Appendix B to the Staff Report

ENVIRONMENTAL CHECKLIST

APPENDIX B: Environmental Checklist

1. **Project Title:** Revisions to the San Francisco Bay Mercury Total Maximum Daily Load (TMDL) and proposed New Water Quality Objectives for Mercury.

2. **Lead Agency Name and Address:** California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

3. **Contact Person and Phone Number:** Dyan Whyte (510) 622-2441 Thomas Mumley (510) 622-2395

4. **Project Location:** San Francisco Bay and San Francisco Bay Region

5. **Project Sponsor's Name and Address:** California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

6. **General Plan Designation:** Not Applicable

7. **Zoning:** Not Applicable

8. **Description of Project:**

   The project consists of: 1) proposed revisions to the mercury TMDL Basin Plan Amendment, and 2) proposed water quality objectives for mercury in fish tissue to protect human health and wildlife. Additional details are provided in the explanation attached.

9. **Surrounding Land Uses and Setting:**

   The proposed water quality objectives and revisions to the Mercury TMDL Amendment would affect all segments of San Francisco Bay. Implementation would involve specific actions throughout the Bay Area.

10. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.)

    The California State Water Resources Control Board, the California Office of Administrative Law, and the U.S. Environmental Protection Agency must approve the proposed project.

ENVIRONMENTAL IMPACTS:

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. **Would the project:**				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY -- (cont.):				
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IV. BIOLOGICAL RESOURCES -- (cont.):				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VI. GEOLOGY AND SOILS -- (cont.):				
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VII. HAZARDS AND HAZARDOUS MATERIALS -- (cont.):				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VIII. HYDROLOGY AND WATER QUALITY -- (cont.):				
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XI. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XIII. PUBLIC SERVICES --				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XV. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XV. TRANSPORTATION / TRAFFIC – (cont.):				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Issues:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

EXPLANATION

Project Description

The proposed project (the Project) consists of the following changes to the Mercury TMDL Amendment (for reader ease, the Project description is repeated here from part I. Introduction):

1) Establish two numeric mercury water quality objectives for all segments of San Francisco Bay
   - To protect people who consume Bay fish (applies to larger fish consumed by humans): 0.2 mg mercury per kg fish tissue (average wet weight concentration, measured in edible portions (muscle tissue) of trophic level 3 and trophic level 4 fish)
   - To protect aquatic organisms and wildlife (applies to small fish consumed by birds): 0.03 mg mercury per kg fish (average wet weight concentration measured in whole fish 3–5 cm in length)
2) Vacate (i.e. remove) the water column four-day average mercury water quality objective for San Francisco Bay
3) Clarify TMDL targets as follows, in line with objectives stated above:
   - "To protect sport fishing and human health, the average mercury concentration in 60-cm striped bass muscle tissue shall not exceed 0.2 mg mercury per kg fish tissue (wet weight)."
   - "To protect aquatic organisms and wildlife, the concentration of mercury shall not exceed 0.03 ppm, wet weight average, in whole fish 3–5 cm in length."
   - The bird-egg target is a monitoring target.
4) Revise wasteload allocations and the implementation plan for wastewater sources, including:
   - Clarify the pollution prevention requirements for municipal wastewater
   - Establish more stringent wasteload allocations for municipal wastewater dischargers, to be implemented via individual mass limits and aggregate mass limits and incorporating ten-year interim and twenty-year final implementation schedules
   - Correct the wasteload allocations for industrial wastewater
   - Impose more stringent application of compliance triggers for both industrial and municipal wastewater
   - Require municipal and industrial wastewater and urban stormwater to conduct methylmercury monitoring
5) Add a statement to the dredging section of the Mercury TMDL Amendment clarifying the Water Board's intent that all dredging activities in the Bay comply with the Long Term Management Strategy.

6) Expand risk management activities to include investigation of ways to address public health impacts of mercury on people and communities most likely to be affected by mercury in San Francisco Bay-Delta caught fish, such as subsistence fishers and their families

In September 2004 the San Francisco Bay Regional Water Quality Control Board adopted a Basin Plan Amendment to incorporate a TMDL for mercury in the San Francisco Bay (Mercury TMDL Amendment). An Environmental Checklist was prepared for that project and published in April 2004, in compliance with CEQA and the Water Board guidelines of a certified CEQA program. Implementation of pollution reduction measures, public education, and water and sediment monitoring are described and analyzed in the Environmental Checklist for Mercury in San Francisco Bay Total maximum Daily Load and Basin Plan Amendment (Looker & Johnson 2004a).

