OLIVENHAIN
Municipal Water District

February 17, 2017

Jeanine Townsend
Clerk of the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-2000
Email: commentletters@waterboards.ca.gov

Re: Proposed Mercury Regulations for Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Mercury Provisions (the "Provisions")

Dear Ms. Townsend,

I write on behalf of Olivenhain Municipal Water District (OMWD) to respectfully offer comments on the State Water Resources Control Board's (Board) Mercury Provisions included in the Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. OMWD is a water district formed under Water Code sections 71000 et seq., providing safe, reliable, and high-quality water and wastewater services to approximately 84,000 customers in Encinitas, Carlsbad, San Diego, San Marcos, Solana Beach, and neighboring communities. OMWD has two water treatment facilities (the 4S Ranch Water Reclamation Facility & David C. McCollom Water Treatment Plant), two NPDES industrial stormwater permitted sites, and groundwater development and treatment projects, all of which will potentially be impacted by the Board's proposed Provisions.

OMWD concurs with the legal and policy points raised by the California Water Association (CWA), the Association of California Water Agencies (ACWA), and the California Municipal Utilities Association (CMUA) in their letter dated February 17, 2017. As a member agency of ACWA, OMWD submits this letter to supplement the comments of CWA,ACWA, and CMUA, and to provide information and examples of the practical, operational impacts that the Provisions will have on OMWD, its operations, and its 84,000 ratepayers, a material percentage of whom are also socio-economically disadvantaged.

Consistent with CWA and ACWA, OMWD emphasizes that our most pressing concerns relate to those Provisions that (1) regulate inland surface waters, enclosed bays and estuaries throughout California and that regulate operational discharges immediately upon adoption of the Provisions, without further regional water quality control board hearings, due process, or public comment opportunities, and (2) that are not associated with the protection of cultural or socioeconomically driven elevated rates of fish consumption. Specifically, our concerns center on the unattainability, disproportionate economic and operational impacts, and serious risk of enforcement liability resulting from the adoption and immediate application of the following "Non-Tribal/Non-Subsistence Related Provisions" of the mercury program:

- A new sport fish mercury objective (0.2 mg/kg) which is more stringent than the federal law objective that applies to all waterbodies currently designated either COMM, WILD, RARE,

WARM, COLD, MAR, EST, or SAL to protect general fishing and human health for those consuming a typical level of fish;

- Two new, very stringent wildlife protection water quality objectives to protect prey fish (.05 mg/kg) and California least tern (CLT) prey fish (.03 mg/kg) that apply to all waterbodies designated WILD, RARE, WARM, COLD, MAR, EST, or SAL to support wildlife beneficial uses that are not directly related to the fishable/swimmable goals derived from federal Clean Water Act, 33 U.S.C. §1251; and

- Three new, exceptionally low, "C" values, which will essentially function as effluent limitations for mercury per Staff discussion (ranging from 1 ng/L to 4 ng/L to 12 ng/L) that must be applied upon adoption of in all non-stormwater, individual NPDES permits, including groundwater and water supply treatment NPDES permits, wastewater treatment NPDES permits, and water purification/recycled water production NPDES permits, as well as other individual permits such as dewatering, line testing, and industrial discharge NPDES permits.

We also have serious concerns about the absence of effective statewide and state funded implementation program measures to address these new regulatory mandates, and the disproportionate burden that these mandates impose on local water agencies and our customers.

A. The Provisions Do Not Consider Mercury Water Quality Conditions or the Principal Sources of Mercury and are Unattainable and Cost Prohibitive

The federal Clean Water Act's implementing regulations require states to adopt water quality criteria or, under California parlance, water quality objectives (WQOs) that protect beneficial uses based on sound scientific rationale. (40 CFR § 131.11(a).) For toxic pollutants such as mercury, states must "review water quality data and information on discharges to identify specific water bodies" where a toxic pollutant may be adversely affecting water quality or achievement of a beneficial use. (*Id.*) Further federal guidance directs states responsible for developing WQOs under the Clean Water Act to prioritize consideration of implementation measures and issues as part of the water quality criteria and standards development process, with a focus on addressing implementation issues early that may impede attainability of water quality standards. (*Priorities for Water Quality Standards and Criteria Programs* § 5, U.S. EPA Office of Science and Technology, April 2016.)

