

**Summary of the Revisions to the
Proposed Final Staff Report and Proposed Final Mercury Amendments**

For reference, below are the revisions made to the Draft Staff Report and Appendix A: Provisions since the January 3, 2017 release of the public review drafts. These revisions are reflected in the Proposed Final Staff Report and Proposed Final Appendix A: Provisions released on April 21, 2017. Revisions are shown in red strikethrough/underline. This list is not meant to be exhaustive, rather it is to help the reader more easily understand the substantive changes.

No	Page	Revision(s)
1	ii	Revised section as follows: <p style="text-align: center;">“Felicia Marcus, <i>Chair</i> Frances Spivy-Weber <u>Steven Moore</u>, <i>Vice Chair</i> Tam M. Doduc, <i>Member</i> Steven Moore <u>Joaquin Esquivel</u>, <i>Member</i> Dorene D'Adamo, <i>Member</i> Thomas Howard, <i>Executive Director</i>”</p>
2	Staff Report pp. 6	Revised the sentence as follows: “1) <u>Tribal Subsistence Fishing (T-SUB)</u> : Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities of California Native American Tribes to meet minimal needs for sustenance.”
3	Staff Report pp. 6	Revised the sentence as follows: “2) <u>Subsistence Fishing (SUB)</u> : Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities, to meet minimal needs for sustenance.
4	Staff Report pp. 10	Revised the sentence as follows: “The existing <u>existing</u> general permit for industrial activities already includes methods to control mercury if the Numeric Action Level for mercury is exceeded.”
5	Staff Report pp. 11	Revised the sentence as follows: “The Provisions’ new requirements imposed on dischargers are discussed in the Staff Report in comparison to existing policy, existing requirements, and where possible, the current performance of discharges in Chapters 6 <u>6 and 7</u> , to anticipate the new costs or new requirements the Provisions may impose on dischargers.”
6	Staff Report pp. 11	Revised the sentence as follows: “ Generally, the <u>Generally,</u> The Mercury Water Quality Objectives would become effective upon adoption by the State Water Board and approval by OAL and U.S. EPA, which typically occurs within a few months after the State Water Board adoption. The Tribal Subsistence Fishing Water Quality Objective and the Subsistence Fishing Water Quality Objectives <u>generally</u> would only apply to a particular water body after the corresponding beneficial use is designated to a water body. However, <u>compliance with</u> either of the objectives may <u>could</u> be incorporated into <u>required in</u> a permit <u>action</u> prior to formal designation if the Water Boards determine that tribal subsistence fishing or subsistence fishing is an existing use.
7	Staff Report	Added the section as follows: “ <u>Executive Order B-10-11 provides that it is the policy of the administration of the Governor of the State of California that every</u>

	pp. 17	<u>state agency encourage consultation and communication with California Indian Tribes and permit tribal governments to provide meaningful input in the development of regulations, rules, and policies that may affect tribes.”</u>		
8	Staff Report pp. 18	Revised table 2-2, row 7, as follows: <table border="1" data-bbox="418 359 1203 415"> <tr> <td>Northern California Tribal Representatives</td> <td>Loleta (<u>near</u> Eureka), July 15, 2016</td> </tr> </table>	Northern California Tribal Representatives	Loleta (<u>near</u> Eureka), July 15, 2016
Northern California Tribal Representatives	Loleta (<u>near</u> Eureka), July 15, 2016			
9	Staff Report pp. 106 & 107	Added the section as follows: <u>“As discussed in the Staff Report, the Regional Water Boards may consider whether a use is an existing or a probable future use to designate during a basin planning process. With respect to designating a water body with one or more of the proposed beneficial uses as an existing use, the Regional Water Board must rely on empirical evidence. A board would evaluate the extent to which evidence is relevant and reliable. In making that determination, the Regional Water Board should give consideration as to whether the evidence is representative of a water body or anomalous. With respect to designating a water body with one or more of the proposed beneficial uses as a “probable future” use (also called “goal” uses), a Regional Water Board also must rely on empirical evidence to evaluate whether to restore a past use, whether it is a planned future use, whether the future use is likely, or whether there is a public desire to put water to such uses. With respect to designating an existing use with the T-SUB or SUB beneficial use, the terms “individuals” or “households” are not intended to cover a single individual or single household engaging in these beneficial uses in a given waterbody and a single individual or household engaging in either the TSUB or SUB beneficial use would not be, on its own, a basis for designation by a Regional Water Board, nor would consumption rates by a single individual or household constitute sufficient evidence for establishing water quality objectives to protect that use. However, such could be the basis for a Regional Water Board to designate the T-SUB or SUB beneficial use as a “probable future” use. Discretion remains with the Water Board in assessing such evidence and rendering a determination to designate with an existing or probable future use.”</u>		
10	Staff Report pp. 132	Revised section as follows: <u>“These mercury enriched soils can be washed into water bodesbodies by nonpoint source discharges. Nonpoint source discharges can include surface water runoff from forests, agricultural land, grazing land, some urban areas, wetland/riparian areas, hydromodifications, and other land features.”</u>		
11	Staff Report pp. 134	Revised section as follows: <u>“New wetland projects (creation or restoration of wetlands) should not be prevented because of mercury concerns. However, wetland projects should be done in manner to reduce unintended impacts (see Section 4.4.7). If practicable, new wetlands should not be created in areas with high levels of mercury. This option essentially recommends methylmercury controls in high mercury areas. This is included in the Provisions by restating existing authority (that a permit writer could require parties to include features or measures to reduce methylmercury), <u>and providing a recommendation (that while specifying in areas with high mercury levels the permit writer should consider requiring such requirements in areas with high mercury levels). Possible measures to recuce methylmercury include minimizing the wetting and drying of soil through frequent water level fluctuations and sediment controls to limit the transport of mercury out of wetland. Frequent water level fluctuations (wetting and drying of</u></u>		

