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Via Electronic Mail (commentletters@waterboards.ca.gov)

Song Her
Clerk to the Board, State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Re: **Proposed State Policy for Water Quality Control, San Francisco Bay, Sacramento-San Joaquin River Delta and Tributaries Mercury Discharge Offset Policy**

Dear Ms. Her:

On behalf of the Environmental Law Foundation, a non-profit, public interest organization dedicated to protecting water quality throughout California, I would like to thank you and the Board for the opportunity to provide comment on the Mercury Discharge Offset Policy ("Offset Policy" or "Policy") at this earlier stage of the policy's development. While we generally support innovative measures such as an offset policy to protect California's water quality, we remain concerned about the actual impacts that such a policy will have in light of uncertainty and various other constraints. Indeed, it is not even clear that mercury is a suitable pollutant for an offset program given that EPA has stated that "[f]or toxic pollutants that are persistent and bioaccumulative in nature [such as mercury], it might be inadvisable to supplement regulation of toxic pollutants with a trading option." (Office of Water, U.S. EPA, Draft Framework for Watershed-Based Trading (EPA 800-R-96-001 May 1996), p. 2-10; *see also* Office of Water, U.S. EPA, Water Quality Trading Assessment Handbook (EPA 841-B-04-001 Nov. 2004), p. 5 ("The trading of persistent bioaccumulative toxics is not encouraged") [hereafter "*EPA Handbook*"].) Therefore, it is our hope that the Board will fully flesh out an effective policy and conduct a thorough and complete analysis of the likely environmental impacts associated with the policy, acting finally on the policy–as it must under California's antidegradation requirements–only if it can be demonstrated that implementing the policy will not result in lower water quality. In this connection, we provide the following comments.

A. The Water Board Must Ensure that Implementing the Offset Policy Will Not Degrade Water Quality in the Bay/Delta

In 1968, the State Water Resources Control Board announced its intent that water quality that exceeds water quality standards "shall be maintained to the maximum extent possible." (State Water Resources Control Board, Resolution 68-16 (Oct. 24, 1968).) Accordingly, the Board ordered that

> Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies

> become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

(*Id.*)

Since then, the State Board has interpreted California's antidegradation policy to also incorporate the federal antidegradation policy set out at 40 C.F.R. § 131.12 wherever that policy applies.[1] That policy mandates that a state must maintain and protect existing instream water uses and the level of water quality necessary to protect those uses. (40 C.F.R. § 131.12(a)(1).) Where such waters presently fail to meet water quality standards–such as for those waters listed as impaired on California's 303(d) list–no further degradation is allowed and new discharges can only be allowed subsequent to a total maximum daily load. This has been called "Tier 1" protection and is the level of protection that must be afforded to the Bay and Delta given that they are both currently impaired by mercury.[2] That means that water quality with respect to mercury is presently lower than necessary to support the Bay's and Delta's designated beneficial uses.[3] Thus under California's antidegradation policy, no further degradation can be allowed, leaving the Water Board with little room for error in developing the Offset Policy.

It is imperative, therefore, that the Board flesh out the Offset Policy in such sufficient detail as to enable it to determine what impact the Policy will have on water quality. (*Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 516; *see also City of Rancho Palos Verdes v. City Council of Rolling Hills Estates* (1976) 59 Cal.App.3d 869, 889) (holding city council resolution invalid due to lack of findings on "the sub-issues leading to the

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[1] *See In re Rimmon C. Fay*, SWRCB WQO 86-17, at p. 20 ("The federal antidegradation policy is part of the Environmental Protection Agency's water quality standards regulations, and has been incorporated into the state's water quality protection requirements."); *see also id*. at p. 23, fn. 11 ("For waters subject to the federal antidegradation policy, both the requirements of the federal antidegradation policy and the express requirements of State Board Resolution No. 68-16 should be satisfied.").

[2] The State Board has interpreted the state's antidegradation policy to apply on a pollutant-by-pollutant basis. (*In re Environmental Health Coalition*, SWRCB Order No. 91-10, p. 10 (Sept. 26, 1991).)

[3] Where water quality exceeds the level necessary to support the propagation of fish, shellfish, and wildlife and recreation in and on the water, Tier 2 protection applies. Under Tier 2, present water quality must be maintained and protected unless (1) the state finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located; (2) the state assures water quality adequate to protect existing uses fully; and (3) the state assures that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. (40 C.F.R. § 131.12(a)(2).)

ultimate decision").) Furthermore, the Board must set out the analysis by which it reaches that conclusion. (*Healing v. California Coastal Comm.* (1994) 22 Cal.App.4th 1158, 1167 ("A conclusory statement in findings, unsupported by any evidence in the record . . . is per se insufficient."); *Glendale Memorial Hosp. & Health Center v. Dept. of Mental Health* (2001) 91 Cal.App.4th 129, 140-42 (holding unspecific, "boilerplate" findings insufficient where greater detail was necessary to determine whether there was support for the agency determination).) Nothing less, in the present case, can be acceptable. Before the Board can adopt the Offset Policy, it must first ensure that no further degradation will result from doing so.

