individual projects. The comprehensive workplan may include exemptions for small projects. Upon Executive Officer approval, the plan shall be implemented.</p> <p>By [seven years after the Effective Date], final reports that present the results and</p>

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				descriptions of mercury and methylmercury control management practices shall be submitted to the Regional Water Board.
46	2. Employ management practices during and after dredging activities to minimize sediment releases into the water column.		<p>YCFWCDC: The previous requirement in paragraph covers Hg. This sediment limit only constrains the options. Suggest deleting it.</p> <p>CWA: Need to repeat timelines, approval process, and enforcement for non compliance in this section.</p> <p>RB: Turbidity control is an existing Basin Plan requirement. Although it may be redundant, this recognizes sediment control is important and ensures it will continue to be included in permits.</p>	2. Employ management practices during and after dredging activities to minimize sediment releases into the water column.
47	3. Characterize total mercury load and concentration of material removed from Delta waterways (Appendix 43) by dredging activities.			3. Characterize total mercury load and concentration of material removed from Delta waterways (Appendix 43) by dredging activities.
48	4. When approved dredge material disposal sites are utilized to settle out solids and return waters are discharged into the adjacent surface water, the goal is to ensure that return flows do not have methylmercury concentrations greater than the receiving water concentration. The project proponent shall conduct monitoring and conduct or cause to be conducted studies to evaluate management practices to minimize methylmercury in return flows.	<p>EPA: EPA recommends: When approved dredge material disposal sites are utilized to settle out solids and return waters are discharged into the adjacent surface water, the goal is to ensure that return flows do not have methylmercury concentrations greater than the receiving water concentration.</p> <p>CWA: 4. When approved dredge material disposal sites are utilized to settle out solids and return waters are discharged into the adjacent surface water, the goal is to ensure that return flows do not have methylmercury concentrations greater than the receiving water concentration. The project proponent shall conduct monitoring and conduct or cause to be conducted studies to evaluate management practices to minimize methylmercury in return flows and at dredge sites where elemental mercury may become activated in order to meet wasteload allocations.</p>	<p>EPA: We prefer the Feb 2008 version.</p> <p>CWA: Again, there is no assimilative capacity so over the study period, dredgers should be investigating how to stop the release of water that has methyl and total mercury in it. At minimum, they must meet a wasteload allocation that drives reductions in mercury entering the water. Furthermore control studies need to be done at the sites where sediment is dredged to guard against increased methylation in the remaining sediment due to stirring up and activating the elemental mercury left behind.</p> <p>Shilling: This should read as a requirement that concentrations not be greater and that mercury and methylmercury are both kept at existing concentrations, not just methylmercury.</p> <p>RB: During Phase 1, all dischargers need to develop methods to control MeHg. Implementation of the methods will occur in Phase 2. While the Phase 1 goal is to minimize MeHg discharges, there is not a requirement to do this since it is not known how to reduce MeHg. Studies are being conducted now to determine how holding the dredge-water effects MeHg in the discharge. Dredging removes inorganic</p>	4. When approved dredge material disposal sites are utilized to settle out solids and return waters are discharged into the adjacent surface water, the goal is to ensure that return flows do not have methylmercury concentrations greater than the receiving water concentration. The project proponent shall conduct monitoring and conduct or cause to be conducted studies to evaluate management practices to minimize methylmercury in return flows.

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			mercury, and the settling ponds are effective at reducing inorganic mercury discharges back into surface water as long as turbidity levels are low (thus in Line 46 a requirement (#2) to minimize sediment releases, as inorganic mercury is attached to sediment).	
49	5. Ensure that dredged material reused at upland sites, including the tops and dry-side of levees, is protected from erosion into open waters under normal operational circumstances.	<p>YCFCWCD: 6. Ensure that <u>under normal operational circumstances</u>, dredged material reused at upland sites, including the tops and dry-side of levees, is protected from erosion into open waters</p> <hr/> <p>EPA: EPA recommends: Ensure that dredged material reused at upland sites, including the tops and dry-side of levees, is protected from erosion into open waters <u>under normal operational circumstances</u>.</p>	<p>YCFCWCD: clarifies</p> <hr/> <p>EPA: We prefer the Feb 2008 version; at a minimum, any limiting language should include assurances against erosion in winter weather conditions, in addition to "normal operational circumstances."</p> <hr/> <p>RB: Edits made.</p>	5. Ensure that under normal operational circumstances, including protection from wet weather, dredged material reused at upland sites, including the tops and dry-side of levees, is protected from erosion into open waters.
50	6. A goal is to ensure that reuse of dredge material at aquatic locations, such as wetland and riparian habitat restoration sites, does not result in a net increase in methylmercury discharges from the sites. Projects that propose to dispose dredge material to aquatic sites shall conduct monitoring and, if monitoring shows methylmercury increases due to the project, conduct or cause to be conducted studies to evaluate management practices to minimize the methylmercury discharges. The results of the management practices studies should be applied to future projects.	<p>EPA: EPA recommends: A goal is to Ensure that reuse of dredge material at aquatic locations, such as wetland and riparian habitat restoration sites, does not result in a net increase in methylmercury discharges from the sites.</p>	<p>EPA: We prefer the Feb 2008 version.</p> <hr/> <p>CWA: Again, need a timeline and enforcement description</p> <hr/> <p>MS4: Should all the references to methylmercury include total mercury?</p> <hr/> <p>RB: The reuse of dredge material is part of the comprehensive plan requirement (requirement #1, line 45).</p> <p>During Phase 1, dredgers will need to develop BMPs to control MeHg. Implementation of the BMPs will occur in Phase 2. While the Phase 1 goal is to minimize MeHg discharges, there is not a requirement to do since it is not yet known how to control MeHg.</p> <p>Mercury was added as a component that needs to be evaluated at a disposal site.</p>	6. A goal is to ensure that reuse of dredge material at aquatic locations, such as wetland and riparian habitat restoration sites, does not add mercury-enriched sediment or water to a site or otherwise result in a net increase in methylmercury discharges from the site. Projects that propose to dispose dredge material to aquatic sites shall conduct mercury and methylmercury monitoring and, if monitoring shows methylmercury increases due to the project, proponents shall conduct or cause to be conducted studies to evaluate management practices to minimize the methylmercury discharges. The results of the management practices studies should be applied to future projects.
51	Cache Creek Settling Basin Improvement Plan and Schedule DWR, Central Valley Flood Protection Board,	YCFCWCD: DWR, Central Valley Flood Protection Board, and USACE, in conjunction with <u>any interested</u> landowners and other	YCFCWCD: Should stay focused on Hg. Sediment may not be 1:1 relationship. Sediment is also outside the focus of the TMDL. Removing ref to sediment provides greater options	<i>Cache Creek Settling Basin Improvement Plan and Schedule</i> DWR, Central Valley Flood Protection Board,

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	<p>and USACE, in conjunction with landowners and other stakeholders, shall develop a coordinated plan and schedule for management of mercury-contaminated sediment in the Cache Creek Settling Basin, including plans to implement improvements for decreasing total mercury discharges from the Cache Creek Settling Basin by [seven years after the effective date of this amendment].</p>	<p>stakeholders, shall develop a coordinated plan and schedule for management of mercury-contaminated sediment in <u>or discharged from</u> the Cache Creek Settling Basin, including plans to implement improvements for decreasing total mercury discharges from the Cache Creek Settling Basin by [seven years after the effective date of this amendment].</p> <p>EPA: We recommend: ... improvements for decreasing total mercury discharges from the Cache Creek Settling Basin <i>as soon as possible but no later than</i> by [seven years after the effective date of this amendment].</p> <p>DWR: DWR, Central Valley Flood Protection Board, and USACE, in conjunction with landowners and other stakeholders, shall develop a coordinated plan and schedule for management of mercury-contaminated sediment in the Cache Creek Settling Basin, including plans to implement improvements for decreasing total mercury discharges from the Cache Creek Settling Basin by <u>[seven years after the effective date of this amendment]</u>December 31, 2018 or following <u>Congressional authorization to modify the Cache Creek Settling Basin</u>. (M. List, N. Lerner)</p>	<p>for management.</p> <p>CWA: How will Reg. Board ensure this moves forward and is implemented?</p> <p>DWR: The Department of Water Resources understands the concern with mercury in the Cache Creek watershed and is cooperating by evaluating the speciation, distribution, and transport of mercury through the Cache Creek Settling Basin. Once the Mercury Control Studies are completed, appropriate and feasible control actions can be identified. For this reason we are striking the focus on control of sediments. The December 31, 2018 date is inserted because that is the date cited in the Operations & Maintenance Manual by which the weir will be raised to maintain a 30% to 50% capture efficiency. Because the Settling Basin is a feature of the Sacramento River Flood Protection Project, modifications to the Settling Basin require Corps approval and depending on what is proposed, Congressional authorization. Whatever is selected as a control action must take into consideration that the Cache Creek Settling Basin is an important feature in the Sacramento River Flood Protection Project which is vital to public safety. Changes to the Basin's operations must also not limit options for providing flood protection to the local residents. (M. List, N. Lerner)</p> <p>Shilling: It should be explicit that stakeholders include the communities impacted by releases from this facility and the potential role of this facility's operation to significantly reduce mercury inputs to the Delta. Their role should be at least 50% of the decision-making body.</p> <p>CVFPB: (For #51 and 53) CVFPB agrees with the statement above from DWR regarding feasibility for increasing the capture efficiency of the Settling Basin and timing requirements that pertain directly to the Settling Basin's improvements. Public safety needs to be paramount, but the CVFPB agrees that work to be done should consider and follow Basin Plan guidelines. Flood flows and public safety cannot be impacted and governed by mercury load/concentration and a process needs to be established to make sure both important issues are addressed. Putting an exact percentage is unreasonable without further studies. How will upstream stakeholders be held responsible for assistance in the funding of any possible improvements</p>	<p>and USACE, in conjunction with any interested landowners and other stakeholders, shall implement a plan for management of mercury in or discharged from the Cache Creek Settling Basin, including improvements for decreasing total mercury discharges from the Cache Creek Settling Basin, by 21 December 2018, or following Congressional authorization to modify the Cache Creek Settling Basin.</p> <p>1. By [one year after Effective Date] the agencies shall take all necessary actions to initiate the process for Congressional authorization to modify the Basin, including coordinating with the USACE.</p>