		<p>soil) may exacerbate methylation (see Appendix Q) and should be avoided in high mercury areas. The minimization of wetting and drying of soil is included as a possible measure to control methylation. Additionally, if new wetlands are to be created, restored, or enhanced in areas with high mercury levels, then the permit writer may include requirements for sediment controls. Sediment controls can limit the transport of methylmercury out of a wetland. (For additional information on how wetlands can increase or decrease mercury methylation, see Section 4.4.7 or Appendix Q). Wetland projects also would need to adhere to the requirements of the Proposed Procedures for the Regulation of Discharges of Dredged or Fill Material, upon adoption.”</p>
12	Staff Report pp. 135	<p>Revised section as follows: “Option 3: Establish new requirements for mercury and methylmercury and continue to use existing programs. This option would use existing programs and <u>require provide that the Water Boards would be expected to consider</u> new implementation actions to control mercury and methylmercury <u>in areas with elevated levels of mercury</u>. For example, if specific BMPs could be used to control mercury in wetlands, the Provisions could require the BMPs for every wetland project. However, the science on mercury/ methylmercury controls is not advanced enough to provide BMPs that will clearly reduce mercury or methylmercury in most situations. <u>As a result, under this option the applicable Water Board retains discretion to discern what, if any, mercury controls would be appropriate for nonpoint sources, dredging activities, and wetland and wetland restoration projects.</u>”</p>
13	Staff Report pp. 139	<p>Revised section as follows: “Other facilities likely to discharge mercury include recycling facilities, dismantling yards or wrecking yards, scrap and waste material facilities (SIC 4953 -5093), and metal mining facilities (SIC1011 - 1099XX-14XX).”</p>
14	Staff Report pp.143	<p>Revised section as follows: “Generally, tThe Provisions would apply to dischargers with individual permits. The Provisions would not automatically apply to dischargers enrolled in general permits. General permits (non-storm water) should be considered on a case-by-case basis during development or renewal by the permit writer. Many general permits fall under exceptions in the SIP (vector control, drinking water systems) and others are low volume, low threat discharges. General storm water permits are addressed in Section 6.11.”</p>
15	Staff Report pp. 144	<p>Revised the section as follow: “Option 1 (RECOMMENDED): Use a mercury concentration in water. In this option, discharges with a mercury level above or equal to the water column target would generally need effluent limitations. <u>The water column target would be used in the existing procedures in the SIP</u>Step 6 in Section 1.3 of the SIP <u>would be replaced and dischargers to waters where the background concentration in the receiving water is higher than the effluent limit would be required to monitor effluent for mercury, but an effluent limit may not be required</u> (Figure 6-2. Also see SIP section 1.3, the target would be used as “C”). Data on mercury level in fish tissue would not be a routine consideration in this option. There are three options to consider as the potential water column targets which are the options described in Section 6.13.”</p>
16	Staff Report pp. 145-	<p>Revised flow chart-please see Staff Report</p>

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17	Staff Report pp. 153	Revised section as follows: “Additionally, the background levels of mercury in some of California’s waters are elevated. The average total mercury concentration in surface waters from 2004 to 2012 was 4.7 ng/L (median was 2 ng/L, 95 th percentile: 16.1 ng/L, see section 4.5.1). The average is higher than the lowest water column target included in the options below, 4 ng/L total mercury. Where the background mercury level is high, it may not be reasonable to require smaller contributors of mercury to reduce their mercury discharge to levels below background. ”
18	Staff Report pp. 154	Revised table 6-1, please see Staff Report.
19	Staff Report pp. 154	Revised section as follows: “For subsistence fishing, since the water quality objective is narrative, the effluent limitation would be derived on a case-by-case basis. The California or U.S. EPA BAFs could be used to calculate a water column concentration as was done in Appendix I. <u>**Slow moving water bodies are stationary or relatively still water bodies that are expected to have higher potential to methylate mercury than flowing water bodies.</u> ”
20	Staff Report pp. 154-155	Revised section as follows: “This option includes two <u>three</u> appropriate exceptions to avoid undue economic or social hardship: 1) facilities only serving small disadvantaged communities, and 2) insignificant discharges, <u>and 3) intake water</u> . These exceptions would not be automatic. <u>For the first two exceptions (facilities only serving small disadvantaged communities and insignificant dischargers) the Permitting Authority is not required to follow the prescriptive requirements contained in Chapter IV.D.2.c of the Provisions for determining reasonable potential. Rather, the</u> permit writer would have to <u>should</u> review water body specific information and make a finding based on the information that the discharge will have no reasonable potential to cause or contribute to an exceedance of the water quality objective. For example, the fact that fish mercury concentrations meet the water quality objectives could support the finding. Insignificant discharges are discharges determined by the permit writer to be a very low threat to water quality, such as small, non-continuous discharges. The Provisions define “small disadvantaged communities” as “[m]unicipalities with populations of 20,000 persons or less, or a reasonably isolated and divisible segment of a larger municipality encompassing 20,000 persons or less, with an annual median household income that is less than 80 percent of the statewide annual median household income.” <u>The intake water exception may be applied when the permit writer determines that the sole source of mercury in the effluent is from the intake of surface water. The Permitting Authority should use the considerations included in Section 1.4.4 of the SIP in determining if the intake water exception should be applied to a discharge.</u> These two <u>three</u> exceptions could be used to relieve small dischargers from the expense of routine monitoring. Mercury monitoring using the newest method (Method 1631 E) is much more expensive than monitoring for other common metals.”
21	Staff Report	Revised section as follows: “Professional judgment of the permit writer and site-specific information is needed to asses if the receiving water type would best be

	pp. 156	categorized as “slow moving” or “flowing” as listed in Table 6-1 as described here.”
22	Staff Report pp. 158	<p>Revised section as follows: <u>“Existing mercury TMDLs have comprehensively assessed the linkages between point and non-point sources and have developed appropriate load and waste load allocations. These TMDLs have found that a large component of the impairment is due to legacy sources of bedload sediment, which can be cleaned through time, generally through natural processes. The Water Boards should consider if there are additional controls that should be implemented during the periodic review of the TMDL.</u></p> <p><u>Therefore, waters that are designated with a new beneficial use that requires a more stringent mercury water quality objective or effluent limit, an interim effluent limit, based on the waste load allocation in the existing TMDL may be used. An interim effluent limit may only be used if the discharger is assigned a waste load allocation by existing mercury TMDL, and the discharger demonstrates that the discharger is not immediately able to achieve compliance with a more stringent effluent limitation associated with a newly designated beneficial use. Interim effluent limits may be allowed so long as the discharger is subject to a time schedule to complete feasible tasks to control mercury, if any are available in addition to those currently being used. This may include source control strategies such as pollution prevention and education programs. The discharger must also make a commitment to support, participate in, and expedite the development of a new TMDL that incorporates the mercury water quality objective or effluent limit required to achieve the newly designated beneficial use. A time schedule to complete the implementation of feasible tasks to control mercury must be specified in the permit and must reflect a realistic assessment of the shortest practicable time required to perform each task.</u></p> <p><u>The interim effluent limitation may apply up to 10 years from the effective date of the first permit that included the interim effluent limits or until the new TMDL is in effect. Once a new TMDL is in effect the final effluent limitation assigned to the discharger will be based on the waste load allocation in the new mercury TMDL.</u></p>
23	Staff Report pp. 165	<p>Revised section as follows: “The San Francisco Bay mercury TMDL includes a public exposure reduction program that was fairly successful (CDPH 2012). The success of the San Francisco Bay program iswas partly attributed to the <u>initial</u> assistance provided by CDPH. However, those resources have not been available for the public exposure reduction program for the Sacramento San Joaquin Delta, and it has been a struggle to put that program into action. The Water Boards would require staff and funding to perform public education.”</p>
24	Staff Report pp. 174-177	<p><u><i>Added entire section as follows: “7.2.7 Wastewater Treatment Plants and Industrial Dischargers – General Requirements</i></u></p> <p><u>Some wastewater treatment plants and industrial dischargers will be required to meet new effluent limitations in order to comply with the provisions. In each case, the effluent limitation requirements will be based on the beneficial use(s) of the receiving waters. Appendix N and Sections 6.13.3 and 7.2.8 through 7.2.11 of this report present details regarding the reasonably foreseeable number of systems</u></p>

that may need significant upgrades in order to comply with the Provisions.