B. The Offset Policy Must Directly Address Possible Water Quality Degradation Through the Policy's Implementation

Any offset policy, if not done right, has the potential to degrade water quality. For instance, offset policies are particularly susceptible to exhibiting localized as well as temporal water quality degradation. Localized impacts, or hotspots, are created when an offset project is performed some distance from the point source discharge it is supposed to be offsetting. If the distance is great enough, the offset project's impact will not reach the increased discharges from the point source that result from application of the credit obtained by performing the offset project. Localized water quality, then, deteriorates. Temporal degradation, on the other hand, occurs as a result of the variability of non-point source loadings over time in relation to the fairly steady-state loadings from the point source. Thus, water quality will be improved some of the time, but worsened the rest of the time when the nonpoint source loadings to be remediated are insufficient to offset the daily discharge from the point source. A similar impact can also occur if the offset policy allows for a credit to be given the discharger before the offset project is completed. In all of these situations, water quality degradation will occur–a situation that must be avoided under California's antidegradation policy.

Accordingly, the Offset Policy must specify measures to prevent such degradation. One method might be to set the offset ratios in such a way that temporal and proximity issues are addressed. It might be, though, that no satisfactory offset ratio exists to preclude hot spots and temporal degradation. If so, the Water Board will have to determine some other way to preclude such degradation, perhaps by constraining the universe of candidate offset projects to include only those within the same water body segment as the point source discharge and ensuring that offset projects be completed *and determined effective* before an offset can be credited to the discharger.

Water quality under an offset policy, however, is not solely susceptible to hotspots and temporal impacts. Degradation can also result as a product of the failure to establish the water quality equivalence between the location where a pollutant reduction is made and the location where that reduction is used. Such failure can result from a combination of uncertainty and imprecision in the modeling, the loading determinations, and the science regarding mercury, methylation, and bioavailability–basically, a failure to compare apples to apples. In this connection, the Board needs to recognize and factor into its analysis that many of the offset

projects proposed in the Informational Document amount more to one-time mitigation and remediation than actual continuous "offsets" to continuing discharges.

To guard against degradation caused by a lack of equivalence, the Board must quantify and qualify the actual contributions and loadings of the offset projects as compared to the point sources. In other words, are the contributions from the offset projects significant and are they capable of being significantly reduced? Are there any differences between the point source discharge's bioavailability and the offset project's? Are there any differences in the comparative methylation potential between the point source and the offset project. Are there differences in the comparative contribution to the water column? In this connection, the Board must acknowledge that the point source discharges are to the water column, whereas some offset projects target removing mercury-laden sediments that have different loading characteristics to the water column than do the point discharges. It is imperative that the Policy compare apples to apples, and once that is done, add in an additional margin of safety to guard against uncertainty.[4] It would be a patent error and violation of California's antidegradation policy to do otherwise.

To further guard against degradation, any policy adopted by the Water Board must also include requirements for participation in the program. For instance, the Policy should require dischargers to achieve the 95th percentile mercury reductions in their discharge as compared to similarly situated dischargers in order to qualify for the offset program. Likewise, the Policy should require that dischargers have no exceedances within the prior permit term with regard to mercury discharges in order to qualify for the program. Such requirements will help reduce the uncertainty regarding the loadings that need to be offset, increasing the Policy's effectiveness and providing greater assurance that water quality will not be degraded by noncompliant and poor performers.

Lastly, the Board should ensure that the Policy embodies accountability and enforceability. In this connection, the offset projects must be made enforceable components of the permit and their inclusion must be determined on a case-by-case basis through the issuance of specific waste discharge requirements, complete with notice and public comment and an adequate record to support their inclusion. Progress and permit limits should be evaluated and adjusted semi-annually to ensure proper implementation and water quality improvement. Dischargers must be required to provide the necessary water quality monitoring to demonstrate the effectiveness of the offset, and the results of this monitoring should be made readily accessible, ideally through the internet. All of this is necessary to ensure that implementing the Policy will not degrade water quality.

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[4] To the extent that projected cost savings factor at all into the amount of reduction required as suggested by the Information Document, the required offset should be made proportional to cost savings (i.e. the more savings realized, the more offset reductions required).

C. The Water Board's Analysis Must Incorporate a Full Antidegradation Analysis

As mentioned above, the Offset Policy deals with mercury, a highly toxic, bioaccumulative substance for which there is no safe "threshold." As such, the Offset Policy warrants particularly close attention when it comes to possible water quality degradation. As EPA Guidance states,

> The lowering of water quality through the discharge of conservative or persistent pollutants merits more intensive consideration by States, due to the bioaccumulative potential of these pollutants. These pollutants . . . which are considered to have no safe "threshold" concentration, should have more stringent antidegradation requirements established for their analysis.

