Comment Summary and Responses
Total Maximum Daily Load (TMDL) for Mercury in the Guadalupe River Watershed

No.	Commenter	Commenter Name
1.	U.S. Environmental Protection Agency – Region 9	Diane E. Fleck, P.E., Esq.
2.	County of Santa Clara – Parks and Recreation Department	Lisa Killough
3.	Guadalupe Rubbish Disposal Company, Inc. (GRDC) – Reed Smith LLP	Todd O. Maiden
4.	Santa Clara Valley Water District (SCVWD)	Chris Elias
5.	Friends of Los Alamitos Watershed (FOLAW)	Michael Boulland
6.	General Public	Dr. Roberta Lamons

No.	Author	Comment	Response
0.1)	Multiple	Many of the comments submitted in opposition to the State Board's approval of this TMDL were previously submitted to the Regional Water Board and submitted verbatim to the State Board, without further explanation.	Many of the individual comments submitted to the State Water Board on this matter are identical to a comment submitted to the San Francisco Bay Water Board at the time the draft version of this TMDL was under consideration. As part of its consideration process, the San Francisco Bay Water Board provided written responses to all of the significant comments it received. The San Francisco Bay Water Board's responses either indicated that changes would be made to the regulatory provisions or to the related documentation in response to the comment (in which case corresponding changes were made), or the San Francisco Bay Water Board's written responses indicated that that changes would not be made, and the response included the reason. Where a commenter merely repeats a comment that was originally tendered to the San Francisco Bay Water Board on a prior version of a TMDL, but fails to disclose what quarrel, if any, the commenter has with the response provided or the action taken by the San Francisco Bay Water Board in response to the comment, the State Water Board is unable to address the comment. Specifically, in those cases where the San Francisco Bay Water Board made changes in response to a comment, the commenter has failed to explain how the changes were allegedly inadequate. Likewise, where the San Francisco Bay Water Board did not make changes, the commenter has failed to explain how the response or explanation that the San Francisco Bay Water Board provided was allegedly inadequate, or even whether the commenter believes that the response was

			inadequate. Where a commenter has merely repeated a comment submitted below, the State Water Board cannot divine what the commenter believes has been adequately satisfied and what has not, nor can it determine the reason for any remaining dissatisfaction. State Board staff will review the San Francisco Bay Water Board's responses to ensure that they are thorough and address the specific question presented.
1	US EPA	EPA supports the objectives and TMDLs, and urges the State Water Resources Control Board to adopt the Basin Plan Amendment. We thank the Regional Board's staff for their hard work in completing this complicated project, and the Santa Clara Valley Water District for their generous funding of the underlying technical analyses. As part of the development for these TMDLs, we were pleased to be able to provide some early TMDL funding and lab support for fish tissue analyses and air deposition monitoring within the watershed.	Comment Noted
2	US EPA	We have reviewed both the water quality objectives and TMDLs, and find them appropriate and reasonable. In particular, we support the fish tissue objectives to protect aquatic organisms and piscivorous wildlife in the watershed, including listed threatened and endangered species. We appreciate the Regional Board staff working with the U.S. Fish and Wildlife Service to address its concerns. We agree that the proposed objectives will also protect most human consumers of fish within the watershed.	Comment Noted
3	US EPA	The TMDL source analysis, numeric targets, linkage analysis, TMDLs, and allocations are all supported with thorough scientific analyses. We support the use of total mercury allocations for mining waste, mercury-laden sediment and stormwater discharges, while using methylmercury allocations for reservoirs and lakes. The science supports the use of both mercury and methylmercury allocations in this instance, to lower fish tissue levels of mercury and restore beneficial uses.	Comment Noted

4	US EPA	In summary, we support the water quality standards and TMDL package. Please note that this letter is preliminary in nature and does not constitute a determination by EPA under Clean Water Act 303(c) or 303(d). Approval/disapproval decisions will be made by EPA following adoption of the package and submittal to EPA.	Comment Noted
5	County of Santa Clara	The County strongly supports the establishment of a consistent regional program based on supported scientific evidence and achievable schedules. The County has been actively monitoring the research conducted by the San Francisco Bay and Central Valley Regional Water Quality Control Boards (Regional Boards) with respect to setting mercury total maximum daily load (TMDL) standards for many tributary water bodies of the San Francisco Bay Estuary. Of central concern to the County has been the limited technical understanding of the processes affecting mercury methylation and bioaccumulation - an understanding critical to the development of cost effective mercury management programs for such a diverse and complex natural system as the Bay and its tributaries.	Comment Noted
6	County of Santa Clara	Concern: Data Lacking to Support Correlation between Sediment Mercury and Bioaccumulation While the staff report and proposed Guadalupe River Watershed Basin Plan Amendment (BPA) document substantial efforts to collect and analyze soil, sediment, surface water and fish tissue sampling data throughout the Bay Area, there continues to be a dearth of technical understanding regarding effective mercury and methylmercury management actions. This is an overarching concern of the County. In particular, the proposed BPA still lacks a technical justification for its central management approach, which is premised on the notion that a reduction in the concentrations of total mercury in erodible soil and sediment will result in a reduction in the levels of methylmercury in fish tissue to (see Staff Report pp 6-8). It is not surprising that the staff report cannot provide technical support for a connection between mercury levels in sediment and fish, given the complex and site-specific processes that can cause sediment mercury to dissolve, become methylated, and magnified through the aquatic food chain into fish. Unfortunately it is also true that without such a data connection, there is no basis to conclude that reduction of mercury in erodible soil and sediment under the proposed TMDL and BPA would reduce mercury fish tissue concentrations.	The San Francisco Bay Water Board has already addressed this comment in its response to “Parks comment No. 1.1-1.2” State Water Board staff reviewed the San Francisco Bay Water Board’s response to this comment and agrees with the response. Please see Response to Comment 0.1.
7	County of Santa Clara	We acknowledge that the State Water Resources Board may rationally opt for addressing erodible soils as part of a multi-prong approach to	The State Board staff recognizes and commends Santa Clara County’s extensive

		reducing mercury loading into the Bay. However, the Regional Board's focus on that standard given the absence of a demonstrated connection with reduction in fish tissue concentrations, is particularly troubling where, as in the New Almaden Quicksilver mining district, most of the significant concentrations of calcines – mercury mining waste – have already been addressed through remediation carried out under State oversight. If the Regional Board's objective is to first address the "low hanging fruit" represented by existing mining waste, that effort has already largely occurred in the Guadalupe River watershed...	cleanup and remediation efforts, both past and ongoing. Unfortunately, there is not a "one size fits all" approach to TMDLs, especially with legacy pollutants like mercury. San Francisco Bay Regional Water Board was required to implement a strategy to meet the allocation for the Guadalupe River Watershed as outlined in the San Francisco Bay Mercury TMDL. This TMDL is an appropriate mechanism to deal with the major legacy source of mercury to the Bay. The most reasonable strategy for this locale is to control upland sources of mercury-laden sediment to prevent it from reaching the bay. "Erodible" is merely a term that San Francisco Bay Water Board Staff used to describe "material readily available for transport by stormwater runoff to surface waters" (*see footnote b pg. BPA-13*). State Board Staff is comfortable with this clarification. However, there is a direct linkage to upstream mercury-laden sediment (specifically when referring mercury mining waste) and its availability downstream. Because mercury remains a persistent pollutant in the environment a consistent and manageable approach would be to reduce and manage those large upstream sources to prevent their ability to spread downstream and eventually into San Francisco Bay.
8	County of Santa Clara	Specifically, the County recommends that the State take an approach for the Guadalupe BPA similar to that proposed for the Delta Estuary BPA. The County has analyzed the proposed Delta BPA because the Delta Estuary and Guadalupe River watersheds present similar contamination issues. While the loading sources, and techniques and standards to address the problem areas may differ between the two BPAs, the approach taken in Delta BPA appears more appropriate to the situation in the Guadalupe River watershed and for the sake of consistency should be included in the Guadalupe BPA.	The San Francisco Bay Water Board addressed this comment in its response to "Parks comment No. 3-4" State Water Board staff reviewed the San Francisco Bay Water Board's response to this comment and agrees with the response.