Further, the California Water Code requires the Board to consider, *inter alia,* the following when establishing WQOs:

- Environmental characteristics of hydrographic unit addressed by the objectives, including quality of water thereto (Wat. Code § 13241(b));

- The water quality conditions that can be reasonably achieved through coordinated control of all factors affecting water quality (Wat. Code § 13241(c));

- Implementation program actions and measures that are reasonably designed to achieve the new water quality objectives. (Wat. Code § 13242 (a));

- Economic considerations (Wat. Code § 13241(d)); and

- The need to develop and use recycled water (Wat. Code § 13421 (f)).

Unfortunately, the Provisions implement a mass designation of WQOs throughout inland surface waters, estuaries, and enclosed bays for Sport Fish, Prey Fish, and CLT Prey Fish instead of analyzing and taking into account the following factors as required by law:

- existing and naturally occurring levels of mercury in soils and water in each hydrographic unit affected by the WQO designations;
- the nature and sources of mercury in the environment and receiving waters within each hydrographic unit;
- the very limited degree to which mercury reductions and the mercury WQOs can be reasonably achieved by coordinated control of water quality factors; and
- the absence of implementation measures reasonably designed to attain the WQOs.

In fact, the implementation program does not identify any means to attain the new WQOs, in part because reasonable means to address the naturally occurring, legacy mining, and aerial deposition sources of mercury necessary to achieve such stringent WQOs do not exist. Because consideration of these legal factors is not appropriately driving the establishment of WQOs, the Provisions propose unattainable WQOs. Ultimately, these unattainable WQOs will require regional water quality control boards to devote significant resources to list most inland surface waters, enclosed bays, and estuaries under Clean Water Act Section 303(d) as impaired for mercury and, over time, to develop Total Maximum Daily Loads (TMDLs) for all such waters.

Further, the Provisions establish, as the centerpiece of the implementation program for the WQOs new, very stringent, mandatory mercury numeric effluent limitations (NELs) for all individual non-stormwater NPDES permits, ranging from 1 ng/L to 12 ng/L depending on receiving water body flow conditions and beneficial uses. These new NELs are proposed to apply to individual non-stormwater NPDES Permits, 401 water quality certifications, Waste Discharge Requirements, and waivers (pp. A-8 – 10).[1] In addition, in the future, other very stringent effluent limitations for other bioaccumulative pollutants must also be developed (e.g., PCBs and other pollutants), and would be applied similarly. (Staff Report Appendix T.) However, as the Staff Report acknowledges, contrary to applicable law, these new very stringent NELs governing NPDES permit discharges are not reasonably designed to achieve the proposed mercury WQOs because NPDES permit discharges are not an appreciable source of mercury. Instead the primary sources of mercury "may not be directly regulated by the water boards (e.g.,

---

1 Although there has been some confusion regarding the NPDES permits that the Provisions will apply to, the Provisions clearly require the implementation of effluent limits in, at a minimum, all individual non-stormwater NPDES Permits and WDRs. This encompasses many more permits than just those permits issued to POTWs or municipal wastewater plants and individual industrial dischargers. Appendix N defines "municipal wastewater and industrial NPDES permits" as all individual non-stormwater NPDES Permits and WDRs. In addition, the Staff Report indicates that certain General NPDES permits and WDRs already excluded from the SIP or involving low threat discharges should be excluded from the amended SIP analysis and default effluent limits set forth in the Provisions (pp. 145, N-1). However, the regulatory language of the Provisions does not contain express exceptions or clarify whether other General Permits and WDRs, like the Recycled Water WDRs, would also be excluded from the amended SIP analysis and default effluent limitations.

atmospheric emissions, naturally occurring in soils, or geothermal sources)," and therefore the actual sources of mercury are not addressed by the proposed implementation program. (Staff Report, p. 108; see also, e.g., Staff Report, p. 153-154.)

