

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 6/7 December 2007**

**Response to Written Comments for
Meridian Beartrack Company Royal Mountain King Mine
Tentative Waste Discharge Requirements**

At a public hearing scheduled for 6/7 December 2007, the Regional Water Quality Control Board, Central Valley Region (Regional Water Board) will consider adoption of a new National Pollutant Discharge Elimination System (NPDES) permit to regulate the surface water discharge from the Royal Mountain King (RMK) Mine. The tentative order was issued on 2 October 2007. This document contains responses to written comments received from interested persons in response to the proposed order. Written comments from interested persons were required to be received by the Regional Water Board by 2 November 2007 in order to be included in the record. Comments were received by the deadline from the following:

1. Joint Comments from Meridian Beartrack Company and California Sportfishing Protection Alliance (Meridian/CSPA)
2. Meridian Beartrack Company (Meridian)
3. California Sportfishing Protection Alliance (CSPA)
4. Environmental Law Foundation (ELF)

Written comments from the above interested persons are summarized below, followed by the response of the Regional Water Board.

MERIDIAN/CSPA JOINT COMMENTS

Meridian and CSPA, as part of a settlement agreement, have engaged in a collaborative process designed to discuss and to resolve issues regarding the proposed NPDES permit for the RMK Mine site. The two parties met and developed joint comments that request five changes to the proposed permit. In addition, the parties submitted comments separately with additional issues. If the Regional Water Board agrees and modifies the permit as requested in the joint comments, the parties have agreed that they will not pursue any administrative or other appeal of the NPDES permit issuance. The joint parties request the following changes to the proposed permit:

1. **Total Dissolved Solids Mass-Based Effluent Limitations.** Add a mass-based effluent limitation for TDS of 3,000 tons/year, which would apply each water year (August-July).
2. **Dissolved Oxygen (DO) Effluent Limitation.** Modify the instantaneous minimum effluent limitation for DO to be 7.0 mg/L, in Table 6 of the proposed permit.
3. **Nitrate Effluent Limitation.** Add a final nitrate effluent limitation of 3 mg/L, with and interim effluent limitation of 5 mg/L until 1 November 2011 or when the

water level in Skyrocket Pit Lake drops below 955 feet amsl, whichever is sooner.

4. **Mixing Zone Study.** Add a requirement that Meridian provide its mixing zone study to CSPA at least 20 days prior to submitting the study to the Regional Water Board.
5. **Updated Best Available Technology Economically Achievable (BAT) Study.** Add a requirement to prepare and submit a BAT study due 4.5 years after adoption of the permit and require that Meridian provide the BAT study to CSPA at least 30 days prior to submission of the study to the Regional Water Board.

RESPONSE: Regional Water Board staff agrees to make most of these changes to the proposed permit. However, the suggested requirement to provide the Mixing Zone Study and the BAT Study to CSPA prior to submission to the Regional Water Board cannot be included in the proposed permit. It is inconsistent with public participation practices to require the Discharger to provide the study to one particular interested party without allowing all interested persons the same opportunity to review and comment. In addition, Water Code Section 13267 does not appear to provide the Regional Water Board with authority to impose a third-party reporting requirement in this circumstance. However, the agreement by the discharger to provide the BAT and Mixing Zone Studies to CSPA prior to submittal to the Regional Water Board has been noted in the Fact Sheet.

MERIDIAN BEARTRACK COMPANY (MERIDIAN) COMMENTS

MERIDIAN - COMMENT #1: Permit, Table 5 on page 7. The current site WDRs acknowledge that baseline/pre-mine surface and ground water quality did not meet the water quality objectives for all of the beneficial uses designated in the Basin Plan. Meridian believes that this is important contextual information for NPDES permit and specifically requests that this language be incorporated into this table and for the Table F-7 in the Fact Sheet.

RESPONSE: Table 5 of the proposed permit lists the beneficial uses of Little Johns Creek.

