Santa Clara Valley Water District

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April 21, 2008

Ms. Carrie Austin
San Francisco Bay
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Guadalupe River Watershed Mercury Total Maximum Daily Load Project Report and Proposed Basin Plan Amendment

Dear Ms. Austin:

The Santa Clara Valley Water District (District) appreciates the opportunity to provide comments concerning the Guadalupe River Watershed Mercury Total Maximum Daily Load (TMDL) Project Report (TMDL Project Report) and proposed Basin Plan Amendment. The District appreciates the difficult job and tremendous efforts of the Regional Water Quality Control Board (Regional Board) to develop and implement the TMDL. The District is generally in support of pursuing a planning effort of this magnitude, which is the culmination of a successful collaborative partnership between the District and the Regional Board.

This letter presents general comments on the Regional Board's TMDL Project Report and Basin Plan Amendment and transmits detailed comments in the attachment to this letter.

District/Regional Board Partnership Produced Results:

As you know, the District has demonstrated its willingness to partner with the Regional Board and to provide extensive resources to pursue a course that will ensure the TMDL is based on sound science, measurable goals, and timely implementation measures. The District has demonstrated its intent and commitment to addressing the mercury issue by voluntary early implementation of control measures that have removed nearly one thousand (1,000) kilograms of mercury from the watershed, reduced methyl mercury production by over ninety percent (90%) in Almaden Lake in 2006 and 2007, and in mid-2007 expanded the successful Almaden Lake pilot project to the Almaden and Guadalupe reservoirs. The collection of the data for the TMDL was conducted in an open collaborative process that allowed all interested parties to participate, using the Santa Clara Basin Watershed Management Initiative, in response to a request by the Regional Board. The partnership between the District and the Regional Board was solidified under a Memorandum of Understanding adopted in March 2003 (2003 MOU). We believe that successful implementation of the TMDL will require a continuation of the collaborative partnership between our agencies.

District's Concern with Implementation:

The District is concerned that the approach outlined in the proposed Basin Plan Amendment will not achieve successful implementation as the approach: 1) stresses studies and monitoring over "on-the-ground" action compelling the inefficient expenditure of scarce resources on further characterization of the problem rather than on implementation of solutions; 2) does not

incentivize a collaborative approach and; 3) priorities need to be established for the use of limited public resources towards addressing the water quality challenges.

1) 80% Studies, Only 20% Abatement Action

The District analysis of the TMDL Report and Basin Plan Amendment identified that over eighty percent (i.e., $19.2M) of the $24 million estimated total cost to the District required for will be directed toward monitoring, reporting, and "special studies" with only twenty percent (i.e., $4.8M) directed toward actual abatement of mercury contamination. The District believes that the limited resources should be applied to the abatement first rather than conducting studies.

2) Collaborative Approach Needed for Successful Implementation

Taking a collaborative approach rather than the aggressive command and control approach of the current proposal would be a more effective and efficient. Under a collaborative approach, we believe the District is well positioned to assist with the implementation and may act as the lead for implementation of the TMDL in the Guadalupe River Watershed. Much of the interception and extraction of mercury loading to the Bay, as well as much of the monitoring of fish and water quality, may be integrated into existing District projects and programs. The District believes that a revised 2003 MOU would showcase and emphasize the benefits of a collaborative approach to addressing water resource needs. These are the kinds of incentives needed to encourage removal and restoration activities, as well as for the development of other TMDLs. Unfortunately, only partial implementation of the 2003 MOU creates a challenge to negotiating a revised MOU for implementation.

The 2003 MOU between the District and the Regional Board included four key commitments: 1) development of studies to support the TMDL, 2) development of a Guadalupe River Watershed TMDL that would satisfy the watershed contribution to the San Francisco Bay TMDL, 3) providing the District credit for early implementation actions, and 4) reduce project-specific mercury monitoring activities from individual project permits. The first commitment was met by the District to collaboratively develop work products that would ensure the development of a TMDL based on sound science. The second commitment was met by the Regional Board and included participation in the collaborative effort and efficiently ensuring that one implementation plan would satisfy both the San Francisco Bay and Guadalupe River Watershed Mercury TMDLs. However, the Regional Board has not yet met the third commitment to provide credits to the District for its early implementation actions, or the fourth commitment to reduce duplicative project-specific mercury monitoring activities in permits issued to the District.

