



California Sportfishing Protection Alliance

"An Advocate for Fisheries, Habitat and Water Quality"

3536 Rainier Avenue, Stockton, CA 95204

Tel: 209-464-5067, Fax: 209-464-1028, E: deltakeep@aol.com

2 November 2007

Mr. Kenneth Landau, Assistant Executive Officer
Mr. Dave Carlson, Env. Program Manager, NPDES
Mr. James Marshall, Sr. WRCE
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission
Hardcopy if Requested

RE: Waste Discharge Requirements (NPDES) For Meridian Beartrack Company,
Royal Mountain King Mine, Calaveras County

Dear Messrs. Landau, Carlson and Marshall:

This letter contains the separate comments of the California Sportfishing Protection Alliance ("CSPA") on the tentative draft NPDES permit, with attachments and fact sheet, issued by the Central Valley Regional Water Quality Control Board ("Regional Board") on October 2, 2007 for the Royal Mountain King Mine ("RMKM") site.

CSPA has also submitted, contemporaneously with this comment letter, a joint set of comments with Meridian Beartrack Company ("Meridian") on this permit. In those comments, CSPA and Meridian jointly request that five identified sets of provisions be incorporated into the permit and/or fact sheet. The comments contained in this letter are the separate comments of CSPA on the proposed permit and they are intended as a supplement to the joint comments. These supplemental comments are only submitted to preserve various issues raised by CSPA in the event that staff or the Board decides not to amend the NPDES permit as jointly proposed by Meridian and CSPA. Both parties believe that the proposed changes set forth in the joint comments will improve on the quality of the draft permit and, if adopted without other permit changes, will suffice for the parties to drop any objections they may have to the initial issuance of the permit.

Should staff and/or the Regional Board not be amenable to the jointly proposed amendments, or should the staff and/or Board modify the permit in any other respect before its adoption, CSPA requests that the staff and Board address each of the following deficiencies in the draft permit:

- 1. The proposed Permit allows that dilution be used as a substitute for treatment and fails to contain mass based Effluent Limitations, with the exception of selenium, contrary to Federal Regulations 40 CFR 122.45 (f)(1)(iii) and the Board's *Controllable Factors Policy*.**

Federal Regulation 40 CFR 122.45 (f)(1)(iii) states that: “All pollutants in permits shall have limitations, standards or prohibitions expressed in terms of mass except:...(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 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.” *Emphasis added.*

Contrary to the cited regulation, the proposed Permit does not require the treatment of waste at this mine site. Dilution is allowed as a substitute for treatment. Virtually each regulated pollutant is granted a receiving stream dilution credit. Mixing zone allowances will increase the mass loadings of a pollutant to a waterbody and decrease treatment requirements. Accurate mass loadings are critical to mixing zone determinations.

The proposed Permit, Table 6 Effluent Limitations, does not contain mass based Effluent Limitations with the exception of selenium. This is contrary to the Fact Sheet; page F-39, D. Final Effluent Limitations, 1. Mass-based Effluent Limitations, which indicates that all Effluent Limitations include mass-based Effluent Limitations.

Section 5.7.1 of U.S. EPA’s *Technical Support Document for Water Quality Based Toxics Control* (TSD, EPA/505/2-90-001) states with regard to mass-based Effluent Limits:

“Mass-based effluent limits are required by NPDES regulations at 40 CFR 122.45(f). The regulation requires that all pollutants limited in NPDES permits have limits, standards, or prohibitions expressed in terms of mass with three exceptions, including one for pollutants that cannot be expressed appropriately by mass. Examples of such pollutants are pH, temperature, radiation, and whole effluent toxicity. Mass limitations in terms of pounds per day or kilograms per day can be calculated for all chemical-specific toxics such as chlorine or chromium. Mass-based limits should be calculated using concentration limits at critical flows. For example, a permit limit of 10 mg/l of cadmium discharged at an average rate of 1 million gallons per day also would contain a limit of 38 kilograms/day of cadmium.

Mass based limits are particularly important for control of bioconcentratable pollutants. Concentration based limits will not adequately control discharges of these pollutants if the effluent concentrations are below detection levels. For these pollutants, controlling mass loadings to the receiving water is critical for preventing adverse environmental impacts.

However, mass-based effluent limits alone may not assure attainment of water quality standards in waters with low dilution. In these waters, the quantity of effluent discharged has a strong effect on the instream dilution and therefore upon the RWC. At the extreme case of a stream that is 100 percent effluent, it is the

effluent concentration rather than the mass discharge that dictates the instream concentration. Therefore, EPA recommends that permit limits on both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards.”