MERIDIAN –COMMENT #2: Sections VI.C.3.a. and 3.b., Salinity Evaluation and Minimization Plan and Surface Water Discharge Minimization Plan. Meridian requests that the Salinity Evaluation and Minimization Plan and the Surface Water Discharge Minimization Plan be combined into one System Performance Report due two years after adoption of the permit. This report would evaluate the effectiveness of the system in meeting objectives, assess whether further measures to control surface

flows are required and confirm some of the operational parameters such as mixing ratios.

RESPONSE: These study requirements in the proposed permit are reasonable and necessary. The Surface Water Discharge Minimization Plan is necessary to limit the discharge to surface waters. This plan should be completed and implemented regardless of the effectiveness of the system in meeting water quality objectives. The Salinity Evaluation and Minimization Plan is needed to minimize the discharge of salt to Littlejohns Creek, which is tributary to the Sacramento-San Joaquin Delta. Salinity loads to the Delta are a concern of the Regional Water Board, therefore, it is necessary to minimize salinity discharges to streams that are tributary to the Delta. The study requirements are appropriate in the proposed permit and no change will be made.

MERIDIAN - COMMENT #3: Attachment E, Monitoring and Reporting Program, Section V.A.3, Acute Toxicity Testing. Meridian requests that fathead minnows, not rainbow trout, be required for the acute toxicity testing.

RESPONSE: The use of rainbow trout in the toxicity test is appropriate and no change will be made.

MERIDIAN - COMMENT #4: Attachment E, Monitoring and Reporting Program, Section VIII.B and Table E-5. Meridian requests that the draft permit be modified to delete any required monitoring at location RSW-004.

RESPONSE: The purpose of this monitoring location is to evaluate the discharge on water quality in Flowers Reservoir. No change will be made to the permit.

MERIDIAN – GENERAL COMMENTS: Exhibit A, 27 September 2007 letter.

RESPONSE: Meridian incorporated its prior comments without indicating which, if any, of the comments on pages 2-5 are still outstanding or whether the current proposed permit adequately addresses those comments. Meridian states that the comments on pages 5-16 respond to Meridian's discussions with California Sportfishing Protection Alliance and not to the proposed permit, and that the comments are withdrawn if the Regional Water Board contemplates including the jointly requested changes with CSPA. Staff is recommending those changes. Accordingly, no response is required and the comments in the 27 September 2007 letter are deemed withdrawn.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CSPA) COMMENTS

CSPA COMMENT #1, The proposed permit allows that dilution be used as a substitute for treatment and fails to contain mass-based effluent limitation contrary to federal regulations.

RESPONSE: The proposed permit requires compliance with applicable federal technology-based standards and with water quality-based effluent limits (WQBELs) where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The commentor cites 40 CFR 122.45(f)(1)(iii) as the basis for its comment that the permit must require treatment. This section of the federal regulations is in reference to setting technology-based effluent limits on a case-by-case basis under 40 CFR 125.3, which is not applicable to the WQBELs for this discharge, and is only applicable to TBELs if this particular exception to mass-based limits is used. The proposed permit establishes WQBELs using a dilution credit. The Basin Plan and the SIP allow the use of mixing zones and dilution credits, were appropriate.

With regards to mass-based effluent limitations, 40 CFR § 122.45(f) states the following:

“Mass limitations. (1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass except:

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(ii) When applicable standards and limitations are expressed in terms of other units of measurement; or

(iii) If in establishing permit limitations on a case-by-case basis under §125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.”

40 CFR section 122.25(f)(1)(ii) states that mass limitations are not required when applicable standards are expressed in terms of other units of measurement. All pollutants with numerical effluent limitations in the proposed permit, with the exception of selenium, are based on water quality standards and objectives that are expressed in terms of concentration. Pursuant to 40 CFR section 122.25(f)(1)(ii), expressing the effluent limitations in terms of concentration is expressly allowed and

is in no way contrary to Federal Regulations. Mass-based effluent limitations have been proposed for selenium, because it is a bioaccumulative pollutant.

