

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

**Response to Written Comments**  
**On August 2007 Draft NPDES Permit for**  
**Municipal and Industrial Wastewater Discharges of**  
**Mercury to San Francisco Bay**  
**(“Watershed Permit”)**

The Regional Water Board received timely written comments on a second draft Watershed Permit distributed on August 14, 2007, for public comment from the following four groups and agencies in the order received:

1. Bay Area Clean Water Agencies (**BACWA**), dated September 12, 2007
2. Western States Petroleum Association (**WSPA**), dated September 12, 2007
3. Central Contra Costa Sanitary District (**CCCSD**), dated September 12, 2007
4. San Francisco Baykeeper (**Baykeeper**), dated September 13, 2007

Responses to comments on the first draft Watershed Permit (distributed March 16, 2007) are referenced in this Response to Comments where the current comment duplicates in substance comments made previously.

This Response to Comments summarizes each comment in *italics* (quoted where possible, or paraphrased for brevity) followed by Regional Water Board staff’s response. Each comment is keyed to the commenter(s) using the initials for the commenter(s) listed above. For the full context and content of the comment, please refer to the comment letters associated with this item available at [www.waterboards.ca.gov](http://www.waterboards.ca.gov).

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**Comment 1: (BACWA, & CCCSD by reference)** *Though disappointed, “BACWA understands the reasons for lowering the mercury concentration limits applicable to each POTW, and believes they are consistent with the State Water Resources Control Board resolution.”*

**Response:** Comment noted.

**Comment 2: (BACWA, & CCCSD by reference)** *“The Permit must recognize that POTWs must have 20 years to achieve the 40% reduction in mass loading, including a realistic mass offset program. BACWA recognizes that the Regional Water Board placed the reductions in mercury mass loads (20% in 10 years and 40% in 20 years) in the main body of the permit to ensure that there is no question about the direction of this permit or program. However, BACWA wants to reiterate how important it is for its members to be allowed the full 20 years to implement the final 40% reductions, because it will take time to develop pollution prevention programs, to conduct the various studies that are planned*

*to advance the knowledge of mercury fate and transport (and thereby be able to control mercury more effectively), and to develop a regional offset program, a critical aspect of the compliance attainability of the 40% reductions for POTWs.*

*“Achieving a 40% reduction of effluent loading at secondary treatment facilities will require the implementation of a voluntary, fair and equitable pollution offset and credits program. If a fair and equitable offset program cannot be developed, BACWA cannot be expected to meet the 40% reduction in the WLA that is required by the mercury TMDL and as described in the permit Fact Sheet. Compliance through treatment would require a public investment of approximately \$300 million per year every year over 20 years (in 2004 dollars) to develop advanced treatment at each existing secondary facility. This would then allow these facilities to make reductions by about 3 kg/yr.*

*“During both the Regional Water Board hearing in August 2006, and the State Water Board hearing in July 2007, BACWA clearly heard the staff inform the Boards that the 40% reduction is not required in order to meet the TMDL target, now the fish tissue objective. Based on this understanding, BACWA strongly requests that the permit language, in both the Fact Sheet and the body of the permit, state that the 40% reduction is conditioned on the existence of a State-approved, viable offset program. In particular, we request the following specific revisions to footnote 5 ... on page 17 [Add] ...*

*“Consistent with the deliberations which occurred during the adoption of the TMDL by the Regional and State Water Boards, the effluent limits scheduled to become effective in 20 years will not be applicable unless or until the State Water Board adopts a mercury offset program applicable to Municipal Dischargers....”*

**Response:** We have added a reopener clause to the Watershed Permit to reflect the adaptive management envisioned in the TMDL implementation plan. These changes are described below. We did not make the specific changes suggested by BACWA because those changes would have gone beyond the scope of what the Regional and State Water Boards approved in the TMDL. In part, the TMDL implementation plan on page BPA 26 states “...the final wasteload allocations are expected to be attained through wastewater treatment system improvements and/or implementation of a pollutant offset program.” Making the 20-year limits not effective unless there is an offset program is contrary to the TMDL’s required reductions that are expected through wastewater treatment system improvements.

The following has been added to V.C. at page 22 of the Watershed Permit:

#### **6. Reopener Provision**

This Order may be reopened for modification, or revocation and reissuance, as a result of the following:

- a. if the State Water Board has not established a pollutant offset program that can be implemented within 20 years of the effective date of this Order; or
- b. if there is modification of the San Francisco Bay Mercury TMDL implementation provisions.

The following has been added to VII.B. at page F-32 of the Fact Sheet to the Watershed Permit:

## **6. Reopener Provision**

Two reopener conditions are provided in the Order. These are based on the TMDL's adaptive implementation provisions as they relate to the final waste load allocations for municipal dischargers. The TMDL implementation plan states at page BPA 26

“the final wasteload allocations are expected to be attained through wastewater treatment system improvements and/or implementation of a pollutant offset program. Approximately 10 years after the effective date of the TMDL or any time thereafter, the [Regional] Water Board will consider modifying the schedule for achievement of the wasteload allocations or revisions to wasteload allocations if:

- The State [Water] Board has not established a pollutant offset program that can be implemented within the 20 years required to achieve final wasteload allocations...”