(Region 9, U.S. EPA, Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12 (June 3, 1987), p. 6 [hereafter "EPA Guidance"]; *see also* State Water Resources Control Board, Antidegradation Policy Implementation for NPDES Permitting, Administrative Procedures Update 90-004 (July 2, 1990), p. 2 ("Regional Boards are urged to apply stricter scrutiny to non-threshold pollutants") [hereafter "APU 90-004"].) A lesser review is simply unacceptable given mercury's nature and the fact that both San Francisco Bay and the Delta are presently impaired by mercury. Thus, it will be insufficient for the Board to simply conclude that water quality will *de facto* be better under the policy given a reduction in net loading across the entire Bay/Delta watershed. Rather, the Water Board must specify what the baseline water quality is compared to the resulting water quality achieved through implementation of the Offset given the likelihood of localized and temporal degradation.

Accordingly, the Water Board must establish the baseline for water quality with respect to mercury. (*See* CEQA Guidelines § 15125(a); EPA Guidance, p. 3.) After all, without establishing this baseline, "analysis of impacts, mitigation measures and project alternatives becomes impossible." (*County of Amador v. El Dorado County Water Agency* (1999), 76 Cal. App. 4th 931, 953.) Unlike for CEQA, however, where present water quality serves as the baseline for analysis, baseline water quality for antidegradation purposes is the best water quality in the receiving water that has existed since 1968 unless lower water quality was specifically authorized under the state's antidegradation policy. (APU 90-004, p. 4.) In evaluating the Offset Policy, then, the Board must look at historical water quality and determine what is the best water quality with regard to mercury. Perhaps that is present water quality, but that is something that the Board must document.

With the baseline properly established, the Water Board then must determine what water quality will result from implementing the Offset Policy. This must take into account the potential for hotspots and temporal degradation. In other words, the Water Board must develop water quality models that model the Policy's impact. Only such models will provide the proof that the Offset Policy will work according to plan. Indeed, the Board should proceed with

adoption of this policy only if the antidegradation analysis demonstrates conclusively that water quality will be improved through the policy's implementation.

The Board, moreover, cannot properly look only at the direct effects of implementing the Policy, the Board must also look at the secondary, indirect, and cumulative impacts associated with the Offset Projects themselves. (CEQA Guidelines § 15358, subd. (a)(2) (defining impact to include "[i]ndirect or secondary effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable").) For instance, the offset projects themselves might have a negative impact on water quality and the environment in general, especially in regard to other pollutants aside from mercury. Sediment removal projects and other similar offset projects, therefore, must be carefully analyzed to ensure that the disturbance of contaminated sediments during removal does not unintentionally increase mercury loads to the Bay/Delta as well as loads of other pollutants too. Furthermore, what will the fate of the removed sediments be and what environmental impacts will occur as a result of that fate? Any antidegradation or CEQA analysis regarding the Offset Policy will be insufficient if it does not take into account these secondary, indirect, and cumulative impacts.

The upshot of all this is that the Board must model and simulate water quality under various scenarios with differing offset ratios and different offset projects in order to determine whether the policy complies with California's antidegradation requirements. At the end of the day, the State Board will have to be able to point to specific evidence in the record to support any finding that the Offset Policy will not result in water quality degradation. (*Healing*, *supra*, 22 Cal.App.4th at 1167.)

D. The Offset Policy Must Keep Transaction Costs Low in Order for the Policy to Be Effective

Inasmuch as the Offset Policy may have beneficial impact on the environment, such benefits will be jeopardized unless transaction costs are kept low. Transaction costs raise the cost associated with any particular offset project, making that project less attractive to the discharger. As EPA mentions in their Water Quality Trading Assessment Handbook, "[f]ailure to adequately control transaction costs can diminish or even eliminate the potential benefits of trading." (*EPA Handbook*, p. 44.)

In the context of a mercury offset program, however, there are several constraints associated with the offset projects that will limit the program's effectiveness. For instance, some offset projects will require NPDES permits that would require project proponents to go beyond mercury reduction and effectively assume additional obligations unrelated to the mercury reduction goals. Other offset projects will require dredge and fill permits and state water quality certifications that would also impose additional obligations on the discharger unrelated to mercury reduction goals. The necessity for these and other permits–including water diversion permits and permits from the Department of Fish and Game or the State Lands Commission–may raise transaction costs for these offset projects to such an extent as to render the most effective of

the possible offset projects "infeasible" or unattractive to dischargers. If that is the case, what beneficial impact will the Policy actually have? Potentially none.

Other constraints will similarly raise transaction costs. For instance, will assuming ownership or obtaining rights of access to properties in order to implement offset projects make dischargers potential responsible parties regarding contamination at the offset site? Will CEQA apply to offset projects where the project proponent is a public agency? These legal requirements cannot be undone or ignored by the Water Board or the dischargers and it would be a serious mistake to grant wholesale exemptions from the state's environmental laws to clean up mercury in the Bay and Delta only to incur significant environmental impacts elsewhere. These factors, therefore, must be incorporated into the Water Board's analysis. Failing to do so could lead to a waste of resources and an ineffective policy that fails to improve water quality in the Bay and Delta.

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Thank you for your time in considering these comments. If you have any questions, please do not hesitate to contact me. I look forward to working with the Water Board and Staff to address these concerns.

Sincerely,

Dan Gildor