In September 2005, the State Water Resources Control Board directed the Regional Board to consider revisions to the Basin Plan Amendment as specified in Resolution No. 2005-0060. This Environmental Checklist only evaluates potential environmental impacts of proposed revisions to the Mercury TMDL Amendment and the proposed new water quality objectives.

As mentioned above, the Project includes new proposed mercury water quality objectives to protect human health and wildlife and vacating the 4-day average marine water column water quality objective. Additions and deletion of water quality objectives and targets are presented in Table 1, below.

Table 1. Summary of Proposed Action as it Relates to Water Quality Objectives and TMDL Targets for Mercury in San Francisco Bay

Media	Limit	Proposed Action
Water	0.25 ug/l (4-day average for marine waters)	Vacate from Basin Plan as it applies to San Francisco Bay only
Fish tissue	0.03 mg mercury per kg fish (average wet weight concentration measured in whole fish 3–5 cm in length)	Add to Basin Plan as a new WQO and TMDL target
Fish tissue	0.2 mg mercury per kg fish tissue (average wet weight concentration measured in the edible portion of trophic level 3 and trophic level 4 fish)	Add to Basin Plan as a new WQO

Environmental Analysis

An environmental analysis of the Mercury TMDL was prepared and adopted by the Board in September 2004 on a programmatic Tier 1 level. The proposed Project consists of the above-referenced amendments to the 2004 Mercury TMDL and two new mercury water quality objectives. This environmental analysis only considers the environmental impacts of the proposed revisions and new water quality objectives. Like the 2004 Mercury TMDL, the Project does not define the specific actions local agencies must take to comply with requirements and the environmental analysis set forth herein is also on a

Tier 1 programmatic level. Project-specific environmental impacts will be evaluated as necessary when the projects are known.

The proposed Project will not have significant adverse impacts on the environment. Impacts of each of the above-referenced amendments and the new water quality objectives are discussed below and evaluated in the checklist.

New Water Quality Objectives

The proposed new water quality objectives are the same as the targets adopted or referred to in the Mercury TMDL Amendment adopted by the Water Board in 2004 and implementation of the new water quality objectives is to be achieved through implementation of the Mercury TMDL, as proposed to be revised through the Project. In other words, any physical environmental impacts associated with the proposed new water quality objectives stem from implementation of the Mercury TMDL, as revised. The new water quality objectives themselves are protective of human health, aquatic organisms and wildlife and are environmentally beneficial. With respect to impacts associated with implementation of these new objectives through the Mercury TMDL, the 2004 environmental analysis concluded there would be no significant environmental impacts. The current proposed revisions to the Mercury TMDL do not implicate new significant impacts, as set forth in more detail below.

Vacating the Existing 4-day Average Mercury Water Quality Objective

Vacating the existing 4-day average marine water quality objective for San Francisco Bay will not result in any significant impacts because the two new proposed water quality objectives for mercury in fish tissue are more stringent than the existing Basin Plan objective of 0.025 µg/l.

Clarifying the Mercury TMDL Targets

The human health target of 0.2 mg mercury per kg fish is not being revised; however, text is being added on the method to track progress toward attainment of the target using striped bass 60 cm long. The wildlife target is being re-expressed from a bird egg target (0.5 mg per kg wet weight) to the fish tissue target referenced in the 2004 Mercury TMDL (0.03 mg per kg fish tissue). These two targets reflect the same mercury concentration, with the differing numeric values attributable to how the same concentration of mercury manifests in fish tissue and bird eggs. These clarifications of the 2004 Mercury TMDL do not implicate any new impacts to the environment.

Revisions to Wasteload Allocations for Municipal Wastewater

The final total wasteload allocation for municipal wastewater is being revised from 17 kg/yr to 11 kg/yr—in effect, a 6 kg/yr total reduction to be achieved in 20 years (for context, Staff notes that the final TMDL for all sources is 700 kg/yr). This reduction entails the following reductions in individual wasteload allocations: (1) municipalities without advanced treatment: 40 percent reduction in the final wasteload allocation, with an interim reduction of 20 percent; (2) municipalities with advanced treatment: 20

percent interim and final reduction; (3) facilities whose allocation is 0.1 kg/yr or less or small municipal dischargers: no reduction. Interim reductions must be met in 10 years; final reductions must be met in 20 years.