In addition, the Provisions fail to properly and fully analyze and assess the economic impacts of setting the WQOs at unattainable low levels, and specifying compliance of with NELs by individual non-stormwater NPDES permit discharges as the primary implementation program measure. Compliance with the new NELs to implement the WQOs would increase OMWD operating costs, including costs of monitoring at new and much reduced detection levels and additional operating costs associated with implementation of more robust treatment processes and compliance protocols at OMWD's tertiary treatment facility. In addition, compliance with the new NELs would require tremendous capital investment to update treatment technologies, compliance protocols, and outreach programs at OMWD's water supply treatment facilities.

With respect to increased operating costs based on the methodologies and assumptions established in Appendix R of the Staff Report, the estimated cost to improve OMWD's wastewater treatment facility processes and compliance programs, which currently employ a tertiary filtration approach, necessary to consistently meet the average annual NEL value proposed by the Provisions would be approximately $224,000 per year. Such costs are not considered in the Staff Report. Further, the Staff Report does not include increased costs for monitoring, but OMWD is concerned that because the new NELs are so much lower than the current mercury MLs, it is possible that OMWD will not be able to determine whether it is in compliance with the NELs because such low levels of mercury may be below modern monitoring capabilities. If monitoring methods and technologies can be developed to reliably detect the lowest mercury levels permitted by the NELs, such methods will certainly be expensive to develop and implement. Therefore, further information regarding required costs to develop and implement improved monitoring technologies must be developed and assessed in the Staff Report before approving the NELs.

With respect to capital costs, to attain the NELs at its potable water treatment plant, OMWD would have to design and implement new treatment technologies to meet the NELs in discharges from its surface water treatment plant. The Staff Report has not considered the costs of implementing purification or reverse osmosis treatment technologies in its economic analysis. OMWD, however, has considered the cost of two potential technologies that could be employed in accordance with Appendix R assumptions and methodologies: Coagulation/Filtration or Granular Activated Carbon. Relying on Municipal Wastewater tables. The amortized cost of implementing either of these upgraded treatment technologies is approximately $3 million per year. Such costs must be factored into the Staff Report assessment of the economic effects of the Provisions.

OMWD would also be required to increase mercury testing at its two industrial] stormwater NPDES stormwater permit sites. We estimate that the combined cost increase for enhanced monitoring alone as necessary to comply with the industrial stormwater NPDES permit requirements and new lower action levels would be $36,000 annually. In addition, if new testing indicates that the much lower industrial permit action levels are exceeded, new treatment technologies must be deployed at an additional cost that is currently not known. Further information regarding required costs to develop and implement improved monitoring technologies must be developed and assessed in the Staff Report before approving the lower numeric action level for the NPDES Industrial General Permit. The Staff Report should be revised to provide information regarding potential treatment technologies that could be implemented to control mercury in industrial site runoff.

Further, the requirements of the Provisions as proposed would result in greater testing complexity, compliance reporting, and potentially additional water treatment prior to discharges under individual non-stormwater permits governing dewatering operations, draining water storage tanks and flowing hydrants. Moreover, in instances where OMWD's facilities deliver water into local water bodies, such as Escondido Creek, OMWD may be obligated under the Provisions to test for mercury TMDLs. Additional testing, compliance reporting, and potential requirements for water treatment prior to discharge will materially increase operating costs. OMWD estimates that additional monitoring and reporting costs alone would amount to an additional combined cost of $66,000 per year. We cannot estimate the cost of additional water treatment prior to allowing geographically dispersed discharges associated with dewatering, draining lines and tanks and flowing hydrants because we are not familiar with available treatment technologies that might be effective to meet NELs for these discharges. The Staff Report does not recommend or consider the cost of any such technologies.