**Comment 3: (BACWA, & CCCSD by reference)** *“BACWA appreciates the consideration and flexibility to support water recycling. BACWA recognizes that the Regional Water Board made revisions to Provision V.C.5.d. regarding discharge adjustments for recycled wastewater use by industrial facilities. BACWA supports this revised language since it facilitates the use of recycled water.”*

**Response:** Thanks to BACWA for its support of the proposed approach for recycled wastewater use.

**Comment 4: (BACWA, & CCCSD by reference)** *“BACWA urges the Regional Water Board to make a commitment to combine future pollutant-specific permit requirements into the mercury watershed permit. BACWA believes this permit conveys the correct message, that we work within a watershed approach in the protection of San Francisco Bay. We also believe that in this one permit we see a consistent approach from one clean water agency to another, consistent again with our desire to focus on the real issues associated with protection of the waters and compliance with the Basin Plan. The likelihood that conflicts arise across permits can also be avoided with the watershed permit....”*

**Response:** See Regional Water Board staff's response to Comment G.1 on page 2 of the Responses to Comments on the March 16, 2007, draft Watershed Permit.

**Comment 5: (BACWA, & CCCSD by reference)** *“BACWA believes that Appendix F-1, of the ‘Example of When Required Actions Are Triggered’ shows that the trigger language must be revised. The trigger example in Appendix F-1 shows that in almost every case where one sample is above a trigger value, an action plan will be required. This is because sample results are often received at the end of the month when no time is left for additional sampling during that month.*

*“It is BACWA’s understanding that if accelerated monitoring shows no exceedances, this information is sufficient to indicate no ongoing issues and the Discharge could return to routine sampling. For these reasons, BACWA requests revisions to the trigger language. Certainly, the purpose of accelerated monitoring is to show that no subsequent samples to the original exceedance are exceeding any one of the three possible triggers. In addition, 3 weekly samples should be sufficient for this purpose. Therefore, the language in the permit should be revised as follows (a couple of typos are also corrected): ...”*

**Response:** We have made the changes suggested in response to this comment, except that we have increased the number of accelerated samples from three to six weekly samples to better assure the intent of the TMDL is satisfied. We note that the TMDL implementation plan requires the permit to specify that an exceedance of a trigger level, not only those that are confirmed through accelerated monitoring, would trigger the discharger to take mercury reduction actions. However, the TMDL implementation plan does explain that one of the concepts behind requiring triggered actions is to ensure that wastewater dischargers maintain ongoing operation, maintenance, and performance of their treatment facilities. Therefore, it would be consistent with the implementation plan for the permit to allow further characterization through accelerated monitoring to determine if ongoing performance was in fact maintained before corrective measures must be taken. However, to totally disregard the first initial trigger, a more convincing weight of evidence than the originally proposed 3 samples is needed. Accelerated monitoring for 6 weeks appears to be an appropriate balance between verifying if performance has declined and triggering timely action to correct the decline. These additional samples would also help to characterize the duration and magnitude of the exceedance to help with development of an action plan. This additional rationale has been added to the Fact Sheet.

**Comment 6: (WSPA)** *“We are concerned...about the requirement for monthly concentration-based limits. Concentration based limits are not integral to the TMDL and seem to incorporate unnecessary enforceable requirements on the discharger community who make up less than 2 percent of the mercury loading to the Bay. ...”*

*“The concentration limits should be stricken from the permit because they are unnecessary, unjustified, and inappropriate. We support this request with the following:*

- *The TMDL by definition and by statute must be consistent with achieving the water quality standards and protecting the beneficial uses. If there was a need for additional water quality protection as suggested by the Fact Sheet, that need would have been addressed during TMDL development and adoption by the Regional Board.*
- *The concentration-based triggers, Part V.C.1.a, Tables 10 and 11 of the Permit, are set well below the concentration-based limits. These triggers require specific actions to be taken if exceeded, and incorporate enforcement measures to ensure such actions are conducted. The concentration limits, therefore, are redundant and unnecessary with respect to protecting water quality.*
- *The Fact Sheet does not reference any evidence of potential adverse effects in the immediate vicinity of discharges, or how these concentration limits were set to prevent such undescribed effects. As noted above, if there were water quality concerns in the immediate vicinity of discharges, the TMDL itself would have recognized and addressed them. ...”*

**Response:** We have not changed the Watershed Permit in response to this comment. The three points outlined by WSPA essentially call for a separate demonstration of need for any requirement that might go beyond specific TMDL implementation provisions. We disagree that this is necessary. First, the TMDL does not place restriction on what effluent limits can be imposed in the permit so long as the permit requirements are consistent with the assumptions and requirements of the TMDL. 40 CFR 122.44(d)(1)(vii)(B). The Fact Sheet explains how the concentration limits are consistent with the assumptions and requirements of the TMDL. In essence, the limits are determined using a data set from the same timeframe as the data used to derive the TMDL’s wasteload allocations.

Second, the specific requirement for the monthly limit is based on 40 CFR 122.45(d). In summary, the Fact Sheet states at IV.A.4, “as required by 40 CFR 122.45(d)... For industrial dischargers, this regulation requires average monthly and maximum daily effluent limits.” This means that if a parameter must be limited in an NPDES permit, it must be specified as average monthly and maximum daily effluent limits unless impractical. Because of the robust database that was used in developing the wasteload allocations, it is practical to develop these limits. And because the same dataset was used, the resulting limits are consistent with the assumptions and requirements of the TMDL. Appendix F-2 of the Fact Sheet describes the exact method used in these calculations.