			Please see response to comment 0.1 above. State Board Staff assumes that the commenter is referring to the *proposed* Delta Estuary BPA from Region 5, which is still in the early stages and has not been adopted by that San Francisco Bay Water Board. Therefore, State Board staff cannot agree that this would be an appropriate TMDL for comparison. These TMDLs are based on sound, peer reviewed scientific data available information. The adaptive implementation strategy will allow the San Francisco Bay Water Board to evaluate and adapt the TMDLs and implementation plan as needed to assure water quality standards are attained. Also, These TMDLs use strategies similar to those used in the Walker Creek Mercury TMDL which was also peer reviewed and approved by EPA in 2008. Like Guadalupe River, Walker Creek was polluted by mercury mining.
9	County of Santa Clara	Recommendation: Phased Approach The proposed Delta Estuary BPA acknowledges that a phased approach is needed to identify and remediate the main culprits for contamination and bioaccumulation. This approach is further supported by the U.S. Environmental Protection Agency (USEPA). According to the USEPA's 1991 document, "Guidance for Water Quality-Based Decisions: The TMDL Process" (EPA 440/4-91-001), *" ...if there are not adequate data and predictive tools to characterize and analyze the pollution problem with a known level of uncertainty, a phased approach may be necessary."* Similar to the Delta, the Guadalupe River Watershed is quite complex and although much analysis has already been conducted, the County recommends additional analyses to arrive at an appropriate mercury standard for naturally mineralized areas, and to identify and implement the most effective methods for managing sediment deposition into the watershed.	Please see response to comment No. 8 above. In addition, the major source of mercury is already known (mining). In comparison, other sources are much smaller (e.g. atmospheric deposition). Consequently, it makes sense to implement controls on the largest source. Using an adaptive approach, the monitoring program will use special studies to better understand the fate and transport of mercury in the watershed. This includes studies to determine the efficacy of actions taken to reduce mercury bioaccumulation and methylation in impoundments. Taking immediate action means making progress

		Under the Bay Regional Board's proposed TMDL Implementation Plan, a proposed 0.2 ppm standard for mercury in erodible soils is established throughout the watershed, with the County required to study erosion of mercury waste into the watershed, recommend methods to stop such erosion, and presumably implement erosion control measures in order to meet that numeric limit within the first ten years of the Plan. Ten years and millions of dollars later, we may eventually determine if controlling erosion with a numeric limit in this fashion, was an effective approach. Under the phased approach adopted by the Central Valley Board, the first Phase of the TMDL implementation would involve field investigations of mercury in soil and sediment within the park, and integration of that research with other studies of the factors that may contribute to the methylation and bioaccumulation of mercury in fish. At that point the County would then propose focused efforts to reduce mercury loading in the Guadalupe watershed. Ongoing monitoring of efficacy of actions taken to reduce mercury bioaccumulation and loading of bioavailable mercury will provide for an appropriate adaptive management program for controlling mercury containing soils and naturally occurring mercury sediments within the park.	while more and better information is collected, and the effectiveness of current actions is evaluated.
10	County of Santa Clara	Recommendation: Flexibility for Adjusting Sediment Mercury Limits in Mineralized Areas Almaden Quicksilver County Park is located in an area that has a high concentration of naturally occurring sediment mercury, as well as the rare serpentine habitat. It is not reasonable to set the same sediment mercury standards for mineralized (deposits containing naturally occurring sediment mercury) and non-mineralized areas. Indeed, those differences between mineralized versus non-mineralized areas represent the difficulty inherent in the "one size fits all" 0.2 ppm sediment approach proposed in the Guadalupe BPA. The proposed 0.2 ppm erodible soil standard could require elimination or armoring of large areas ofnatural soils within the park, at great cost in monetary terms, as well great ecological damage. One size does not fit all, as, indeed, the Bay Regional Board itself recognized in its Walker Creek mercury TMDL, applying a 5 mg-Hg /Kg suspended sediment associated with the Gambonini mercury mine and a 0.5 mg-Hg/Kg of suspended sediment for other areas, rather than the 0.2 mg-Hg/Kg standard applied to "background" areas. Likewise, the Delta BPA acknowledges the differences between mineralized and non-	The San Francisco Bay Water Board has already addressed this comment in its response to “Parks comment Nos.5.1 and A.7” State Water Board staff reviewed the San Francisco Bay Water Board’s response to this comment and agrees with the response. Please see response to comment 0.1 above.

		mineralized areas and proposes to allow a higher concentration of sediment mercury in mineralized areas than non-minera1ized areas. The County recommends a parallel, consistent regional approach, and allow the County to conduct a study to determine the appropriate limit for sediment mercury in the park.	
11	County of Santa Clara	To reiterate, the County supports the need to address mercury contamination affecting the Guada1upe River watershed. In the same spirit, we offer these comments with the sincere desire of attaining an effective and consistent regional approach that will ultimately benefit the watershed and San Francisco Bay.	Comment Noted
12	Guadalupe Rubbish Disposal Company, Inc. (GRDC)	GRDC owns and operates the Guadalupe Landfill, located on a portion of the land formerly used for Guadalupe Mine's operations, and is therefore very interested in the development of an appropriate, scientifically-based mercury TMDL for the Guadalupe Watershed. We also appreciate the significant amount of work that the State and Regional Boards have committed to both the project and to working with various stakeholders in the Watershed, including GRDC.	Comment Noted
13	GRDC	After reviewing the revised BPA and Report, we respectfully note that there continue to be significant problems and several critical defects in the overall TMDL, and a number of areas where there is inadequate technical or scientific basis for the conclusions reached or recommendations offered. Also, the Regional Board has failed to address or has inadequately addressed our prior written and oral comments. Consequently, GRDC renews the comments it submitted previously to the Regional Board ("Prior GRDC Comments") below and incorporates those comments here by reference (a copy of the Prior GRDC Comments is also attached here as Exhibit A).	GRDC asks that the State Water Board take notice of all the comments with respect to previous drafts throughout the administrative history of this TMDL, and purports to incorporate all of those comments by reference in its most-current comment letter. This request is inappropriate. The proceedings before the San Francisco Bay Water Board included opportunities to comment, and for the San Francisco Bay Water Board to respond to those comments. In some instances, the San Francisco Bay Water Board made changes to the regulation based upon the comments received. In others, the San Francisco Bay Water Board did not. Some of the old comments may have relevance to the latest iteration of the TMDL, and some may not. This global “incorporation by reference” ignores the process undertaken by the San Francisco Bay Water Board, and fails to articulate any grievance that the Commenter currently has with that process or with the substance of the regulation.

			Specifically, where the San Francisco Bay Water Board made changes in response to a comment, the Commenter has failed to explain how the changes were allegedly inadequate. Likewise, where the San Francisco Bay Water Board did not make changes, the Commenter has failed to explain how the response or explanation that the San Francisco Bay Water Board provided was allegedly inadequate. The State Water Board cannot divine which of the many comments made by the Commenter have been adequately satisfied through the process of consideration and reconsideration by the State and Regional Water Boards, and which comments the Commenter does not. Most importantly, the State Water Board cannot determine the reason for any remaining dissatisfaction. Without that information, the State Board does not have a fair opportunity to address any remaining concerns. Such comments are deemed waived.
14	GRDC	While GRDC is critical of and questions much of the revised BPA and the Report, we are supportive of the TMDL's objectives and generally supportive - assuming that we correctly understand it - of the implementation strategy for historical mining areas downstream of the impoundments, including the portions of GRDC's land that were mined by prior landowners decades and even well over a century ago. Based on the revised BPA and Report, we understand the proposed implementation strategy is similar to existing stormwater strategies, including implementation of best management practices for controlling stormwater runoff.	Comment Noted
15	GRDC	**The Deadlines in the BPA Must Be Extended Because Many Have Already Passed or Will Pass Before the BPA or TMDL is Finally Approved** When adopted over one year ago, the BPA and Staff Report included a number of implementation deadlines, many of which have passed since the Regional Board approved the BPA and others that will pass before	An Executive Officer Correction Memo was sent to the State Board initiating “minor non-substantive changes” to the Basin Plan Amendment. These changes are consistent with the intent of the amendment, which was to act quickly after the adoption of the TMDL, and do not change the intent of the