In addition to the above citations, on June 26th 2006 U.S. EPA, Mr. Douglas Eberhardt, Chief of the CWA Standards and Permits Office, sent a letter to Dave Carlson at the Central Valley Regional Water Quality Control Board strongly recommending that NPDES permit effluent limitations be expressed in terms of mass as well as concentration.

Contrary to 40 CFR 122.45, the proposed Permit does not require the treatment of waste; dilution is allowed as a substitute for treatment. Virtually each regulated pollutant is granted a receiving stream dilution credit. The proposed Permit, Table 6 Effluent Limitations, does not contain mass based Effluent Limitations with the exception of selenium.

The Basin Plan, page IV-15.00, contains a *Controllable Factors Policy* which states that: “Controllable water quality factors are not allowed to cause further degradation of water quality in instances where other factors have already resulted in water quality objectives being exceeded. Controllable water quality factors are those actions, conditions, or circumstances resulting from human activities that may influence the quality of the waters of the State, that are subject to the authority of the State Water or Regional Water Board, and that may be reasonably controlled.” Treatment processes are readily available that can reliably achieve compliance and reasonably control the discharge.

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 any treatment in order to achieve water quality objectives contrary to Federal Regulations 40 CFR 122.44 and the Basin Plan.

The proposed Permit does not contain an Effluent Limitation for EC, however does contain a limitation for total dissolved solids (TDS) of 4,000 mg/l. Generally, for a consistent quality discharge EC and TDS are directly related and a numeric relationship can be developed. In this case the average EC is 3,200 umhos/cm and the average TDS is 2,400 mg/l. The highest observed (maximum effluent concentration (MEC)) EC was 3,700 umhos/cm and the highest MEC for TDS was 2,740 mg/l. For this discharge, concentrations of EC appear to be approximately 1.35 times higher than TDS concentrations. Therefore the TDS Effluent Limitation corresponds to an approximate EC discharge of 5,400 umhos/cm.

It is also noteworthy that the discharge flow, as reported in the Fact Sheet (Mass Based Limitations section, page F-39), is 43 million gallons per day. Concentration in mg/l multiplied by the flow rate in mgd multiplied by a conversion factor of 8.34 equals

pounds/day (4,000 mg/l x 43 mgd x 8.34) = 1,434,480 pounds of TDS (salt) discharged to surface waters every day that the discharge occurs.

The proposed Permit, page 6, Water Quality Control Plans, states in part that: “The Basin Plan at page II-2.00 states that the “...*beneficial uses of any specifically identified water body generally apply to its tributary streams.*” The Basin Plan does not specifically identify beneficial uses for Littlejohns Creek, but does identify present and potential uses for the Sacramento – San Joaquin Delta, to which Littlejohns Creek, via French Slough, is tributary.” And “The Basin Plan includes a list of Water Quality Limited Segments (WQLSs), which are defined as “...*those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of appropriate limitations for point sources (40 CFR 130, et seq.)*.” The Basin Plan also states, “*Additional treatment beyond minimum federal standards will be imposed on dischargers to WQLSs. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment.*” Littlejohns Creek and French Slough are not listed as WQLSs in the 303(d) list of impaired water bodies.”

Despite the fact that the proposed Permit allows for a new discharge of up to 1,434,480 pounds/day of TDS (salt) to be discharged, the proposed Permit does not discuss that the Sacramento – San Joaquin Delta, to which Littlejohns Creek and French Slough are tributary is water quality limited for electrical conductivity (EC). The discharge of this quantity of salt must have an impact on the Delta, the only reference to the EC impacts to the Delta that could be located were found in the Fact Sheet which contains the following unsupported, undocumented conclusory statement: “The salinity impacts caused by the discharge in the Sacramento-San Joaquin Delta are likely to be minimal, because the discharges will only occur during wet weather periods when flow levels in the Delta are highest and salinity levels are lowest.” Unlike organic matter or volatile compounds, salts are conservative; they will remain in the environment and not degrade: the salt discharge at the mine site will end-up in the Delta. The proposed Permit does not require the wastewater discharge to be treated despite the Basin Plan requirement that: “*Additional treatment beyond minimum federal standards will be imposed on dischargers to WQLSs.*”