The reasonably foreseeable number of significant wastewater treatment plants and industrial discharger facility upgrades is also summarized below according to the effluent limitations that may result from the Provisions:

- **For the 12 ng/L effluent limitation:** up to a maximum of approximately 17 facilities are reasonably foreseen to require additional controls (e.g., pollution minimization programs). However, few of the 17 facilities included in this estimate are considered likely to actually require significant upgrades.
- **For the 4 ng/L effluent limitation:** up to a maximum of approximately 10 facilities is reasonably foreseen to require significant upgrades, based on the unlikely assumption that all bays and estuaries will be determined to be slow moving waters by permit writers.
- **For the 1 ng/L to 4 ng/L effluent limitations:** up to a maximum of approximately 8 facilities is reasonably foreseen to require significant upgrades. This number of facilities could already be included in the estimates for 12 ng/L and 4 ng/L above. This estimate is based on assumptions of future designations of tribal subsistence fishing beneficial use in the North Coast Region, and carries many of the same uncertainties that are associated with facilities that may be required to meet the 1 ng/L effluent limitation (see below).
- **For the 1 ng/L effluent limitation:** the number of facilities that may require significant upgrade is not reasonably foreseeable at this time. The unforeseeable terms and conditions applied by each Regional Board in designating the subsistence fishing beneficial uses to achieve this effluent limitation, the anticipated use of compliance schedules, dilution credits, and variances, the effects of mercury minimization programs, the development of new treatment approaches, the development of TMDLs, and the duration and terms of existing NPDES permit requirements combine to make the number of significant facility system upgrades associated with this category of effluent limitation is not reasonably foreseeable at this time.

A combination of treatment processes may be necessary to achieve compliance with effluent limitations described above. Wastewater treatment plants and industrial dischargers that already have tertiary treatment systems in place will likely be able to meet the new 12 ng/L and 4 ng/L effluent limitation requirements with relatively minor modification to their existing systems. However, there may be some wastewater treatment plants and industrial dischargers that already have tertiary treatment systems in place that will need new and potentially significant upgrades. Also, those wastewater treatment plants industrial dischargers that

only have secondary treatment systems in place may require significant upgrade to tertiary treatment to meet the 12 ng/L and 4 ng/L (or less) effluent limitation requirements. The upgrades which have been evaluated here can be categorized as (1) secondary to tertiary treatment upgrades, and (2) advanced tertiary treatment upgrades.

Secondary to Tertiary Treatment Upgrades

Some wastewater treatment plants and industrial facilities may not provide wastewater treatment beyond secondary treatment, as these facilities are only required to meet secondary treatment standards for biochemical oxygen demand, total suspended solids, and pH. Such facilities may have to add tertiary treatment facilities to comply with new mercury effluent limitations. The following is a description of reasonably foreseeable tertiary treatment options for these facilities.

Chemical Addition, Clarification, and Filtration

A common tertiary treatment process that would aid in removal of mercury is chemical addition followed by clarification and filtration. Chemicals, such as coagulants and flocculants, can be added to the secondary effluent to help bind suspended solids containing mercury. This will allow the solids to become heavier and settle in the clarifier for removal. Remaining solids will be filtered.

Upgrades involve construction of reaction tanks, clarifiers, filters, and appurtenances. The size of the treatment facility depends on wastewater characteristics and plant size. As a new treatment facility would be required, upgrading would impact facility operation. This would add new operations, increase the facility's chemical use, require additional maintenance, add additional sludge or hazardous waste handling, and require monitoring for low concentrations mercury.

Adsorption

During adsorption, mercury ions adhere to the surface of another substance or adsorbent. There are two methods of wastewater treatment by adsorption. One method involves adding powdered adsorbent to wastewater, following the same process described in the previous section for chemical addition, clarification, and filtration. The other method involves passing wastewater containing mercury through a stationary bed containing the adsorbent in granular or pellet form until mercury is reduced to the desired concentration. This section discusses facility upgrades using the second method - installing a stationary bed.

Upgrades involve installing the adsorption system and appurtenances. Selection of the appropriate adsorbent system is dependent upon adsorbent, facility characteristics, and treatment goals. Fixed-bed adsorption systems vary in size and configuration, and can have a single reactor or multiple columns of adsorbent.

As a new treatment facility would be required, upgrading would impact facility operation. This would increase energy use for pressurized systems, require adsorbent maintenance and pretreatment to avoid fouling or improve removal mechanisms, add additional sludge or hazardous waste handling, and may also require improved monitoring for low concentrations mercury.

Advanced Tertiary Treatment Upgrades

Wastewater treatment plants and industrial facilities may already have tertiary treatment facilities and can treat mercury to low levels, but may need to improve treatment to meet more stringent water quality objectives. The following is a description of reasonably foreseeable advanced tertiary treatment options.

Metal Precipitation

Metal precipitation enhances municipal and industrial wastewater treatment by transforming dissolved metal ions into an insoluble metal precipitate. The resulting precipitate can be removed by clarification or filtration. The process is similar to chemical addition described in the previous section. Coagulants or flocculants may be added to improve settling of mercury precipitates.

Upgrades may involve construction of reaction tanks, clarifiers, filters, and appurtenances to carry out metal precipitation. However, wastewater treatment plants and industrial facilities may already have treatment processes and equipment necessary. Thus, upgrades to facilities for mercury precipitation may not need additional equipment and may only require adjustment of existing treatment processes by adding chemicals. This would increase the facility's chemical use, require additional maintenance, add additional sludge or hazardous waste handling, and may require monitoring for low concentrations of mercury. It is also important to consider the amount of chemical required to achieve the mercury removal desired.

Membrane Filtration

Membrane filtration is a process where wastewater under high pressure is forced through a permeable membrane. Membranes have pore sizes that only allow materials with a certain size through their surfaces, thus, performance is maximized when wastewater entering the filter has already been treated.