		the BPA or TMDL is ever finalized. All dates within the BPA and TMDL must be extended by at least 18 months to allow parties sufficient time to meet them. For example, even though the BPA has yet to be approved by the State Board or EPA, it states, "The Guadalupe River watershed mercury TMDLs implementation plan will proceed in two phases, beginning January 1, 2009...." BPA at 12 (emphasis added). The BPA also envisioned that the Regional Board would be ordering landowners to submit either individual or coordinated monitoring plans by October 15, 2009. No such orders were ever issued and the deadline has now passed. The BPA should be amended to extend these deadlines by at least 18 months to account for the 12 month period since its adoption in late 2008, the time necessary for the State Board to review, revise and respond to comments on the BPA, and the time EPA will need to review and either approve or disapprove the TMDL. Not only should the BPA be amended to extend the deadlines that have passed, it should extend all deadlines by at least 18 months in order to retain the same time periods envisioned in the BPA when finalized last year.	amendment. The changes remove any possibility of retroactivity by adding referential dates (dates calculated from the effective date of the TMDL rather than hard dates) instead of the early dates in the TMDL. Those changes can be found on pages BPA-12-17 State Board staff agrees that this constitutes a non-substantive change for clarity and consistency.
16	GRDC	**The TMDL Does Not Satisfy The Clean Water Act's Requirement That TMDLs Be Based on a Daily Limit (Prior GRDC Comment Nos. 1 & 14)** A significant threshold problem with the TMDL is that, despite the changes made by the Regional Board in response to comments by GRDC and others, it remains a concentration-based standard focused on mercury content in soil and mining waste, rather than a load-based standard focused on the "total maximum daily load" of mercury that can enter the waterbodies in the Guadalupe Watershed. This process is part of the Clean Water Act, which requires States to establish a "total maximum *daily load*" or "TMDL" for pollutants entering waterbodies - this is the language of the statute, and it is not optional or discretionary. 33 U.S.C. § 1313(d)(1)(c) (emphasis added). A U.S. Court of Appeals decision highlighted this fact by ruling that the Clean Water Act unambiguously requires TMDLs to be based on daily, and not seasonal or annual, loads. "Daily means daily, nothing else." *Friends of the Earth, Inc.* v. *EPA,* 446 F.3d 140, 142 (D.C. Cir. 2006)… …This requirement even applies to TMDLs that are under development, such as the Guadalupe River Watershed TMDL:… …Additionally, a recent draft EPA guidance document notes that while	This comment refutes the San Francisco Bay Water Board's Response to GRDC comments Nos. 1 & 14 in which they argued that the TMDL is not actually a "Daily Load". The San Francisco Bay Water Board responded by revising Section 8.6 of their Staff Report to include daily load expressions in grams per day (g/d) in response to several similar comments. However, the San Francisco Bay Water Board was not under any Federal or State requirement to do so. The commenter continues to highlight the *Friends of the Earth, Inc.* v. *EPA* D.C. Circuit Court of Appeals Decision. This decision does not apply to California, which is subject to the 9th Circuit Court of Appeals. In light of this decision, EPA has issued a draft guidance document providing calculation methods for "daily load expressions". The San Francisco Bay Water Board included these calculations in Section

		it "might continue to be appropriate and necessary to identify non-daily allocations in TMDL development," it goes on to provide seven examples ofTMDLs in which complex long-term load factors *(i.e.* non-daily) were converted into daily loads for implementation purposes. EPA Office of Wetlands, Oceans & Watersheds, *Options for Expressing Daily Loads in TMDLs* at vii & Appendix A (June 22, 2007). In sum, the plain language of the Clean Water Act, as well as interpretations of that language by the courts and the EPA itself, indicate that the TMDL process is intended to culminate with the expression of daily loads used to implement the TMDL and achieve the water quality objectives. Here, the TMDL superficially contains daily load limitations for mercury, but those limitations are brushed aside in favor of the Regional Board's preferred approach to use concentration-based limitations. The Regional Board does not possess this level of discretion. As currently drafted, the TMDL violates the Clean Water Act, and thus, should not - indeed cannot - be approved.	8.6 of their Staff Report following these draft guidelines, despite the fact that a daily or average daily TMDL is not appropriate for this TMDL project. The commenter leaves out the fact that in the San Francisco Bay Water Board's response they showed that this TMDL is not subject to daily limits according to this US EPA guidance document due to the nature of the pollutant: U.S. EPA noted in this guidance document that "for pollutants where the [*water quality standard*] has a longer than daily duration (e.g., monthly or seasonal average), individual values that are greater than the daily expression do not necessarily constitute an exceedance of the applicable standard." (San Francisco Bay Water Board's response to GRDC comment No.1) This TMDL deals with mercury, more specifically it has targets that address elevated mercury concentrations in fish tissue, which is accumulated over months to years. Therefore, concentration based TMDLs and allocations are more appropriate. State Board staff does not agree that this TMDL violates the Clean Water Act, rather it is consistent with US EPAs guidance, and based on sound professional science and judgment.
17	GRDC	**A TMDL Based on Mercury Concentration in "Erodible" Mining Waste and Sediment Is Legally Improper and Practically Unworkable** (Prior GRDC Comment Nos. 2-5) The Regional Board's responses to comments concerning the "erodible" mining waste and sediment basis of the TMDL were merely token responses that did not address the substantive issue. Specifically, the Regional Board's responses focus on justifying the explanation that the initial source of mercury in the Guadalupe Watershed is mercury in soil that is then transported via stormwater	State Water Board staff support the San Francisco Bay Water Board's use of "erodible", please see response to comment no 7 above. The commenter repeats GRDC Comment nos. 2-5 that the San Francisco Bay Water Board responded to previously, with the exception of adequacy of load and discharge analysis which State Board responds to below.

		runoff. While that may be an accurate conclusion, the Regional Board must still perform a thorough load and discharge analysis to link the rate of mercury transport from soil on land into the waterways of the Guadalupe Watershed via such stormwater runoff. As noted in the Prior GRDC Comments, a TMDL is a "daily load" or a quantity of material that can be discharged into navigable waters on a daily basis, typically expressed as units per day. The BPA and the Report establish a TMDL based not on a daily discharge rate, but rather on a static concentration of mercury in soil, regardless of what total quantity of mercury actually discharges to navigable waters. As such, the 0.2 mg/kg erodible mining waste and 0.2 mg/kg erodible sediment standards are not allowable bases for establishing waste load allocations under the Clean Water Act, and the TMDL as revised remains fundamentally flawed. EPA Region 9's guidance on TMDLs states that "a maximum allowable pollutant load must be estimated to address the site-specific nature of the impairment. The loading capacity reflects the maximum amount of a pollutant that may be delivered to the waterbody and still achieve water quality standards." EPA Region 9, *Guidance for Developing TMDLs in California* at 4 (Jan. 7, 2000) ("EPA Region 9 Guidance"). In stark contrast to this directive from EPA, the Report previously admitted: [T]he Guadalupe Linkage Analysis (see Section 7.1) for inorganic mercury is qualitative, so it does not provide a scientific basis for a mass load in the Guadalupe River watershed. Report (February 2008 version) at 8-4 (emphasis added). Subsequently, in response to the Prior GRDC Comments, the Regional Board deleted this statement from the revised/final Report. But unfortunately, the observation remains true. The linkage analysis referenced in Section 7.1 of the Report lacks the same information it lacked previously, and thus, still fails to provide the scientific basis that is required - a quantifiable link between mercury content in soil and mercury content in waterbodies. As stated by EPA in its EPA Region 9 Guidance: a TMDL must provide "an understanding of pollutant loading sources and the amounts and timing of pollutant discharges [that] is vital to the development of effective TMDLs." EPA Region 9 Guidance at 4.	State Board Staff disagrees; the San Francisco Bay Water Board has done an appropriate linkage analysis consistent with EPA guidelines. Figure 7.3 on page 7-3 of the Staff Report does indeed show exactly what the commenter states it doesn't – a quantifiable link between mercury content in soil and mercury content in waterbodies. The figure shows fish tissue mercury concentrations vs. reservoir bottom sediments throughout the watershed, including the Lexington Reservoir (reference reservoir). There is a clear trend toward higher mercury concentrations in fish tissue with higher reservoir sediment mercury concentrations.