**Comment 7: (CCCSD, & BACWA by reference)** *“CCCSD supports the watershed approach to the wasteload allocations.... The Mercury Watershed Permit, for the most part, is consistent with the mercury TMDL, approved by the State Water Resources Control Board on July 17, 2007. The one exception is the addition of enforceable concentration limits summarized in Table 6.*

*“These enforceable concentration limits were not in the TMDL, and require another level of control over and above the aggregate allocations. The inclusion of the enforceable concentration limits adds a third tier to the compliance approach for mercury. CCCSD does not object to the inclusion of the enforceable concentration limit, but hopes that the focus will remain on the attainment of the aggregate allocations.”*

**Response:** See Regional Water Board staff’s response to Comment III.2 on page 2 of the Responses to Comments on the March 16, 2007, draft Watershed Permit.

**Comment 8: (CCCSD, & BACWA by reference)** *“CCCSD also supports the use of the monthly average effluent limit (MAEL) and daily maximum effluent limit (DMEL) concentration triggers for investigative action. By having trigger levels, CCCSD can investigate and possibly fix the cause of the elevated mercury level without endangering the water body.”*

**Response:** Thanks to CCCSD for its support of the trigger approach.

**Comment 9: (CCCSD, & BACWA by reference)** *At Page 26 VI. Compliance Determination and in Attachment A-1 replace the “reporting level (RL)” with “the minimum level (ML).” Delete the definition for RL on page A-2, and reference to RL on page E-5.*

**Response:** We have not made the change suggested in this comment. The use of reporting level (RL) is taken almost verbatim from the State Implementation Policy (SIP) at 2.4.4 and 2.4.5 (p. 26). With the 2005 SIP update, the concept of RL was introduced at 2.4.1. Though laboratories may have their own use for the term “reporting level,” RL for the purposes of compliance with NPDES permits must comport with the regulatory definition in the SIP. Though the definition for RL in Attachment A is not taken verbatim from the SIP, it is consistent with the SIP and was developed by State Water Board staff familiar with these issues.

**Comment 10: (CCCSD, & BACWA by reference)** *At page A-1, eight paragraph, please add the following sentence at the end of the paragraph: “the ML is shown in Table 7.”*

**Response:** We decline to incorporate this suggestion because it’s not necessary. Table 7 is clearly labeled to be for MLs (as is Table 9 for industrial dischargers). Also, adding a specific reference to Table 7 in an attached list of definitions standard to most permits currently being adopted could complicate housekeeping should the Regional Water Board choose to include other pollutants in the future, necessitating more ML tables into this Watershed Permit (as is requested by BACWA, see Comment 1 above).

**Comment 11: (CCCSD, & BACWA by reference)** *“Page E-2 1.C-Minimum Levels*

*Delete the paragraph starting with ‘according to the SIP’ and ending with ‘calibration purpose.’ The language is redundant since the ML is specified in the table that follows paragraph C.”*

**Response:** We have not deleted the language because we disagree that it is redundant. This language provides clarity on the ML that the Dischargers must instruct their analytical laboratories to achieve for monitoring purposes. Though it is clear in the permit’s effluent limits what ML (or RL) will be used for compliance determination, and in Attachment A what an ML is, no where else in the permit are Dischargers required to achieve this in their analyses. The monitoring and reporting program is the appropriate place for such a requirement.

**Comment 12: (Baykeeper)** *“The permit must assign a mass limit to each discharger that is enforceable against that discharger at all times. Baykeeper strongly disagrees with the Regional Board’s claim that the draft permit contains enforceable mass-based effluent limitations. While the draft permit assigns average annual mass effluent limits to each and every Discharger, it also allows them to violate these limits as long as the sum of all the Dischargers’ emissions does not exceed 17 kilograms per year. As we have argued in the TMDL context, not only is this enforcement scheme unsound from a legal perspective, the policy benefits of conditioning individual compliance on group performance are completely unapparent.*

*“Mass limits that only take effect when a group limit is exceeded are not true limits as required by federal regulations. The United States Code of Federal Regulations unequivocally states that that permit effluent limits must be established for “each outfall or discharge point” of a permitted facility. The permit limit for a particular pollutant must be expressed in terms of mass. When permit limits are expressed in terms of mass and another unit of measurement—such as concentration—the permit ‘shall require the permittee to comply with both limitations.’ Every permit, therefore, must assign a mass limit to each and every outfall or discharge point. The draft permit is inconsistent with these legal requirements in that it nullifies the individual mass limits whenever the group mass limit is met.*

*“In addition to our legal concerns, we fail to see the benefits to be obtained in conditioning individual compliance on group performance. The draft permit essentially establishes a cap on point source discharges of mercury and provides individual dischargers with relief from individual permit limits provided that the cap is not exceeded. Establishing and enforcing a cap is logical and has been done in the context of trading but its purpose is unclear here as trading does not appear likely. First, bioaccumulative pollutants such as mercury are unsuitable for trading. Second, the Regional Board has declared that ‘trading is extremely unlikely because each discharger is required to take actions to ensure it operates within its own individual wasteload allocation.’ If the purpose of the group compliance plan is not to facilitate trading, then what is the purpose except to insulate individual dischargers from liability for violating individual effluent limits?*

*“Having a permit with consistently enforceable mass-based limits is important for several reasons. Despite substantial research, the distribution of mercury and its transformation to methylmercury in natural aquatic systems is still poorly understood. Due to varying physical, chemical, and biological factors, the discharge of mercury at one location may have greater environmental health impacts than discharges at a different location. One way to minimize the risk presented by this lack of knowledge is to ensure that each NPDES permit holder discharges as little mercury as it can. Individual limits also provide an incentive for a Discharger to ensure that its processes are working as efficiently and effectively as possible. Individual mass-based limits create individual accountability that is undermined by the group regime.”*

*“For the legal and practical reasons outlined above, we ask that the draft permit be revised to assign an individual mass limit for each Discharger that is enforceable regardless of group performance.”*

**Response:** We have not made changes to the permit in response to this comment. This comment does not raise any new and substantive issues that we have not already responded to. Please see Regional Water Board staff’s response to Comment III.1 on page 4 of the Responses to Comments on the March 16, 2007, draft Watershed Permit.