Upgrades will involve installing membrane technology and appurtenances. Selection of the appropriate membrane technology (e.g. ultrafiltration and reverse osmosis) and overall size of membrane system is dependent upon facility characteristics. Additionally, there are a number of operational considerations when using membrane filtration. Membrane filtration involves using high pressure, which results in an increased energy use. Furthermore, the membranes must be maintained and treated prior to use

		<p><u>to avoid fouling and protect membrane surfaces. Since mercury levels will be reduced to very low concentrations, improved monitoring to accurately detect low concentrations of mercury may be needed. The concentrated or brine waste must be properly disposed of. It is important to consider the number of membranes, space, and energy required to achieve the mercury removal desired.</u></p> <p><u>Selection of one or more of the reasonably foreseeable treatment alternatives described above will be highly dependent on individual existing facility characteristics such as existing equipment, space available, power sources and usage, personnel, anticipated environmental impacts, and other factors. Comparison and selection of any one standard or optimum treatment method is therefore more appropriately done at the individual project level.</u></p>
25	Staff Report pp.177	Renumbered section as follows: “ <u>7.2.87 Wastewater treatment Plants and Industrial dischargers-Requirements for Sport Fish and Wildlife Water Quality Objectives in flowing Water Bodies</u> ”
26	Staff Report pp.179	Revised section as follows: “However, wastewater and industrial facility upgrades may be needed to comply with multiple future statewide or region-wide water quality objectives for other pollutants adopted by the Water Boards over the next several years. Currently, the State Water Board is developing statewide water quality objectives for bacteria, toxicity, nutrients, and biological integrity. These new water quality objectives, when adopted, may require more stringent effluent limitations. The effect of these anticipated effluent limitations, together with the need to achieve mercury effluent limitations, may result in facility upgrades. Facility upgrades would be a significant constriction project to a plant that only has a secondary level of treatment. The upgrade would likely add nitrification and denitrification steps to the treatment process, or add additional filtration. <u>one of the treatment methods described in Section 7.2.7</u> ”
27	Staff Report pp.181	Renumbered section as follows: “ <u>7.2.98 Wastewater Treatment Plants and Industrial Dischargers – Requirements for Sport Fish and Wildlife Water Quality Objectives in Slow Moving Water Bodies and Tribal Subsistence Fishing Water Quality Objective and Subsistence Fishing Water Quality Objective in Flowing Water Bodies.</u> ”
28	Staff Report pp. 183	Revised section as follows: “A Mercury Minimization Program (described in Section 7.2.87) may be used by some facilities that are not able to achieve the effluent limitation consistently. Therefore, the effluent limitation may result in an increase in vehicle use, lab supplies and waste generation.”
29	Staff Report pp. 184	Renumbered section as follows: “ <u>7.2.109 Wastewater Treatment Plants and Industrial Dischargers – Requirements for Tribal Subsistence Fishing Water Quality Objectives in discharges to slow moving waters.</u>
30	Staff Report pp. 185	Revised section as follows: “A Mercury Minimization Program (described in Section 7.2.87) may be used by some facilities that are not able to achieve the effluent limitation consistently. Therefore, the effluent limitation may result in an increase in vehicle use, lab supply use, and waste generation.”
31	Staff Report	Renumbered section as follows: “ <u>7.2.1110 Wastewater Treatment Plants and Industrial Dischargers – Requirements for Subsistence Fishing Water</u>

	pp. 185	<u>Quality Objectives in discharges to any waters and any of the Mercury Water Quality Objectives (Sports Fish, Prey Fish, Tribal Subsistence Fishing and Subsistence Fishing) for Discharges to Lakes and Reservoirs.</u>
32	Staff Report pp.187	Revised section as follows: “A Mercury Minimization Program (described in Section 7.2.87) may be used by some facilities that are not able to achieve the effluent limitation consistently. Therefore, the effluent limitation may result in an increase in vehicle use, lab supplies and waste generation.”
33	Staff Report pp. 194-197	<p>Revised section as follows: However, Regional Water Boards have not designated Subsistence Fishing or Tribal Subsistence Fishing beneficial uses to any waters in California, so it is difficult to predict where those beneficial uses may be designated and if they would have an impact on any wastewater treatment or industrial facilities requiring upgrades (but see Section 7.2.8XX, which acknowledges that the North Coast Regional Water Board has designated numerous waters with the Native American Culture beneficial use).</p> <p><u>The reasonably foreseeable number of wastewater and industrial discharger treatment systems estimated to require significant upgrade ranges between 10 and a maximum of 35 in total. The basis for the estimate is described in Sections 6.13.3, 7.2.7 through 7.2.11, and Appendix N of this report. The Wastewater Treatment/Industrial Facility Upgrades activities which cause potential environmental impacts in association with the reasonably foreseeable wastewater treatment system upgrades are summarized below, and are further discussed in Section 8.4:</u></p> <p>would involve earth moving, construction activities, and heavy vehicle/equipment use. Depending on the location and specifics of the upgrade, various construction activities resulting from such upgrades could potentially significantly impact biological resources, geological resources, greenhouse gas emissions, noise, and utilities and service systems (described more in detail in Section 8.4).</p> <p><u>Chemical Addition, Clarification, and Filtration Upgrades involve construction of reaction tanks, clarifiers, filters, and appurtenances. The size of the treatment facility depends on wastewater characteristics and plant size. As a new treatment facility would be required, upgrading would involve construction activities which would potentially cause impact by earth moving and heavy vehicle or equipment use, and could increase the areal footprint of the facilities.</u></p> <p><u>New impacts may also be caused by newly required facility operations, such as potential increases to the facility’s chemical use, additional maintenance activities, additional sludge or hazardous waste handling, increased energy consumption, and increased or improved monitoring for low concentrations of mercury.</u></p>

Adsorption

Upgrades involve installing the adsorption system and appurtenances. As a new treatment facility would be required, upgrading would involve construction activities which would potentially cause impact by earth moving and heavy vehicle or equipment use, and could increase the areal footprint of the facilities.

New impacts may also be caused by newly required facility operations, such as increased energy use for pressurized systems, required adsorbent maintenance and pretreatment to avoid fouling or improve removal mechanisms, additional sludge or hazardous waste handling, and possibly increased or improved monitoring for low concentrations mercury.

Metal Precipitation

Upgrades may involve construction of reaction tanks, clarifiers, filters, and appurtenances to carry out metal precipitation. However, wastewater treatment plants and industrial facilities may already have the necessary treatment processes and equipment in place. Thus, upgrades to facilities for mercury precipitation may not need additional equipment and may only require adjustment of existing treatment processes by adding chemicals.

Where construction of new facilities is required, upgrading would involve construction activities which would potentially cause impact by earth moving and heavy vehicle or equipment use, and could increase the areal footprint of the facilities.

New impacts may also be caused by newly required facility operations, such as increases in chemical use, additional maintenance activities, additional sludge or hazardous waste handling, and increased or improved monitoring for low concentrations of mercury. It is also important to consider the amount of chemical required to achieve the mercury removal desired. Note that there would not be environmental impacts from construction if the facility is only adjusting existing treatment.

Membrane Filtration

Upgrades will involve installing membrane technology and appurtenances. Selection of the appropriate membrane technology (e.g. ultrafiltration and reverse osmosis) and overall size of membrane system is dependent upon facility characteristics.