In response to the commentor's claim that the proposed permit allows dilution as a substitute for treatment, Water Quality Based Effluent Limitations are prescribed to achieve receiving water limitations as needed to protect beneficial uses. There are many ways to protect beneficial uses, including treatment, source control, and operating the discharge to limit discharges to the assimilative capacity of the receiving water. In this instance, the Discharger has chosen to construct and operate storage, monitoring and discharge systems to discharge within the assimilative capacity of the receiving water. Under normal circumstances, the Regional Water Board would not grant most of the assimilative capacity of a water body to a single discharger, however, the mine exists and this operational procedure is a means of minimizing environmental impacts at the lowest cost and energy expenditure.

CSPA COMMENT #2, The proposed permit fails to contain an effluent limitation for salinity (EC and/or TDS) that is protective of the beneficial uses of the receiving stream and fails to require treatment in order to achieve water quality objectives contrary to federal regulations.

RESPONSE: Currently, during periods of high flow, the receiving water has a TDS concentration that is less than the applicable water quality objective, therefore assimilative capacity for TDS is available. Using an allowed dilution credit of 15:1, the calculation of the WQBEL for TDS results in an AMEL of 10,750 mg/L (based on meeting the secondary MCL of 500 mg/L), which is protective of the Basin Plan's narrative chemical constituents objective. However, since the Discharger is capable of meeting a more stringent performance-based effluent limitation for TDS, allowing this WQBEL may be contrary to the antidegradation policy. Therefore, the proposed permit includes a maximum daily effluent limitations (MDEL) for TDS of 4,000 mg/L, which is based on projected performance.

CSPA COMMENT #3, The proposed permit does not contain an effluent limitation for EC or TDS that protects the irrigated agriculture (AGR), drinking water (MUN), industrial (IND), and aquatic life (COLD) beneficial uses of the receiving stream in violation of designated waste state laws and federal regulations.

RESPONSE: The commentor contends that the discharge of TDS at the proposed concentration is a designated waste as defined by the CWC, Section 13173(b) as a nonhazardous waste that contains pollutants that could be released in concentrations exceeding applicable water quality objectives and must be regulated in accordance with Title 27 CCR. Nothing in Section 13173, Title 27 or the cited federal regulations imposes additional requirements on point-source discharges because they are "designated waste." Also, as discussed in the response to **CSPA Comment #2**, the

proposed permit includes effluent limitations for TDS that are more stringent than WQBELs. Therefore, the discharge is not considered a designated waste.

CSPA COMMENT #4, The proposed permit fails to contain an effluent limitation for dissolved oxygen that is protective of the COLD beneficial use.

RESPONSE: Regional Water Board staff agrees with the commentor and will change the dissolved oxygen effluent limitation to 7.0 mg/L as an instantaneous minimum to be protective of the COLD beneficial use.

CSPA COMMENT #5, The proposed permit allows for water supply transfers contrary to the California Constitution, which prohibits the waste or unreasonable use of water.

RESPONSE: .See response to **CSPA Comment #1**. The discharge is not a water supply transfer, so this portion of the Constitution is not applicable to the proposed permit.

CSPA COMMENT #6, The proposed permit fails to contain an effluent limitation for nitrate contrary to federal regulations.

RESPONSE: In accordance with 40 CFR 122.44(d), an effluent limitation for nitrate is not necessary, because the discharge does not have the reasonable potential to cause or contribute to an in-stream excursion of the applicable water quality objectives.

CSPA COMMENT #7, The proposed permit fails to contain an effluent limitation for bis(2-ethylhexyl)phthalate despite clear reasonable potential to exceed water quality standards.