The potential environmental impacts relate to the reasonably foreseeable methods of compliance with the reduced total wasteload allocation, although the required final reduction is only 6 kg/yr.

Municipalities will comply with the 20 percent reduction by intensifying their existing pollution prevention efforts. As set forth in the 2004 Mercury TMDL Environmental Checklist, physical environmental changes associated with these efforts relate to waste generation, handling and disposal. Pollution prevention activities would encourage proper disposal of mercury-containing wastes, which could slightly increase hazardous waste generation in the Bay Area. The 2004 Environmental Checklist concluded impacts of such slight increase would not be significant, and that to the extent such efforts divert mercury-containing wastes from inappropriate waste streams, it would be a benefit to the environment. The intensified pollution prevention efforts necessary to meet the 20 percent reduction would not significantly add to the generation of hazardous waste, either individually or cumulatively. Increased pollution prevention efforts such mercury amalgam collection from dental offices and mercury thermometer collection programs would add to the generation of mercury, but it would not be substantial and such mercury would be properly handled and disposed of instead of improperly ending up in sewers and non-hazardous waste landfills.

The 40 percent reduction is expected through a combination of aggressive pollution prevention and other mercury reduction methods, water re-use, pollutant trading, offsets and/or system improvements. The conceivable combinations municipalities could invoke to prevent 6 kg/yr of entering San Francisco Bay within the 20-year timeframe require speculation and cannot be evaluated at this point since the specific attributes of such projects and implementation actions are unknown. The Water Board is not dictating any particular method or combination of methods to comply with the 40 percent reduction. Rather, municipalities subject to the 40 percent reduction will be responsible for formulating their own project-specific strategies and they will undertake a Tier 2 project-specific environmental analysis to the extent required when the specific projects are proposed.

With respect to treatment plant upgrades as a method to comply with the 40 percent reduction, based on the public comments by municipal wastewater, treatment plant upgrades to advanced waste treatment/filtration, which has the potential for construction impacts, are not expected. Municipal wastewater sources have indicated through BACWA that upgrading to advanced waste treatment to comply with the 40 percent reduction is not reasonable, and is cost-prohibitive, and that they will investigate reasonable and feasible methods to comply. Their conclusion that upgrading is not reasonable appears to represent the rational calculus on the tens of millions of dollars it would take to chase a small amount of mercury. Thus, advanced waste treatment does not appear to be a reasonably foreseeable method of compliance with the 40 percent reduction requirement. In contrast, municipalities have expressed the need for the

mercury offset policy that State Water Board staff is tasked to develop under the Remand Resolution to comply with the final wasteload allocation. The environmental impacts of the yet-to-be-formulated offset policy is similarly difficult to forecast, much less analyze. When it is formulated, the State Water Board will undertake the appropriate CEQA review.

Revisions to Wasteload Allocation for Industrial Wastewater

The wasteload allocation for industrial wastewater is being revised to correct a calculation error. Specifically, the total load is being changed from 3 kg/yr to 1.3 kg/yr. The proposed load reflects current performance, and thus there is no change from the existing baseline condition, and thus no impacts.

Revisions to Implementation Plan

The Implementation Plan of the 2004 Mercury TMDL is proposed to be revised to 1) require methylmercury monitoring; 2) clarify requirements to better track the effectiveness of programs to control mercury sources and loadings; 3) require more risk management activities; 4) lower the bar for municipal and industrial wastewater to evaluate and correct exceedances of either the individual wasteload allocations or the mercury concentration triggers; and 5) include clarifying language that dredging comply with the existing Long Term Management Strategy. Revisions 2 and 5 do not involve physical changes to the environment. Methylmercury monitoring activities would not be continuous, occurring most frequently on a quarterly basis and would be conducted in an environmentally sensitive manner. The impacts, if any, would be less than significant. The specific increased risk management activities that will take place are unknown and therefore speculative to evaluate. Lowering the bar for municipalities and industrial wastewater to investigate and correct any exceedances would not have a significant adverse impact on the environment.

An explanation for each box checked on the environmental checklist is provided below:

I. Aesthetics

a-d) The new water quality objectives and revisions of the mercury TMDL would not substantially affect any scenic resource or vista, or degrade the existing visual character or quality of any site or its surroundings. It would not create any new source of light or glare.