All of these increased operating and capital costs will have significant, unavoidable impacts on sewer and water ratepayers, who will ultimately have to shoulder the financial burden of the proposed mercury minimization programs, facility upgrades, and compliance programs. All of these increased operating and capital costs must be extrapolated to all affected dischargers, and assessed in determining whether the WQOs, as implemented by the NELs, are appropriate for adoption by the Board. In addition, because mandating compliance of local water agencies with stringent NELs that are not likely to achieve compliance with, or even progress towards attainment of the WQOs, but will impose increased costs disproportionately on water agencies such as OMWD and their ratepayers, the Board must consider whether adoption of the NELs is an appropriate implementation measure in light of the general principles established in *Cal. Sportfishing Protection Alliance v. SWRCB* (2008) 160 Cal.App. 4th 1625, and prohibitions against the imposition of state unfunded mandates, most recently elucidated in *Dept. of Finance v. Commission on State Mandates* (2016) 1 Cal. 5th 749 (holding elements of NPDES permit for stormwater discharge constitute an unfunded state mandate).

B. <u>Adverse Impacts of the Provisions on Development of Groundwater Supplies</u>

Although not addressed in the Staff Report, OMWD also has concerns regarding the impact of the Provisions on OMWD's future development and testing of groundwater sources of supply. OMWD is presently engaged in groundwater development projects, which are intended to respond to local sustainability and water supply needs. Due to the reduction in mercury compliance limits, if mercury is detected in those project basins, the project costs related to discharges of effluent resulting from groundwater treatment would increase dramatically. OMWD would be required to incorporate a mercury treatment technology into the project designs, as well as develop plans for permitting, compliance reporting, and outreach programs. At least one of these groundwater basin studies includes development and treatment of groundwater within an area of California least tern habitat, which, under the provisions, would mean that the lowest mercury NEL would apply to post-treatment discharges. OMWD would have to invest additional capital and would have to support increased operating costs to incorporate expensive treatment technologies to purge mercury from post-treatment brine streams. Such post-treatment systems have never been implemented or contemplated in the planning process and would increase currently projected costs for developing additional groundwater supplies substantially.

OMWD has budgeted $20 million toward this project. Ratepayers have already contributed substantial investments to date. Should the proposed Provisions be approved, OMWD anticipates that the groundwater projects would no longer be feasible if the provisions are approved as written.

C. The Provisions Create Undue Exposure to Enforcement Related Liability

The Staff Report acknowledges that the mercury WQOs cannot be achieved in the short-term, taking multiple decades, if not a century to attain at minimum. As noted above, the unattainability of WQOs will, in turn, lead to listing of most waterbodies for mercury impairment, and requirements to develop TMDLs, specifically data analysis, are extremely time intensive to prepare.

1. *Enforcement Risk under Individual Non-Stormwater NPDES Permits.* As acknowledged (though to an insufficient degree) in the Staff Report, and as explained in this comment letter above, compliance with the proposed NELs will require expensive upgrades to monitoring methods, treatment processes, compliance programs, and even design, planning and construction of improved treatment facilities. All of these activities, which are absolutely necessary to comply with the NELs, will take time to design, plan, environmentally review, permit, fund, and construct. Therefore, the Provisions must clearly establish authority for and direct Regional Water Quality Control Boards to provide sufficiently long permit compliance schedules to allow attainment of NELs.

Even with SWRCB clarification of permit compliance schedules, the unattainability of WQOs within the decade, combined with the anticipated impairment listings and related TMDLs, call into question the availability of time schedules of sufficient duration to allow for compliance with NELs pursuant to the State Implementation Plan (SIP) and Resolution 2008-0005. It is not clear whether the Provisions intend to exempt the new mercury WQOs from the SIP, even though these WQOs will replace the California Toxics Rule mercury criteria. (See Appendix A, Section IV.D.2.)[2]The SIP allows only up to five (5) years from the date of issuance, reissuance, or modification of an NPDES permit to complete actions necessary to comply with NELs, and no longer than 10 years from the effective date of the SIP (2006)—which date has past (2016).[3] As a result, it is important to exempt dischargers from these SIP limitations.