Where construction of new facilities is required, upgrading would involve construction activities which would potentially cause impact by earth moving and heavy vehicle or equipment use, and could increase the areal footprint

		<p><u>of the facilities.</u></p> <p><u>New impacts may also be caused by newly required facility operations, such as increased energy use (caused in part by system pressurization), maintenance and treatment of the membranes prior to use to avoid fouling and protect membrane surfaces, increased or improved monitoring for low concentrations of mercury, and proper disposal of concentrated or brine waste. It is important to consider the number of membranes, space, and energy required to achieve the mercury removal desired.</u></p> <p><u>As can be seen above, the potential environmental impacts of the reasonably foreseeable treatment alternatives appear very similar overall. This is in part because without knowing the specific design, installation, and operational conditions for treatment system upgrade at a project level, detailed direct comparison of the impacts is not reasonably foreseeable.</u></p> <p><u>These potential impacts have therefore been considered and incorporated into the single category of “Mercury Water Quality Objectives- Implementation: Wastewater treatment plants and industrial dischargers” in Table 8-1.</u></p> <p><u>Depending on the location and specifics of the facility, various construction and operations activities resulting from the upgrades described above could potentially impact biological resources, geological resources, greenhouse gas emissions, noise, and utilities and service systems (described more in detail in Section 8.4). Where the impacts are considered to be potentially significant, mitigation measures are also described in Section 8.4.</u></p>
34	Staff Report pp.197	Revised section as follows: “Table 8- 12 identifies the Provisions’ primary elements and summarizes any related reasonably foreseeable methods of compliance and the actions that could have potential significant impacts. Table 8- 12 also provides a brief assessment of whether significant environmental impact is anticipated.”
35	Staff Report pp.198-199	Renamed and edited table as follows: “Table 8. 12 . Methods of Compliance”. Please see Staff Report for table edits.
36	Staff Report pp.268	Revised section as follows: “While the requirements in the Provisions may not be very different than existing existing permits and polices, these requirements provide a somewhat higher level of mercury control in some cases and these requirements provide better statewide consistency. Alternative 4 lacks these requirements, and is, therefore, not the preferred alternative.”

37	Staff Report pp.273	Revised section as follows: “It is unknown how many facilities will need the meet the effluent limitations of 1 ng/L and 4 ng/L, since it is unknown where the beneficial uses of SUB and T-SUB will be designated in the future and it is uncertain which water bodies will be categorized a “slow moving waters” (see discussion in Section 7.2.89 through Section 7.2.1110).”
38	Appendix A pp. A-1	Revised title page as follows: “Appendix A. Proposed Provisions for Draft Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses Draft <u>Revised Draft Final</u> Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions
39	Appendix A pp. ALL	Revised Footnote as follows: “Appendix A: Draft <u>Revised Draft Final</u> Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions April 21. 2017.”
40	Appendix A pp. A-3	Revised section II as follows: “A Regional Water Quality Control Board (<u>Regional Water Board</u>) shall use the beneficial uses and abbreviations listed below, to the extent it defines such activities in a water quality control plan after <i>[insert effective date of Part 2]</i> .”
41	Appendix A pp. A-3	Revised section II as follows: “ <u>For the State Water Resources Control Board (State Water Board) or a Regional Water Board to</u> To designate the Tribal Tradition and Culture or Tribal Subsistence Fishing beneficial uses in a water quality control plan for a particular waterbody segment and time(s) of year, a CALIFORNIA NATIVE AMERICAN TRIBE ¹ must confirm the designation is appropriate. No confirmation is required to designate the Subsistence Fishing beneficial use in a water quality control plan. ”
42	Appendix A pp. A-3	Revised section II as follows: “ 1) The Tribal Subsistence Fishing and Subsistence Fishing beneficial uses relate to the risks to human health from the consumption of noncommercial fish or shellfish. The two subsistence fishing beneficial uses <u>normally involve assume a</u> higher rates of consumption of fish or shellfish than those that protected under the Commercial and Sport Fishing and the Tribal Tradition and Culture beneficial uses. The functions of the <u>Tribal Tradition and Culture,</u> Tribal Subsistence Fishing and Subsistence Fishing beneficial uses <u>are is</u> not to protect or enhance fish populations or aquatic habitats. Fish populations and aquatic habitats are protected and enhanced by other beneficial uses, including but not limited to, <u>Fish Spawning, Migration of Aquatic Organisms,</u> Aquaculture, Warm Freshwater Habitat, and Cold Freshwater Habitat, that are designed to support aquatic habitats for the reproduction or development of fish.
43	Appendix A pp. A-3	Revised section II as follows: “ 1) <u>Tribal Tradition and Culture (CUL):</u> Uses of water that support the cultural, spiritual, ceremonial, or traditional rights or LIFEWAYS of <u>CALIFORNIA NATIVE AMERICAN TRIBES</u> California Native American Tribes , including, but not limited to: navigation, ceremonies, or fishing, gathering, or consumption of natural aquatic resources, including fish, shellfish, vegetation,

		and materials.”
44	Appendix A pp. A-3	Revised footer 2 as follows: <u>“² Terms in “all cap” font (excepting the beneficial use abbreviations) are defined in Attachment A (Glossary).”</u>
45	Appendix A pp. A-4	Revised section II as follows: “ 2) Tribal Subsistence Fishing (T-SUB): Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities of California Native American Tribes to meet minimal needs for sustenance.”
46	Appendix A pp. A-4	Revised section II as follows: “ 3) <u>Subsistence Fishing (SUB)</u> : Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities, to meet minimal needs for sustenance.”
47	Appendix A pp. A-4	Revised section III.D.2 as follows: “Chapter III.D.2 contains five numeric mercury fish tissue water quality objectives, which are formulated for one or more of the applicable beneficial uses, depending on the consumption pattern (which includes consumption rate, fish size, and species) by individuals and wildlife.”
48	Appendix A pp. A-4	Revised Footnote 3 as follows: “ ³ The water quality objective applicable to the SUB beneficial use (see Section-Chapter III.D.2.c) also applies to the Subsistence Fishing (FISH) beneficial use contained in the North Coast Regional Water Quality Control Board’s water quality control plan.”
49	Appendix A pp. A-5	Revised III.D.2.a.1 as follows: “The Sport Fish Water Quality Objective for mercury applies to waters with the beneficial uses of COMM, CUL ⁵ , WILD, and/or MAR. However, in some circumstances (i.e., depending on whether TROPHIC LEVEL 3⁶ or TROPHIC LEVEL 4 fish are in the water body), with respect to the WILD and MAR beneficial uses, additional water quality objectives also need to be utilized to evaluate whether consumption of fish by all wildlife species is supported (see below discussion).”
50	Appendix A pp. A-	Revised III.D.2.a.2 as follows: “The Sport Fish Water Quality Objective is: The average methylmercury concentrations shall not exceed 0.2 milligrams per kilogram (mg/kg) fish tissue within a calendar-year <u>CALENDAR YEAR</u> ⁶ . The water quality objective applies to the WET WEIGHT concentration in skinless fillet in TROPHIC LEVEL 3 or TROPHIC LEVEL 4 fish, whichever is the HIGHEST TROPHIC LEVEL FISH in the water body. Freshwater TROPHIC LEVEL 3 fish are between 150 to 500 millimeters (mm) in total length and TROPHIC LEVEL 4 fish are between 200 to 500 mm in total length, except for sizes specified in Attachment C, or as additionally limited in size in accordance with <u>the</u> LEGAL SIZE LIMIT for the species caught. Estuarine fish shall be within the LEGAL SIZE LIMIT and greater than 150 mm, or as otherwise specified in Attachment C.”
51	Appendix A pp. A-5	Revised Footnote 6 as follows: “ ⁶ <u>Any explicit reference in the MERCURY PROVISIONS to “CALENDAR YEAR” means a fixed period of twelve CALENDAR MONTHS (i.e., the period of months would not be moving or rolling).</u>
52	Appendix A pp. A-6	Revised section III.D.2.b.2 as follows: “The Tribal Subsistence Fishing Water Quality Objective is: The average methylmercury concentrations shall not exceed 0.04 mg/kg fish tissue within a calendar-year <u>CALENDAR YEAR</u> . The objective applies to the WET WEIGHT concentration in skinless fillet from a mixture of 70