RESPONSE: The maximum effluent concentration for bis (2-ethylhexyl) phthalate was 2.8 µg/L, based on one sample collected on 7 February 2006, while the maximum observed upstream receiving water bis (2-ethylhexyl) phthalate concentration was non-detect, based on one sample collected on 7 February 2006. However, the reporting limit for both the effluent and receiving water sample analyses was 4.8 µg/L, which is higher than both the reported value and the applicable criterion. The reported effluent value was an estimated value. Therefore a reasonable potential analysis could not be performed for bis (2-ethylhexyl) phthalate and no limit is included in the proposed Order. The proposed Order includes monitoring requirements for bis (2-ethylhexyl) phthalate so that a reasonable potential analysis may be carried out in the future. Additionally, there is no apparent source of the chemical at the mining site, which makes the single sample result questionable.

CSPA COMMENT #8, The proposed permit fails to contain an effluent limitation for aluminum despite clear reasonable potential to exceed water quality standards. Although the maximum effluent concentration for aluminum was less than the applicable water quality objective, if a statistical analysis was performed, using a proper and legal multiplier, the projected maximum effluent concentration would exceed the objective. Thus, an effluent limitation would be required.

RESPONSE: This comment is in regards to using the SIP protocol for conducting the reasonable potential analysis for non-CTR constituents (aluminum is a non-CTR constituent). Until adoption of the SIP by the State Water Board, USEPA's Technical Support Document for Water Quality-based Toxics Control (TSD) was the normal protocol followed for permit development for all constituents. The SIP is required only for California Toxics Rule (CTR) and National Toxics Rule (NTR) constituents and prescribes a different protocol when conducting a Reasonable Potential Analysis (RPA), but is identical when developing water quality-based effluent limitations (WQBELs). For some time after SIP adoption, SIP protocols were used for CTR/NTR constituents, and TSD protocols were used for non-CTR/NTR constituents. While neither protocol is necessarily better or worse in every case, using both protocols in the same permit has led to confusion by dischargers and the public, and greater complexity in writing permits. Currently there is no State or Regional Water Board Policy that establishes a recommended or required approach to conduct an RPA or establish WQBELs for non-CTR/NTR constituents. However, the State Water Board has held that the Regional Water Board may use the SIP as guidance for water quality-based toxics control. The SIP states in the introduction "*The goal of this Policy is to establish a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency.*" Therefore, for consistency in the development of NPDES permits, we have begun to use the RPA procedures from the SIP to evaluate reasonable potential for both CTR/NTR and non-CTR/NTR constituents.

CSPA COMMENT #9, The proposed permit fails to contain an effluent limitation for nickel despite clear reasonable potential to exceed water quality standards.

RESPONSE: See response to **CSPA Comment #8**

CSPA COMMENT #10, The proposed permit contains an effluent limitation for acute toxicity that allows mortality exceeding the Basin Plan water quality objective and does not comply with federal regulations.

RESPONSE: The tentative permit contains mechanisms to ensure that the discharge does not cause acute or chronic toxicity in the receiving water. Receiving water limits proscribe the discharge from causing toxicity in the receiving water. Furthermore, the proposed Order requires whole effluent chronic toxicity testing, which identifies both acute and chronic effluent toxicity. If this testing shows that the discharge causes, has the reasonable potential to cause, or contributes to an in stream excursion of the water quality objective for toxicity, the proposed Order requires the Discharger to investigate the causes of, and identify corrective actions to eliminate the toxicity.

The acute whole effluent toxicity limits establish additional thresholds to control acute toxicity in the effluent: survival in one test no less than 70% and a median of no less than 90% survival in three consecutive tests. Some in-test mortality can occur by chance. To account for this, the acute toxicity test acceptability criteria allow ten percent mortality (requires 90% survival) in the control. Thus, the acute toxicity limits allow for some test variability, but impose ceilings for exceptional events (i.e., 30% mortality or more), and for repeat events (i.e., median of three events exceeding mortality of 10%). These effluent limitations are consistent with U.S. EPA guidance. In its document titled "Guidance for NPDES Permit Issuance", dated February 1994, it states the following:

"In the absence of specific numeric water quality objectives for acute and chronic toxicity, the narrative criterion 'no toxics in toxic amounts' applies. Achievement of the narrative criterion, as applied herein, means that ambient waters shall not demonstrate for acute toxicity: 1) less than 90% survival, 50% of the time, based on the monthly median, or 2) less than 70% survival, 10% of the time, based on any monthly median. For chronic toxicity, ambient waters shall not demonstrate a test result of greater than 1 TUc."