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			<p>made to the Settling Basin in the future. (D. Fua)</p> <p>RB: The following BPA lines contain milestones and schedules to ensure the settling basin requirements are complied with. The plan development milestones were moved to Line 52. DWR may be referring to its own Cache Creek Settling Basin studies that are currently underway and not the same as the Control Studies referenced in the BPA.</p>	
52	<p>1. By [two years after the effective date of this amendment], the agencies shall develop a strategy to reduce total mercury discharged from the Basin and to provide long-term maintenance of the Basin. The strategy shall include implementation schedules and evaluate funding options. The agencies shall work with the landowners within the Basin and local communities affected by Basin improvements.</p>	<p>YCFCWCD: 2. By [two years after the effective date of this amendment], the agencies shall develop a strategy to reduce total mercury discharged from the Basin and to provide long-term maintenance of the Basin over the next 20 years and within one additional year <u>determine the long term environmental benefits and costs of sustaining the basin indefinitely.</u> The strategy shall include implementation schedules and evaluate funding options. The agencies shall work with the landowners within the Basin and local communities affected by Basin improvements.</p> <p>EPA: We recommend: As soon as possible but no later than [two years after the effective date of this amendment]...</p> <p>DWR: By [two four years after the effective date of this amendment] <u>submittal of the Mercury Control Studies Implementation Workplan</u>], the agencies shall develop a strategy to reduce total mercury discharged from the Basin and to provide long-term maintenance of the Basin. The strategy shall include implementation schedules and evaluate funding options. The agencies shall work with the landowners within the Basin and local communities affected by Basin improvements.(M. List, N. Lerner)</p>	<p>YCFCWCD: Long term maintenance is a huge issue where the Hg impacts must be weighed against other environmental impacts, for example impacts of carbon emissions. At best the basin is a medium term feature and obstructs the natural flow of Cache Cr, causing inherent environmental damage. The necessity of the basin should be considered in any long term strategy as well as the costs of sustaining it, in light of benefits it provides.</p> <p>CWA: See next box below</p> <p>DWR: No control actions can reasonably be completed prior to completing the Mercury Control Studies required in the BPA. The proposed extension allows for completion of the control study, and provides time to evaluate control study results and formulate feasible control actions.(M. List, N. Lerner) (D Fua)</p> <p>RB: There is disagreement among the stakeholders about time lines for these activities. DWR is constrained by budget and workload priorities. This needs further discussion in the stakeholder meetings.</p> <p>This task requires development of a strategic plan for basin maintenance and improvements and to look into funding options. It does not require implementation of management practices and is not dependent on downstream mercury Control studies.</p>	<p>2. By [two years after the Effective Date], the agencies shall develop a strategy to reduce total mercury discharged from the Basin for the next 20 years. The strategy shall include implementation schedules and an evaluation of funding options. The agencies shall work with the landowners within the Basin and local communities affected by Basin improvements.</p> <p>3. By [three years after the Effective Date], the agencies shall submit a report describing the long term environmental benefits and costs of sustaining the Basin's mercury trapping abilities indefinitely.</p>
53	<p>2. By [three years after the effective date of this amendment], the agencies shall submit a detailed plan for improvements to the Basin to increase its sediment and</p>	<p>YCFCWCD: 4. By [three years after the effective date of this amendment], the agencies shall submit a detailed plan for improvements to the Basin to increase its</p>	<p>YCFCWCD: See note to paragraph 51. Actual trapping efficiency of Hg is likely flow dependent. 75% trapping efficiency is taken from Corps sediment estimates, but there is no indication the basin ever achieved this level of</p>	<p>4. By [two years after the Effective Date], the agencies shall submit a report that evaluates the trapping efficiency of the Cache Creek Settling Basin and proposes,</p>

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	<p>mercury mass trapping efficiency to 75%.</p>	<p>sediment and mercury mass trapping efficiency to 75% for flows up to 30,000 cubic feet per second (cfs). <u>Cache Creek flows in excess of 30,000 cfs are not subject to the tributary load allocation in Table A, the Cache Creek Settling Basin load allocation in Table D, or this trapping efficiency requirement.</u></p> <p>EPA: Same as above.</p> <p>DWR: By [three years after the effective date of this amendment]December 31, 2018 or following Congressional authorization to modify the Cache Creek Settling Basin , the agencies shall submit a detailed plan for improvements to the Basin to increase its sediment and mercury mass trapping efficiency, to 75%. <u>The target trapping efficiency will be based on the results of the Mercury Control Study completed for the Cache Creek Settling Basin. The control study will include a recommendation for feasible control action(s) that reduce mercury loads released from the Basin. (M. List, N. Lerner)</u></p>	<p>sediment containment. Hg trapping estimate should be part of initial study. If RB wants to set target for improvement, then requirement should be, for example, 25% increase in Hg trapping efficiency, but not a fixed absolute efficiency.</p> <p>Cache Cr channel limits flows to the settling basin. Flows above design flow spill out of channel and do not make it through to the Yolo Bypass. A flood bypass is being considered that would channel some of these overbank waters back to the bypass. However these flood events seldom occur and would carry water dilute in Hg so would have a negligible impact on Hg exposure on an annualized basis. Even during these events, >30,000 cfs continues to flow through the settling basin and the trapping characteristics of the basin would be in effect, but at less than design efficiency. An analysis of these hydraulic conditions is underway.</p> <p><u>Footnote D: Table A. Add footnote to Tributary Inputs category: This allocation does not pertain to flows in excess of 30,000cfs in Cache Cr.</u></p> <p><u>Footnote C: Table D. Added to Cache Creek Settling Basin allocation: This allocation does not pertain to flows in excess of 30,000 cfs in Cache Creek</u></p> <p>CWA: It is unclear whether this is 3 years after the BPA goes into effect and thus 1 year after step 1 (Point #52) or 3 years after the strategy is developed (Point 52). If it is the latter, this means a 5 year timeline, which we believe is too long. Our recommendation is that since developing a strategy and planning it should go hand in hand, these requirements should be combined with a 3 year timeline.</p> <p>DWR: The USACE design sediment trap efficiency for the Cache Creek Settling Basin is 30 to 50%. Even with the potential of a weir raise at year 25 (2018), the envisioned trap efficiency would not be greater than 50%. A 75% trap efficiency is unreasonable and likely unattainable. Additionally, it is unclear how the requirement for the 75% trap efficiency was derived. There is no evidence that increasing trap efficiency to 75% will directly correlate to a reduction of mercury from the basin. The results of the Mercury Control Studies are required prior to selecting any potentially feasible alternatives for mercury reduction at CCSB because the speciation, transport, and distribution of mercury in its various forms is unknown at this time.</p>	<p>evaluates, and recommends potentially feasible alternative(s) for mercury reduction from the Basin. The report shall evaluate the feasibility of increasing the trapping efficiency by 50% in addition to other trapping efficiencies.</p> <p>5. By [<u>TBD</u> years after Effective Date], the agencies shall submit a detailed plan for improvements to the Basin to increase its sediment and mercury mass trapping efficiency.</p>

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			<p>Whatever is selected as a control action must take into consideration that the Cache Creek Settling Basin is an important feature in the Sacramento River Flood Protection Project which is vital to public safety. Changes to the Basin's operations must also not limit options for providing flood protection to the local residents. (M. List, N. Lerner) (M. Kirkland)</p> <p>CVFPB: CVFPB agrees with the above comment, with additional reference to the comment made by CVFPB in No. 51. (D. Fua)</p> <p>RB: Section 4.3.6 of the BPA Staff Report describes how staff used results from a 2004-2007 CDM modeling effort funded by the California Bay-Delta Authority to develop the total mercury reduction goal. The modeling results indicated that the combination of excavating the Basin and raising the weir early would increase the trapping efficiency from 64% to 75%. Board staff needs to meet with DWR and YCFCWCD staff to work through the modeling results and determine how best to incorporate improvement targets.</p> <p>The tributary input allocations in Tables A and D are for methylmercury, not total mercury. Staff is uncertain how to apply YCFCWCD's concern about flows >30,000 cfs to the methylmercury allocation for the Basin and needs additional information from YCFCWCD.</p> <p>A proposed revision to the BPA is to require DWR to submit a report evaluating existing conditions and options to improve the basin. There is disagreement among the stakeholders about time lines for these activities. DWR is constrained by budget and workload priorities. This needs further discussion in the stakeholder meetings.</p>	
54	3. By [five years after the effective date of this amendment], the agencies shall initiate control actions to reduce total mercury loads from the Cache Creek Settling Basin and complete project improvements by [seven years after the effective date of this amendment].	<p>EPA: Same as above.</p> <p>CWA: 3. By [three years after the effective date of this amendment], the agencies shall initiate control actions to reduce total mercury loads from the Cache Creek Settling Basin and complete project improvements by [seven years after the effective date of this amendment].</p> <p>DWR: By [five years after the effective date of</p>	<p>CWA: See above</p> <p>DWR: This date is more appropriately tied to submission of the detailed plan for implementing control actions which can only be determined once the mercury control study for the Settling Basin is completed. Until the study is completed, the most appropriate and feasible control action cannot be determined. The timetable as it exists in the current version of the BPA assumes that a weir raise will be implemented as a control action, which may not be the case. (M. List, N. Lerner) (M. Kirkland) (D. Fua)</p>	6. By [_____], the agencies shall initiate management practices to reduce total mercury loads discharged by the Cache Creek Settling Basin and complete project improvements by [seven years after the effective date of this amendment _____].

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		<p>this amendment, two years after submission of <u>a detailed plan</u>, the agencies shall initiate control actions to reduce total mercury loads from the Cache Creek Settling Basin and complete project improvements by seven-two years after <u>initiation of the control action</u>the effective date of this amendment. (M. List, N. Lerner)</p>	<p>RB: staff needs to work with DWR and stakeholders on the schedule for basin improvements.</p>	
55	<p>The agencies shall submit the strategy and planning documents described above to the Regional Water Board for approval by the Executive Officer.</p>		<p>CWA: What happens if the plan is not adequate and thus not approved? Is there a check in with the Exec Officer along the way to ensure this doesn't happen. What are the ramifications for the agencies if implementation is delayed due to an inadequate plan? These sorts of details do need to be addressed to ensure timely progress.</p> <p>RB: If plans are not acceptable, the agencies will have to revise and resubmit the plans.</p>	<p>The agencies shall submit the strategy and planning documents described above to the Regional Water Board for approval by the Executive Officer.</p>
55.5	NEW LINE		<p><u>New line:</u></p> <p>RB: The text to the right (except the schedule) was in the February 2008 BPA and was unintentionally left out of the revised BPA released in July 2009.</p>	<p><i>Tributary Watersheds</i> Table D identifies methylmercury allocations for tributary inputs to the Delta and Yolo Bypass.</p> <p>The sum total of 20-year average total mercury loads from the American River, Putah Creek, and Feather River needs to be reduced by 32 kg/yr, from 103 to 71 kg/yr.</p> <p>Future mercury control programs for tributary watersheds shall implement the methylmercury allocations and total mercury load reductions. Additional methylmercury and total mercury load reductions may be required to accomplish future water quality objectives to be established for those watersheds.</p> <p>Development of mercury control programs shall be completed for tributary inputs to the Delta by the following dates: <u>2012</u>: American River; <u>2016</u>: Feather, Sacramento, San Joaquin, and Mokelumne Rivers, and Marsh and Putah Creeks; and</p>