**Comment 13: (Baykeeper)** *“Backsliding from previous permit limits is illegal and establishes harmful precedent. If adopted as written, this permit violates anti-backsliding requirements because it contains effluent limits less stringent than those in the Dischargers’ current permits. Specifically, the draft permit contains 20 concentration-based effluent limits—both average monthly and maximum daily—that are higher than current permit limits. Despite claims to the contrary in the draft permit, the permit’s backsliding is not consistent with either the Clean Water Act or the State Water Resources Control Board’s (‘State Board’) Tosco Order. Furthermore, backsliding is not justified by economic or technical considerations as the Dischargers have already demonstrated their ability to comply with the more stringent limits in current permits.”*

*“The Clean Water Act’s anti-backsliding provision provides that in the vast majority of instances ‘a permit may not be renewed...to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.’ The purpose of this backsliding prohibition is to ensure consistent progress towards the Clean Water Act’s ultimate goal of eliminating pollutant discharges. To this end, exceptions to the prohibition on backsliding are very narrow and not applicable here.”*

*“The draft permit erroneously cites Clean Water Act section 303(d)(4)(1) as the authority for the permit’s backsliding. Section 303(d)(4)(1) states that effluent limits that are based on a TMDL or Waste Load Allocation (‘WLA’) may be relaxed ‘only if the cumulative effect of all such revised effluent limitations based on [a] total maximum daily load or waste load allocation will assure the attainment of [the applicable] water quality”*



*standard.’ This section clearly does not apply to the effluent limits in the draft permit for two reasons.*

*“First, the exception applies only to limits based on a TMDL; meaning that it authorizes backsliding from a TMDL-based permit. The limits in the Dischargers’ current permits, however, are based on current performance and not a TMDL. Therefore section 303(4)(d)(1) does [sic] not apply. Second, the exception only applies if the cumulative effect of all the limits will result in attainment of water quality standards. The mercury TMDL recently adopted by this Regional Board provides for an extended timeframe for water quality standards to be attained. Thus, even if the Dischargers complied with the limits in the draft permit, the Regional Board has acknowledged that the applicable water quality standard established in the TMDL will not be met and, so, section 303(d)(4)(1) does not apply.*

*“The draft permit’s fact sheet erroneously interprets section 303(d)(4)(1) to allow backsliding ‘as long as the cumulative effect of all WQBELs for NPDES-permitted discharges to a water is consistent with the assumptions and requirements of an applicable TMDL.’ This interpretation is at odds with the plain language of the Clean Water Act and conflates section 303(d)(4)(1) with section 122.41(d)(1)(vii)(B) of the Code of Federal Regulations. Section 303(d)(4)(1) allows backsliding when the cumulative effect of the new limits will ensure water quality standards are met. Section 122.44(d)(1)(vii)(B) of the Code of Federal Regulations requires that effluent limits be ‘consistent with the assumptions and requirements of any available wasteload allocation.’ Taken together or separately, these provisions do not authorize backsliding whenever effluent limits are consistent with a TMDL. Rather, they require that permit limits be consistent with a TMDL and allow backsliding from TMDL-based limits as long as the net effect of the new limits is attainment of water quality standards.*

*“Additionally, we find unpersuasive the Regional Board’s application of Clean Water Act section 402(o)(2)(B)(i), which allows for backsliding when ‘information is available which was not available at the time of permit issuance and which would have justified the application of a less stringent effluent limit.’ The draft permit notes that many of the previous permit limits were based on a now-outdated mercury objective and argues that this ‘bad science’ should not be canonized by perpetuating existing permit limits.*

*“Section 402(o)(2)(B)(i), however, explicitly states that the exception is unavailable when the sole reason for a less stringent limitation is a revision in regulations. Regardless of the bases for the previous mercury objective, promulgation of a new objective constitutes revision of a regulation and therefore cannot be the basis for backsliding. Moreover, the limits in the permits to which the Regional Board refers are not based on any mercury water quality objective or criterion. Most, if not all, are interim limits based on the Dischargers’ current performance. Thus, requiring continued compliance with current permit limits does not canonize bad science.*

*“Even if one of the exceptions to the backsliding rule applied, section 402(o)(3) bars less stringent limits in this situation. Section 403(o)(3) acts as a floor and prohibits*

*relaxation of limits if it would cause the receiving waters to violate applicable state water quality standards. Because the Bay is already impaired by mercury, any increase in the amount discharged by a particular discharger constitutes an exceedance of applicable water quality standards and, thus, backsliding is prohibited.*