The proposed Order protects aquatic life beneficial uses by implementing several measures to control individual toxic pollutants and whole effluent toxicity. Both the acute limits and receiving water limits are consistent with numerous NPDES permits issued by the Regional Water Board and throughout the State and are appropriate.

CSPA COMMENT #11, The proposed permit does not contain effluent limitations for chronic toxicity contrary to federal regulations.

RESPONSE: The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) contains implementation gaps regarding the appropriate form and implementation of chronic toxicity limits. This has resulted in the petitioning of a NPDES permit in the Los Angeles Region¹

¹ In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES NO. CA0055119] and Time Schedule Order

that contained numeric chronic toxicity effluent limitations. As a result of this petition, the State Water Board adopted WQO 2003-012 directing its staff to revise the toxicity control provisions in the SIP. The State Water Board states the following in WQO 2003-012, *"In reviewing this petition and receiving comments from numerous interested persons on the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters, we have determined that this issue should be considered in a regulatory setting, in order to allow for full public discussion and deliberation. We intend to modify the SIP to specifically address the issue. We anticipate that review will occur within the next year. We therefore decline to make a determination here regarding the propriety of the final numeric effluent limitations for chronic toxicity contained in these permits."* The process to revise the SIP is currently underway. Proposed changes include clarifying the appropriate form of effluent toxicity limits in NPDES permits and general expansion and standardization of toxicity control implementation related to the NPDES permitting process.

Since the toxicity control provisions in the SIP are under revision it is infeasible to develop numeric effluent limitations for chronic toxicity. Therefore, the proposed Order requires that the Discharger meet best management practices for compliance with the Basin Plan's narrative toxicity objective, as allowed under 40 C.F.R. 122.44(k).

CSPA COMMENT #12, The proposed permit establishes effluent limitations for metals based on the hardness of the effluent as opposed to the ambient upstream receiving water hardness as required by federal regulations.

RESPONSE: The proposed Order has established the criteria based on the reasonable worst-case effluent and receiving water hardness. Effluent limitations for the discharge must be set to protect the beneficial uses of the receiving water for all discharge conditions. In the absence of the option of including condition-dependent, "floating" effluent limitations that are reflective of actual conditions at the time of discharge, effluent limitations must be set using a reasonable worst-case condition in order to protect beneficial uses for all discharge conditions. Recent studies indicate that using the receiving water lowest hardness for establishing water quality criteria is not the most protective for the receiving water. The Regional Water Board has evaluated these studies and concurs that for some parameters the beneficial uses of the receiving water are best protected using the lowest hardness value of the effluent, while for some parameters, the use of both the highest hardness value of the receiving water and the lowest hardness value of the effluent is the most

Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region SWRCB/OCC FILES A-1496 AND 1496(a)

protective. This approach was used for the reasonable potential analysis for hardness-dependent metals.

CSPA COMMENT #13, The proposed permit allows for mixing zones for virtually each limited constituent although a mixing zone analysis has not been completed and compliance with requirements of the Basin Plan and the SIP cannot be assured.

RESPONSE: The decision to allow dilution credits depends upon whether a discharge is completely or incompletely mixed. The Discharger plans to construct a diffuser prior to discharging, which will allow complete mixing in the receiving water. Therefore, for purposes of establishing WQBELs in the proposed Order, a dilution credit of 15:1 has been granted chronic aquatic toxicity and human health criteria. A dilution credit for acute aquatic toxicity criteria has not been allowed in the proposed Order. Provision VI.C.7.a. of the proposed Order requires the Discharger to verify that the discharge is completely mixed prior to initiation of the discharge. The Discharger cannot discharge to surface waters prior to conducting a mixing zone study.