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				<u>2017</u> : Cosumnes River and Morrison Creek.
56	<p>Recommendations for State and Federal Agencies USEPA, the State Water Board, and the Air Resources Board should develop a memorandum of understanding to conduct studies to evaluate local and statewide mercury air emissions and deposition patterns and to develop a load reduction program(s).</p>		<p>CWA: We agree, but in the meantime, Reg. Board should reach out to Air Board to coordinate necessary monitoring/study. Such proposed action should be memorialized in this BPA. How can we help to connect with the Air Board on this issue?</p> <p>MS4: To equalize the burdens of the TMDL requirements, State and Federal Agencies should be <u>required</u> to complete the Phase I study within the same time frame as required for the dischargers. A MOU recommendation does not seem to place the State and Federal agencies in the equal share of the responsibility.</p> <p>RB: Recent information has shown that many California lakes have fish with elevated mercury levels. The Water Boards need to work with the Air Resources Board to determine the relative contribution of atmospheric sources to watersheds. The State Water Board does not have direct authority on air emissions; therefore staff is recommending that the agencies enter into formal agreements to start evaluating local and statewide air sources and reduction programs.</p>	<p><u>Recommendations for State and Federal Agencies</u> USEPA and the California Air Resources Board should work with the State Water Board to evaluate local and statewide mercury air emissions and deposition patterns and to develop a load reduction program(s).</p>
57	<p>The State Water Board should consider requiring methylmercury controls for new water management activities that are expected to increase ambient methylmercury levels as a condition of approval of any water right action required to implement the project. The State Water Board Division of Water Rights should consider requiring the evaluation and implementation of feasible management practices to reduce or, at a minimum, prevent methylmercury ambient levels from increasing from changes to water management activities and flood conveyance projects. The State Water Board should 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.</p>		<p>CFBF: What is considered a “new water management activity”? (K. Fisher)</p> <p>DWR: Concerned that new controls must not render already highly constrained system nonfunctional. (M. Kirkland)</p> <p>CVFPB: Must not impact the timeframe or feasibility of improvements that must be made to the flood control system to ensure public safety. (D. Fua)</p> <p>RB: New water management activities include but are not limited to changes to water management and storage in and upstream of the Delta, changes to salinity objectives, and changes to flood conveyance flows. At this time the controls are unknown, so it is known if or how methylmercury controls will impact other water management activities. The Phase 1 studies will evaluate the feasibility and the effects of methylmercury controls.</p>	<p>The State Water Board should consider requiring methylmercury controls for new water management activities that are expected to increase ambient methylmercury levels as a condition of approval of any water right action required to implement the project. The State Water Board Division of Water Rights should consider requiring the evaluation and implementation of feasible management practices to reduce or, at a minimum, prevent methylmercury ambient levels from increasing from changes to water management activities and flood conveyance projects. The State Water Board should consider funding or conducting studies to develop and evaluate management practices to reduce methylmercury production resulting from existing water management activities or</p>

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				flood conveyance projects.
58	During future reviews of the salinity objectives contained in the Bay-Delta Plan, the State Water Board Division of Water Rights should consider conducting studies to determine if methylmercury production in the Bay-Delta is a function of sulfate concentrations. Furthermore, the State Water Board should consider the results of these studies in evaluating changes to the salinity objectives.	WWTP: Change “should consider” to “shall” in both sentences.	<p>WWTP: These are large-scale actions that need to be considered for Phase 2.</p> <p>CWA: When are future reviews of salinity expected so there is a sense of the appropriate timing of such action?</p> <p>RB: These are recommendations for the State Water Board to consider if changes are proposed to the salinity objectives in the Bay-Delta Plan. The Bay-Delta Plan is reviewed every three years. The State Water Board could consider requiring project proponents requesting changes to the salinity objectives to conduct the methylmercury studies.</p>	During future reviews of the salinity objectives contained in the Bay-Delta Plan, the State Water Board Division of Water Rights should consider conducting studies to determine if methylmercury production in the Bay-Delta is a function of sulfate concentrations. Furthermore, the State Water Board should consider the results of these studies in evaluating changes to the salinity objectives.
59	The State should establish the means to fund a portion of the mercury control projects in the Delta and upstream watersheds.		<p>WWTP: The BPA requires sources to do control studies.</p> <p>CFBF: Yes. Funding sources should be elaborated, as well as the state’s responsibility and contribution to funding. (K. Fisher)</p> <p>CWA: We recommend making this more explicit as to which projects or types of projects that the State Board should fund. This is useful to allay concerns that such funding could be used to inappropriately subsidize responsible parties. In addition, given the State Board’s budget constraints, such information would be necessary so that stakeholders can advocate at the state level and even in the legislature for the needed funds.</p> <p>DWR: Very important or else its an unfunded mandate. (M. Kirkland)</p> <p>RB: This BPA language is a recommendation that the State of California should be requested to fund projects for control of legacy mercury in open waters. In addition, staff added new text to Line 42 requiring State agencies to submit to the Legislature a budget proposal to fund Control Studies and mercury reduction actions.</p>	The State of California should establish the means to fund a portion of the mercury control projects in the Delta and upstream watersheds.
60	Other Recommendations Watershed stakeholders are encouraged to identify total mercury and methylmercury reduction projects, and propose and conduct projects to reduce upstream non-point sources of methylmercury and total mercury.		<p>CFBF: Grant monies should be available to those non-point source dischargers currently targeted in the tmdl. (K. Fisher)</p> <p>RB: This recommendation is intended to focus grants on non-point source mercury reduction projects.</p>	Other Recommendations Watershed stakeholders are encouraged to identify total mercury and methylmercury reduction projects and propose and conduct projects to reduce upstream non-point

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	The Regional Water Board recommends that state and federal grant programs give priority to projects that reduce upstream non-point sources of methylmercury and total mercury.			sources of methylmercury and total mercury. The Regional Water Board recommends that state and federal grant programs give priority to projects that reduce upstream non-point sources of methylmercury and total mercury.
61	The Regional Water Board recommends that dischargers subject to supplemental environmental projects direct a portion of the penalties towards total mercury and methylmercury reduction projects and exposure reduction projects in their watersheds.	WWTP: Rephrase as follows: “ The Regional Water Board recommends that dischargers subject to supplemental environmental projects <u>may direct a portion of the imposed administrative civil liabilities</u> penalties towards total mercury and methylmercury reduction projects and exposure reduction projects in their watersheds, <u>consistent with supplemental environmental project policies.</u> ”	WWTP: Discharges may be subject to <i>penalties</i> , which could be used to fund SEPs. SEPs cannot be used to fund already-required activities such as exposure reduction projects [assuming the requirement remains]. YCFWCWD: Another reason to get the broad stakeholder interests in the BPA text RB: Edits made.	Dischargers may direct imposed administrative civil liabilities towards total mercury and methylmercury reduction projects in their watersheds, consistent with supplemental environmental project policies.
62	Pilot Mercury Offset Program and Early Implementation of Total Mercury Reduction Efforts <i>[Additional language pending stakeholder offsets workgroup discussion.]</i> Regional Water Board staff shall work with stakeholders to develop guidance for a mercury offset pilot program by [two years after the effective date of this amendment].		WWTP: This language seems to put offsets on the back burner, which creates no incentive for early implementation of projects (Principle #7). DFG: The Department has done much work in regards to monitoring mercury and in preliminary development of management tools. The Department is very interested in working with Water Board staff in the development of an offset program and will provide comments to this section as additional language is developed. (C. Dibble/T. Stevens—DFG) Shilling: Currently, community organizations are only marginally and occasionally included in any discussions of the TMDL and possible remedial actions. Until the stakeholder condition is satisfied by including community organizations to at least half of the stakeholder membership, this process is not valid. This is also true of the TMDL “stakeholder process”. The real stakeholder audience has a critical role in deciding on offsets both conceptually and in design and implementation. RB: The language presented here is preliminary. Stakeholders have not had substantial discussion on criteria and boundaries for an offset program and projects. Dischargers have proposed BPA text for offsets that RB staff could have used, but non-discharger stakeholders also need a voice in development of the offset program. As noted, there needs to be community organization	<u>Pilot Mercury Offset Program and Early Implementation of Total Mercury Reduction Efforts</u> <i>[Additional language pending stakeholder offsets workgroup discussion.]</i> Regional Water Board staff shall work with stakeholders to develop guidance for a mercury offset pilot program by [two years after the effective date of this amendment].

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			<p>participation in offsets and the mercury program. Positive suggestions for appropriately including community organizations are welcome.</p>	
63	<p>The Regional Water Board will acknowledge early implementation of mercury and methylmercury controls by Central Valley dischargers and grant credit towards meeting future allocations and implementation requirements. [Additional language pending stakeholder offsets workgroup discussion.]</p>		<p>WWTP: Clarify what “acknowledge” means. Development of acceptable credits has been a major stumbling block – real incentives are needed to make projects happen</p> <p>EPA: We recommend that the Board be more specific.</p> <p>CWA: While we do not have a general argument with the concept here, this is an area where the BPA should include more detail on how the Board would establish the appropriateness of early actions and their benefits and how crediting for these actions would be implemented. In other words, this process must be more explicit to ensure true reductions in mercury/MeHg.</p> <p>RB: Stakeholder input is needed here.</p>	<p><u>[This section needs Stakeholder Group discussion.]</u></p>
64	<p>Exposure Reduction Program [This section needs Stakeholder Group discussion.]</p> <p>Methylmercury dischargers in the Delta and Yolo Bypass shall work together to develop and implement effective programs to reduce mercury-related risks. This shall include 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 Delta-caught fish. These requirements apply to the following entities:</p> <ul style="list-style-type: none"> • Specific wastewater facilities listed on Table B; [yet to be specified] • Urban storm water agencies: Sacramento Area MS4 (CAS082597), Stockton Area MS4 (CAS083470), and Tracy MS4 (CAS000004); and • Any government agencies proposing new wetland, water management, flood conveyance, or other projects in the Delta or Yolo Bypass that have the potential to discharge methylmercury or otherwise increase fish mercury concentrations in the Delta or Yolo 	<p>WWTP: Suggested edits for clarity: “...to reduce mercury-related risks to humans. This <u>Such programs shall include ...</u>”</p> <p>These efforts should be encouraged to be done as part of an over-arching community health discussion to create more opportunities for creative solutions and greater incentive for community participation.</p> <p><u>Methylmercury dischargers in the Delta and Yolo Bypass shall work together to develop and implement effective programs to reduce mercury-related risks. This shall include 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 Delta-caught fish.</u> These requirements apply to the following entities:</p> <ul style="list-style-type: none"> • Specific wastewater facilities listed on Table B; [yet to be specified] • Urban storm water agencies: Sacramento Area MS4 (CAS082597), Stockton Area MS4 (CAS083470), and Tracy MS4 (CAS000004); and 	<p>WWTP: The text is consistent with Principle #5.</p> <p>This requirement should be to all sources, not just to those listed. It seems to overemphasize point sources, which in the overall scheme of things, are minor and de-emphasize other sources. A fair way of paying for this activity needs to be worked out among the stakeholders. (D. Webster)</p> <p>MS4: Regarding the last bullet, why does it apply only to new projects, if the existing ones are causing the impairment?</p> <p>CFBF: The term “listed” (or something equivalent) should be included to specify that only those entities are required to comply. (K. Fisher)</p> <p>CWA: CWA asks why only specific wastewater dischargers are included in this. Any that discharges mercury into the watershed should be included.</p> <p>Shilling: Again, it is critical that this discussion only go forward with the right mix of stakeholders at the table. Currently, the stakeholders are not from the community, are mostly white, and represent regulated interests.</p> <p>RB: The Exposure Reduction Program has not been discussed in detail in the workgroups or with the larger</p>	<p>Methylmercury dischargers in the Delta and Yolo Bypass shall work with community organizations to develop and implement effective, community driven programs to reduce mercury-related risks to humans. This shall include 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 Delta-caught fish.</p>