In addition, Resolution 2008-0025, section 6(b) caps compliance schedules at a maximum of 10 years. As a result, time schedules are likely to be insufficient to provide compliance assurances necessary to comply with NELs and ultimately to fully implement TMDLs required to attain the new WQOs. However, the Staff Report does not identify any compliance protections or mechanisms that individual NPDES non-stormwater dischargers can use to avoid enforcement liability and third party citizen suits. More disturbing, the Staff Report does not identify actions to implement in order to achieve the proposed WQOs through TMDLs or otherwise.

---

2 Impairments may also call into question the degree to which those waterbodies may have assimilative capacity, notwithstanding Water Quality Precedential Order 2001-06. That Order provides that, "A Regional Water Quality Control Board (Regional Water Board) cannot rely solely on a Section 303(d) listing as the basis for concluding that a receiving water lacks assimilative capacity for an impairing pollutant. Rather, the Regional Water Board must base assimilative capacity determinations on the relevant water quality-related data[]," as discussed with Staff in the January 9, 2017 Workshop.

3 Even if the USEPA had not disapproved longer timeframes originally set forth in the SIP (which it did) to allow for development and implementation of TMDLs (i.e., 15 years, and an additional five years) from the effective date of the SIP to develop and adopt a TMDL, and to comply with WQBELs, the extended timeframes were not a sufficient duration to provide dischargers compliance protection from implementation of the new WQOs via the NELs, given the nature of, and the limited measures available to reduce mercury in, the environment. (See, Letter: California SIP; compliance schedule provisions from USEPA to SWRCB dated Oct. 23, 2006.)

As a result, it is paramount that the Provisions are amended to make compliance schedules for NPDES permits, as well as other compliance assurances and perhaps alternative compliance mechanisms available for dischargers. Such assurances and mechanisms are critical to avoid the substantial liability risk of enforcement and third party citizen suit penalties, as well as attorneys' fees, which would ultimately have to be borne by ratepayers.

2. *Enforcement Risk under the Industrial General Permit.* The Provisions also impose new requirements as a part of the implementation program on industrial stormwater discharges. New much lower action levels are imposed on industrial stormwater permit discharges. However, the Staff Report fails to identify or evaluate any treatment technologies for assuring that discharges subject to the Industrial General Stormwater Permit meet the new mercury action levels. Further, CEQA environmental analysis of the potential impacts of such technologies is missing from the Staff Report as well.

Compounding these issues is the problem that the new, stringent, and unattainable WQOs will become new Industrial General Stormwater Permit "receiving water limitations." As a result, any industrial stormwater discharges that "cause or contribute to an exceedance of the mercury WQOs" would constitute a receiving water limits violation by dischargers. The vast majority, if not all inland surface waters, enclosed bays and estuaries will exceed the new WQOs for mercury, creating the risk of liability under the Industrial General Stormwater Permit's receiving water limitations, regardless of the significance (or relative insignificance) of mercury contributions associated with those discharges.

To eliminate potential discharger liability for violations of Industrial General Stormwater Permit receiving water limitations, as well as a new regulatory requirement to expand the required industrial reasonable assurance analyses and industrial stormwater pollution prevention plans (SWPPPs) to address mercury, the Provisions should be modified to clarify that mercury WQOs should be excluded from the Industrial General Stormwater Permit's receiving water limitations.

D. Conclusion

For the foregoing reasons, OMWD urges the Board to not approve the Provisions as written, and to continue to work with stakeholders to develop new, more reasonable WQOs, NELs, appropriate compliance assurances for discharges, and new implementation program measures that are directed toward achieving measureable mercury reductions without substantial increases in cost to water and wastewater ratepayers.

Sincerely,

Kimberly A. Thorner

Kimberly A. Thorner
General Manager