18	GRDC	Moreover, erodible mining waste and sediment standards simply will not and cannot serve to determine "the maximum amount of a pollutant that may be delivered to the waterbody and still achieve water quality standards." The "maximum amount" must be determined based on how much mercury is discharged into the system, and cannot be based on the concentration of mercury in the soil, *i.e.,* one cubic yard of heavily contaminated erodible soil may result in a lower total mercury discharge than a million cubic yards of lightly contaminated soil. Similarly, two identical quantities and concentrations of erodible soil may have far different impacts on in-stream mercury levels because of how erodible each might be.	The San Francisco Bay Water Board has already addressed this comment in its response to "GRDC comment No. 2" State Water Board staff reviewed the San Francisco Bay Water Board's response to this comment and agrees with the response. Please see response to comment 0.1 above.
19	GRDC	Similarly, even if a TMDL based on mercury concentrations in erodible soils were lawful, the standard is unworkable as a practical matter. The Report defines "erodible" as "material readily available for transport by stormwater runoff to surface waters."… … The Regional Board's response to Prior GRDC Comment No.4 states that "the only permissible discharge from mine property is that naturally generated by erosion of undisturbed soil." But basing the TMDL and related enforcement actions on vague determinations such as what constitutes a "naturally generated" discharge and "undisturbed soil" makes the TMDL even more subjective, vague, and uncertain.	The San Francisco Bay Water Board has already addressed this comment in its response to "GRDC comment No. 4" State Water Board staff reviewed the San Francisco Bay Water Board's response to this comment and agrees with the response. Please see response to comment 0.1 above Commenter has failed to explain how the response or explanation that the San Francisco Bay Water Board provided was inadequate.
20	GRDC	GRDC commented previously that by using a concentration-based regulatory approach, compounded by the practical difficulty in distinguishing what soil areas are "erodible" from those that are not, the TMDL imposes *de facto* soil cleanup standards that are two to three orders of magnitude more stringent than cleanup standards developed and typically applied by EPA and the State of California for cleanup of mercury contamination of soils…. …Nonetheless, while the Regional Board's edits to the text of the BPA disclaim that it is imposing a soil cleanup standard, such is the real-life effect of the TMDL's two 0.2 mg/kg concentration-based standards on regulated entities that must comply or risk enforcement actions. This is what makes the new standards *de facto* soil cleanup standards. Moreover, by responding in this manner, the Regional Board failed to address the substantive issue and did not offer an explanation for:	Please see responses to comments Nos. 17-19, 22-23

		(i) why the TMDL's 0.2 mg/kg standards are so much more stringent than other soil standards; (ii) why the 0.2 mg/kg erodible soil standard, which was based on the San Francisco Bay Mercury TMDL, a marine mercury sediment standard, is appropriate for a freshwater erodible soil standard; or (iii) the lack of any kind of scientific evaluation of the purported "cleanup standards" other than adopting a background concentration of 0.1 mg/kg from purported "background" sediment concentrations in the Lexington Reservoir.	
21	GRDC	**Even the Perfunctory and Unsupported Methylmercury Daily Load Does Not Justify Imposing Load Limitations on Downstream Sources** As discussed above, the Regional Board responded to criticism of the lack of a daily load by inserting a perfunctory methylmercury load limit into the TMDL….	Please see response to Nos. 16-17 above
22	GRDC	**The Mercury TMDL is Based Entirely on the San Francisco Bay Mercury TMDL and Not on the Site-Specific Nature of the Mercury Impairment in the Guadalupe Watershed** Likewise, the after-the-fact "daily" TMDL now included in the BPA is unsupported and legally defective. The basis for the "daily" load for mercury is not a site-specific consideration of the Guadalupe Watershed, rather it is based on the San Francisco Bay Mercury TMDL ("SF Bay TMDL"). Report at 8-16. This approach is contrary to EPA Region 9's directive that TMDLs must be based on site-specific considerations of the watershed at issue, not some other watershed: "[A] maximum allowable pollutant load must be estimated to address the site-specific nature of the impairment. The loading capacity reflects the maximum amount of a pollutant that may be delivered to the waterbody and still achieve water quality standards." EPA Region 9 Guidance at 4.	The San Francisco Bay Water Board has already addressed this comment in its response to “GRDC comment No. 5” State Water Board staff reviewed the San Francisco Bay Water Board’s response to this comment and agrees with the response. Please see response to comment 0.1 above State Board Staff disagrees with this GRDC comment. The San Francisco Bay Water Board presented extensive site-specific analysis in their Final Staff Report based upon the best available science and sound judgment. The San Francisco Bay Mercury TMDL imposed allocations on the watershed, so the Guadalupe allocations have to be at least as stringent as the SF Bay Mercury TMDL. BPA-7 states, “Implementation actions in the Guadalupe River watershed TMDLs implementation plan implement the legacy

			mercury allocation of the San Francisco Bay mercury TMDL to the Guadalupe River watershed."
23	GRDC	**The Use of Lexington Reservoir as a Background Reference Is Inappropriate and Produces Unrealistic Source Reduction Allocations (Prior GRDC Comment Nos. 6, 12 & 15)** The Regional Board's decision to use Lexington Reservoir sediments to represent background sediment concentrations is neither justified nor logical. Moreover, the Regional Board's response to criticism of this decision - that a reservoir in the Guadalupe Watershed in mineralized soil but not influenced by mining would be a "better" reference site, but that no such reservoir exists - is simply inadequate. Regional Board Response No.6. The New Almaden Mining District was one of the largest mercury-producing areas in the world, and it was so for a reason: The large amount of naturally-occurring mercury deposits in the hills throughout the District. As such, an appropriate reference site should be one that is mineralized, but not impacted by mining operations. Such a site would provide an accurate reference by reflecting the relatively high levels of naturally-occurring mercury in the indigenous soils, thereby making it possible to discern the additional impact that mercury mining had on the region. … However, the Report also states that, other than a small silica deposit, "there were no other potential mercury deposits identified in the Lexington Reservoir watershed." Report at 3-14 (emphasis added)… …Obviously, mining only occurs in mineralized areas; conversely, mining does not occur where there are no naturally-occurring minerals. (By analogy, one would not determine the background salinity of San Francisco Bay by testing salinity levels in an alpine lake.) So by using Lexington Reservoir sediments to represent background sediment concentrations, the Report creates an artificially wide delta between unaffected and affected reservoirs, which in turn results in the establishment of a TMDL with unrealistic source reduction allocations. The Report cannot justify using the Lexington Reservoir - or the areas draining into it - as representative of background conditions in the New Almaden Mining District due to the absence of naturally existing cinnabar concentrations in the soil that would otherwise support mining activities. The Regional Board subsequently attempted to justify this approach using the theory that "bottom sediments in Lexington	The San Francisco Bay Water Board has already addressed this comment in its response to "GRDC comment No. 6" State Water Board staff reviewed the San Francisco Bay Water Board's response to this comment and agrees with the response. Please see response to comment 0.1 above State Board Staff supports the use of Lexington Reservoir as a reference reservoir for this TMDL because it is located in the Guadalupe River watershed. . In addition, the commenter states: "The Regional Water Board subsequently attempted to justify this approach using the theory that 'bottom sediments in Lexington Reservoir resulted from the natural erosion of upstream hillsides,' but this theory appears to be unsupported by actual data or other evidence, especially if those hillsides were not mineralized." General knowledge of geomorphic processes would show that all sediments deposited in the reservoirs come from upland sources, disturbed by mining or not (i.e. weathering, hydrologic processes).

		Reservoir resulted from the natural erosion of upstream hillsides," but this theory appears to be unsupported by actual data or other evidence, especially if those hillsides were not mineralized. Regional Board Response No. A2.	
24	GRDC	Additionally, the BPA's attainment strategies focus almost exclusively on sediment load reduction assumed to contain mercury that, in turn, is assumed to cause fish tissue impacts. But in doing so, the BPA and the Report fail to distinguish methylmercury impacts from mining waste (either from actively eroding mine waste piles or legacy mine waste in creeks and reservoirs), on the one hand, from the impacts of: (i) erosion of natural bedrock terrain containing disseminated mercury; (ii) natural sediment in creeks and reservoirs; or (iii) air deposition.' Without distinguishing natural mercury-bearing sediments from sediments derived from mine waste piles, the BPA can not properly assume that fish tissue methylmercury levels are not natural for the Guadalupe Watershed. In fact, the Report notes that the Guadalupe Watershed is the site of rich mercury-bearing ore bodies. *See* Report at 3-14-3-16. These ore bodies occur in natural bedrock formations that contain numerous non-ore grade mercury bearing zones and relatively low concentration of disseminated mercury mineralization. The formations are exposed as rock outcroppings to natural processes of weathering and erosion in over approximately 19 square miles of the watershed. At the same time, mapped former mine waste piles are estimated to cover less than a few hundred acres of the watershed. In short, mercury from natural bedrock exposures has been migrating into the watershed for millions of years. The TMDL provides no detailed studies to show that the mine waste piles are eroding any faster than natural bedrock, or at all. The failure to distinguish between natural mercury-bearing sediments from sediments containing mercury from mining waste renders suspect the TMDL's methodology and resulting mercury reduction allocations.	The San Francisco Bay Water Board has already addressed this comment in its response to “GRDC comment No. 13 State Water Board staff reviewed the San Francisco Bay Water Board’s response to this comment and agrees with the response. Please see response to comment 0.1 above