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	Bypass.	<p>Any government agencies proposing new wetland, water management, flood conveyance, or other projects in the Delta or Yolo Bypass that have the potential to discharge methylmercury or otherwise increase fish mercury concentrations in the Delta or Yolo Bypass.</p> <hr/> <p>MS4: Remove reference to the City of Tracy.</p> <hr/> <p>CFBF: These requirements apply to the following "listed" entities: (K. Fisher)</p> <hr/> <p>CWA: "Methylmercury dischargers in the Delta and Yolo Bypass shall work together to develop and implement effective, community driven programs to reduce mercury-related risks...."</p>	stakeholder group. The suggestions provided have been moved to the 4 th column.	
65	<p>The dischargers shall work with affected communities and the public health agencies to develop and implement an effective risk management program(s). Dischargers may work together to develop a program. The risk management program(s) should include, but not be limited to, the following activities:</p> <ul style="list-style-type: none"> • Provide fish-consumption advice to the public in multiple languages and media forms, including identifying fish species that have relatively low levels of mercury; • Regularly inform the public about monitoring data and findings regarding hazards of eating mercury-contaminated fish; • Perform special studies as needed to support health risk assessment and risk communication; and • Plan and implement feasible ways to address public health impacts of mercury in Delta fish, including activities that reduce the actual and potential 	<p>WWTP: Delete the last bullet. It restates part of row 64 and again calls for "mitigating impacts".</p> <hr/> <p>CWA: The dischargers shall work with affected communities and the public health agencies to develop and implement an effective risk management program(s). Dischargers may work together to develop a program. The risk management program(s) should include, but not be limited to, the following activities:</p> <ul style="list-style-type: none"> • Plan and implement feasible ways to address public health impacts of mercury in Delta fish, including activities that reduce the actual and potential exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in Delta fish, such as subsistence fishers and their families. • Provide fish-consumption advice to the public in multiple languages and culturally appropriate fashion, including identifying fish species that have relatively low levels of mercury; • Regularly inform the public about 	<p>CFBF: See comment #64. This only applies to those dischargers listed in number 64 correct? (K. Fisher)</p> <hr/> <p>CWA: CWA believes that what communities need must be determined by communities working with the Reg. Board and dischargers and should be implemented to the extent possible by community members who understand their neighbor's needs and culture.</p> <p>If the communities feel further outreach and education, as indicated here, is needed, that should certainly be part of the package, but exposure reduction can not be seen as falling back on the same old "give them info and that's it" standard. That has not worked effectively as people still fish in contaminated waters, and in some cases people have no choice. While we recognize that this is new territory, even for the community members, and not easy to define here, we are concerned that we will rely on old strategies and miss opportunities to do things that will actually mean that people are not exposed to high levels of mercury if there circumstances are such that they must continue to fish. That is why we recommend moving the point about reducing actual exposure and mitigating health impacts to the top.</p> <p>In addition, we do not want to study this issue to death, and avoid direct action. Consequently, studies should be</p>	<p>The dischargers shall work with affected communities and the public health agencies to develop and implement an effective risk management program(s). Dischargers may work together to develop a program. The risk management program(s) should include, but not be limited to, the following activities:</p> <ul style="list-style-type: none"> • Plan and implement feasible ways to address public health impacts of mercury in Delta fish, including activities that reduce the actual and potential exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in Delta fish, such as subsistence fishers and their families. • Provide fish-consumption advice to the public in multiple languages and culturally appropriate fashion, including identifying fish species that have relatively low levels of mercury; • Regularly inform the public about monitoring data and findings regarding

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	<p>exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in Delta fish, such as subsistence fishers and their families.</p>	<p>monitoring data and findings regarding hazards of eating mercury-contaminated fish in an easy to understand and culturally appropriate fashion</p> <ul style="list-style-type: none"> Perform special studies as needed to support exposure assessment, especially among the most impacted, and to identify appropriate intervention strategies 	<p>focused on identifying impacted communities, esp. fishers outside the radar who may be fishing purely out of economic need and what is needed to protect their health and well being during the decades that the TMDL is being implemented.</p> <p>Shilling: It is difficult to have confidence in statements like these when so far the regulating entity – the Regional Board – clearly favors not working with affected communities.</p> <p>Research by community organizations, academics, and others show that the pathways of communication and the message conveyed depend on WHO designs the message, what the message is designed to accomplish, and who is doing the messaging. The idea of “risk management” (including how it is portrayed here) is not usually consistent with environmental justice principles of reduced health effects and disparities and greater involvement by impacted parties and communities in solution building.</p> <p>RB: CWA’s suggestions are addressed in the 4th column. The last bullet was moved to the top and was retained as it describes what will be in the plan.</p>	<p>hazards of eating mercury-contaminated fish in an easy to understand and culturally appropriate fashion; and</p> <ul style="list-style-type: none"> Perform special studies as needed to support exposure assessment, especially among the most impacted, and to identify appropriate intervention strategies.
66	<p>The dischargers shall submit a risk management workplan for Executive Officer approval by [two years after the effective date of this amendment], and implement the plan by [four years after the effective date of this amendment]. Every three years thereafter, the dischargers shall provide a progress report to the Executive Officer.</p>	<p>EPA: EPA recommends: ...approval as soon as possible but no later than... And ...implement the plan as soon as possible but no later than ...</p> <p>CWA: The dischargers shall submit an exposure reduction workplan for Executive Officer approval by [two years after the effective date of this amendment], and implement the plan by [four years after the effective date of this amendment]. The implementation plan must describe how the discharger(s) have and will work collaboratively with impacted communities to develop appropriate strategies and how those communities will be involved in implementation. Every three years thereafter, the dischargers shall provide a progress report to the Executive Officer.</p>	<p>MS4: None of the dischargers are experts in risk management. A definition and example of a “risk management plan” should be provided for review and discussion among the stakeholders.</p> <p>Shilling: What are the standards for progress and success? So far, the Board has not pursued community involvement themselves. How will they gage it in others?</p> <p>RB: Using CWA’s suggested language, ‘risk management plan’ is changed to ‘exposure reduction workplan’.</p>	<p>The dischargers shall submit an exposure reduction workplan for Executive Officer approval by [two years after Effective Date], and implement the plan by [four years after Effective Date]. The implementation plan must describe how the discharger(s) have and will work collaboratively with impacted communities to develop appropriate strategies and how those communities will be involved in implementation. Every three years thereafter, the dischargers shall provide a progress report to the Executive Officer.</p>
67	<p>The California Department of Health Services</p>	<p>WWTP: Add at the end: “These efforts need</p>	<p>WWTP: What should be required if CDHS and county</p>	<p>The California Department of Health Services</p>

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	and the local county health departments should develop and promote public education programs and work with at-risk fish consumers to develop risk management activities and provide guidance to dischargers and other that are conducting exposure reduction activities.	to consider and incorporate the positive health impacts associated with fish consumption.” CWA:“... consumers to develop exposure reduction activities and provide guidance to dischargers and other that are conducting such activities.”	health departments do not develop such programs? Will stormwater and wastewater utilities be responsible for developing such programs and work with at-risk consumers? CWA: Note: Some good health dept. work has already been done in the Delta through the Fish Mercury Program and DPH lead LSAG (Local Stakeholder Advisory Group). While their focus has been on risk communication, their work is a place to start in terms of their involvement and understanding of some of the impacted communities. RB: The comments have been added.	and the local county health departments should develop and promote public education programs and work with at-risk fish consumers to develop exposure reduction activities and provide guidance to dischargers and other that are conducting such activities. These efforts need to consider and incorporate the positive health impacts associated with fish consumption.
68	Monitoring The monitoring guidance for the Delta is described in Chapter V, Surveillance, and Monitoring. Dischargers will be allowed to comply with their mercury receiving water monitoring requirements by participating in a regional monitoring program, when implemented.		EPA: We suggest the Board briefly outline monitoring and assessment needs, how they will be accomplished, and how they will be coordinated with the Regional Monitoring Program. RB: Line 68 was moved to Line 38, compliance monitoring. BPA Chapter V contains the details for monitoring and is not repeated in Chapter IV. A regional monitoring program has not been developed. Stakeholders will have opportunities to participate in the development of a regional monitoring program and be able to use the Phase 1 studies to inform a regional monitoring program.	<i>Line deleted.</i>
69	Exceptions for Low Threat Discharges Discharges subject to a waiver of waste discharge requirements based on a finding that the discharges pose a low threat to water quality, except for discharges subject to water quality certifications, are exempt from the mercury requirements of this Delta Mercury Control Program.		WWTP: Question – what is being done to determine if the low-threat activity is impacting MeHg production? (D. Webster) RB: The current waiver (Order No. R5-2008-0081) addresses short-term (< 4 months) and low-volume discharges (< 0.25 mgd) that typically include construction dewatering, pump/well testing, and condensate discharges. The Order does not cover discharges of groundwater polluted by industrial activity, underground leaking tanks, or farming practices, or from groundwater cleanup projects for sites polluted by these activities. The Order also does not cover discharges that contain chemical or organic constituents, bacteria, herbicides, pesticides, oil and grease, radioactivity, salinity, or temperatures that may adversely impact beneficial uses or exceed any water quality objective or standard. Discharges covered by the Order are not expected to have detectable concentrations of methylmercury and/or are very small discharge volumes, or one time discharges.	<u>Exceptions for Low Threat Discharges</u> Discharges subject to a waiver of waste discharge requirements based on a finding that the discharges pose a low threat to water quality, except for discharges subject to water quality certifications, are exempt from the mercury requirements of this Delta Mercury Control Program.