CSPA COMMENT #14, Monitoring requirements are inadequate in accordance with federal regulations.

RESPONSE: Regional Water Board staff disagrees with the commentor's assertion that the proposed Order does not include adequate monitoring requirements. The proposed Order includes sufficient monitoring to determine compliance with the permit requirements.

CSPA COMMENT #15, The proposed permit contains an inadequate antidegradation analysis that does not comply with the requirements of the Clean Water Act, federal regulations, and State Water Board resolution 68-16.

RESPONSE: The Discharger conducted an antidegradation analysis that demonstrates that the proposed discharge complies with the federal antidegradation regulations and State Water Board Resolution 68-16. Section IV.D.4. of Attachment F, Fact Sheet, summarizes compliance with the antidegradation requirements.

CSPA COMMENT #16, The proposed permit is fundamentally flawed because it fails to identify either BAT or BCT for the RMK Mine discharge.

RESPONSE: The Facility no longer conducts mining activities and, therefore, the ELGs at 40 CFR Part 440, Subpart J, which are applicable to the gold ore mining and dressing point source category, are not directly applicable to the Facility.

However, the groundwater that collects in Skyrocket Pit Lake is characteristic of mine drainage in active, open pit or underground gold ore mining operations. In addition, during mining operations at the Facility, the groundwater that now collects in Skyrocket Pit Lake was managed as mine drainage. Therefore, based on application of BPJ, the BPT- and BAT-based ELGs developed for mine drainage at gold ore mines (40 CFR Part 440, Subpart J) were applied to the discharge.

CSPA COMMENT #17, The absence of an effluent limitation for nitrate fails to implement the Basin Plan's narrative standard for toxicity and nutrients and thus fails to protect beneficial uses in Littlejohns Creek and the Delta.

RESPONSE: See response to **CSPA Comment #1**.

CSPA COMMENT #18, Assuming the proposed WQBELs are ever appropriate, the proposed limitations do not reflect Meridian's anticipated performance levels or the level of dilution anticipated by Meridian's discharge proposal. Dilution credits greater than 10:1 were allowed during the first 3 years of operation, when a required flow ratio is 10:1 (Littlejohns Creek:effluent).

RESPONSE: The commentor is mistaken. The dilution credits allowed for all numeric effluent limitations, with the exception of arsenic, are equal to or less than 10:1. For arsenic, a compliance schedule has been allowed in order to for the Discharger to reduce the level of Skyrocket Pit Lake, which will reduce or eliminate seepage into the creek, thus improve the water quality of the creek.

CSPA COMMENT #19, BAT was required to be achieved as of 31 March 1989. Hence, any schedule for Meridian to comply with a receiving water limit for arsenic is unauthorized..

RESPONSE: The proposed permit provides a compliance schedule in which the cited receiving water limit for arsenic (10 µg/L) does not apply until 1 November 2011 or when the water level in Skyrocket Pit Lake drops below 955 feet amsl. The receiving water limit is based on a numeric water quality objective, not best available technology (BAT), so post-31 March 1989 compliance schedules are allowable under 40 CFR 122.47(a)(1). Since discharges from the Mine commenced prior to 13 August 1979, the Mine is neither a "new source" nor a "new discharger." (40 CFR 122.2.)

The commentor also states that schedules of compliance are inappropriate for toxic pollutants or nonconventional pollutants that should be included in the permit. The proposed permit does not include schedules of compliance for toxic pollutants or nonconventional pollutants.

CSPA COMMENT #20, The proposed permit fails to properly apply the federal regulations applicable to non-continuous discharges.