II. Agriculture Resources

a-c) The Project would not involve the conversion of farmland to non-agricultural use. It would not affect agricultural zoning or any Williamson Act contract.

III. Air Quality

a) Because the Project would not cause any change in population or employment, it would not generate ongoing traffic-related emissions. It would also not involve the construction of any permanent emissions sources. For these reasons, no permanent

change in air emissions would occur, and the Basin Plan Amendment would not conflict with applicable air quality plans.

b) The Project objectives would not involve the construction of any permanent emissions sources or generate ongoing traffic-related emissions. The revised Basin Plan Amendment and new water quality objectives would not violate any air quality standard or contribute substantially to any air quality violation and no impacts would occur.

c) Because the Project would not generate ongoing traffic-related emissions or involve the construction of any permanent emissions sources, it would not contribute considerably to cumulative emissions.

d-e) Because the Project would not involve the construction of any permanent emissions sources, it would not expose sensitive receptors to ongoing pollutant emissions posing health risks or creating objectionable odors.

IV. Biological Resources

a-b) The Project is designed to benefit biological resources, including wildlife and rare and endangered species and would not substantially affect habitats, special-status species, or sensitive communities, and no adverse impacts would result.

c) The Project would require water and sediment sampling in wetlands to monitor methyl mercury production. Water quality monitoring would not be continuous (occurring most frequently on a quarterly basis) and would be conducted in an environmentally sensitive manner. Therefore, the project would and not result in significant adverse impacts to wetlands.

d-f) While no specific projects are required as part of the Project, any actions or specific projects would be developed in accordance with their local agency policies and ordinances, including any applicable habitat conservation plans, natural community conservation plans, or other plans intended to protect biological resources. Therefore, this Project would not conflict with local policies, ordinances, or adopted plans.

V. Cultural Resources

a-d) The Project would not include any substantial construction activities not previously considered in the Environment Checklist for the San Francisco Bay mercury TMDL and would not adversely affect any cultural resource, and no impacts would occur.

VI. Geology and Soils

a) The Project would not involve the construction of habitable structures; therefore, it would not involve any human safety risks related to fault rupture, seismic ground-shaking, ground failure, or landslides.

b) The Project itself would not involve any substantial construction beyond what was analyzed in the Environmental Checklist for the San Francisco Bay Mercury TMDL

(Looker & Johnson 2004a). Compliance with the more stringent wasteload allocations will likely be realized over time not through new treatment plant facilities, but through a combination of aggressive pollution prevention and other cost-effective mercury reduction methods, wastewater treatment system improvements, and the implementation of a State-developed program that establishes pollutant offsets and credits. Therefore, it would not result in substantial soil erosion and no impacts would occur.

c-d) The Project would not involve the construction of habitable structures. Therefore, the Basin Plan Amendment would not create safety or property risks due to unstable or expansive soil.

e) The Project would not require wastewater disposal systems; therefore, affected soils need not be capable of supporting the use of septic tanks or alternative wastewater disposal systems.

VII. Hazards and Hazardous Materials

a-f) Impacts related to mercury load reduction and remediation actions were evaluated in the Environmental Checklist for the San Francisco Bay Mercury TMDL (April 2004). No additional adverse impacts related to hazardous waste and the environment would result from the Project.

g) Hazardous waste management activities resulting from the Project would not interfere with any emergency response plans or emergency evacuation plans.

h) The Project would not affect the potential for wildland fires.

VIII. Hydrology and Water Quality

a) The Project would amend the Basin Plan, which articulates applicable water quality standards; therefore, it would not violate standards or waste discharge requirements.

b) The Project would not decrease groundwater supplies or interfere with groundwater recharge.

c-i) The Project would not include construction activities not previously considered in the Environment Checklist for the Mercury TMDL Amendment (Looker & Johnson 2004a) that would not result in substantial soil erosion, increase the rate or amount of runoff or result in flooding or increased flood hazards. Because the proposed Project is intended to reduce mercury-laden runoff, it would not be a source of new polluted runoff, or degrade water quality.

j) Any Project-related construction would not be subject to substantial risks due to inundation by seiche, tsunami, or mudflow.

IX. Land Use and Planning

a) The Project does not include planned construction that would divide any established community.

b-c) The Project would not conflict with any land use plan, policy, or regulation, and would not conflict with any habitat conservation plan or natural community conservation plan.