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70	Discharges subject to waste discharge requirements for dewatering and other low threat discharges to surface waters are exempt from the mercury requirements of this Delta Mercury Control Program.		<p>WWTP: Question – what is being done to determine if the activity is impacting MeHg production? This should not be assumed without some sort of minimal monitoring. (D. Webster)</p> <p>RB: Please refer to staff comments in Line 69.</p>	Discharges subject to waste discharge requirements for dewatering and other low threat discharges to surface waters are exempt from the mercury requirements of this Delta Mercury Control Program.
71	<p>Delta Mercury Control Program</p> <p>The total estimated costs (2007 dollars) for the agricultural methylmercury characterization and control studies to develop management practices to meet the Delta methylmercury objectives range from \$430,000 to \$820,000. The estimated annual costs for agricultural discharger compliance monitoring range from \$14,000 to \$25,000. The estimated annual costs for Phase 2 implementation of methylmercury management practices range from \$500,000 to \$1.1 million.</p> <p>Potential funding sources include:</p> <p>Those identified in the San Joaquin River Subsurface Agricultural Drainage Control Program and the Pesticide Control Program.</p>		<p>WWTP: These costs seem too low. Perhaps an effort is needed by stakeholders to review these estimates.</p> <p>Is this Basin Plan language? It seems more appropriate for a staff report or other area (D. Webster)</p> <p>CFBF: Need other funding sources. (K. Fisher)</p> <p>CWA: Clarification question: Why are costs to agriculture specified in the BPA and other such costs aren't?</p> <p>DWR: Costs seem low for level of organization involved and scale of study area. (M. Kirkland)</p> <p>TNC: Per discharger? Collaborative study? (S. Liu)</p> <p>RB: The Porter-Cologne Act requires the Basin Plan to identify the costs of control programs for agriculture. This is not a requirement for other sources. The BPA staff report has cost estimates for all source categories; Appendix C (Section F) provides the methods used to calculate the cost estimates for agriculture. The cost estimate for Phase 1 studies assumes a collaborative effort, and accounts for studies already underway by State agencies that would decrease overall costs of the Phase 1 studies conducted in the future. The monitoring and implementation costs in the BPA text are for the sum of all agriculture-related efforts in the Delta and Yolo Bypass, not per discharger. Stakeholders can provide information to help inform the estimates in the staff report.</p>	<p>Revise Chapter IV (Implementation), under “Estimated Costs of Agricultural Water Quality Control Programs and Potential Sources of Financing”, to add as follows:</p> <p>Delta Mercury Control Program The total estimated costs (2007 dollars) for the agricultural methylmercury characterization and control studies to develop management practices to meet the Delta methylmercury objectives range from \$430,000 to \$820,000. The estimated annual costs for agricultural discharger compliance monitoring range from \$14,000 to \$25,000. The estimated annual costs for Phase 2 implementation of methylmercury management practices range from \$500,000 to \$1.1 million.</p> <p>Potential funding sources include those identified in the San Joaquin River Subsurface Agricultural Drainage Control Program and the Pesticide Control Program.</p>
72	<p>Revise Chapter IV (Implementation), under “Mercury Discharges in the Sacramento River and San Joaquin River Basins”, under subsection “Cache Creek Watershed Mercury Program” to delete the last line in Table IV-6.1, ‘Cache Creek Settling Basin Outflow’ and to delete Footnote ‘(c)’.</p>			<p>Revise Chapter IV (Implementation), under “Mercury Discharges in the Sacramento River and San Joaquin River Basins”, under subsection “Cache Creek Watershed Mercury Program”, as follows:</p> <p>Delete the last line in Table IV-6.1, ‘Cache Creek Settling Basin Outflow’, and delete</p>

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				Footnote '(c)'.
73	<p>Revise Chapter V (Surveillance and Monitoring) to add: Fish methylmercury compliance monitoring. The Regional Water Board will use the following specifications to determine compliance with the methylmercury fish tissue objectives in the Sacramento-San Joaquin Delta. Regional Water Board staff will initiate fish tissue monitoring five years after dischargers implement projects to reduce methylmercury and total mercury discharges. Compliance monitoring will ensue every ten years thereafter. Initial fish tissue monitoring will take place at the following compliance reaches in each subarea:</p> <ul style="list-style-type: none"> • Central Delta subarea: Middle River between Bullfrog Landing and Mildred Island; • Marsh Creek subarea: Marsh Creek from Highway 4 to Cypress Road; • Mokelumne/Cosumnes River subarea: Mokelumne River from the Interstate 5 bridge to New Hope Landing; • Sacramento River subarea: Sacramento River from River Mile 40 to River Mile 44; • San Joaquin River subarea: San Joaquin River from Vernalis to the Highway 120 bridge; • West Delta subarea: Sacramento/San Joaquin River confluence near Sherman Island; • Yolo Bypass-North subarea: Tule Canal downstream of its confluence with Cache Creek; and • Yolo Bypass-South subarea: Toe Drain between Lisbon and Little Holland Tract. 	<p>WWTP: Write instead “five years after the start of Phase 2”.</p>	<p>WWTP: Providing a scheduling reference as “five years after dischargers implement projects” is ambiguous because projects (pollution prevention programs) are already being implemented. And during phase 1, those efforts will not result in measurable benefits to the Delta.</p> <p>Q – Is the current baseline adequate, or is there additional information needed? (D. Webster)</p> <p>The detail of this may be best in the implementation plan, where information could be changed without the need of a basin plan amendment. (D. Webster)</p> <p>EPA: Per US EPA’s April 23, 2208 comment letter, US EPA Comment 4:</p> <p>Fish Methylmercury Compliance Monitoring: The BPA proposes that the Regional Board will initiate fish tissue monitoring five years after dischargers implement projects to reduce methylmercury and total mercury discharges, and compliance monitoring will take place every ten years thereafter, at one location within each subarea. We urge more frequent compliance monitoring, such as compliance monitoring on a 5 year basis, and, where significant changes in methyl or total mercury concentrations or loading are occurring, on a yearly basis. Compliance monitoring on a 10 year basis would not allow the Board to determine whether changes in the strategy are necessary, in a timely manner.</p> <p>Shilling: Why wait so long? What is the rationale?</p> <p>Fish tissue sampling every ten years is almost guaranteed to not measure success. Trends in methylmercury in all trophic levels will depend on environmental cycles as well as pollution reduction measures.</p> <p>RB: Efforts are already underway to improve our knowledge of interannual variability and long-term trends in fish mercury levels in the Delta and its watershed, as documented in UC Davis’s and SFEI’s 2003 CalFed reports and recent FMP reports. For example, SFEI’s analyses did not show a discernible long-term trend, but did show a consistent pattern of inter-annual fluctuation in largemouth</p>	<p>Revise Chapter V (Surveillance and Monitoring), under “Mercury and Methylmercury”, to add as follows:</p> <p>Delta <u>Fish Methylmercury Compliance Monitoring</u> The Regional Water Board will use the following specifications to determine compliance with the methylmercury fish tissue objectives in the Sacramento-San Joaquin Delta. Beginning 2025, Regional Water Board staff will initiate fish tissue monitoring. Thereafter compliance monitoring will ensue every ten years, more frequently as needed where substantial changes in methyl or total mercury concentrations or loading occur, but not to exceed ten years elsewhere.</p> <p>Initial fish tissue monitoring will take place at the following compliance reaches in each subarea:</p> <ul style="list-style-type: none"> • Central Delta subarea: Middle River between Bullfrog Landing and Mildred Island; • Marsh Creek subarea: Marsh Creek from Highway 4 to Cypress Road; • Mokelumne/Cosumnes River subarea: Mokelumne River from the Interstate 5 bridge to New Hope Landing; • Sacramento River subarea: Sacramento River from River Mile 40 to River Mile 44; • San Joaquin River subarea: San Joaquin River from Vernalis to the Highway 120 bridge; • West Delta subarea: Sacramento/San Joaquin River confluence near Sherman Island; • Yolo Bypass-North subarea: Tule Canal downstream of its confluence with Cache

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			<p>bass and striped bass</p> <p>A specific starting date for fish monitoring of 2025 has been added to the BPA. This is approximately five years after the start of the Phase 2 implementation projects. In addition, staff edited the BPA text in an attempt to address USEPA's and F. Shilling's concerns and at the same time incorporate the flexibility suggested by D. Webster's comment. Staff does not recommend annual monitoring as a general requirement because in some areas inter-annual variability could confound interpretation of results. Staff recommends allowing flexibility to determine meaningful monitoring frequencies on an as-needed basis. Note, the Basin Plan already includes the following adopted language to address inter-annual variability and compliance: "Compliance with the fish tissue objective is achieved when the average concentrations in local fish are equivalent to the respective objective for three consecutive years."</p> <p>The Basin Plan must contain a monitoring program for the fish tissue objectives. The fish tissue monitoring program described in the Basin Plan is to measure compliance with the MeHg fish tissue objectives (FTOs). Dischargers are not required individually to measure compliance with the FTOs. The Regional Board will take the lead in initiating the FTO monitoring and this will be part of a regional monitoring program when developed. Also, Board staff has already begun attempting to locate funds for additional fish monitoring in areas where extensive wetland restoration and water/floodplain management activities have been proposed.</p> <p>Throughout the program (Phase 1 and 2 and beyond) specific projects and dischargers will have more frequent water and fish monitoring to measure effectiveness of control methods and to measure compliance with other requirements of the control program (e.g., WWTPs and MS4s will be monitoring TotHg and MeHg in their discharges, restoration projects will monitor water or fish as part of control studies).</p>	<p>Creek; and</p> <ul style="list-style-type: none"> • Yolo Bypass-South subarea: Toe Drain between Lisbon and Little Holland Tract.
74	<p>Compliance fish methylmercury monitoring will include representative fish species for comparison to each of the methylmercury fish tissue objectives:</p> <ul style="list-style-type: none"> • Trophic Level 4: bass (largemouth and 		<p>WWTP: The detail of this may be best in the implementation plan, where information could be changed without the need of a basin plan amendment. (D. Webster)</p> <p>RB: The Basin Plan must contain a monitoring program for the fish tissue objectives.</p>	<p>Compliance fish methylmercury monitoring will include representative fish species for comparison to each of the methylmercury fish tissue objectives:</p> <ul style="list-style-type: none"> • Trophic Level 4: bass (largemouth and