25	GRDC	**The TMDL's Mercury Reduction Allocations Are Inequitable (Prior GRDC Comment Nos. 7-11).** Among the Prior GRDC Comments were those addressing the mercury reduction allocations for upstream sources as compared to downstream sources, with the dividing line being the reservoirs and lakes that are impoundments within which mercury methylation is maximized… …Thus, the Report itself acknowledges that allocations are not necessary for downstream sources in order to meet the TMDL targets. Indeed, the purported daily methylmercury load is based exclusively on discharges to lakes and reservoirs. There is no justification for requiring downstream mining sources to implement load reduction strategies to meet the TMDL target… …Therefore, it would be inappropriate and unnecessary to impose additional requirements on downstream sources, if in fact the upstream reductions will eventually result in achieving the goals of the TMDL. …But the Regional Board's responses then explain that reductions of mercury loads from downstream sources are still needed to meet three different aspects of the SF Bay TMDL": (i) the mercury allocation assigned by the SF Bay TMDL to the Guadalupe Watershed; (ii) the SF Bay TMDL's sediment target of 0.2 mg/kg; and (iii) protection of the South Bay Salt Ponds Restoration Project. *Id* However, the TMDL's imposition of extraneous requirements on downstream sources within the Guadalupe Watershed to meet requirements of a separate and distinct TMDL project - the SF Bay TMDL - is improper. As stated in the Clean Water Act, the "total maximum daily load shall be established at a level necessary to implement *the applicable water quality standards* " 33 U.S.C. § 1313(d)(1)(C) (emphasis added). These water quality standards "serve the dual purposes of establishing the water quality *goals for a specific water body* and serving as the regulatory basis for establishment of water quality-based treatment controls and strategies...." 40 C.F.R. § 130.3 (emphasis added). …In sum, the TMDL's water quality standards apply to waters within the Guadalupe Watershed and not to waters within San Francisco Bay, and the reverse is also true. While it may be appropriate to coordinate the TMDL for the Guadalupe Watershed with other TMDL's such as the SF	The Guadalupe River Watershed TMDL is the implementation of the Bay's load allocation, hence it is not extraneous nor inequitable. See above response to comment No. 22-24 above The San Francisco Bay Water Board has already addressed the majority of this comment in its response to "GRDC comment Nos. 7-11 State Water Board staff reviewed the San Francisco Bay Water Board's response to this comment and agrees with the response. Please see response to comment 0.1 above

		Bay TMDL, it is improper to impose additional requirements on sources within the Guadalupe Watershed that are not necessary to meet the water quality standards applicable to that watershed.	
26	GRDC	**The Regional Board Cannot Unilaterally Establish a TMDL for Methylmercury, As Opposed to Elemental Mercury** (prior GRDC Comment No. 17) …To the extent the Regional Board desires to establish a TMDL for methylmercury, two things must happen first: (i) methylmercury must be listed in the Clean Water Act § 303(d) list; and (ii) the waterbodies within the Guadalupe Watershed must be listed as impaired for methylmercury.	The San Francisco Bay Water Board has already addressed this comment in its response to "GRDC comment No. 17" State Water Board staff reviewed the San Francisco Bay Water Board's response to this comment and agrees with the response. Please see response to comment 0.1 above
27	GRDC	**The TMDL Repeatedly Fails to Support its Findings and Conclusions with Data and Its Implementation Actions for Mine Sites Have Significant Uncertainties (Prior GRDC Comment Nos. 18,20,21 & 22, AI-A6, B-E)** In many of its responses to GRDC's various comments concerning the TMDL's data gaps, unsupported conclusions and uncertain application, the Regional Board appears to have adopted the following theme: While the TMDL does contain uncertainties, some amount of uncertainty is acceptable, and thus, the TMDL is good enough. In the Regional Board's words: "Environmental science inherently includes data gaps and uncertainties." Regional Board Response No. 22. For example, in response to GRDC's comment concerning the admitted lack of upper watershed load estimates, the Regional Board said: "We realize that there is some uncertainty associated with mercury loads in the wet season, however, we are confident that our estimates are adequate for TMDL purposes."…. …And, even the Peer Reviewer's statement quoted by the Regional Board is equivocal: The identification of sources, linkage analysis and allocations are based	State Board Staff fully supports this TMDL and its findings. State Board Staff also finds that this project will provide pollution reduction benefits beyond the scope of just mercury and methylmercury. San Francisco Bay Regional Water Board has shown due diligence with this extremely complex TMDL, including soliciting extensive public participation in its development. GRDC can still provide any new and relevant scientific studies or data at any time during the adaptive implementation timeframe of this TMDL. SF Bay Regional Water Board will submit annual progress reports on the status of the TMDL. The San Francisco Bay Water Board has committed to evaluating any new and relevant information from monitoring, special studies, and scientific literature and making any necessary modifications to the targets, allocations or implementation plan within the first 10 years of the TMDL timeframe. The State Board staff absolutely

		upon data collected recently by [Tetra Tech]. Although the heterogeneity of the system and its complex hydrology make it ***difficult to estimate some of the values accurately,*** the ***staff has attempted to apply best professional judgment in a way that allows for cleanup to begin soon.*** In my opinion, the adaptive management approach advocated by the staff is superior to spending more time quantifying loadings and sources. Quote from Prof. Sedlak cited in the Regional Board's Response No. 18 (emphasis added). …In sum, the TMDL is being rushed through the approval process before it is complete and ready for consideration. The TMDL in its current form contains too many data gaps, uncertainties and contingencies, which the Regional Board intends to fill in later via additional studies and investigation imposed upon landowners in the watershed *(i.e.* the "adaptive management approach"). This process reversal renders the TMDL too much a policy document and exempts the actual actions to be imposed on individual landowners from review. Not only does this make the TMDL vague and uncertain in its application, it deprives the affected landowners of the opportunity to evaluate and comment now, before the TMDL is approved and takes effect, at which point it will be too late.	encourages GRDC to participate in this process. Furthermore, the San Francisco Bay Water Board has given GRDC several opportunities to provide sampling data and input on this TMDL. GRDC elected to not participate proactively and declined several invitations to fund data collection, and never provided their own data. This TMDL is based on sound, peer reviewed scientific data and available information. The San Francisco Bay Water Board will use collected data and current relevant scientific information to determine progress towards meeting the fish tissue targets as part of the Adaptive Implementation strategy within the first 10 years of the TMDL. Uncertainty and change inherent in scientific progress are actually a *strength* of science, hence adaptive implementation strategies. Adaptive implementation entails taking actions commensurate with the existing, available information, reviewing new information as it becomes available, and modifying actions as necessary based on the new information. Taking action allows progress to occur while more and better information is collected and the effectiveness of current actions is evaluated.
28	GRDC	Due to the issues discussed in this letter, GRDC remains extremely concerned with the adequacy of the proposed BPA and the Report. We believe that these documents will require substantial revision before they are legally adequate and technically or scientifically supportable.	Comment Noted
29	Santa Clara Valley Water District (SCVWD)	The Santa Clara Valley Water District (District) appreciates the opportunity to provide comments concerning the Guadalupe River Watershed Mercury Total Maximum Daily Load (TMDL) amendment to the Water Quality Control Plan for the San Francisco Bay Region. The District is generally in support of pursuing a planning effort of this magnitude, and has to-date contributed significant resources *(over* $10 million) to both the development	Comment Noted In addition, The commenter states that “our collaborative and voluntary efforts have largely been unrewarded by the San Francisco Bay Regional Water Quality Control Board