*“The draft permit also mistakenly interprets the State Board’s Tosco order and subsequent court decisions upholding it as allowing backsliding in this situation. The rationale offered is that the proposed permit limits do not backslide from current limits because the limits are not ‘comparable.’ We note that the Tosco decision has been largely undermined by subsequent EPA action on compliance schedules as well as the State Board’s recent EBMU [sic] decision. We further note that the Tosco decision is inapplicable here. The issue in Tosco was whether the Clean Water Act prohibits backsliding from final water quality based effluent limit to an interim performance-based limit. The State Board determined that backsliding did not occur because the limits were not comparable, as one was an interim limit and the other a final limit. In the instant case, both the current and proposed permit limits are interim limits based on performance. As such, they are comparable; therefore, the Tosco decision does not allow backsliding.*

*“Finally, relaxation of permit limits is illogical from a policy perspective. The San Francisco Bay is impaired by mercury to the extent that it will take many decades before regular consumption of Bay fish is safe. Most of the current permits that legalize discharges of mercury into the Bay have interim, performance-based limits with which the Dischargers can comply. This permit would allow Dischargers to increase the amount of mercury they discharge for no apparent reason related to cost or [sic] compliance. Relaxing permit limits for mercury violates the letter and intent of the Clean Water Act and mitigates no apparent economic or other harm. We again request that the Regional Board no [sic] adopt the proposed permit until it contains effluent limits at least as stringent as those in current permits.”*

**Response:** We have not changed the permit in response to this comment. The Fact Sheet clearly describes the issues related to backsliding. We reiterate some of those points in response to Baykeeper’s comments.

As was made clear in the State Water Board Office of Chief Counsel’s memorandum on offsets dated November 22, 2006, effluent limitations may be relaxed under a TMDL if the “cumulative effect of such revised effluent limitation based on such total maximum daily load or waste load allocation will assure attainment of such water quality standards.” 33 U.S.C. § 1313(d)(4)(A)(i). Baykeeper argues that this section does not apply because there is no existing TMDL in place and because the TMDL will not immediately achieve water quality standards.

On the first point, a pre-existing TMDL is not a prerequisite to invoking CWA § 303(d)(4). The State Water Board in its Tosco Order clearly opined that “limits that implement or is consistent with the wasteload allocation in a TMDL complies with the exception in Section 303(d)(4).” And contrary to Baykeeper’s assertion, the Tosco Order

has been upheld by two appellate court decisions and remains a controlling administrative precedent with respect to anti-backsliding. Furthermore, it makes no logical sense to allow backsliding under a TMDL only if there is an existing TMDL in place. It also defeats the point of a TMDL to establish total maximum daily loads and wasteload and load allocations to attain water quality standards if effluent limitations had to be held hostage to existing permit limits irrespective of their consistency with the established TMDL.

On the second point that the TMDL will not attain standards because it contains a timeframe to attain the standard is simply incorrect. Every TMDL will have some associated timeframe to attain a standard, and it is completely unrealistic to expect that any water quality impairment can be fixed instantaneously. The mercury TMDL *will* attain water quality standards. Including a timeframe for this to occur does not nullify its eventuality. Furthermore, we note that Regional Water Board staff is not erroneously interpreting CWA § 303(d)(4)(1) to allow backsliding whenever an effluent limitation is consistent with the assumptions and requirements of a TMDL. Staff clearly understands that the cumulative effect of the new limits must also assure attainment of water quality standards.

Baykeeper argues the Tosco Order is not applicable because its conclusion applies to comparisons between interim and final limits. Baykeeper notes that in this case, the comparison is between interim and interim and both are performance based. This is incorrect. For example, the proposed limits are not interim limits, but are final limits, and, to the extent that they are based on the TMDL, are water quality based effluent limits.

Baykeeper finds unpersuasive our use of the new information exception of 402(o)(2)(B)(i). Use of this exception is in addition to the exception provided for CWA § 303(d)(4). Board staff agrees that this exception does not apply to new information in the form of revised regulations; however, here, the new information is not so much the new TMDL or water quality objective, but the new information that the basis for the previous limits, an outdated mercury objective and a footnoted criterion that never had the force of law, are not reliable indicators for protecting water quality and beneficial uses from the adverse effects of mercury. In other words, the new information used in this case is the outdated and incorrect scientific basis for the mercury objectives, not the objectives themselves.

Baykeeper argues that CWA § 402(o)(3) bars backsliding if it would cause receiving waters to violate applicable water quality standards, arguing that since San Francisco Bay is impaired by mercury, any increase in the amount of discharge would constitute an exceedance of the applicable water quality standard. Extending Baykeeper's logic, any continuing discharge, not just an increase in the amount of discharge, into an impaired water body would result in exceedances of water quality standards, in effect amounting to a discharge prohibition into impaired water bodies. That is not the correct conclusion compelled by the CWA. In this case, the proposed limits will not result in a violation of water quality standards, but will help attain such standards.

Finally, on a point of correction, the Watershed Permit proposes concentration limits that are less stringent for 19 of the dischargers, not the 20 cited by Baykeeper; and the proposed concentration limits are average monthly and average weekly limits for municipal dischargers, not average monthly and maximum daily as indicated by Baykeeper.