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	<p>striped), channel and white catfish, crappie, and Sacramento pikeminnow.</p> <ul style="list-style-type: none"> • Trophic Level 3: American shad, black bullhead, bluegill, carp, Chinook salmon, redear sunfish, Sacramento blackfish, Sacramento sucker, and white sturgeon. • Small (<50 mm) fish: primary prey species consumed by wildlife in the Delta, which may include the species listed above, as well as inland silverside, juvenile bluegill, mosquitofish, red shiner, threadfin shad, or other fish less than 50 mm. 			<p>striped), channel and white catfish, crappie, and Sacramento pikeminnow.</p> <ul style="list-style-type: none"> • Trophic Level 3: American shad, black bullhead, bluegill, carp, Chinook salmon, redear sunfish, Sacramento blackfish, Sacramento sucker, and white sturgeon. • Small (<50 mm) fish: primary prey species consumed by wildlife in the Delta, which may include the species listed above, as well as inland silverside, juvenile bluegill, mosquitofish, red shiner, threadfin shad, or other fish less than 50 mm.
75	<p>Trophic level 3 and 4 fish sample sets will include three species from each trophic level and will include both anadromous and non-anadromous fish. Trophic level 3 and 4 fish sample sets will include a range of fish sizes between 150 and 500 mm total length. Striped bass, largemouth bass, and sturgeon caught for mercury analysis will be within the CDFG legal catch size limits. Sample sets for fish less than 50 mm will include at least two fish species that are the primary prey species consumed by wildlife at sensitive life stages. In any subarea, if multiple species for a particular trophic level are not available, one species in the sample set is acceptable.</p>		<p>WWTP: The detail of this may be best in the implementation plan, where information could be changed without the need of a basin plan amendment. (D. Webster)</p> <p>RB: The Basin Plan must contain a monitoring program for the fish tissue objectives.</p>	<p>Trophic level 3 and 4 fish sample sets will include three species from each trophic level and will include both anadromous and non-anadromous fish. Trophic level 3 and 4 fish sample sets will include a range of fish sizes between 150 and 500 mm total length. Striped bass, largemouth bass, and sturgeon caught for mercury analysis will be within the CDFG legal catch size limits. Sample sets for fish less than 50 mm will include at least two fish species that are the primary prey species consumed by wildlife at sensitive life stages. In any subarea, if multiple species for a particular trophic level are not available, one species in the sample set is acceptable.</p>
76	<p><u>Water Methylmercury and Total Mercury Compliance Monitoring.</u> Unfiltered methylmercury samples shall be analyzed, at a minimum, with a method detection limit (MDL) of 0.02 ng/l and minimum reporting level (ML) of 0.05 ng/l. Unfiltered total mercury samples shall be analyzed, at a minimum, with a MDL of 0.2 ng/l and ML of 0.5 ng/l. Minimum reporting levels are equivalent to the lowest calibration standards for methylmercury and total mercury, 0.05 and 0.5 ng/l at a minimum, respectively.</p>		<p>CFBF: Note: We do not necessarily agree with the listed levels. Are the listed levels average exceedances? If so, can't exceed ever, daily, monthly, yearly, 5 year average?? (K. Fisher)</p> <p>WWTP: The detail of this may be best in the implementation plan, where information could be changed without the need of a basin plan amendment. (D. Webster)</p> <p>Shilling: Typically, the mean is calculated as the geometric mean. No rationale is given and the geometric mean is</p>	<p><i>Line deleted.</i></p>

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	<p>For measurements between the ML and MDL, one half the ML shall be used in average and 90th percentile concentration and load calculations. For measurements less than the MDL, one half the MDL shall be used in average and 90th percentile concentration and load calculations. Alternate statistical methods of addressing measurements less than the ML or MDL may be utilized with Executive Officer approval.</p>		<p>always lower than the arithmetic mean. IF the geometric mean is intended to be used, then a complete and rigorous rational must be given for this as it will tend to over-estimate compliance.</p> <p>RB: The concentrations listed in line 76 are laboratory analytical concentration method detection limits and reporting limits. These were specified so that appropriate detection and reporting limits would be used when dischargers send samples to analytical laboratories. These values are not numeric effluent limits or receiving water limits and do not have averaging periods. Staff agrees that this language can be removed since permits and WDRs specify analytical methods. Staff and the TAC will ensure that appropriate levels are incorporated in the Control Studies.</p> <p>Dr. Shilling is correct that the geometric mean of a set of values is lower than the arithmetic mean. The proposed fish tissue objectives and discharge limits are in the form of averages or arithmetic means, rather than geometric means (see rows 2, 13, 78, 80, and 87). Fish and water data collected to assess compliance with the objectives or discharge limits should be treated in a statistically similar manner. Since criteria and limits are developed as averages, evaluating monitoring data as averages will not over-estimate compliance.</p> <p>The arithmetic mean is frequently used as the measure of central tendency for water quality criteria. The proposed fish tissue objectives reflect the reality that people and wildlife species eat varieties of fish by setting concentration limits as averages for different trophic levels of fish. Averages are more influenced than geometric means by the highest values in a data set, which is appropriate when the highest concentrations in diet are of greatest concern for toxicity.</p>	
77	<p>Compliance points for irrigated agriculture and managed wetlands methylmercury allocations shall be developed during the Control Studies.</p>		<p>WWTP: Eventually, these points could be put into the implementation plan. (D. Webster)</p> <p>RB: Staff agrees that the points can be in the implementation workplan.</p>	<p><u>Water Methylmercury and Total Mercury Compliance Monitoring</u> Compliance points for irrigated agriculture and managed wetlands methylmercury allocations shall be developed during the Control Studies.</p>

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78	<p>NPDES facilities' compliance points for methylmercury and total mercury monitoring are the effluent monitoring points currently described in individual NPDES permits. Facilities listed in Table B that discharge greater than one million gallons per day (1 mgd) shall conduct monitoring once per month, at a minimum; facilities that discharge less than 1 mgd shall conduct quarterly monitoring, at a minimum. Effluent monitoring is not required when there is no discharge to surface water. Monitoring frequency for facilities with episodic discharges (e.g., those that discharge to surface water only during large storm events) those wet and dry weather sampling periods currently described in the facilities' NPDES permits or otherwise determined to be representative of the facilities' discharges and approved by the Executive Officer on a permit-specific basis. Heating/cooling and power facilities shall conduct concurrent monitoring of their intake water and effluent discharge. All facilities listed in Table B shall monitor methylmercury. Facilities required to implement total mercury evaluation and minimization programs (Table ___ - to be determined - ___) also shall monitor total mercury. Facilities that begin discharging to surface water prior to [seven years after the effective date], and facilities for which effluent methylmercury data were not available at the time Table B was compiled, shall conduct monitoring and interim limits for inorganic mercury set equal to (- to be determined -) Annual average (January-December) total mercury and methylmercury concentrations for each year shall be the average of monthly averages. Monthly averages are the mean of all concentration data collected during a given month.</p>	<p>WWTP: The sentence beginning "Monitoring frequency..." is missing the verb "shall be".</p> <p>This sentence should be edited as follows: "Facilities required to implement total mercury evaluation and minimization programs..." as the evaluation program [presumably meaning the characterization studies] are in the MOI.</p> <p>The sentence beginning "Facilities that begin discharging to surface water prior to..." can be deleted if reference to new facilities is added to the second sentence.</p>	<p>WWTP: May want to limit the level of detail in the basin plan and include this specifics in the implementation plan. See NPDES recommended language. (D. Webster)</p> <hr/> <p>RB: Monitoring frequencies and other details are included in permits, the development of which are open to public review and Board approval. The Control Study Workplan(s) will contain details for additional monitoring as needed. Staff agrees that this language is not needed in the BPA.</p>	<p>NPDES facilities' compliance points for methylmercury and total mercury monitoring are the effluent monitoring points currently described in individual NPDES permits.</p> <p>Facilities listed in Table B shall conduct total mercury and methylmercury monitoring starting by [one year after the Effective Date]. Monitoring frequencies shall be defined in the NPDES permits.</p> <p>Facilities that begin discharging to surface water during Phase 1 and facilities for which effluent methylmercury data were not available at the time Table B was compiled, shall conduct monitoring.</p>
79	<p>To be evaluated by MS4 workgroup: MS4: Compliance points and monitoring frequency for MS4s required to conduct methylmercury and total mercury monitoring are those locations and wet and dry weather sampling</p>		<p>MS4: The MS4 stakeholders concur with this language, which defers to requirements in their permits' monitoring and reporting programs.</p>	<p>Compliance points and monitoring frequency for MS4s required to conduct methylmercury and total mercury monitoring are those locations and wet and dry weather sampling</p>

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	<p>periods currently described in the individual MS4 NPDES permits or otherwise determined to be representative of the MS4 service areas and approved by the Executive Officer on an MS4-specific basis.</p>			<p>periods currently described in the individual MS4 NPDES permits or otherwise determined to be representative of the MS4 service areas and approved by the Executive Officer on an MS4-specific basis.</p>
<p>80</p>	<p>Annual methylmercury loads in urban runoff in MS4 service areas may be calculated by the following method or by an alternate method approved by the Executive Officer. The annual methylmercury load in urban runoff for a given MS4 service area during a given year may be calculated by the sum of wet weather and dry weather methylmercury loads. To estimate wet weather methylmercury loads discharged by MS4 urban areas, the average of wet weather methylmercury concentrations observed at the MS4's compliance locations may be multiplied by the wet weather runoff volume estimated for all urban areas within the MS4 service area. To estimate dry weather methylmercury loads, the average of dry weather methylmercury concentrations observed at the MS4's compliance locations may be multiplied by the estimated dry weather urban runoff volume in the MS4 service area.</p>		<p>MS4: Note there is ongoing discussions in California and nationally regarding the differences between stormwater runoff and non-stormwater discharges. Those decisions may also affect the way loads are calculated (for example, dry weather loads are largely non-stormwater).</p> <p>RB: The calculations developed for this TMDL already differentiated between dry and wet weather runoff and runoff from urban and nonurban areas. Any additional changes to the methods used to calculate loads can be considered when the control program is reviewed.</p> <p>Note, the TMDL staff report describes the method used to calculate loads for the TMDL. In addition, since this language was developed, similar language was included in the Stockton and Sacramento MS4 permits. (Requirements for the Contra Costa County MS4 area within Region 5 will mirror requirements in Region 2's permit.)</p>	<p>Annual methylmercury loads in urban runoff in MS4 service areas may be calculated by the following method or by an alternate method approved by the Executive Officer. The annual methylmercury load in urban runoff for a given MS4 service area during a given year may be calculated by the sum of wet weather and dry weather methylmercury loads. To estimate wet weather methylmercury loads discharged by MS4 urban areas, the average of wet weather methylmercury concentrations observed at the MS4's compliance locations may be multiplied by the wet weather runoff volume estimated for all urban areas within the MS4 service area. To estimate dry weather methylmercury loads, the average of dry weather methylmercury concentrations observed at the MS4's compliance locations may be multiplied by the estimated dry weather urban runoff volume in the MS4 service area.</p>
<p>81</p>	<p>See Table A</p>		<p>DFG: (1) Department staff needs help to better understand Tables A-D in order to clarify its understanding of Departmental commitments. Please see additional comments under Table B.</p> <p>(2) What percentage of Department lands are in the identified "wetland" source type current load and allocation allotments for the different Delta Subareas (e.g. Yolo Bypass = 480g/yr current and 103 g/yr allotment)?</p> <p>The department needs to know this in order to help ensure commitment to compliance with the BPA, its associated time lines, and DFG resources.</p>	<p>Table A Footnotes:</p> <p>(a) Values shown for Tributary Inputs, NPDES Facilities, NPDES Facilities Future Growth, and NPDES MS4 represent the sum of several individual discharges. See Tables B, C, and D for allocations for the individual discharges that should be used for compliance purposes.</p> <p>(b) The Central Delta subarea receives flows from the Sacramento, Yolo Bypass, Mokelumne, and San Joaquin subareas. The</p>