		of the TMDL and conduct of early implementation activities aimed at reducing mercury impacts in the watershed. However, our collaborative and voluntary efforts have largely been unrewarded by the San Francisco Bay Regional Water Quality Control Board (Regional Board)… …The District collaborated with the Regional Board(starting December, 1999) by voluntarily financing ($1 million) the studies that support the TMDL; has voluntarily initiated applied studies (starting in 2005) in two reservoirs and one lake to reduce methyl mercury production ($4 million); and has conducted several mercury removal/stream restoration projects (starting in 2003) that have removed 1000 kg of mercury from the lower watershed and has eliminated the only remaining source of mine waste discharge to Almaden Reservoir ($5 million). In an April 21, 2008 letter, the District submitted comments to the Regional Board regarding the TMDL during the adoption process. In the response to comments submitted by the District, the Regional Board made incorrect assumptions regarding the responsibilities of the District, and appears to have misunderstood the point of some of our comments. The District submits the following comments in addition to comments previously submitted to the Regional Board, which we hope you also have an opportunity to review.	(Regional [Water] Board)…" State Board Staff are dismayed by this comment, especially given the long history of collaborative efforts between the Regional Water Board and SCVWD (the District). State Board commends the District for their voluntary efforts and hopes that they will continue to work voluntarily with San Francisco Bay Water Board as a partner in action. State Board considers a collaborative effort between the District and the San Francisco Bay Water Board to be both ideal and appropriate for the implementation and success of the TMDL.
30	SCVWD	**Comment 1:** In the response to the District comment 2.1 (April 21, 2008), the Regional Board states that "The District's implementation responsibilities include ... a $135 to $270 million project for Alamitos Creek... [and] leadership for coordinated watershed monitoring." The portion of Alamitos Creek referred to by the Regional Board is in private ownership. The District has neither ownership nor jurisdictional responsibility for this area, nor does its enabling legislation (District Act) allow for the District to expend public funds to improve private property. Furthermore, the District is not responsible for leadership of coordinated monitoring. In the amendment, this approach is "encouraged" by the Regional Board; however, this role cannot be imposed upon the District. **Request:** The District requests that the State Water Resources Control Board (State Board) clearly indicate in the hearing record that the District does not have legal jurisdiction and thus responsibility to address and/or compel private property owners to meet the requirements contained in the subject Basin Plan Amendment. Further, the District requests that the State Board formally recognize in its response to comments that the District is not and will not assume responsibility for cleanup efforts nor for coordinating monitoring	The State Board encourages the District to take a crucial role in the restoration of the Guadalupe River Watershed. The language on page BPA-14 states: *"The Water Board's strategy for Alamitos Creek, which is highly polluted with mercury mining waste, is to encourage a cooperative effort among the District, local agencies, and creekside property owners to undertake a comprehensive creek bank stability and habitat restoration project. The Water Board encourages the District to be the technical lead for this project, and to seek funding for it."* State Board staff affirms that the BPA does not impose responsibility on the District to cleanup Alamitos Creek nor for coordinating monitoring associated with the private

		associated with the private property owners, and will not solely seek funding for such efforts but will, however, work to encourage a coordinated effort.	property owners. However, given the District's long track record and commitment to watershed stewardship, we too encourage a cooperative effort among the District, local agencies, and creekside property owners to undertake a comprehensive creek bank stability and habitat restoration project for Alamitos Creek.
31	SCVWD	**Comment 2:** In its responses to several District comments (April 21, 2008), the Regional Board attempts to defend its insistence on monitoring rather than implementation. The current and projected scarcity of resources compels us to prioritize actions that will generate the greatest results. In the State Board September 17, 2009 Notice of Opportunity to Comment (Notice), the Regional Board underestimates the costs of their monitoring requirements; the annual cost for fish sampling as described in their Project Plan is $200,000 annually (not $100,000 as stated in the Notice) and the cost for monitoring mercury loads is $300,000 *annually* (not $300,000 total as stated in the Notice). This represents a $2.5 million expense that could otherwise more appropriately be used to remove mercury from the system in the first five years. The District believes that a substantial portion of the information that would be generated by this monitoring is not useful, since we already have data regarding mercury in fish, and estimates of mercury loads to the Bay. The scarce resources expended on this monitoring effort will only further characterize a problem we believe that we have already sufficiently characterized (using $1 million of District funding). We stress that these scarce resources should be spent towards achieving a result. Finally, the subject Basin Plan amendment provides no incentives for implementation of actions in lieu of monitoring; the scarcity of resources at this time does not allow for both. **Request:** The District requests that the State Board amend the Basin Plan to include the following footnote in the Implementation Plan section located on page BPA-12: "It is the intent of the Regional Board to consider implementation actions as a higher priority over monitoring activities. Therefore, the Regional Board will work with responsible parties to reduce overall monitoring activities commensurate with the commitment to conduct specific mercury reduction implementation activities."	State Board Staff disagrees with the commenter that monitoring costs are excessive. Monitoring is absolutely pertinent to the success of this TMDL and actually represents a small portion of the total implementation costs. The $2.5 M expense is a diminutive cost compared the potential half to one billion dollar overall cost of the implementation of the TMDL. Several of the special studies and monitoring are geared toward a better understanding of where cleanup actions should be focused. It has been several years since fish tissues were sampled in the watershed, and it is necessary to track changes in mercury loading over time to evaluate compliance. Taking early immediate action, while gaining a better understanding of the fate and transport of mercury in the system (via monitoring) is the recommended and preferred methodology. State Board staff respectfully disagrees that the request for a footnote in the BPA would provide any clarity or value. The "State Board Notice" that the commenter referenced is for general public informational purposes. It is only an executive summary of the San Francisco Bay Water Board staff report and BPA and does not have any regulatory language or authority for this TMDL.

32	SCVWD	**Comment 3:** In the response to several District comments (April 21, 2008), the Regional Board stated that "[the Regional Board] have not included a "command and control" approach for the District. Rather we offer the District, and only the District, the opportunity to comply voluntarily." The amendment includes a December 31, 2009 date for the District to report on its activities regarding applied studies to reduce methyl mercury concentrations in reservoirs and lakes (the District voluntarily commenced these studies in 2005 in one lake and expanded it to include two reservoirs in 2007, and has made at least two presentations of its findings at Regional Board workshops). Yet, in	Regarding the April 2009 letter that the commenter referenced, this letter was not a threat of enforcement, rather it was "to request a written description of SCVWD reporting plans for methylmercury." The commenter also states that the letter "shows the Regional Water Board is unconcerned about the costs to the District

		April 2009 the Regional Board requested a technical report from the District, under threat of enforcement under Section 13267 of the California Water Code, to provide an *outline* of the December 31, 2009 report (and the Regional Board letter included specified content of the outline) by July 30, 2009. This belies the Regional Board statements regarding voluntary compliance being extended to the District as well as shows the Regional Board is unconcerned about the costs to the District for implementation of the TMDL, and for duplicative and unnecessary reporting. Furthermore, since the Basin Plan Amendment is still being considered by the State Board and has not yet been submitted to the Office of Administrative Law (OAL) or US Environmental Protection Agency (EPA), the amendment (along with the requirements) would not be effective until all approvals are obtained, and the compliance dates in the amendment are not consistent with this process. **Request:** The District requests that the State Board clearly indicate in the hearing record the meaning of voluntary compliance vis-a-vis "command and control" compliance, including identification of incentives to encourage voluntary compliance. Also, the District requests that the State Board suspend all compliance dates in the Basin Plan Amendment and instruct the Regional Board to revise these compliance dates *after* the Basin Plan Amendment has been through the *entire* approval process (with the earliest compliance date one year from the conclusion of the process), including approval by the US EPA.	for implementation of the TMDL, and for duplicative and unnecessary reporting" which is completely untrue. The letter actually states: "*We understand that the District or its contractors may have already produced several relevant reports or manuscripts. Therefore, the report you submit to the Water Board may be made relatively brief by referencing these other documents and enclosing them as appendices"* Further, the San Francisco Bay Water Board did not mention the use of 13267 authority, because SCVWD is an excellent watershed steward and demonstrated time and again with this TMDL that they have stayed ahead of regulatory requirements. State Board encourages SCVWD to continue their voluntary efforts. Regarding the compliance dates, please see above response to comment No. 15
33	Friends of Los Alamitos Watershed (FOLAW)	After reviewing the issues in depth, the directors of FOLAW feel that the organization should remain focused on facilitating communication and education. The primary RPs already named and engaged by the San Francisco Bay Regional Water Quality Control Board (Regional Board) should be responsible for the broader issue of investigating and addressing the various mercury issues that might emanate from the abandoned mines and upland water bodies. Therefore, as a facilitating organization with respect to gathering and communicating upland watershed protection information and issues, the purpose of this letter is to verify and clarify understandings and concerns after a review of the above document and discussion with residents of the New Almaden area of the watershed. The intention is to document, for the record, issues that seem unclear to watershed residents and to veriiy public agency support of cleanup and restoration projects that affect property owners along Los Alamitos Creek downstream if the mercury mines. It is also FOLAW's purpose to state its understanding of the TMDL as a	Comment Noted

		result of discussions with staff from the Regional Board, Santa Clara County Parks and Recreation, and the Santa Clara Valley Water District.	
34	FOLAW	Members and residents understand that it is the intent of the Regional Board to encourage the *"District* to seek funding" mechanisms to aid in the financing of the restoration work required for the TMDL implementation. We support using a multi-agency cooperatively approach to fund the projects that will help prioritize and expedite solutions to the problem. We feel a multi-agency approach is the only economical and efficient solution to addressing the needs of the regional Bay TMDL, needs that are dictated by the widespread nature of mercury in the Bay Area and the many scientific uncertainties associated with its source, transport, and fate (BPA-14)	Comment Noted
35	FOLAW	Grant Funding Priority We have observed that the individual Los Alamitos community members have neither the expertise nor a staff to work together as a single entity that can effectively apply for, administer, and use grant monies in an efficient way to remove the downstream wastes on behalf of the upstream sources. We understand that the responsible public agencies will be encouraged to pursue grants and other funding sources from public and private agencies as an efficient solution to the above community management problem. We believe that the widespread nature of mercury-impacted mining wastes in California make it imperative that SWRCB relieve the enormous potential problem associated with the issue of allocating responsibility for the cleanup up of impacted sediments along streams and rivers. It is confusing to innocent property owners when they are told they have to bear the responsibility for organizing and finding funding for the removal of sediments impacted (deposited) from upstream mine sources. Concerned residents strongly agree with the Regional Board that the "District and its partners", with other multi-agencies are in the best position to rapidly and efficiently navigate the unique legal requirements and technical challenges associated with removing and stabilizing mining wastes along creek channels adjacent to and on private lands. On behalf of the general taxpayer, downstream residents feel the above Regional Board action will be the most efficient method to keep costs down for the restoration project, court challenges, legal fees and restorations costs for general taxpaying public. (BPA-14)	Comment Noted
36	FOLAW	Challenges	Comment Noted