The beneficial uses of the receiving stream include municipal and domestic supply (MUN), agricultural supply (AGR), industrial supply (IND), warm freshwater habitat (WARM), cold freshwater aquatic habitat (COLD) migration of both warm and cold water aquatic organisms (MIGR) and spawning, reproduction, and/or early development (SPWN). The discharge of TDS at the proposed Effluent Limitation of 4,000 mg/l and the corresponding EC of 5,400 umhos/cm exceed water quality objectives for each designated beneficial use. For example the agricultural water quality goal is 700 umhos/cm (recommended narrative objective) and the drinking water MCL is 900 umhos/cm (Chemical Constituents Objective). In a *Biological Significance* document sent to the Regional Board regarding the Musco Olive facility, dated November 1st 2006, James M. Harrington, Staff Water Quality Biologist with the California Department of Fish and Game, citing McKee and Wolf (1971 Water Quality Criteria) wrote that:

“Surveys of inland fresh waters indicates that good mixes of fish fauna are found where conductivity values range between 150 and 500 umhos/cm. Even in the most alkaline waters, the upper tolerance limit for aquatic life is approximately 2000 umhos/cm.” Many industrial facilities are reliant on low salinity water for proper operation of their processes, for example in using waters of far superior quality that 4,000 mg/l of TDS; cooling towers routinely employ reverse osmosis (RO) systems to ensure their process is not fouled by salt accumulations. The proposed Permit allows an instream mixing zone for TDS, and therefore EC. A very clear unaddressed requirement (SIP Section 1.4.2.2) for mixing zones is that the point(s) in the receiving stream where the applicable criteria must be met shall be specified in the proposed Permit. The “edge of the mixing zone” has not been defined. The discharge of TDS at 4,000 mg/l degrades each of the cited designated beneficial uses of the receiving stream within the mixing zone. Since the proposed Permit does not comply with the SIP requirement to define the edge of the mixing zone; the Regional Board has no evidence whatever regarding the length of receiving stream where the beneficial uses are being exceeded and degraded. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. The Regional Board has the authority to grant mixing zones, however the Basin Plan (IV-17.00) requires that mixing zones be limited to “a small zone of initial dilution” and that the Discharger has demonstrated that the mixing zone will not adversely impact beneficial uses. In addition to the Basin Plan requirements, SIP Section 1.4.2.2 requires that a mixing zone be as small as practicable and shall not compromise the integrity of the entire waterbody, cause acutely toxic conditions to aquatic life, restrict the passage of aquatic life and adversely impact biologically sensitive habitats. The Regional Board has no information to indicate that the mixing zone for TDS and EC is limited to “a small zone of initial dilution” and that the mixing zone will not adversely impact beneficial uses. The size of the mixing zone is quite simply unknown. Based on the above cited DFG recommendations and reference to McKee and Wolf (1971 Water Quality Criteria) within the mixing zone the allowed TDS and EC values will cause acutely toxic conditions to aquatic life, restrict the passage of aquatic life and adversely impact biologically sensitive habitats. None of these issues have been defined. The proposed Permit does not comply with mixing zone requirements contained in the Basin Plan and the SIP.

The antidegradation policy discussion contained in the proposed Permit, Fact Sheet page F-40, states that: “The long- and short-term effects of the discharge on arsenic and TDS levels downstream from the Facility were analyzed. For the purposes of the AAR, the short-term refers to the initial 3-year discharge period in which the Discharger is required to reduce the water level in Skyrocket Pit Lake to a maximum of 955 feet amsl. The short-term concentrations for arsenic and TDS are calculated to be 12 $\mu\text{g/L}$ and 615 mg/L, respectively. The long-term concentrations of arsenic and TDS are calculated to be 8 $\mu\text{g/L}$ and 511 mg/L respectively. In addition, the long-term average concentration of TDS upstream of the discharge is calculated to decrease from approximately 300 mg/L to 150 mg/L because lowering the level of Skyrocket Pit Lake is expected lower groundwater levels that contribute to TDS levels in Littlejohns Creek upstream of the

proposed discharge point. The salinity impacts caused by the discharge in the Sacramento-San Joaquin Delta are likely to be minimal, because the discharges will only occur during wet weather periods when flow levels in the Delta are highest and salinity levels are lowest.” The discussion does not mention a 4,000 mg/l TDS discharge and does not mention undefined mixing zones. The discussion does not address their cited numeric values for TDS are achieved. It must be recognized that this is a new discharge to surface waters. There is no valid reason that the Discharger should be allowed to degrade beneficial uses of the receiving stream and degrade already impaired Delta waters. There is no reason that a new discharger should be granted any mixing zone for TDS and EC. While the SIP is not directly applicable to TDS and EC, the spirit of the SIP, Section 2.1, is that: “Compliance schedules shall not be allowed in permits for new discharges” or more simply paraphrased new dischargers must comply immediately.

3. The proposed Permit does not contain an Effluent Limitation for Electrical Conductivity (EC) or total dissolved solids (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 (CWC 13173), CCR Title 27 (20210) and federal regulations (40 CFR 122.45 (h) and (f)(iii).