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			<p>The reduction of the Yolo Bypass existing load (480 g/year) to the proposed allocation (103 g/year), in which the Yolo Wildlife Refuge (we assume) plays a part, while an admirable target, may or may not prove difficult to achieve, depending on the success of management practices determined in coming studies.</p> <p>(3) In general, the production of methyl-mercury within restored/created wetlands is an unintended, and more importantly, arguably unavoidable (though not irreducible) consequence where soils and waters are laden, as they are here, with remnant and legacy quantities of mercury.</p> <p>In particular, we would appreciate formal acknowledgement of the overall contribution by the Yolo Wildlife Refuge, and other wetlands restoration efforts, to many beneficial uses of water within several important use categories (e.g., for wildlife, recreation, etc.). Is there a way that this important contribution can work to ease some of the water quality regulatory burden on public trust resource agencies? (C. Dibble/T. Stevens—DFG)</p> <p>CFBF: See comment re box #4. (K. Fisher)</p> <p>EPA: We suggest including more explanation for footnote (b) which allows a concentration-based allocation for new NPDES facilities in the Central and West Delta subareas.</p> <p>RB: Staff needs to correspond with EPA to determine what additional explanation for footnote (b) would be helpful.</p> <p>Regarding DFG's comments and questions in Lines 81-82: Methylmercury data are not available for individual nonpoint sources such as wetlands, agricultural lands, and open channel areas; as result, staff assigned these source categories Delta subarea allocations. The Clean Water Act and USEPA do not require allocations for individual nonpoint sources, as is required for individual NPDES permitted discharges.</p> <p>Staff summed National Wetland Inventory wetland acreages by Delta subarea to calculate the existing and allocated MeHg loads. Staff has several ideas on how to use additional existing GIS data and other information to identify which wetland areas are managed by specific public and private entities, which would allow the determination of what</p>	<p>West Delta subarea receives flows from the Central Delta and Marsh Creek subareas. These within-Delta flows have not yet been quantified because additional data are needed for loss rates across the subareas. Thereafter, allocations will be calculated. However, these subarea inflows are expected to decrease substantially (e.g., 40-80%) as upstream mercury management practices take place. As a result, reductions for sources within the Central and West subareas and tributaries that drain directly to these subareas are not required.</p> <p>(c) The sum of all allocations for each subarea equals the assimilative load capacity for that subarea. Because calculations were completed prior to rounding, some columns may not add to totals.</p>

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			<p>percentage of CDFG lands are in the identified "wetland" source type current loads and allocations for the different Delta subareas. Staff recommends having additional stakeholder meetings that brainstorm approaches to identifying existing and future wetland managers in the Delta/Yolo Bypass region and conducting outreach in order to organize the Control Studies.</p> <p>Staff agrees that the proposed MeHg source reduction of nearly 80% needed to achieve Yolo Bypass fish mercury levels safe for humans and wildlife will not be an easy effort and will depend on the success of both the Control Studies for wetlands and other sources in the Yolo Bypass, as well as identification and implementation of feasible inorganic mercury and MeHg controls in the upstream watershed.</p> <p>Staff attempted to address DFG's last comment regarding acknowledgement of the overall contribution by the Yolo Wildlife Refuge, and other wetlands restoration efforts, to other beneficial uses of Yolo Bypass water by editing the BPA text in Line 33. TNC expressed similar concerns in Lines 23-24. Line 33 describes factors the Board would consider during the Delta Mercury Control Program Review, such as taking into account whether implementation of some MeHg control methods would have negative effects on other beneficial uses (including but not limited to habitat enhancement) when re-evaluating the allocations. As noted by USEPA during several stakeholder meetings, we won't know if there is a conflict between beneficial uses until the Control Studies have been completed.</p>	
82	See Table B		<p>DFG: Table A gives waste load allocations for the different source types (including wetlands), and Tables B-D further break down certain source types (tributary, municipal, MS4) into more specific allocations. However, wetlands are not given specific allocations. Why not? Is this still an unknown? This could make compliance a more tricky and expensive, correct, since both control studies and characterization would have to be examined (as for other NPS discharges, like agriculture)? (C. Dibble/T. Stevens—DFG)</p> <p>CWA: Table B is of limited value as far as comparisons go because it does not indicate current discharge limits. CWA recommends that this info is included.</p>	

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			<p>RB: Please refer to Line 81 for a response to DFG's comments and questions.</p> <p>The TMDL staff report (Chapter 8) contains tables that show current discharge loads compared to allocated loads.</p>	
83	(a) If NPDES facilities that have allocations in Table B regionalize or consolidate, their wasteload allocations can be summed.		<p>CWA: Earlier documents seemed to be rational and reasonable with regard to combining allocations if plants are regionalized; however, it's difficult to follow in the "streamlined" version. Consequently, it unclear to us. Does this refer to facilities consolidating in the physical sense, or in their governance? If it is the latter, CWA would not agree to consolidated waste load allocations. Each physical entity needs to have its own waste load.</p> <hr/> <p>RB: Consolidation refers to combining flows from several facilities into one facility for treatment. Each facility will have an individual allocation.</p>	<p>Table B Footnotes:</p> <p>(a) If NPDES facilities that have allocations in Table B regionalize or consolidate, their waste load allocations can be summed.</p>
84	(b) Methylmercury wasteload allocations apply to annual (calendar year) discharge methylmercury loads.			(b) Methylmercury waste load allocations apply to annual (calendar year) discharge methylmercury loads.
85	(c) A methylmercury wasteload allocation for non-storm water discharges from the Metropolitan Stevedore Company (CA0084174) shall be established in its NPDES permit once it completes three sampling events for methylmercury in its discharges. Its wasteload allocation is a component of the "Unassigned Allocation" for the Central Delta subarea.			(c) A methylmercury waste load allocation for non-storm water discharges from the Metropolitan Stevedore Company (CA0084174) shall be established in its NPDES permit once it completes three sampling events for methylmercury in its discharges. Its waste load allocation is a component of the "Unassigned Allocation" for the Central Delta subarea.
86	(d) To account for the projected population growth in the Delta region and associated discharges from new NPDES facilities constructed in each Delta subarea, Table B contains unassigned wasteload allocations for new discharges to surface water. New discharges may come from facilities that previously discharged to land and then began to directly discharge to surface water or diverted discharges to another facility that discharges to surface water	WWTP: Delete the last sentence. It is stated in the text [row 78] and is not the focus of the footnote.	EPA: Per US EPA's April 23, 2208 comment letter, US EPA Comment 3.d.: Reasonable Assurances: The proposed BPA at Table B, Municipal and Industrial Methylmercury Allocations, includes an allocation for each subarea for new discharges, to account for population growth.... Before approving a TMDL in which some of the load reductions are allocated to nonpoint sources in lieu of additional load reductions allocated to point sources, there must be specific reasonable assurances that the nonpoint source reductions will in fact occur. 40 CFR 130.2(i). It is necessary for the Board to explain and demonstrate in greater detail in this TMDL package, how the necessary reductions from the	(d) Table B contains unassigned waste load allocations for new discharges to surface water that begin after [the effective date of this amendment]. New discharges that may be allotted a portion of the unassigned allocation may come from (1) existing facilities that previously discharged to land and then began to discharge to surface water or diverted discharges to another facility that discharges to surface water as part of

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	<p>as part of ongoing regionalization efforts; and from newly built facilities that have not previously discharged to land or water. New facilities discharging into the Delta or Yolo Bypass shall conduct effluent monitoring for mercury and methylmercury.</p>		<p>tributaries [and open waters] are reasonably expected by the Board to be achievable and to occur in a reasonable timeframe.... We recommend including a schedule for completing the remaining tributary TMDLs [and open water load reductions] from which reductions are needed and expected to occur.</p> <p>CWA: Decisions about changing from land discharges to water discharges and/or diverting discharges to another facility that discharges to surface water should be predicated on the TMDL, which would discourage these options and move toward stopping discharges all together via pollution prevention.</p> <p>RB: The staff report already contained an explanation of 'reasonable assurances' for the open water areas in the Delta/Yolo Bypass and schedules for the completion of mercury control programs for the major tributaries will be added to the next draft. In addition, the BPA language has been updated to include upstream control program completion dates (see Line 55.5).</p> <p>Per Resolution R5-2009-0028, the Board can request dischargers to report on wastewater recycling, reclamation, and regionalization opportunities and programs, and encourages regionalization of facilities. The current Basin Plan requires evaluation of reuse and land disposal options as alternatives to surface water discharges. Decisions to divert land discharges to surface water discharges will have to take into account the methylmercury discharges. The TMDL sets aside an unassigned allocation to account for these facility changes and is accounted for in the overall assimilative capacity of the Delta.</p>	<p>ongoing regionalization efforts; (2) newly built facilities that have not previously discharged to land or water; and (3) expansions to existing facilities beyond their allocations listed in Table B where the additional allocation does not exceed the product of the net increase in flow volume and 0.06 ng/l methylmercury. The sum of all new and/or expanded methylmercury discharges from NPDES facilities within each Delta subarea shall not exceed the Delta subarea-specific waste load allocation listed in Table B.</p>
87	(e) The unassigned wasteload allocations for new NPDES facilities in the Central and West Delta subareas shall have concentration-based allocations not to exceed an annual average of 0.06 ng/l methylmercury.		<p>EPA: See comment above for Table A.</p> <p>CWA: Since we do not support the fish tissue target, this average may not be appropriate.</p> <p>RB: The 0.06 ng/l is based in the linkage analysis. This value is subject to review during the Delta Mercury Control Program review. This footnote has been combined with footnote (d).</p>	<i>Line deleted.</i>
88	(f) Methylmercury loads and concentrations in heating/cooling and power facility discharges vary with intake water			(e) Methylmercury loads and concentrations in heating/cooling and power facility discharges vary with intake water