		percent TROPIC LEVEL 3 fish and 30 percent TROPIC LEVEL 4 fish as detailed in Attachment C.”
53	Appendix A pp. A-6	Revised section III.D.2.c.2 as follows: “The Subsistence Fishing Water Quality Objective is: Waters with the Subsistence Fishing (SUB) beneficial use shall be maintained free of mercury at concentrations which accumulate in fish and cause adverse biological, reproductive, or neurological effects <u>in people</u> .”
54	Appendix A pp. A-7	Revised section III.D.2.d.1 as follows: “The Prey Fish Water Quality Objective applies to waters with the WILD <u>and/or</u> MAR beneficial uses. However, the objective does not apply to water body segments where the California Least Tern Prey Fish Water Quality Objective applies (see Chapter III.D.2.e). <u>As discussed in Chapter III.D.2.a, it is not necessary to measure the Prey Fish Water Quality Objective if the Sport Fish Water Quality Objective applies to the same water body and is evaluated using TROPIC LEVEL 4 fish. However, if the Sport Fish Water Quality Objective is exceeded when applied to TROPIC LEVEL 3 fish that is sufficient evidence to indicate that the Prey Fish Water Quality Objective is also exceeded without having to measure the latter objective (see flow chart in Attachment B).</u> ”
55	Appendix A pp. A-8-9	Revised section IV.D.1 as follows: “The implementation provisions of Chapter IV.D shall be implemented through NPDES permits issued pursuant to section 402 of the Clean Water Act, water quality certifications issued pursuant to section 401 of the Clean Water Act, waste discharge requirements (WDRs), and waivers of WDRs, where any of the MERCURY WATER QUALITY OBJECTIVES apply. The implementation provisions pertaining to a particular beneficial use do not apply to dischargers that discharge to receiving waters for which a mercury or methylmercury total maximum daily load (TMDL) is established pertaining to the same beneficial use or uses. ⁸ <u>Such “receiving waters” are those for which a mercury or methylmercury TMDL is approved and does not include upstream water bodies even if the TMDL contains waste load allocations for the dischargers to the upstream water bodies to be implemented as effluent limitations to achieve the downstream water quality standard. For such upstream dischargers, the implementation provisions of Chapter IV.D apply. In the case where both the TMDL and application of the procedure at Chapter IV.D.2.c requires an effluent limitation, then the more stringent requirement shall apply to the discharge.</u> <u>EXISTING MERCURY TMDLs are in effect for numerous water bodies throughout the State which examine and address the water quality problems associated with mercury that adversely affect the COMM, WILD, or RARE beneficial uses. Such TMDLs identify sources of mercury, which may include but are not limited to runoff from historic mines, urban runoff, wastewater discharges, atmospheric deposition, natural erosion, and resuspension of historic deposits of mercury-laden sediment. A Regional Water Board may adopt a new mercury TMDL for CUL,</u>

		<u>T-SUB, or SUB that substantially relies on the assumptions, technical and scientific basis, and requirements of an EXISTING MERCURY TMDL, if the analyses and assumptions underlying the EXISTING MERCURY TMDL remain valid. In such circumstances, the new mercury TMDL may effectively include the same actions of the EXISTING MERCURY TMDL with the exception of including a longer period of time to ensure the water quality objective associated with the CUL, T-SUB, or SUB beneficial use is attained.</u>																					
56	Appendix A pp. A-8	Revised Footnote 8 as follows: “⁸Such “receiving waters” are those for which a mercury or methylmercury TMDL is approved and does not include upstream water bodies even if the TMDL contains waste load allocations for the dischargers to the upstream water bodies to be implemented as effluent limitations to achieve the downstream water quality standard. For such upstream dischargers, the implementation provisions of Chapter IV.D apply. In the case where both the TMDL and application of the procedure at Chapter IV.D.2.c requires an effluent limitation, then the more stringent requirement shall apply to the discharge.”																					
57	Appendix A pp. A-10	<p>Revised Table 1 as follows: Table 1. Values for C (water column concentration) based on water-body type and beneficial use.</p> <table border="1"> <thead> <tr> <th>Beneficial Use of the Receiving Water</th> <th>COMM, CUL, WILD, MAR, RARE</th> <th>COMM, CUL, WILD, MAR, RARE</th> <th>COMM, CUL, T-SUB, WILD, MAR, RARE</th> <th>T-SUB</th> <th>T-SUB</th> <th>SUB</th> </tr> </thead> <tbody> <tr> <td>Water body type</td> <td>Flowing water bodies (generally, rivers, creeks, and streams, <u>and waters with tidal mixing</u>)</td> <td>Slow moving water bodies** (generally, lagoons, <u>closed estuaries,</u> and marshes)</td> <td>Lakes and reservoirs</td> <td>Flowing water bodies (generally, rivers, creeks, and streams, <u>and waters with tidal mixing</u>)</td> <td>Slow moving water bodies** (generally, lagoons, <u>closed estuaries,</u> and marshes)</td> <td>Any</td> </tr> <tr> <td>Value for “C”</td> <td>12 ng/L total mercury</td> <td>4 ng/L total mercury</td> <td>Case-by-case*</td> <td>4 ng/L total mercury</td> <td>1 ng/L total mercury</td> <td>Case-by-case*</td> </tr> </tbody> </table> <p>*The PERMITTING AUTHORITY shall calculate C from the water quality objective, and may use available data, including U.S. EPA’s recommended national bioaccumulation factors and chemical translators. **<u>Slow moving water bodies are stationary or relatively still water bodies that are expected to have higher potential to methylate mercury than flowing water bodies.</u></p>	Beneficial Use of the Receiving Water	COMM, CUL, WILD, MAR, RARE	COMM, CUL, WILD, MAR, RARE	COMM, CUL, T-SUB, WILD, MAR, RARE	T-SUB	T-SUB	SUB	Water body type	Flowing water bodies (generally, rivers, creeks, and streams, <u>and waters with tidal mixing</u>)	Slow moving water bodies** (generally, lagoons, <u>closed estuaries,</u> and marshes)	Lakes and reservoirs	Flowing water bodies (generally, rivers, creeks, and streams, <u>and waters with tidal mixing</u>)	Slow moving water bodies** (generally, lagoons, <u>closed estuaries,</u> and marshes)	Any	Value for “C”	12 ng/L total mercury	4 ng/L total mercury	Case-by-case*	4 ng/L total mercury	1 ng/L total mercury	Case-by-case*
Beneficial Use of the Receiving Water	COMM, CUL, WILD, MAR, RARE	COMM, CUL, WILD, MAR, RARE	COMM, CUL, T-SUB, WILD, MAR, RARE	T-SUB	T-SUB	SUB																	
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58	Appendix A pp. A-10	Revised section IV.D.2.b.1 as follows: “The PERMITTING AUTHORITY may develop a site-specific water column concentration value (C) by utilizing a site-specific BIOACCUMULATION FACTOR, linear regression model ² , or peer-reviewed model, derived from a study of the receiving water downstream of the discharge. The study must <u>consider seasonal variation, including</u> , at a minimum, include data from three separate time points. Data collected at each time point must all be collected on the same day from within the same vicinity and must include a minimum of: 1) four total mercury water column samples, 2) four dissolved methylmercury water column samples, and 3) ten mercury fish tissue samples. The fish tissue samples shall be from TROPIC LEVEL 4 FISH, but if TROPIC LEVEL																					