The District is willing to discuss the continuation of its partnership with the Regional Board, and the possibility of revising the March 2003 MOU. A revised MOU would include commitments by the District to focused on implementation of the TMDL, and incorporate credits specified in the 2003 MOU for early implementation actions taken by the District that would be accounted for in load allocations, implementation plans, and compliance schedules for the TMDL; the revised MOU would also include commitments by the Regional Board to address duplicative project-specific mercury monitoring activities in permits issued to the District.

3) Priorities Needed for Limited Public Resources:

The District is also concerned that the increased burden to local agencies resulting from the proposed TMDL and proposed changes to the Urban Runoff Municipal Permit will result in a failure of both programs due to lack of funding. The recent proposed changes to the Municipal Permit for Stormwater Discharges represent estimated increases of expenditures by as much as thirty percent, at the same time that the TMDL will create the need for extensive new expenditures. The District seeks to have the Regional Board prioritize its water quality needs in a manner which allows the efficient use of available resources.

If you have any questions or would like to meet and discuss the District's comments and concerns please contact me at (408) 264-2607 extension 2634 or Dave Drury at extension 2721

Sincerely,

Beau Goldie
Deputy Operating Officer
Watershed Operations

cc: Mr. Tom Mumley
Assistant Executive Officer
San Francisco Bay
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

J. Fiedler, D. Cauble, D. Chesterman, K. Whitman, R. Yep, A. Gurevich, D. Drury, S. Dharasker

Attachment 1

Comment 1: The Proposed Basin Plan Amendment is Too Detailed and Inflexible

The proposed Basin Plan Amendment contains far too much detail than that needed for the Basin Plan Amendment process. As written, there is little flexibility for Regional Board staff and the responsible parties to be creative and pursue a more productive course of action, since any change would then need to be made through the lengthy Basin Plan Amendment process. A more prudent approach is to simplify the proposed Basin Plan Amendment to adopt the new Water Quality Objectives and specify that Regional Board staff shall report back to the Regional Board periodically (say, every five years) on progress implementing the plan as described in the TMDL Project Report, including amendments to the plan authorized by the Executive Officer. At a minimum, the proposed Basin Plan Amendment should not specify dates, but should use "from the date of" final approval/adoption, and should use "or similar studies" should those contemplated in the far term be determined unnecessary.

Comment 2: Mercury Sources in Alamitos Creek are Mischaracterized in the Proposed Basin Plan Amendment and TMDL Project Report

In the TMDL Project Report and proposed Basin Plan Amendment all of the mercury sources in Alamitos Creek downstream of Almaden Reservoir are characterized as "depositional" and it is proposed to delay addressing these sources for as long as twenty years. The proposed Basin Plan Amendment and Project Report contain an incorrect assumption that all deposits of mine waste in this area continue to accumulate mine waste. The District, in partnership with the Regional Board, conducted a Synoptic Survey in 2003 (Tetra Tech, 2003) that provided a preliminary identification of sites with deposits of eroding mine wastes. Most of these sites are creek banks that are being undercut and/or are actively eroding, adding to the load of mercury transported downstream. Such sites would not be negatively affected by upstream loads and should not be allowed to freely discharge mercury for up to twenty years. The sites identified in the Synoptic Survey should be evaluated and verified in the first five years, and those that are eroding should be addressed by the end of the first ten years. Since 2003, the District has verified eleven of the sites identified in the Synoptic Survey (under District ownership and/or control) that would benefit from immediate action to remove the mine waste deposits. Six of these have already been completed (resulting in the removal of 287 kg of mercury), and the other five are scheduled for completion by 2011.

The only significant depositional areas of mine wastes are the mouth of Alamitos Creek as it enters Almaden Lake, the mouth of Guadalupe Creek at its confluence with the downstream end of Almaden Lake, and above the Los Alamitos Drop Structure at the upper end of Guadalupe River. Other areas where deposition occurs (primarily due to mercury-containing fines that pass the Drop Structure) are benches and depositional areas of Guadalupe River, mostly between Montague Expressway and the SPRR crossing. The District agrees that these areas should be addressed after all upstream sources have been controlled. However, under a collaborative approach, sediment removal in these latter areas could be integrated into the ongoing District's long-term stream maintenance program to obtain faster results.