		A major challenge is that mercury does not behave entirely as a type of point source discharge of pollution that is easy to regulate and control. With no significant mining activity in the New Almaden District for about 40 years, and most significant mining having occurred over 100 years ago, we have found the present contamination has multiple sources that mix old mining impacts with impacts that continue from outside sources, such as atmospheric deposition and general human activity. We have observed that no water agencies have completed restoration projects that demonstrated that localized waste and sediment removal has a statistically significant effect on fish tissue mercury concentrations in the Bay. With these challenges ahead, multi-agencies will need to be encouraged by the State Water Resources Control Board to help provide the resources to pay for the scientific and technical research that will help both the public and the private parties solve these complex restoration challenges in years to ahead.	
37	FOLAW	Creekside Property Owners Concerns Several residents of the Los Alamitos Creek watershed area attended and listened to the comments at the October 8th. 2008 meeting of the Regional Board in Oakland, California. The Regional Board members and staff stated their intent to recognize and address the Los Alamitos downstream property owner's concerns. The Los Alamitos Creek residents heard the recommendation from the Regional Board that the responsible local agencies continue to take the lead to clean up the mining wastes anywhere they may have been deposited along the water courses and pose a significant threat to water quality (see SPA page 14), Concerned residents also acknowledge the efforts in the field to begin the restoration work in the upland stream areas. None the less, some members of the community are concerned that restoration projects do not restore the streams to their naturally eroding nature but rather engineer a noneroding replacement channel that may cause a future increase in downstream erosion and mercury loads to the bay. It Is essential that the proposed remediation efforts are studied for their risks and effectiveness before these solutions are implemented as a standard mercury cleanup technique used in the watershed and throughout California. It is extremely important to check for technique validation so that private and public landowners are not further damaged by upstream sources and unintended consequences. Important facets of the mercury problem may be damaged in the restoration actions unless the funding mechanisms encourage projects that adequately assess the benefits and risks. (BPA-14)	This comment is unclear. It appears that FOLAW's comment expresses concern relating to unintended adverse consequences from streambed and/or channel alteration from upstream restoration efforts. The example the commenter provided is additional creek bank erosion beyond the project site that might release mercury for transport to the Bay. These individual projects will require permits, either Clean Water Act Section 401 certifications or waste discharge requirements from the San Francisco Bay Water Board. San Francisco Bay Water Board staff have expertise in creek restoration, including nationally-recognized stream expert, A. Riley, Ph.D., located at SF Bay Regional Water Board's office to advise on 401 certifications. These projects require permits from many agencies, each of which will contribute expertise and requirements for a given project.

38	FOLAW	Waste Clean Up Laws The concerned community understands the problem of an implied consent to liability under the water protection and waste cleanup Water Code laws. The Board states in the Guadalupe Basin Plan that the *"District'* will take responsibility to be the technical lead for the mining wastes discharged to the creeks. ''The creekside property owners are responsible to provide reasonable access to the creek..." We believe this means that creekside property owners are not responsible for funding. This is far from certain in communications with district staff members. We think the responsible parties have the resources and experience necessary to remove the wastes and restore impacted affected streams in the most efficient method. This needs to be communicated in a definitive statement of responsibility. (BPA-14)	The BPA provides already has a definitive statement regarding the role and expectation for the SCVWD: *"The Water Board <u>encourages</u> the District to be the technical lead for this project, and to seek funding for it."* The commenter incorrectly interpreted the Basin Plan as legally placing responsibility upon SCVWD to perform the cleanup. This is incorrect. The Basin Plan encourages SCVWD to continue its leadership for the cleanup. The BPA also includes a statement of responsibility for Creek-side property owners: *Creekside property owners are responsible to provide reasonable access to the creek for project studies, construction, and monitoring, and to not take actions on their property that worsen the discharge of mercury mining waste into the creek (BPA-14).* Neither of these statements define the legal boundaries of the responsibilities of the respective parties. Instead, the San Francisco Bay Water Board defined its expectations regarding the roles of the various parties in the cleanup effort. If these efforts fail, the San Francisco Bay Water Board may apply whatever responsibility is appropriate under applicable law to ensure the protection of the waters of the state. Defining those boundaries at this time is not necessary, and would be based on the facts of individual cases at the time the San Francisco Bay Water Board takes any further action. As stated in previous responses from the San Francisco Bay Board, the property owner can be considered a discharger

			(responsible party) under California Water Code § 13304.
39	FOLAW	Good Samaritan Law Many residents are concerned that the Water Code laws, even with the Good Samaritan Law (Water Code 5.7) mentioned in the TMDL (BPA-12) may not be enough to aid and protect innocent downstream residents who might want to help cleanup in some way and/or control the impact from upstream waste discharges. Some residents are concerned that the Good Samaritan laws might relieve mine owners from responsibility for downstream impacts, even while their abandoned mines continue to discharge waste indefinitely (Water Code 5.7.3). As a solution, residents would like the SWRCB and Regional Board to make a definitive statement of the responsibility of the upstream mine owners for the cleanup of the mining wastes deposited along downstream channels. Specifically, we request the board relieve those innocent parties downstream who have no complicity in the contamination of the watershed.	The California legislature passed a limitation on liability for "Good Samaritan" public agencies, and the contractors who work for them, in the California Water Code. Chapter 5.7, beginning with section 13397, provides some limitation under state law for certain actions that are consistent with the requirements of the chapter. This law would not, in all likelihood, apply to landowners. This statute provides only limited protection from overall liability, however, because it does not have any affect on provisions of federal law, like CERCLA, that can provide for liability in such situations. The US Congress has considered, but not yet passed, Good Samaritan mining legislation to encourage interested third parties, including community groups and mining companies not associated with the original pollution, to undertake cleanup efforts without assuming full liability for the pollution. As it stands now, such a limitation is not part of federal law. The BPA requires that some creek-side property owners allow the District and its partners reasonable access for the cleanup project (because The District does not have easements along this stretch), and all persons must refrain from any actions that might increase discharges of mercury mining waste.
40	FOLAW	Legal Precedent In cases of industrial pollution, such as from mine processing plants, it should be the source that bears responsibility for the cleanup of waste transported off the site. Community members will be more cooperative if they are protected from liability for the impacts that originate from	Please see response to Comment No. 39-40 above.

		upstream sources.	
41	FOLAW	Legislative Solutions Some residents encourage a legislative solution, because the mercury problem potentially impacts large numbers of innocent downstream property owners along impacted waters throughout the State. If the SWRCB is unable to make a definitive allocation of responsibility, perhaps a recommendation to the California State Legislature could prompt action to help correct this situation. One solution might be to change Section 5.7.4 of the Water Code to include protection for non-responsible innocent downstream property owners. We think that if downstream property owners have the same relief from joint and several liabilities as Good Samaritans undertaking abandoned mine land cleanup, it will resolve open questions about liability and facilitate additional public and private funding for creek restoration projects.	Please see response to Comment No. 39-41 above.
42	FOLAW	Adaptive Implementation With respect to the TMDL and BPA as technical documents, we understand and appreciate that they provide for "Adaptive Implementation" and "Best Practice" solutions as new scientific information and studies become available. We recognize the TMDL document has many serious unresolved Issues due to the limits of science and certainty. We are most concerned that parties are not forced to restore sediment total mercury to concentrations that are lower than pre-mining conditions for the specific area in question. (BPA-18) We understand that the Guadalupe Basin Plan - Amendment referred to above is for the restoration of the Los Alamitos Watershed. This is assumes that concerns and statements listed above by the Friends of Los Alamitos Watershed are correct, are the intent of the Guadalupe Basin Plan - TMDL and become part of the official board records. FOLAW members' admire the foresight of the staff to support adaptive implementation and allows for public input in order to promote changes and modifications to the TMDL that better support the goal of a clean Watershed. We thank you for allowing us to communicate community concerns and suggestions. Please note that Secretary, Dr. Roberta Lamons has not approved this letter and has sent her own comments under separate cover.	The language in the TMDL BPA provides reasonable assurance that the water quality objectives and targets will be met. The Adaptive Implementation strategy will allow for flexibility for certain factors not be met under the current strategies. However, this does not undercut the fact that these waters must be restored to protect beneficial uses in the watershed and the Bay. In addition, the Guadalupe Watershed as a whole must meet its assigned allocation from the SF Bay Mercury TMDL.
43	Dr. Roberta Lamons --	We are all trying to do the right things for the environment, but by setting unrealistic standards that are impossible to meet this TMDL will	Comment Noted