		4 FISH are not the HIGHEST TROPHIC LEVEL FISH in the water body, then the samples shall be from the size of fish that corresponds with the Prey Fish Water Quality Objective or California Least Tern
59	Appendix A pp. A-10	Revised Footnote 9 as follows: <u>“⁹ The linear regression analysis is a fish tissue based analysis that directly correlates water-body specific mercury fish tissue concentration to mercury water column concentrations.”</u>
60	Appendix A pp. A-11	Revised section IV.D.2.C.1 as follows: “A PERMITTING AUTHORITY is required to apply section 1.3 of the State Water Resources Control Board’s Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (generally referred to as the SIP) (pages 5-8), to determine whether a discharge has REASONABLE POTENTIAL, in which case the permit must contain a water quality-based effluent limitation. “
61	Appendix A pp. A-11	Revised section IV.D.2.C.1 as follows: <u>“Step 3: Replace Step 3 of the SIP with the following: Determine the mercury concentration for the effluent using the highest observed annual average effluent mercury concentration. The annual average shall be calculated as an arithmetic mean of all effluent mercury samples during a CALENDAR YEAR. For any sample reported as below the detection limit, one half of the detection limit shall be used to calculate the arithmetic mean. For any sample reported as below the quantitation limit and above the detection limit, the estimated concentration shall be used to calculate the arithmetic mean. The annual average concentration is used to account for the long-term nature of the methylmercury bioaccumulation process, which may not otherwise be reflected using the maximum concentration as required by the SIP.”</u>
62	Appendix A pp. A-12	Revised section IV.D.2.C.1 as follows: <u>“Step 5: Apply as set forth in the SIP, but replace the determination of the “maximum” ambient background concentration for mercury (denoted as B in the SIP), with the highest observed annual average ambient background concentration. The annual average shall be calculated as an arithmetic mean, as described in Section 1.4.3.2 of the SIP, except if the arithmetic mean is below the detection limit, then one half of the detection limit shall be used, using all ambient background total mercury samples collected during a CALENDAR YEAR.</u> <u>Step 6: Replace Step 6 of the SIP with the following: A water quality-based effluent limitation is not required unless the highest observed annual effluent mercury concentration is greater than C. However, if B is greater than C, and mercury is detected in the effluent, effluent monitoring is required (as described in Chapter IV.D.2.d.2.iii). Regardless as to whether B is greater or less than C, and whether mercury is detected in the effluent, proceed to Step 7 of the SIP.”</u>
63	Appendix A pp. A-12	Revised section IV.D.2.C.2 as follows: “If, upon the completion of applying the REASONABLE POTENTIAL analysis set forth in Chapter IV.D.2.c.1, a water quality based effluent limitation is required, then the PERMITTING AUTHORITY shall calculate the effluent limitation by applying section 1.4 of the SIP. as follows: <u>The if part B of section 1.4 of the SIP applies, the</u> PERMITTING AUTHORITY shall apply Steps 1-7 contained in part B of <u>section 1.4 of the SIP as modified by Chapter IV.D.2.c.2.i, below. If, however, an EXISTING MERCURY TMDL is in effect for the applicable water body that implements a water quality objective other than any of the MERCURY WATER QUALITY OBJECTIVES, the PERMITTING AUTHORITY may</u>

64	Appendix A pp. A-12	<p><u>apply Chapter IV.D.2.c.2.ii, below.</u></p> <p>Revised section IV.D.2.C.2.i as follows: “ i. Steps 1 through 7<u>the following:</u></p> <p><u>Step 1:</u> Replace Step 1 of the SIP with the following: Use the same value for C as used for the REASONABLE POTENTIAL analysis in Chapter IV.D.2.c.1, Step 1, rather than the applicable fish tissue mercury water quality objective. If data are insufficient to calculate the effluent limitation, the RWQCB PERMITTING AUTHORITY shall establish interim requirements in accordance with section 2.2.2 of the SIP.</p> <p><u>Step 2:</u> Apply as set forth in the SIP, except the ambient background concentration (referred to as B in the SIP) shall be calculated as an arithmetic mean as described in Section 1.4.3.2 of the SIP. Dilution shall be prohibited if the mercury concentration in fish tissue from fish in the receiving water exceeds the applicable MERCURY WATER QUALITY OBJECTIVES.<u>A dilution credit should be denied if the mercury concentration in fish tissue from fish in the receiving water exceeds the applicable MERCURY WATER QUALITY OBJECTIVES and other information indicates a lack of assimilative capacity, including the hydraulics of the water body, potential for bioaccumulation, or other pertinent factors.</u></p> <p><u>Steps 3-5:</u> Skip Steps 3-5.</p> <p><u>Step 6:</u> Apply as set forth in the SIP but set the effluent limitation as an <u>average of the total mercury concentration in a CALENDAR YEAR</u>annual average of total mercury (rather than a monthly average) equal to the effluent concentration allowance (ECA) (from Step 2)</p>
65	Appendix A pp. A-13	<p>Revised section IV.D.2.C.2.ii as follows: “ ii. <u>Existing mercury TMDL</u></p> <p><u>If the discharger is assigned a waste load allocation by the EXISTING MERCURY TMDL, the interim effluent limitation and final effluent limitation may be established as follows:</u></p> <p><u>Interim effluent limitations. If the discharger demonstrates that the discharger is not immediately able to achieve compliance with the effluent limitation calculated by applying Chapter IV.D.2.c.2.i, above, the interim effluent limitation may be based on the requirements of the applicable waste load allocation in the EXISTING MERCURY TMDL applicable to the discharger, so long as: (a) the discharger is subject to a time schedule to complete FEASIBLE tasks to control mercury, if any, in addition to those currently underway, including the development of a proposed schedule for future source control tasks, and (b) the discharger makes a commitment to support, participate in, and expedite the development of a TMDL to implement any of the MERCURY WATER QUALITY OBJECTIVES and associated beneficial uses (CUL, T-SUB, SUB) (i.e., referred to herein as the new mercury TMDL). The time schedule to complete the additional tasks shall be specified in the permit and shall reflect a realistic assessment of the shortest practicable time required to perform each task.</u></p> <p><u>The interim effluent limitation may apply until the new mercury TMDL is in effect, provided the new mercury TMDL is in effect within ten years from the date the permit included the interim effluent limitation.</u></p> <p><u>Final effluent limitations. The final effluent limitation may be based on the</u></p>