**Comment 14: (Baykeeper)** *“The compliance schedule provisions are illegal. As Baykeeper has repeatedly stated in comments previously submitted to the Regional Board, the Clean Water Act forbids issuance of compliance schedules that delay the effective date of Water Quality Based Effluent Limitations (‘WQBELs’) past July 1, 1977. To date, the Regional Board has rejected these comments. Baykeeper and other public interest environmental groups currently have appeals pending before the State Board which raise this issue. We have included an attachment to these comments which repeats our contentions with respect to the legality of delaying the effective date of WQBELs past July 1, 1977, and hereby incorporate them by reference.*

*“Assuming, arguendo, that the Clean Water Act authorizes compliance schedules in limited situations, the provisions in the draft permit are still inadequate. The Clean Water Act defines compliance schedules as ‘an enforceable series of actions or operations leading to compliance with an effluent limitation...’ It requires that compliance schedules include interim requirements at specified time intervals. The performance-based interim effluent limits in the permit are not interim requirements as contemplated by the Clean Water Act because they do not and cannot lead to compliance. The draft permit, therefore, does not require Dischargers to take any action to reduce discharges or mercury or otherwise make progress towards complying with the final limitations. Because the compliance schedules in draft permit lack any interim requirements, they do not satisfy the legal definition of a compliance schedule.*

*“Federal regulations also require that all compliance schedules be as short as possible. Yet the draft permit’s explanation of why the compliance schedules are as short as possible is unconvincing. It is wholly inappropriate to rely on some future and uncertain regulatory action—such as development of a trading system—as evidence that the timeframes are as soon as possible. Furthermore, each Discharger’s facility and operations are different so it is illogical to assume that they all need twenty years to come into compliance.*

*“Please also note that the draft permit’s assertion that the Regional Board will submit a compliance schedule provision to EPA is misleading and confusing. This permit and the effluent limits cannot be adopted until the State proposes and EPA approves a compliance schedule authorizing provision under Clean Water Act section 303(c) and consistent with EPA regulations at 40 CFR 122.47, which require that the compliance schedule be appropriate, require compliance as soon as possible, and include interim requirements at specified time intervals.”*

**Response:** The State and Regional Water Boards disagree that compliance schedules past July 1, 1977, are illegal. The authorities are clear that compliance schedules for water quality standards adopted or revised after July 1, 1977, are permissible. See, e.g., *In the Matter of Star-Kist Caribe, Inc.* NPDES Appeal No. 88-5.

The TMDL allows for a 10-year and 20-year implementation schedule for interim and final wasteload allocations, respectively. The Watershed Permit is in accordance with the TMDL. USEPA is requiring the State to submit the TMDL and a companion compliance schedule-authorizing provision under Clean Water Act § 303(c) for its approval. This will be submitted to USEPA for approval once the State Office of Administrative Law has granted its approval. The conditions of the Watershed Permit do not come into effect until USEPA has approved the TMDL. Nothing in the law or regulations bars the Regional Water Board from adopting permit requirements so long as the effectiveness of those requirements is conditioned upon USEPA's approval of the TMDL.

Finally, on the issue of interim requirements in the Watershed Permit being necessary to satisfy the legal requirement for a compliance schedule, the Watershed Permit does specify a number of such requirements. These include the mercury source control program that requires municipal dischargers to establish dental amalgam reduction programs at 85% of the dental offices in the region, additional studies on the fate and transport of mercury and potential for local effects, and risk management activities.

**Comment 15: (Baykeeper)** *More frequent monitoring is necessary to determine compliance with effluent limitations. We remained concerned that the monitoring frequency required in the draft permit is insufficient. Federal regulations require that all permits contain monitoring sufficient to assure compliance with permit limitations and to generate data that is representative of the monitored activity. EPA guidance specifies several factors to be considered in determining the appropriate monitoring frequency. These factors include the variability of the pollutant in the discharge, the discharger's history of compliance, and the number of monthly samples used in developing the permit limits or effluent guidelines. EPA guidance also notes that the collecting ten or more samples each month generally provides the greatest statistical likelihood that monthly values will be reflective of the mean concentration of the pollutant discharged.*

*As we stated in our previous comments, nothing in the draft permit demonstrates that any of these factors were considered in determining the monitoring frequency established by the permit. We find confusing and unsatisfactory the explanation offered by the Regional Board in replying to our previous comments that the monitoring frequency is acceptable because it is "generally comparable to the frequencies used to generate the data up on which the TMDL wasteload allocation was calculated." The fact that the frequency is similar to that used to generate the data upon with the TMDL is based seems irrelevant to determining whether the frequency is sufficient to be representative of each Discharger's effluent and to determine compliance. Therefore, we reiterate our request that the monitoring frequency required by the permit be increased so that it is sufficient to produce data that (1) is representative of the discharge and that (2) enables a*

*determination of compliance with effluent limitations. The fact sheet should also be amended to demonstrate how federal regulations and guidance were applied to arrive at the appropriate monitoring frequency.*

**Response:** We have not changed monitoring frequencies but have added rationale to more clearly establish the considerations made in selecting those frequencies. The following has been added to section VI. of the Fact sheet at page F-27:

“Also, pursuant to USEPA guidance (Technical Support Document, March 1991) the following factors were considered in selecting the frequencies. (The data referenced below are summarized in Appendix F-3.):