X. Mineral Resources

a-b) The Project would not result in the loss of availability of any known mineral resources.

XI. Noise

a-d) The Project does not include construction activities or other actions that would generate noise significant temporary or permanent noises sources beyond what was analyzed in the Environmental Checklist for the Mercury TMDL Amendment (Looker & Johnson 2004a). Sampling for methylmercury would occur at or near the ground or water surface and would not require drilling. No noise or vibration impacts would result from the Project and the Project would not result in violation of local agencies' noise standards.

e-f) The Project would not cause any permanent increase in ambient noise levels, including aircraft noise. Therefore, it would not expose people living within an area subject to an airport land use plan or in the vicinity of a private airstrip to excessive noise.

XII. Population and Housing

a-c) The Project would not affect the population of the Bay Area or California. It would not induce growth through such means as constructing new housing or businesses, or by extending roads or infrastructure. The Project would also not displace any existing housing or any people that would need replacement housing.

XIII. Public Services

a) The Project would not affect populations or involve construction of substantial new government facilities. The Project would not affect service ratios, response times, or other performance objectives for any public services, including fire protection, police protection, schools, or parks.

XIV. Recreation

a-b) Because the Project would not affect population levels, it would not affect the use of existing parks or recreational facilities. No recreational facilities would need to be constructed or expanded.

XV. Transportation / Traffic

a-b) Because the Project would not increase population or provide employment, it would not generate any ongoing motor vehicle trips. Therefore, the Project would not substantially increase traffic in relation to existing conditions. Levels of service would be unchanged.

c) The Project would not affect air traffic.

d) Because the Project would not affect any roads or the uses of any roads, it would not result in hazardous design features or incompatible uses.

e) Because the Project would not affect traffic or roadways, it would not restrict emergency access.

f) Because the Project would not increase population or provide employment, it would not affect parking demand or supply.

g) Because the Project would not generate ongoing motor vehicle trips, it would not conflict with adopted policies, plans, or programs supporting alternative transportation.

XVI. Utilities and Service Systems

a) The Project would amend the Basin Plan, which is the basis for wastewater treatment requirements in the Bay Area; therefore, the Project would be consistent with such requirements.

b) The Project does not mandate the construction of new or expanded water or wastewater treatment facilities. Upgrading of existing wastewater treatment facilities to advanced treatment/filtration, which has the potential for air, construction and traffic impacts, is not a reasonably foreseeable method of compliance for the reasons given above. System improvements may occur to comply with the 40 percent reduction, which may involve minor construction activities. But it would be speculative to evaluate such changes without knowing the specifics of the improvements. If and when they are proposed, they would be evaluated in a project-specific Tier 2 environmental analysis.

c) Because the Project does not revise the stormwater wasteload allocations, the Project would not cause local agencies to construct some new or expanded urban storm water runoff management facilities beyond what was evaluated in the 2004 Environmental Checklist and analysis and no impacts would occur.

d-e) Because the Project would not increase population or provide employment, it would not require an ongoing water supply. It would also not require ongoing wastewater treatment services.

f-g) The project would not generate substantial additional hazardous waste beyond what was analyzed in the 2004 Environmental Checklist. The potential for the Mercury TMDL and Basin Plan Amendment to generate mercury-containing waste was evaluated in the Environmental Checklist for that project San Francisco Bay Regional Water Quality Control Board (Looker & Johnson 2004a). The Project would not substantially affect municipal solid waste generation or landfill capacities.

XVII. Mandatory Findings of Significance

a) The Project would not degrade the quality of the environment. The proposed Project is intended to benefit wildlife and rare and endangered species by decreasing mercury concentrations in San Francisco Bay aquatic organisms to levels where wildlife that consume aquatic organisms do not experience any harm.

b) The Project would not result in significant adverse impacts. There are no potential adverse impacts that would interact in such a way as to further degrade the environment and no cumulative effects would occur. Adopting the new water quality objectives and revisions of the Mercury TMDL Amendment would require no mandatory findings of significance.

c) The Project would not cause any substantial adverse effects to human beings, either directly or indirectly. The Project is intended to benefit human beings (particularly sport and subsistence fishers) by decreasing San Francisco Bay fish tissue mercury concentrations to levels where humans can consume as much fish as they desire without experiencing adverse health effects.