The discharge of salt (EC, TDS) at the proposed concentration is a designated waste as defined by the CWC, Section 13173(b) as nonhazardous waste that contains pollutants that could be released in concentrations exceeding applicable water quality objectives; which must be regulated in accordance with Title CCR 27. Title 27, Section 20210, requires that designated wastes shall only be discharged at Class I or Class II waste management units. The designated waste must be kept out of the receiving stream. The proposed Permit would allow the discharge of a designated waste to surface water in violation of CCR Title 27. Federal Regulations, 40 CFR 122.45 (h) allows establishment of effluent limitations for internal wastestreams when the discharge would be significantly diluted at the point of discharge, which is the case here. Federal Regulations, 40 CFR 122.45 (f)(iii) require permit conditions be established to ensure that dilution is not used as a substitute for treatment.

The proposed Permit, Finding No. 28, Salinity, cites UN Irrigation Drainage Paper No. 29 (Ayers and Westcot, 1985) as recommending that EC concentrations above 700 umhos/cm (or 450 mg/l TDS) will reduce crop yields for sensitive plants. Further, SWRCB Publication 3-A, *McKee and Wolf, Water Quality Criteria*, classifies irrigation waters with a TDS above 2,100 as “unsuitable under most circumstances”. Irrigated agriculture is a beneficial use of the receiving stream. The discharge contains EC and corresponding TDS concentrations well above the level necessary for the protection of the irrigated agriculture beneficial use.

Drinking water is a designated beneficial use of the receiving stream. Drinking water maximum contaminant levels (MCLs) are incorporated in the Basin Plan as Chemical Constituents water quality objectives. The MCLs for EC range from 900 umhos/cm as the recommended level, 1,600 umhos/cm as the upper level and 2,200 as a short term

maximum. The MCLs for TDS range from 500 mg/l as the recommended level, 1,000 mg/l as the upper level and 1,200 mg/l as a short term maximum. The discharge contains EC and corresponding TDS concentrations well above the level necessary for the protection of the drinking water beneficial use.

SWRCB Publication 3-A, *McKee and Wolf, Water Quality Criteria*, list numerous industrial activities including brewing as needing a water supply below 500 mg/l TDS, plastics manufacturing as needing a water supply below 200 mg/l TDS and dairy wash waters as water supply below 850 mg/l TDS. The discharge contains EC and corresponding TDS concentrations well above the level necessary for the protection of the industrial beneficial use.

4. The proposed Permit fails to contain an Effluent Limitation for dissolved oxygen that is protective of the designated beneficial uses of the receiving stream contrary to Federal Regulations Section 122.44(d) 122.4 (a), (d) and (g) and CWC Section 13377.

The proposed Permit, F-28, q. Dissolved Oxygen, states that: “The Basin Plan contains a numeric objective for dissolved oxygen (DO) of not less than 5.0 mg/L at any time for waters designated as warm freshwater habitat. DO concentrations in the effluent ranged from 0.88 mg/L to 11 mg/L, with an average of 5.7 mg/L, for 15 samples collected by the Discharger from 13 January 2004 through 28 October 2006. Background concentrations in Littlejohns Creek ranged from 0.7 mg/L to 7.3 mg/L, with an average of 4.0 mg/L, for 13 samples collected by the Discharger from 14 January 2004 through 26 May 2006. Therefore, the effluent exceeded the Basin Plan DO objective. Furthermore, the receiving water regularly exceeds the Basin Plan objective and no assimilative capacity for DO is available. An instantaneous minimum effluent limit of 5.0 mg/L is included in this Order based on the Basin Plan numeric objective for DO.”

The proposed Permit fails to protect the designated cold water aquatic life beneficial use. The proposed Permit states, on page 6 *Water Quality Control Plans* that the beneficial uses include cold freshwater habitat (COLD) and cold migration of aquatic organisms (MIGR). The Basin Plan water quality objective for waters designated as COLD require a minimum dissolved oxygen level of 7.0 mg/l. The receiving stream is outside the boundaries of the Delta which carries a site specific objective for DO of 5.0 mg/l.

As quoted above: “DO concentrations in the effluent ranged from 0.88 mg/L to 11 mg/L, with an average of 5.7 mg/L, for 15 samples collected by the Discharger from 13 January 2004 through 28 October 2006. Background concentrations in Littlejohns Creek ranged from 0.7 mg/L to 7.3 mg/L, with an average of 4.0 mg/L, for 13 samples collected by the Discharger from 14 January 2004 through 26 May 2006. Therefore, the effluent exceeded the Basin Plan DO objective. Furthermore, the receiving water regularly exceeds the Basin Plan objective and no assimilative capacity for DO is available.” The proposed Permit does not cite any means of compliance for dissolved oxygen. An enforcement document is not currently proposed for this new non-compliant discharge.