RESPONSE: Regional Water Board staff disagree that the proposed permit fails to properly apply the federal regulations applicable to non-continuous discharges. However, staff agrees that it is not clearly stated in the Fact Sheet. The Fact Sheet of the proposed permit has been updated to clarify the application of these regulations.

ENVIRONMENTAL LAW FOUNDATION (ELF)

The comment letter from the Environmental Law Foundation contains numerous inaccuracies, incorrect permit citations, and errors. Regional Water Board staff has attempted to organize the response to comments to the three main issues presented in the comment letter.

ELF COMMENT #1, Antidegradation. The proposed Order impermissibly allows degradation of Littlejohns Creek, French Slough, and the San Joaquin River in violation of California's Antidegradation Policy.

RESPONSE: The Discharger prepared an Antidegradation Analysis Report (AAR), dated 9 February 2007, which presented a "simple" antidegradation analysis based on the determination that the discharge is temporally limited, will not result in any long-term deleterious effects on water quality, and the reduction in water quality is spatially localized to the reach from the Discharger's downstream property boundary to the entrance of Flowers Reservoir. The AAR identified total dissolved solids (TDS), arsenic, and nitrate as constituents of concern. Section 6.2 of the AAR it states, "*This analysis concludes, based upon substantial evidence that the proposed loadings of TDS, arsenic and nitrate will produce no observable effects within receiving waters and therefore are not likely to impair existing or future beneficial uses. TDS and arsenic concentrations within Littlejohns Creek at the point of discharge will increase slightly during infrequent storm events. However, for the remainder of the year, the mass loading/volumes of TDS, arsenic and nitrate are expected to decrease.*"

The proposed Order provides for an overall increase in the volume and mass of pollutants discharged to Littlejohns Creek by allowing discharges to the creek that were not previously present. However, the proposed Order is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16.

ELF COMMENT #2, Mercury. The tentative Order's mercury limit is disallowed under the San Joaquin River methylmercury TMDL. The permit fails to adequately control mercury and should identify a pollutant load allocation for methylmercury under the San Joaquin River methylmercury TMDL. The proposed permit allows for a mercury discharge of 1 µg/L of mercury. In contrast, the TMDL set for the San Joaquin basin is 0.06 ng/L. The mercury discharge limit in the proposed permit is an entire magnitude greater than the load allocation in the San Joaquin TMDL. The permit makes no justification for allowing such an alarming discharge for this highly toxic heavy metal.

RESPONSE: There currently is no methylmercury TMDL for the San Joaquin River. There is a draft methylmercury TMDL for the Sacramento-San Joaquin Delta that is projected to be adopted in early 2008. The draft Delta methylmercury TMDL does not propose load allocations for tributaries to the Delta. The applicable water quality objective for mercury in Littlejohns Creek is the CTR criterion of 0.05 µg/L (as total mercury) for protection of human health. The maximum total mercury concentration in Skyrocket Pit Lake was 0.00961 µg/L, which is less than the applicable water quality objective. Therefore, there is no reasonable potential for the discharge to cause or contribute to an exceedance of the CTR human health criterion in Littlejohns Creek. Consequently, in accordance with 40 CFR 122.44(d) water quality-based effluent limitations for mercury are not required. However, the proposed Order includes technology-based effluent limitations for total mercury, based on the ELGs at 40 CFR Part 440, Subpart J, which are applicable to the gold ore mining and dressing point source category. The effluent limitations for mercury in the proposed permit are in accordance with federal regulations.

ELF COMMENT #3, Dissolved Oxygen. The permit fails to adequately control dissolved oxygen (DO) and must identify a pollutant load allocation for DO, in accordance with the San Joaquin River TMDL.

RESPONSE: The proposed permit includes an effluent limitation for DO protective of the COLD beneficial use and has very little, if any, oxygen demanding substances (e.g. ammonia, biochemical oxygen demand, etc.) The discharge will have no adverse affects on the DO in the vicinity of the discharge, let alone, the Stockton Deep Water Ship Channel, which is over 40 miles downstream.