CLEAN WATER ACTION

April 19, 2008

San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
Transmitted via electronic mail to caustin@waterboards.ca.gov

Re: Basin Plan Amendment/TMDL for mercury in the Guadalupe River

Dear Chairman Muller and Board Members Eliahu, McGrath, Peacock, Singh, and Young,

On behalf of Clean Water Action and our 20,000 California members, I would like to thank the Board and its Staff for this opportunity to share our thoughts on the proposed Basin Plan Amendment, TMDL, and implementation plan (hereafter referred to as the TMDL) to address mercury contamination in the Guadalupe River watershed. Clean Water Action staff have followed the development of this TMDL for 4 years. We are impressed by the technical expertise brought to this project by Regional Board staff, and our objective has been to share our environmental justice experience and grassroots perspective in order to ensure that this plan will meet the needs of both the watershed and the public.

As the TMDL states, the ultimate goal is to allow the watershed to meet its beneficial uses. It must be remembered that there is no caveat as to the degree to which beneficial uses are to be restored; the Clean Water Act does not stipulate that such uses can be only partially protected or be available to those who only enjoy the watershed's benefits occasionally. This means that if fishing is a beneficial use, as it is for the Guadalupe River, then the goal should be to make the water and fish safe for both those who fish occasionally and those who fish on a more regular basis as a form of recreation, because of cultural tradition, and/or out of economic need.

There are a number of aspects of the TMDL that we support, but we are concerned that its fundamental goal falls short of being protective of fishing communities and there are no requirements to ensure that subsistence fishers will not continue to be exposed to mercury at dangerous levels during the time it will take to lower mercury, especially methylmercury levels. We believe that the TMDL can be easily revised to correct these failings and to ensure that it allows the Board to meet its responsibility of protecting both our water resources and our people.

Positive Features

We strongly support the fact that the TMDL addresses both total mercury and methylmercury -- that is, the loading of total mercury to the streams and reservoirs within the watershed and the methylation of mercury within the streams and reservoirs. While lowering total mercury levels is ultimately the way to ensure that there is no opportunity for it to become bioaccumulative under natural conditions, by investigating and implementing strategies to reduce methylation will serve to protect fishing communities and wildlife in a more accelerated period of time.

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Action is the key to remediating our watersheds and we commend the Regional Board and Santa Clara Valley Water District for not waiting for a finalized TMDL before moving ahead with activities that both reduce the overall flow of mercury into the Guadalupe River and potentially interfere with methylation. The cleanup of mine areas is on a more accelerated schedule than the 2006 Project Report. Also, since 2006 more encouraging information on methylation has come to light as the result of a pilot program through which decreasing oxidation in the hypolimnion was implemented.
In addition to specific actions to clean up mine areas, the TMDL includes specific controls in the implementation plan to stop erosion along the stream banks. These controls will decrease the continued flow of mercury from natural deposits or deposits resulting from human activities. However, we are disappointed that such measures for mine waste in Alamitos Creek, which is severely contaminated, are "suggested" rather than required and would suggest that such actions be mandated.

Assimilative Capacity

While the investigations into manipulations of reservoir ecology and bioaccumulation up the food chain is to be encouraged, we are unclear as to why this is seen as a means of increasing assimilative capacity that may lead to revising load allocations down the road. There is no assurance that methylmercury controls will be permanent. Consequently, we see them as a useful tool to protect fishing populations and wildlife, but the threat of methylation will continue as long as mercury, in both its bioaccumulative and inorganic form, continues to contaminate the watershed. Furthermore, the Guadalupe River has been assigned a major reduction in its total mercury load in the San Francisco Bay mercury TMDL (from 92 kg/ann to 2 kg/ann), which will require continued reductions from all sources.

Ultimately the Clean Water Act aims at eradicating all discharges into U.S. waters (i.e., zero loads). While such a goal may be impracticable at this time, federal law surely indicates the need to establish and enforce as stringent reduction requirements as possible from all sources. Thus we would not support lowering load allocations as methylation is reduced.

Inadequate Fish Tissue Target

We strongly oppose the selection of a fish tissue target of 32 g/day (one meal per week) for the human population. This decision has been made without investigating actual fishing practices in the region and is therefore negligent to the possibility that some parts of the local population may catch and consume significantly higher levels from the watershed. In fact, Staff states that this fish tissue target may not protect all fishers in all seasons. While we appreciate their candor, the goal of this TMDL is unacceptable in that it allows for a limited clean up goal despite the Clean Water Act's clear direction that all beneficial uses be restored. More importantly, the one meal a week fish tissue target does not consider the environmental justice ramifications of impacts on disadvantaged communities and/or communities of color with strong fishing traditions.

Not knowing what actual fishing rates are does not mean that they are not significant and puts the Board in the position of not being able to correctly characterize the beneficial uses of the watershed and thereby restore them in accordance with the law. In fact, the diverse nature of the local population, including but not limited to Southeast Asians who are often linked to high fish consumption rates and fishing practices, indicates the need to investigate what is actually happening in the watershed.

Fishing practices should be characterized in terms of where people are fishing[1], what species of fish they

are catching and consuming, the level of fishing and consumption that is occurring, and the attitudes about fishing and eating habits within the diverse communities in the region. Consequently, the TMDL should include a plan to investigate fishing practices in the watershed, and in the interim establish at the very least an objective in line with U.S. EPA's target of 142.4 grams/day, which would allow 4 to 5 meals a week to protect subsistence fishers.