Comment 3: Percolation Ponds are Mischaracterized in the Proposed TMDL

The proposed Basin Plan Amendment and Project Report list percolation ponds under "Depositional Areas" and intimate that discharges of mercury occurs from the operation and maintenance of these ponds in the form of "sediment-laden" mercury or from "erosive flows" caused by discharges from the ponds. The operation and maintenance of percolation ponds does not result in either of these discharges, nor are the ponds depositional. Operation of the ponds is achieved by in-stream diversions that fill the ponds under controlled conditions when creek flows are low and not transporting sediment. The water is never immediately discharged back to the creek but allowed to percolate into the ground. Maintenance activities consist of periodic scraping of the bottom of the ponds to remove algal mats that inhibit percolation. Occasionally, discharges to the creek occur during intensive rain events that overfill the ponds, but these are neither "sediment-laden" nor "erosive" and are small volumes already permitted.

Comment 4: Reservoir Implementation Requirements are Mis-Timed and Special Studies are Prescriptive

The proposed Basin Plan Amendment needs to be revised to adjust the timing of implementation of activities that will be required in the TMDL. If elimination of sources upstream is not completed before downstream sources are addressed, then the downstream efforts will be negated by additional contamination. We believe that once background conditions have been restored, the reservoirs will not need treatment or need only minimal treatment to meet applicable requirements.

With respect to the reservoirs, the proposed Basin Plan Amendment would unfairly require the District to develop and implement treatment alternatives in its reservoirs long before the sources of mercury (owned by others than the District) have been controlled or ameliorated. The mercury in the sediment of Almaden and Guadalupe reservoirs is the result of uncontrolled erosion of mining waste that the regulatory agencies have not been successful in having the responsible parties reduce to background concentrations of mercury in the intervening period from adoption of the Porter-Cologne Act to the present. The Regional Board now proposes in the subject documents to allow these uncontrolled discharges to continue up to an additional ten years while exonerating responsibility for the impact on receiving waters for both past and future discharges. Further, the Regional Board proposes in the subject documents to place full responsibility onto the District for the treatment and amelioration of the negative effects of these discharges on water quality. The District contends that any discharger of mercury must be held responsible for negative effects on receiving waters, rather than transfer the responsibility to the downstream owner. If treatment is required, the dischargers must participate in a commensurate share of the costs until the discharge is stopped and its effects ameliorated. The District is the injured party, not the responsible party. Once background conditions have been established, if additional treatment is required due to atmospheric and natural background sources, then the appropriate responsible party will assume responsibility for abatement. Therefore, the time frame for requiring the District to implement treatment control options should not begin until background conditions have been restored.

The requirements in the proposed basin Plan Amendment for the District to conduct feasibility studies and special studies are prescriptive. Such studies should be allowable as a means of compliance at the option of the District in the event that the District determines that such studies are necessary. Such condition of necessity may arise if the District is unable to achieve the project specific targets to meet the Water Quality Objectives in the Basin Plan following the establishment of background loading conditions of mercury to the deep impoundments.

Comment 5: In the TMDL, an Inappropriate Allocation for Reservoirs is Employed, and the Regional Board has Failed to Establish Assimilative Capacity

The proposed Basin Plan Amendment and Project Report include a seasonal maximum water column concentration of 1.5 ng/l of methyl mercury in the hypolimnion of the deep impoundments. This is an inappropriate allocation for several reasons, the most important being that it does not relate to the mass of methyl mercury that is seasonally produced and potentially available for bioaccumulation. Guadalupe Reservoir is approximately 30 meters deep (maximum), with hypolimnion thickness as much as 12 meters, and by volume is twice as large as Almaden Reservoir. The latter is approximately 20 meters deep (maximum) with hypolimnion thickness of as much as six meters. This means that at a concentration of 1.5 ng/l, the mass of methyl mercury in Almaden Reservoir is one quarter the mass in Guadalupe Reservoir. In other words, the allocation is inconsistent among the reservoirs, and is four times more stringent for Almaden than Guadalupe, even though the fish have about the same average concentration of mercury for age-1 Large Mouth Bass (LMB), and Almaden adult LMB have about two-thirds the concentration of mercury as the adult LMB in Guadalupe. A more appropriate allocation is one that is related to the assimilative capacity of each reservoir, a necessary component of a TMDL that the Regional Board has omitted from this TMDL. The Regional Board has failed to demonstrate that the elaborate calculations in the Project Report using limited data to estimate a relationship between water column methyl mercury concentrations and fish tissue concentrations is more valid than estimating assimilative capacity. The proposed Basin Plan Amendment also shows that the Regional Board intends to require the District to conduct studies related to assimilative capacity, even though the Regional Board has not estimated, nor established a reasonable approach as to how to estimate, the assimilative capacity of the reservoirs. This demonstrates the Regional Board is aware of, and acknowledges the importance of, assimilative capacity, yet fails to even attempt to address it in the Project Report and the proposed Basin Plan Amendment. Perhaps the more appropriate approach is to work collaboratively with the District and resource agencies to develop models or metrics for the reservoirs that would be appropriate for evaluating assimilative capacity (or other technique) and identification of those factors that may influence its natural variation.