- Effluent variability – The individual discharge concentrations are generally not highly variable with the coefficient of variation for a representative set of Dischargers at a median of 0.5 (full range is from about 0.3 up to 2).
- Type of treatment process including retention times – the majority of the treatment processes involves biological processes with a few of the smaller industrial facilities relying upon physical/chemical treatment. For the most part, these systems have long retention times on the order of days up to a week for some systems.
- Compliance history – All Dischargers have complied with their applicable effluent limits for mercury in the past 5 years with very few exceptions. Pursuant to USEPA “Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies,” dated April 19, 1996, lower frequencies than those proposed in this Order may be appropriate. However, in consideration of the other factors listed here, those Dischargers are required by this Order to monitor at least once per month.
- Cost of monitoring relative to the Discharger’s capabilities – Mercury and methylmercury sampling requires use of ultra-clean low detection techniques requiring at least two personnel to properly perform. The analysis is also specialized and costs more for this reason. As indicated in the paragraph above, the monitoring frequency was staggered based on each Discharger’s resources to conduct the monitoring.
- Number of monthly samples used in developing the permit limit – previous individual permits have for the most part required monthly monitoring with a few permits requiring weekly or biweekly monitoring and others at quarterly or annual frequencies. Some Dischargers monitored more frequently than required. All these data were used in calculating the wasteload allocations that formed the effluent limits in this Order.

- Environmental significance and nature of the pollutant – Mercury is a pollutant of great concern in San Francisco Bay because it is bioaccumulative and is an impairment to beneficial uses. The Dischargers covered by this Order make up close to 2 percent of the total mercury load to the Bay.”

**Comment 16: (Baykeeper)** *Source Control, Special Studies, and Risk Management.* *The permit should specify the level of effort required by each discharger and emphasize risk reduction. We strongly support the source control, special studies, and risk management requirements contained in the permit but believe that timeframes and benchmarks as well as an increased focus on risk reduction are necessary to ensure an effective program. We reiterate, therefore, our request that a timeframe for identification and implementation of risk management actions be added and that the permit be revised to emphasize health-risk assessments and mechanisms to reduce actual and potential exposure.*

**Response:** We have revised the Watershed Permit’s Provision V.C.4 and associated Fact Sheet section to include timeframes and level of effort expected as described below:

Revise Provision V.C.4. Risk Management, as follows:

#### **4. Risk Management Reduction Programs**

~~The Dischargers shall develop and implement, or participate in, one or more of the following risk management effective programs to reduce mercury-related risks to humans and wildlife and quantify the resulting risk reductions resulting from these activities. The activities may be performed by a third party if the Dischargers wish to provide funding for this purpose. This requirement may be satisfied by a combination of related efforts through the Regional Monitoring Program or other similar collaborative efforts. The risk management reduction activities include:~~

- ~~a. Providing multilingual fish consumption advice to the public.~~
- ~~b. Informing the public on a regular basis about monitoring data and findings of environmental health professionals about the hazards of eating mercury-contaminated fish.~~
- ~~c. Performing special studies needed to support health-risk assessment and risk communication.~~
- ~~d. Investigating ways to address public health impacts of mercury in San Francisco Bay/Delta fish, including activities that reduce actual~~

and potential exposure of health impacts to those people and communities most likely to be affected by mercury in San Francisco Bay-caught fish, such as subsistence fishers and their families. Such strategies should include public participation in developing effective programs in order to ensure their effectiveness. The Dischargers may include studies needed to establish effective exposure reduction activities and risk communication messages as part of their planning.

Within 1 year of the effective date of this Order, the Dischargers shall submit or cause to be submitted, a progress report describing their efforts in developing risk management and reduction programs, with community participation and input.

Within 2 years of the effective date of this Order, the Dischargers shall submit, or cause to be submitted, a report describing their details of the risk management and reduction programs, the community participation process that was involved in developing such programs, any third parties involved in implementing the programs, and a plan for evaluating the programs' effectiveness. The report shall include an implementation schedule with implementation beginning within 3 years of the effective date of this Order. The Dischargers shall describe the progress of their efforts in the Annual Self-Monitoring Report required by IV.B.2.b. (or IV.C, Optional Group Compliance Reporting) in Attachment E of this Order.

Revise Attachment F, Fact Sheet, VII.B., first paragraph, as follows:

- “4. The TMDL requires municipal and industrial wastewater Dischargers to “develop and implement effective programs to reduce mercury-related risks to humans and wildlife and quantify risk reductions resulting from these activities.” This provision is based on this requirement. Another implementation activity included in the mercury TMDL is to collaborate with other California agencies to help manage the risk to consumers of mercury-contaminated fish from San Francisco Bay. We envision a multi-phase process to develop a regional risk management strategy. The Order requires Dischargers to include public participation in the development process as this could make the programs more effective. The first phase should focus on identifying specific risk-management needs, the appropriate measures to address those needs, and the associated costs and mechanisms to implement the measures. This could reasonably take one to two years to develop. Another year is a reasonable timeframe for municipal entities to secure resources and identify the appropriate mechanisms to start implementing the programs.