		<u>applicable waste load allocation assigned to the discharger by the new mercury TMDL for the water quality standard under evaluation. If the new mercury TMDL is not in effect within ten years from the date the permit included the interim effluent limitation as provide above, the final effluent limitation shall be determined in accordance with Chapter IV.D.2.c.2.i. The permit shall include a reopener clause to modify the permit if the new mercury TMDL is not in effect within the ten-year period.</u>
66	Appendix A pp. A-14	Revised section IV.D.2.d.2.iii as follows: “Dischargers without mercury effluent limitations are required to conduct total mercury monitoring in the effluent at a frequency of no less than once per permit cycle <u>term</u> .”
67	Appendix A pp.A-14	Revised section IV.D.2.d.3 as follows: “ <u>Compliance Determination.</u> The annual average mercury concentration in the effluent shall be calculated as an arithmetic mean <u>of all mercury effluent samples collected during a CALENDAR YEAR</u> . For any sample reported as below the detection limit, one half of the detection limit shall be used to calculate the arithmetic mean. For any sample reported as below the quantitation limit and above the detection limit, the estimated concentration shall be used to calculate the arithmetic mean.”
68	Appendix A pp. A-14	Revised section IV.D.2.d.4 as follows: “ <u>Compliance Schedule.</u> The PERMITTING AUTHORITY may include a compliance schedule in NPDES permits to achieve the mercury effluent limitation in accordance with the Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits (State Water Board Resolution No. 2008-0025). <u>The compliance schedule may be consistent with Chapter IV.D.2.c.2.ii, if applicable.</u> ”
69	Appendix A pp. A-14-15	Revised section IV.D.2.d.4 as follows: “ <u>Small Disadvantaged Communities.</u> The PERMITTING AUTHORITY is authorized to exempt POTWs only serving SMALL DISADVANTAGED COMMUNITIES from some or all of the provisions of Chapter IV.D.2- e if the PERMITTING AUTHORITY makes a finding that the discharge will have no REASONABLE POTENTIAL ¹¹ with respect to the applicable MERCURY WATER QUALITY OBJECTIVES. For POTWs only serving SMALL DISADVANTAGED COMMUNITIES that do not have an effluent discharge prior to permit issuance or renewal that is representative of the quality of the proposed discharge, the PERMITTING AUTHORITY is authorized to make this determination and exempt the POTW only after the first year of effluent discharge.
70	Appendix A pp. A-14	Revised Footnote 11 as follows: “ ¹¹ <u>The PERMITTING AUTHORITY is not required to follow the prescriptive requirements of Chapter IV.D.2.c to make a finding that the discharge has no REASONABLE POTENTIAL.</u> ”
71	Appendix A pp. A-14	Revised section IV.D.2.e.2 as follows: “ <u>Insignificant Discharges.</u> The PERMITTING AUTHORITY is authorized to exempt certain dischargers from some or all of the provisions of Chapter IV.D.2 if the PERMITTING AUTHORITY makes a finding that the discharge will have no REASONABLE POTENTIAL ¹¹ with respect to the applicable MERCURY WATER QUALITY OBJECTIVES.”
72	Appendix A pp. A-15	Revised Footnote 12 as follows: “ ¹² <u>See footnote 11.</u> ”
73	Appendix A	Revised section IV.D.2.e.3 as follows: “ <u>Intake Water.</u> The PERMITTING AUTHORITY is authorized to exempt a facility from some or all of the provisions of

	pp. A-15	<u>Chapter IV.D.2 if the PERMITTING AUTHORITY makes a finding that the sole source of the mercury in the effluent is shown to be from intake water from surface water or groundwater and the facility discharges to the source water body.”</u>
74	Appendix A pp. A-18-19	Revised section Attachment A. Glossary as follows: <u>“CALENDAR MONTH: A period of time from a day of one month to the corresponding day of the next month if such exists, or if not to the last day of the next month (e.g., from January 3 to February 3 or from January 31 to February 29).</u> CALENDAR QUARTER: A period of time defined as three <u>successive-consecutive</u> calendar months. <u>CALENDAR YEAR: A period of time defined as twelve consecutive CALENDAR MONTHS.</u> CALIFORNIA NATIVE AMERICAN TRIBE(S): A federally-recognized California tribal government listed on the most recent notice of the Federal Register or a non-federally recognized California tribal government on the California Tribal Consultation List maintained by the California Native American Heritage Commission. <u>EXISTING MERCURY TMDL: A total maximum daily load for mercury approved by U.S. EPA for a COMM, WILD, or RARE beneficial use. FEASIBLE: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”</u>
75	Appendix A pp. A-18	Revised caption of Attachment D, Table B-1 as follows: <u>“* Regional Water Quality Control Board”</u>
76	Appendix R pp. R-1	Revised section as follows; <u>“December 2016[INSERT DATE 2017] Draft for Internal Review—Do Not Quote or Cite Final for Public Review</u>
77	Appendix R pp. all	Revised footer in all pages as follows; <u>“Draft for Internal Review Only-Dn Not Quote or Cite”</u>
78	Appendix R pp. 17,18,20, 22-25, 28-33,36,39, 42,45-47,50-54	Revised title in all assorted tabled to remove error as follows: <u>“Exhibit Error! No text of specified style in document.</u>
79	Appendix S. pp. S-1	<u>Full peer review documentation, including the request for peer review, qualifications, and individual peer review responses, may be found at http://www.waterboards.ca.gov/water_issues/programs/peer_review/mercury_wq_objectives/index.shtml</u>