Comment 6: The Regional Board Does Not Incorporate Incentives for Implementation, and Emphasizes Monitoring Over Source Control

In the proposed Basin Plan Amendment, up to ten years is provided for responsible parties to address mining waste discharges, and up to twenty years to address ongoing discharges of mercury from creek banks. Yet, extensive monitoring will be required immediately and most intensively for the first five years, followed by reduced monitoring substituted with "special studies" that are likely to be as costly, if not more costly than the monitoring activities they replace. This backwards approach applies limited resources toward further characterizing what is already known without providing any improvement to the beneficial uses. A more proactive approach would be to provide some flexibility and incentives to responsible parties to conduct implementation activities instead of monitoring and special studies. Another streamlining approach would be: instead of requiring "site investigations" (especially for sites already identified on Alamitos Creek), these should be optional if the responsible parties wish to go straight to construction design.

Since the stated goal is to reduce the load of mercury to the bay and to the reservoirs, the implementation of the actions to do so should be emphasized and accomplished. It is *after* actions have been taken that monitoring should be conducted to determine if there is more to be done. The approach in the proposed Basin Plan Amendment will only tell us what we already

know: that there are sources of mercury that need to be controlled. The more appropriate approach is to control the sources and then monitor to determine if the goals are achieved.

In plain language, there are portions of the watershed that are heavily contaminated with mercury as a result of mining activities. Efforts should be focused on the removal or seclusion of mine wastes to the extent practical, followed by ongoing management activities to remove residual mine wastes as they accumulate in convenient locations, and then followed by treatment controls for deep impoundments as needed.

Comment 7: In the Proposed Basin Plan Amendment and TMDL Report the Regional Board Proposes Fish Sampling that is Potentially Harmful to Endangered and Protected Species

The District holds permits from the relevant agencies to conduct fish monitoring and sampling in the Guadalupe River Watershed below the reservoirs. These permits prohibit sampling activities during the months of October through April to protect salmonid species such as steelhead that are listed as Threatened under the Federal Endangered Species Act. The permissible sampling period of May through September is intended to avoid the take of any adult salmonid (either Chinook salmon or steelhead), whether intentionally or incidentally. The fish sampling described in the proposed Basin Plan Amendment and TMDL Report would have the Regional Board require the responsible parties to sample fish prior to the breeding season of the belted kingfisher every year for five years, and also during the breeding season at least twice during that five year period. The breeding season for the belted kingfisher begins in March. The District's permits demonstrate the extent to which fish sampling is permissible by the relevant agencies, and neither of these proposed sampling requirements would be allowed. Further, under the existing permits, allowable capture methods are not sufficiently fish specific to accomplish the monitoring goals by avoiding take of listed species outside of the allowable seasonal sampling period. The Regional Board cannot order the responsible parties to do something that is contrary to existing laws and regulations, and it is an untenable situation for the responsible parties to risk violation of one agency's regulations in attempting to comply with an order from another agency. Therefore, the District suggests that the agencies work together collaboratively to develop a fish sampling program that will allow the responsible parties to avoid this double jeopardy situation.

Comment 8: Duplicate Reporting is to be Required in the Proposed Basin Plan Amendment and TMDL Report

The proposed Basin Plan Amendment indicates the Regional Board will require numerous reports from the responsible parties. In many cases, these reports are duplicative of reporting that is already being done. For example, the District already reports to the Regional Board its mercury removal projects throughout the watershed through its existing Stream Maintenance Permit and its project-specific permits. The information for the "special studies" is already largely available in existing reports and other reports and work products being prepared for the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE). The FAHCE is a consortium of state and federal agencies, local municipalities, and interested parties that are working toward a common goal of providing restored and improved water resources throughout the watershed and basin. The Regional Board has been at arm's-length from this collaborative, yet if it were active as a effective collaborator, many of the issues of this TMDL could be addressed more comprehensively.