Any such study will be most effective if it integrates input from local community groups who work with fishing populations. Potential models for studying fishing practices could include actually contracting with a variety of community groups to collect information, as well as requirements for permitees to facilitate studies, and working with county and state health departments. We recommend that the Board look at how the California Department of Public Health has worked with local community groups to organize focus groups and other strategies to collect information on fishing habits in the Delta, as well as CalFed's Fish Mercury Project, which integrated community input on where and what people fish into the development of fish monitoring programs.[2]

Lack of Exposure Reduction Measures

In its resolution 2005-0060, the State Water Resources Control Board directed the San Francisco and Central Valley Regional Boards "to address public health impacts of mercury in San Francisco Bay/Delta fish, including activities that reduce actual and potential exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in San Francisco Bay-Delta caught fish, such as subsistence fishers and their families."[3] While the resolution did not specifically require such efforts in other regional TMDLs, the Regional Board has understood the State's intent to protect subsistence fishers by including such measures in its PCBs plan. Furthermore, the State Board did indicate that the Board coordinate its efforts regarding the Guadalupe River TMDL, as well as the Central Valley's methylmercury TMDL for the Delta with that of San Francisco Bay.

For these reasons, we are confused as to why no such exposure reduction requirements are included in this TMDL. This lack seems contrary to the understanding that protecting fishers is a priority which is reflected in the plan's activities to reduce methylmercury. Again, we urge that the TMDL include a study of actual fishing practices in the Guadalupe watershed among the diverse cultures that inhabit the region. If the findings of such a study indicate significant subsistence fishing linked to cultural practices and/or economic need, then community driven exposure reduction strategies should be developed and implemented, and dischargers should bear responsibility to facilitate such programs through their permits as in the San Francisco TMDL. Furthermore, while risk communication can be a part of such programs, the State Board's resolution makes it clear that strategies must go beyond fish advisories and education, and incorporate actions that will lower "*actual exposure*" and "*mitigate health impacts*" in the most effected communities.

Again, such programs should be community driven so that they accomplish the following:

- Accurately identify those communities/community members who most need alternatives to eating highly contaminated fish,
- Work with communities to develop strategies to reduce exposure to mercury and mitigate health impacts (these may vary from community to community),
- Implement appropriate outreach and exposure reduction actions with/through local community groups when possible.

Daily Loads

We believe that not establishing daily loads and instead averaging mercury levels over the year puts fishing communities and wildlife at risk of high exposures during the seasonal fluctuations related to weather. As already mentioned, Staff readily admits that subsistence fishers will not be protected at certain times because of seasonal influences. This is especially alarming given the irreversible impacts mercury can have on brain development in fetuses and small children who are exposed either directly or through their mothers. For this reason, we urge the Board to revise the proposed TMDL to include daily loads, as is in keeping with Clean Water Act requirements.

Air Deposition

While the TMDL does indicate the need to address air deposition, it lacks a clear plan on how to do so effectively and it is not clear that its load allocation is based on the most important potential sources in the watershed. It relies on limited data from Moffett Field which was used in the San Francisco Bay mercury TMDL. We are concerned that there is little analysis on potential impacts from other sources in or near the watershed. For instance, a 2001 study by the San Francisco Estuary Institute demonstrated that the Hanson Permanente Cement Inc. Portland cement facility in Cupertino contributes significantly higher particulate and reactive gaseous mercury levels to the air than Moffett Field and is located close to the Guadalupe watershed. Furthermore, there is evidence that such sources are more subject to methylation[4].

We are concerned with limiting action on air deposition into the Guadalupe watershed not only because it will ultimately limit the restoration of the watershed as a whole, but because of the impacts on areas not directly impacted by the mines, such as Lexington Reservoir. These waters are not appropriate models for safe fishing because their mercury levels are higher than what is protective for subsistence fishers and need to be addressed. Without an aggressive plan to address local air sources, this cannot occur and fishers will continue to be at risk. Consequently, we strongly urge the Board to incorporate the following into the Guadalupe TMDL:

- Inventory all regional aerial sources of mercury potentially impacting the watershed (both on land through runoff and directly into the water),
- Exercise the Regional Board's authority, pursuant to Section 13267 of the California Water Code, to require technical and monitoring reports of those facilities whose air emissions may be affecting the water quality, including an analysis of mercury in storm water caused by those air emissions,
- Assign interim load allocations for aerial sources based on the number of known facilities in or near the watershed, which can be revised later as a better characterization of each of the facilities' mercury contributions to the watershed are developed[5].

We believe that this TMDL has much to offer in terms of addressing a serious problem in the Guadalupe watershed resulting from over 150 years of pollution, and again we commend Staff for its efforts. We do feel however, that more complete consideration must be given to the serious contributions from aerial sources. Furthermore, while much money, time, and work has gone into establishing the technical aspects of the watershed, mercury "behavior", and how to stop much of the continued contamination, the same has not been done to ensure we truly understand the impacts of the current mercury levels so that the proper decisions can be made in regard to protecting our fishing populations. This is particularly

reflected in the proposed fish tissue target for human consumption and the lack of exposure reduction requirements while remediation moves forward.

As an organization that prioritizes the environmental health of our local communities, especially those who bear a disproportionate pollution burden and its subsequent health, economic, and social impacts, we believe that this TMDL does not go far enough in serving the interests of environmental justice or in meeting the Regional Boards mission to "preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations". To that end, we have offered the recommendations contained herein, in the spirit of working with the Board to correct these shortcomings and strengthen the TMDL. Please do not hesitate to contact us if you have any questions or if we can be of any assistance.

Sincerely,

Andria Ventura

Andria Ventura
Program Manager

Cc: C. Austin, T. Mumley, B. Wolfe