	General Public	do more harm than good. Unfortunately, the focus on total mercury in the TMDL and Basin Plan, rather than on species of mercury, is going to cause more serious pollution and problems. For example harm has been done because of waste removal during the Jacques Gulch creek restoration project (detailed at the end of this letter). **Please make these changes in the Guadalupe Watershed TMDL Basin Plan Ammenment (*sic*).**	
44	Dr. Roberta Lamons	**1. Change "total mercury" to "reactive species of mercury"**. Total mercury does not correlate with mercury amounts in fish because not all compounds of mercury are bioavailable… …If the SWRCB was willing to call in the leading scientists and engage in a discussion panel, the lack of deep consensus, uncertainties, and flaws would be immediately apparent. Each year, at the SFEI meeting, we are learning more about pathways of mercury, and we hear nothing about harm to people, and little about harm to other species. The TMDL needs to objectively deal with the facts. In many ways it does, and is commendable, but in several significant ways it fails and becomes an exercise in spinning things so that "fear stories" can be played up in the media and unnecessary concern justified to higher-level political management. The foundation of the TMDL and BPA The foundation upon total mercury is one of the most significant flaws.	Dr. Lamons has restated her previous comment about the relative bioavailability of reactive species of mercury vs. elemental mercury. The San Francisco Bay Water Board has already addressed this comment in its response to "Lamons Comment A" State Water Board staff reviewed the San Francisco Bay Water Board's response to this comment and agrees with the response. Please see response to comment 0.1 above.
45	Dr. Roberta Lamons	Methylmercuries are extremely hazardous, and should have an extremely low tolerance limit, but that limit should be realistic. 1.5 nanograms per liter is unrealistically, unnessessarily, and currently, unmeasurably low – 1.5 parts per quadrillion. There were no cases of mercury poisoning in the Guadelupe Watershed before the TMDLs began, and Solar bees have reduced water levels of methylmercury by	State Board staff is also unaware of humans poisoned by mercury in the Guadalupe River watershed since the mines were closed. As of 2004, Guadalupe Reservoir had the highest recorded fish mercury concentrations in California—about 20 times higher than the

		95%. Whatever that level is it should be a low enough level.	U.S. EPA methylmercury criterion. Consequently, this TMDL is a high priority for the State and Regional Water Boards. Regarding 1.5 nanograms methylmercury per liter: this allocation was calculated from site-specific data. The monitoring program includes special studies which could result in site-specific data that would support a different allocation. In any case, the fish tissue targets would have to be met.
46	Dr. Roberta Lamons	Urban runoff is primarily reactive mercury, It needs closer monitoring than mine areas, but the TMDL largely lets this source escape unabated. It is politically simpler to say "shut off the mine spigot," when "the mines turn out only to be a dominant issue near the mines but the main source is elsewhere." Over 90% of the production waste from the mines is gone, having been washed downstream and into the Guadalupe River in the 1800's, and the remaining 10% was nearly all contained and capped more than five years ago, with a scant remainder being capped now. The SWRCB must direct staff to objectively find the most significant actual sources of REACTIVE mercury that is ending up in fish, not just possible sources of total mercury.	Please see above response to Comments Nos. 24-26, 44
47	Dr. Roberta Lamons	**2. Do not include standards for aerial deposition.** Aerial deposition is significant, yet it cannot be controlled locally. Responsible parties will be punished for the effect even though they can do nothing to control the source. If the honorable members of water protection boards from across the country, all of which are impacted by the airborne mercury problem, came together with the EPA to discuss the matter, we are sure some relief and proper accounting could be found for the various nation-wide mercury TMDLs. Ignoring the facts and transferring the load to the Guadalupe River is not wise or responsible. Volcanic emissions cannot be controlled, and controlling coal-burning emissions is an international political problem. Areas with unlucky wind patterns that no one can control could be prosecuted for exceeding the target. You should not put this into law.	State Water Board staff concurs with the approach the San Francisco Bay Water Board proposes in this TMDL for mercury from atmospheric deposition. The implementation plan for atmospheric deposition is contained in the San Francisco Bay mercury TMDL. Hence, no duplicative regulatory requirements.
48	Dr. Roberta Lamons	**3. Table this TMDL due to "lack of Knowledge".** "Lack of knowledge" Page 4 paragraph 3 states that "there is a lack of	State Board staff disagrees, the TMDL has been peer reviewed is based upon the best available science and sound judgment. Any

		knowledge of the impact of mining waste on the watershed." This line negates the entire TMDL. It backs up the idea that the TMDL is a law based on a fear rather than on facts. There have been no credible poisonings due to methyl-mercury in fish of humans, and one credible 5% impact on one bird species. We do know that cinnabar and elemental liquid mercury are not the main source of the problem, and we know how to lower the amount of methylmercury in reservoirs. It seems as if we know enough to know that our problems are not as serious as some of the inflammatory rhetoric suggests. We should table and change this TMDL, and concentrate on other water quality problems that we know are hurting people, and wildlife.	concerns about uncertainty are addressed in the Adaptive Implementation strategy. Please see above responses to comment No. 27. While the commenter's statement about mercury poisonings are purely speculative and unsupported, it is important to realize that the San Francisco Bay Board must act now to address mercury in the watershed as required by CWA § 303. Until this watershed is no longer listed as impaired, This TMDL is in accordance with those requirements.
49	Dr. Roberta Lamons	**4. Los Alamitos Creek should not be called "highly polluted".** Please remove this inflamatory language until and unless it has clearly been shown that there are reactive mercury species in the creek, and that they are the sole or primary source of the methylmercury in fish.	Comment Noted State Board Staff does not see how changing this language is necessary nor would it provide any clarity. The watershed is listed as impaired by mercury, therefore it is polluted according US EPA guidance under § 303(d) of the Clean Water Act.
50	Dr. Roberta Lamons	**5. State that home-owners are not responsible parties.** There is a benighted law that says that a property owner is responsible for cleaning up any pollutants on their property, regardless of who put them there…. …The SWRCB needs to assure homeowners and landowners that although they must provide access to the responsible parties, the act of giving access will not make the owners responsible for the wastes discharged onto their property by others.	Please see above response to Comments Nos. 39-42
51	Dr. Roberta Lamons	**The Jacques Gulch project** a. Calcines were exposed to the air and dust was stirred up by the heavy equipment. Calcine dust released by the work has certainly resulted in more mercury oxide in the reservoirs and waterways. Also, greater amounts of elemental mercury were exposed to oxygen and sunlight where it can be converted to mercury oxide. Clean-up has surely resulted in higher levels of mercury oxide in the air, and in runoff, and from that, more methylmercury can be produced in the reservoir	This comment is an unconfirmed personal account, therefore the State Board cannot respond to this comment.

		water. b. In the cleanup in the Almaden Quicksilver Park, the calcines were trucked up hill where they were dumped on top of a steep pile of formerly buried calcines that, in turn, was dumped into an unlined open-cut in an area riddled with mine workings. This leaves open the possibility of slides and leaching. Runoff from the open-cut was never tested before the infilling and there is no testing to ensure adequate containment of the waste. Testing should be required before and after the work at any site where calcines are removed or placed for burial. The TMDL needs to be redesigned to ensure some method for demonstrating the immediate local impact, good or bad, of the restoration projects. To date there has been no adequate baseline of the fluxes of reactive mercury species at any of the restoration sites before or after the work. c. Removal projects involve other hazards as well. It is only by luck that no mailmen, cats or children were hurt by the hundreds of speeding trucks diving through New Almaden to get to and from removal projects.	