As indicated in the TMDL in this effort, the Regional Water Board will work with the California Office of Environmental Health Hazard Assessment, the California Department of Public Health Services, and other organizations including Dischargers that pursue risk management as part of their mercury-related programs. The risk management activities will include the following:

- a. ~~Providing multilingual fish consumption advice to the public. Fish consumption advisories can be effective for reducing exposure of humans to methylmercury. Existing and future monitoring data should be analyzed to determine what species of fish contain the highest amount of methylmercury. It may even be appropriate to develop information on replacement food sources for those subsisting on Bay fish. The fish consumption advice prepared using such information should be communicated through a variety of mechanisms: direct outreach to the community, broadcast and print media, and signs posted at popular fishing locations.~~
- b. ~~Regularly informing the public about monitoring data and findings of environmental health professionals about the hazards of eating mercury-contaminated fish. It may be appropriate also to distribute information to health care providers serving impacted communities about how to recognize mercury-related health impacts. Monitoring data, combined with information from special studies, can be used to identify priority areas and target groups for outreach and education efforts, which should also communicate the health benefits of eating fish that contain less mercury. Here too the information needs to be conveyed to consumers of Bay fish through a variety of media and languages.~~
- c. ~~Performing special studies needed to support health-risk assessment and risk communication. These studies may include estimation of rates and patterns of fish consumption, characterization of groups with potentially high levels of exposure, identification of effective methods for communicating advice, and evaluation of effectiveness of fish consumption advisories.~~
- d. ~~Investigate ways to address public health impacts of mercury in San Francisco Bay/Delta fish, including activities that reduce actual and potential exposure of health impacts to those people and communities most likely to be affected by mercury in San Francisco Bay caught fish, such as subsistence fishers and their families.~~

Consistent with the TMDL, the Dischargers are required to participate in one or more of these programs to reduce mercury-related risks to humans and wildlife and quantify risk reductions resulting from these activities. For an effective and efficient regional program, the Order

allows that tThe activities may be performed by a third party if the Dischargers wish to provide funding for this purpose. The Regional Monitoring Program is one such vehicle because it has an equitable and accepted cost allocation system already in place along with an established stakeholder overview and participation process.

**Comment 17: (Baykeeper)** *“The effluent limits for POTWs should be expressed as MDELs. While applicable regulations only require effluent limits for publicly owned treatment works (‘POTWs’) to be expressed as Average Weekly Effluent Limitations (‘AWELs’), EPA recommends the use of Maximum Daily Effluent Limitations (‘MDEL’) for toxic pollutants such as mercury. Establishing MDELs for all POTWs will ensure that the draft permit is consistent with EPA technical guidance and will facilitate comparison with the concentration-based triggers for municipal dischargers, which are expressed as MDELs.”*

**Response:** We have not made changes in response to this comment. The Watershed Permit establishes average weekly limits as required by federal regulations for POTWs. The water quality based limits are established in the Watershed Permit to hold the dischargers to a certain level of performance to ensure attainment of water quality standards. The purpose of these limits is not to protect for toxicity effects. Though mercury is an aquatic toxicant, at the low levels required by the limits in the Watershed Permit, there is no reasonable potential to suspect that the discharges will cause aquatic toxicity warranting a daily maximum limit as opposed to the weekly limit currently proposed. See also Regional Water Board staff’s response to Comment III.4 on page 6 of the Response to Comments on the March 16, 2007, draft Watershed Permit.

**Comment 18: (Baykeeper)** *“Studies on potential local impacts should be conducted prior to recycling. The draft permit’s requirement that Dischargers evaluate the presence of or potential for local effects is inadequate in the context of wastewater recycling. A variety of factors— such as a discharge’s proximity to wetlands and the depth and characteristics of an outfall—can affect the impacts of a particular discharge. Before a Discharger is allowed to increase the volume of effluent, and therefore, the mass of mercury, it discharges, it should first conduct an analysis of the potential impacts of that increase. The permit should be revised to require participants in any recycling program to study and mitigate the potential impacts of increasing the volume of wastewater discharged before recycling begins.”*

**Response:** We have not made changes in response to this comment. Any impacts from the shifting of mass through wastewater recycling that is perceived by Baykeeper is speculative because very little recycled water use occurs currently. As described in the Fact Sheet, only the West County Wastewater District currently provides recycled water to Chevron. The concept of requiring studies to identify “potential” impacts and then mitigate before projects begin places a virtual barrier to recycling projects because it is

nearly impossible to study and mitigate an effect that has not yet happened and may never happen. This places project proponents in an endless loop of speculating about “potential” impacts and not being able to show whether they exist or not. Therefore, the approach suggested is bad public policy and contrary to the Legislature’s intent that the state undertake all possible steps to encourage development of water recycling facilities, as expressed in California Water Code 13512. As stated in the Fact Sheet, the current proposed requirement to all dischargers to study the potential for local impacts and implement appropriate corrective measures is an adequate level of assurance that no adverse impacts will occur from recycled wastewater use or from any wastewater discharge of mercury.

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### **Other Editorial Changes**

During review of the draft Watershed Permit in response to comments, errors were noted and corrected. These include typographical and grammatical errors. Non-typographical and non-grammatical corrections are listed below:

- Table 1A, added all Dischargers to the EBDA Common Outfall.
- Table 1B and 2B (and associate Fact Sheet tables), added note to reflect recent Regional Water Board action to terminate individual permit for General Chemical West, LLC.
- Table 4A, corrected permitted facility design flow for East Bay Dischargers Authority Common Outfall.
- Table 4B, updated contact information for C&H Sugar Company, General Chemical West, LLC, and Rhodia.
- Table 6 (and F-8), added “effective in 20 years” mass limit for Sunnyvale.
- V.C.2 Mercury Source Control Program for Municipal Dischargers, revised “...within 5 years after the effective date of this Order approval of the TMDL...”
- Attachment E – MRP, IV.C. Optional Group Compliance Reporting  
“As an alternative to IV.B.25.b. above, ....”
- Table F-5, bolded City of American Canyon to indicate it is an advanced secondary treatment plant.
- Attachment F, Fact Sheet, VIII. Public Participation, revised to reflect change in hearing date from October 10 to November 1, 2007.