The District believes that a more appropriate approach is to provide flexibility in the Basin Plan Amendment to allow existing reporting mechanisms to suffice. This will conserve resources that are better spent taking action than preparing duplicative reports.

Comment 9: The Beneficial Uses Supported by the Reservoirs are not Fully Characterized nor Protected in the Proposed Basin Plan Amendment and TMDL Report

In the proposed Basin Plan Amendment and TMDL Report several beneficial uses of the reservoirs are characterized as "impaired by mercury" but the reports fail to include adequate descriptions of the beneficial uses that are supported by the reservoirs. In addition to providing municipal water supply and prevention of subsidence of the groundwater basin, the reservoirs support cold water fishery habitat and rare and endangered species. Without the reservoirs, there would be no cold water storage and the creeks would run dry each summer so there would be no cold water habitat; there would be no deep water habitat for the osprey or other diving birds. The operation of the reservoirs to create, support and protect all of the beneficial uses requires a careful balance. The augmented flow condition downstream of the reservoirs potentially supports a cold water fishery (COLD) and habitat for rare and endangered species (RARE) for which a wider array of beneficial uses are then available (e.g. REC, MUN, etc.) overall in the watershed. In general, operations to support the beneficial uses conflict with the objectives in the proposed Basin Plan Amendment; that is, to support the habitat needs requires operation of the reservoirs that may exacerbate the production of methyl mercury (such as retaining storage as long as possible to control temperature of releases). The proposed Basin Plan Amendment does not place the water quality issue into context with the environmental setting, nor does it even attempt to strike a balance with the various competing and conflicting objectives of the resource agencies. This places the District in an untenable situation, potentially forcing it to violate one agency's laws and regulations in order to comply with another's. The Regional Board needs to better coordinate with the other federal and state regulatory and trustee agencies to incorporate its concerns into the existing resource protection activities.

Comment 10: Inclusion of "Reference" Reservoirs and Lake in the Proposed Basin Plan Amendment and TMDL Report is Flawed

The lake and reservoirs that are the subjects of the proposed Basin Plan Amendment and the TMDL Project Report are unique from one another in many ways. It is impossible to collect data at the level of resolution needed for the purposes of the TMDL Project Report and the proposed Basin Plan Amendment. The level of resolution that we can measure in the reservoirs won't allow meaningful comparisons between reservoirs. The TMDL Project Report also indicates the intention of the Regional Board to require the responsible parties to conduct fish tissue monitoring in Lake Elsman, Lexington Reservoir and Vasona Lake. (Note: Lake Elsman is privately-owned by a corporation not identified as a responsible party in the proposed Basin Plan Amendment. It is unlikely that the Regional Board can compel the responsible parties to collect samples from this lake. Also, despite its name Vasona is a reservoir owned and operated by the District. It bears little resemblance to any of the water bodies that are the subjects of the TMDL). Whatever data would be produced from such sampling is more likely to be confusing than enlightening, and further dilutes available resources away from addressing the problem: controlling the sources of mercury. Once background concentrations and conditions have been restored, the need for such science experiments can be fully evaluated. The TMDL should be limited to those water bodies that have been contaminated by mine wastes. There is no evidence that any part of the Los Gatos Creek watershed has been

affected by mercury mine wastes. The geology of the Los Gatos Creek watershed is not naturally enriched with mercury, and is not suitable as a "reference" in the context of the proposed TMDL Basin Plan Amendment.

Comment 11: The Proposed Basin Plan Amendment and TMDL Project Report Are Not Consistent with or Aligned with Other Regional Board Regulations

Due to the specific and detailed nature of the proposed Basin Plan Amendment (see our Comment 1), it is no longer in alignment with the Municipal Regional Permit for Stormwater Discharges which was remanded to staff by the Regional Board in March 2008. The proposed Basin Plan Amendment also includes several sections where it is stated that the Regional Board will use specific authorities to compel responsible parties to take actions, even though in many cases the responsible parties are already regulated under existing permits issued by the Regional Board and these permits already cover those actions.