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	<p>conditions. To determine compliance with the allocations, dischargers that use ambient surface water for cooling water shall conduct concurrent monitoring of the intake water and effluent. The methylmercury allocations for such heating/cooling and power facility discharges are 100%, such that the allocations shall become the detected methylmercury concentration found in the intake water. GWF Power Systems (CA0082309) acquires its intake water from sources other than ambient surface water and therefore has a methylmercury allocation based on its effluent methylmercury load.</p>			<p>conditions. To determine compliance with the allocations, dischargers that use ambient surface water for cooling water shall conduct concurrent monitoring of the intake water and effluent. The methylmercury allocations for such heating/cooling and power facility discharges are 100%, such that the allocations shall become the detected methylmercury concentration found in the intake water. GWF Power Systems (CA0082309) acquires its intake water from sources other than ambient surface water and therefore has a methylmercury allocation based on its effluent methylmercury load.</p>
89	<p>(g) A methylmercury wasteload allocation for the City of Rio Vista's Northwest WWTP (CA0083771) shall be established in its NPDES permit once it completes one year of monthly monitoring of methylmercury in its discharge. If its annual average effluent methylmercury concentration is less than 0.06 ng/l, it shall have a methylmercury wasteload allocation equal to its annual average effluent methylmercury concentration multiplied by its maximum rated discharge volume. If its annual average effluent methylmercury concentration is greater than 0.06 ng/l, it shall have a methylmercury wasteload allocation based on a concentration reduction of 44%. If such a reduction would result in an average discharge methylmercury concentration less than 0.06 ng/l, it shall have a wasteload allocation based on a methylmercury concentration of 0.06 ng/l. Its wasteload allocation is a component of the "Unassigned WWTP Allocation" for the Sacramento River subarea.</p>	<p>WWTP: Edit as follows for clarity: "...reduction of 44%. If such a reduction would result in an average discharge methylmercury concentration less than 0.06 ng/l, it shall have a wasteload allocation based on a methylmercury concentration of 0.06 ng/l, <u>whichever is greater.</u>"</p>	<p>RB: This footnote has been deleted as an allocation has been added to Table B for Rio Vista.</p>	<p><i>Line deleted.</i></p>

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90	(h) The methylmercury wasteload allocation for the Sacramento Combined WWTP (CA0079111) WWTP is based on the average methylmercury concentration observed in wet weather urban runoff (0.24 ng/l) and the WWTP's average annual discharge volume (464 million gallons per year / 1.3 mgd). The allocation shall be re-evaluated after the Sacramento Combined WWTP conducts one year of discharge methylmercury monitoring. [Waiting for the laboratory data sheets from the City of Sacramento.] Effluent monitoring shall take place when there is discharge to surface water. The minimum monitoring frequency shall be either (a) one sampling event per storm event that results in a discharge to surface water and one sampling event per month when there are dry season discharges to surface water, or (b) other storm and dry season sampling frequency determined to be representative of the facility's discharge and approved by the Executive Officer.	WWTP: Delete text after the yellow highlighted note. Monitoring frequencies are stated in the text [row 78].	RB: This footnote has been deleted because an allocation has been added to Table B for the Sacramento Combined WWTP.	<i>Line deleted.</i>
91	(i) The Oakwood Lake Subdivision Mining Reclamation (CA0082783) allows flood-control pumping from Oakwood Lake, a former excavation pit filled primarily by groundwater, to the San Joaquin River. Discharge volumes and associated methylmercury loads are expected to fluctuate between wet and dry years. Maintenance of the wasteload allocation shall be assessed as a five-year average annual mercury load.			(f) The waste load allocation for the Oakwood Lake Subdivision Mining Reclamation (CA0082783) shall be assessed as a five-year average annual methylmercury load.
92	(j) The City of Davis WWTP (CA0079049) has two discharge locations; wastewater is discharged from Discharge 001 to the Willow Slough Bypass upstream of the Yolo Bypass and from Discharge 002 to the Conaway Ranch Toe Drain in the			(g) The City of Davis WWTP (CA0079049) has two discharge locations; wastewater is discharged from Discharge 001 to the Willow Slough Bypass upstream of the Yolo Bypass and from Discharge 002 to

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	Yolo Bypass. The methylmercury load allocation listed in Table B applies only to Discharge 002, which discharges seasonally from about February to June. Discharge 001 is encompassed by the Willow Slough watershed methylmercury allocation listed in Table G.			the Conaway Ranch Toe Drain in the Yolo Bypass. The methylmercury load allocation listed in Table B applies only to Discharge 002, which discharges seasonally from about February to June. Discharge 001 is encompassed by the Willow Slough watershed methylmercury allocation listed in Table G.
92.5	NEW LINE		<p><u>New footnote:</u></p> <p>Information provided in February 2008 BPA's Table C about which facilities would be required to conduct Control Studies has been included in this BPA's Table B.</p> <p>RB: Staff used the same rationale for determining which facilities should do studies as that used in the February 2008 BPA version – facilities that discharge >1 mgd and >0.06 ng/l – with one exception. Staff included WWTPs that discharge >0.06 ng/l and > 1 mgd in the Central Delta in this version because even though they meet the proposed allocations (which are set at existing loads), studies are needed to ensure continued compliance. The staff report provides the rationale for this recommendation.</p> <p>Staff added the second sentence to address the possibility that facilities may have completed, or will soon complete, recent upgrades that substantially decrease effluent MeHg concentrations. [The Stockton WWTP might be an example of this scenario.]</p>	(h) These facilities are required to complete Phase 1 Control Studies. If they conduct effluent monitoring that demonstrates average effluent methylmercury concentrations less than 0.06 ng/l, they will not be required to conduct the Control Studies.
93	See Table C			Table C Footnotes
94	(a) Some MS4s service areas span multiple Delta subareas and are therefore listed more than once. The allocated methylmercury loads for all MS4s are based on the average methylmercury concentrations observed in runoff from urban areas in or near the Delta during water years 2000 through 2003, a relatively dry period. Annual loads are expected to fluctuate with water volume and other factors. Allocations will be revised during review of the Delta Mercury Control Program to include	MS4: Allocations will may be revised during review of the Delta Mercury Control Program to include available wet year data.	RB: Allocations were based on an existing data set and may be updated when more data are available.	(a) Some MS4s service areas span multiple Delta subareas and are therefore listed more than once. The allocated methylmercury loads for all MS4s are based on the average methylmercury concentrations observed in runoff from urban areas in or near the Delta during water years 2000 through 2003, a relatively dry period. Annual loads are expected to fluctuate with water volume and other factors. Allocations may be revised during review of the Delta Mercury

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	available wet year data.			Control Program to include available wet year data.
95	(b) The methylmercury wasteload allocations include all current and future permitted urban discharges not otherwise addressed by another allocation within the geographic boundaries of urban runoff management agencies, including but not limited to Caltrans facilities and rights-of-way (NPDES No. CAS000003), public facilities, properties proximate to banks of waterways, industrial facilities, and construction sites.	MS4: no change		(b) The methylmercury waste load allocations include all current and future permitted urban discharges not otherwise addressed by another allocation within the geographic boundaries of urban runoff management agencies, including but not limited to Caltrans facilities and rights-of-way (NPDES No. CAS000003), public facilities, properties proximate to banks of waterways, industrial facilities, and construction sites.
96	(c) The Contra Costa County MS4 discharges to both the Delta and San Francisco Bay. The above allocations apply only to the portions of the MS4 service area that discharge to the Delta within the Central Valley Water Quality Control Board's jurisdiction. Most of the MS4's service area falls within the San Francisco Bay Regional Water Quality Control Board's jurisdiction. Therefore, during Phase 1 of the Delta Mercury Control Program, the mercury control requirements approved by the San Francisco Bay Regional Water Quality Control Board (Resolution R2-2006-0052) for the Contra Costa County MS4 will be applied to its service area within the Central Valley Regional Water Quality Control Board's jurisdiction. The methylmercury allocation for the Contra Costa County MS4 service area within the Delta will be reevaluated during review of the Delta Mercury Control Program.	MS4: The Contra Costa County MS4 discharges to both the Delta and San Francisco Bay. The above allocations apply only to the portions of the MS4 service area that discharge to the Delta within the Central Valley Water Quality Control Board's jurisdiction. Most of the MS4's service area falls within the San Francisco Bay Regional Water Quality Control Board's jurisdiction. The mercury control requirements of the San Francisco Bay Regional Water Quality Control Board (Resolution R2-2006-0052) for the Contra Costa County MS4 apply to its service area within the Central Valley Regional Water Quality Control Board's jurisdiction. The methylmercury allocation and mercury and methylmercury control requirements for the Contra Costa County MS4 service area within the Delta will be reevaluated during review of the Delta Mercury Control Program.	RB: The suggested text "The methylmercury allocation and <u>mercury and methylmercury control requirements</u> for the Contra Costa County MS4 service area within the Delta will be reevaluated..." has been added.	(c) The Contra Costa County MS4 discharges to both the Delta and San Francisco Bay. The above allocations apply only to the portions of the MS4 service area that discharge to the Delta within the Central Valley Water Quality Control Board's jurisdiction. Most of the MS4's service area falls within the San Francisco Bay Regional Water Quality Control Board's jurisdiction. The mercury control requirements approved by the San Francisco Bay Regional Water Quality Control Board (Resolution R2-2006-0052) for the Contra Costa County MS4 apply to its service area within the Central Valley Regional Water Quality Control Board's jurisdiction. The methylmercury allocation for the Contra Costa County MS4 service area within the Delta will be reevaluated during the Delta Mercury Control Program Review.
97	See Table D			

Additional comments	<p>CWA: This revision presumes consensus that a shortened version of the BPA is preferable. It needs to be “memorialized” somewhere that this was not necessarily a consensus. CWA does not object in principle to streamlining the BPA when there is redundancy and approached this shortened version with an open mind that some of the detail could be included in the staff report. However, in actuality, we have found that much of the “background” information included in the Feb. 08 version actually clarifies the decisions being made regarding waste load allocations, the phased approach and implementation, whereas it will be difficult for the public or the Board itself to go back and forth between this document and the staff report for that information. “Streamlining” results in the omission of some of the detail that is necessary to determine whether the overall concepts in the BPA are acceptable or to provide the assurances that this TMDL will lead to the goals it sets for the Delta. We have tried to indicate some of the places where we believe more detail would be needed, though this is not necessarily definitive.</p> <p>RB: In response to CWA and many other stakeholders’ comments, staff added much of the background information provided in the February 2008 BPA version back into the BPA, as well as developed additional introductory and explanatory text. Also, staff tried to build in flexibility where possible (e.g., with the prioritization of Phase 1 studies), assurances for dischargers, and regulatory back-stops needed to ensure compliance, all of which kept this from being a shortened version of a Basin Plan amendment.</p>
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