U.S. EPA's *Quality Criteria for Water 1986* states that: "Although the lethal limit for salmonids is at or below 3 mg/l, the coldwater minimum has been established at 4 mg/l because a significant proportion of the insect species common to salmonids habitats are less tolerant of acute exposures to low dissolved oxygen than are salmonids." Beside the absence of a protective limit for DO and no discernable means of compliance, the proposed Permit incorrectly states that the proposed mixing zone allows for no acutely toxic discharges; clearly a discharge of 0.88 mg/l of dissolved oxygen will be toxic within the mixing zone.

Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Federal Regulation, 40 CFR 122.4 (a), (d) and (g) require that no permit may be issued when the conditions of the permit do not provide for compliance with the applicable requirements of the CWA, or regulations promulgated under the CWA, when imposition of conditions cannot ensure compliance with applicable water quality requirements and for any discharge inconsistent with a plan or plan amendment approved under Section 208(b) of the CWA. California Water Code, section 13377, requires that: "Notwithstanding any other provision of this division, the state board and the regional boards shall, as required or authorized by the Federal Water Pollution Control Act, as amended, issue waste discharge and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance." The proposed Permit fails to provide an adequately protective Effluent Limitation for dissolved oxygen and fails to provide for immediate compliance for this new discharge of waste to surface water. The proposed Permit also fails to discuss that the Receiving Water Limitation for DO will also be violated based on the historical monitoring for this facility.

5. The proposed Permit allows for water supply transfers contrary to the California Constitution, Article 10, Water, Section 2, which prohibits the waste or unreasonable use of water.

The California Constitution Article 10, Section 2, states that: "It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare."

The proposed Permit, page 22 *Evaluation of ODS Water Transfers* and Fact Sheet pages F-5 and F-10, discuss providing water from the Gold Knoll ODS, West ODS2, West ODS5 and Skyrocket Pit Lake for the dilution of wastewater from the facility.

Providing water for dilution in lieu of treatment for wastewater is a wasteful use of water as discussed in Federal Regulation 40 CFR 122.45 (f)(1)(iii) which states that: “All pollutants in permits shall have limitations, standards or prohibitions expressed in terms of mass except:...(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 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.” *Emphasis added.*

6. The proposed Permit fails to include an Effluent Limitation for nitrate contrary to Federal Regulations 40 CFR 122.44.

Nitrate was sampled to be present in the discharge at 4.6 mg/l. The drinking water MCL for nitrate is 10 mg/l and is a Basin Plan Chemical Constituents water quality objective. Federal regulations, 40 CFR § 122.44(d)(1)(ii), state “when determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, **the variability of the pollutant or pollutant parameter in the effluent**, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.” *Emphasis added.* Conducting a statistical analysis utilizing a proper and legal multiplier would result in a reasonable potential for nitrate to exceed the water quality objective. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

The proposed Permit also fails to discuss the Biostimulatory impacts for the discharge of nitrogen compounds in the discharge on the beneficial uses of the receiving stream. The proposed Permit fails to discuss undesirable aquatic plant growth and diminished dissolved oxygen due to the discharge of Biostimulatory substances, specifically nitrate, nitrite and ammonia.

7. The proposed Permit fails to contain an Effluent Limitation for bis(2-ethylhexyl)phthalate despite a clear reasonable potential to exceed waste quality standards in violation of Federal Regulations 40 CFR 122.44.

Bis(2-ethylhexyl)phthalate exceeds water quality standards in the discharge at 2.8 $\mu\text{g/l}$, above the CTR Water Quality Standard of 1.8 $\mu\text{g/l}$. The Regional Board total disregards scientific methods, specifically sampling and laboratory QA/QC methodologies, in throwing out data points that would lead to a reasonable potential for a pollutant to exceed water quality standards when the burden should properly be placed on wastewater Dischargers to conduct proper sampling and analysis.

Federal Regulations, 40 CFR 122.44(d), requires that limits must be included in permits where pollutants will cause, have reasonable potential to cause, or contribute to an

exceedance of the State's water quality standards. US EPA has interpreted 40 CFR 122.44(d) in *Central Tenets of the National Pollutant Discharge Elimination System (NPDES) Permitting Program* (Factsheets and Outreach Materials, 08/16/2002) that although States will likely have unique implementation policies there are certain tenets that may not be waived by State procedures. These tenets include that "where calculations indicate reasonable potential, a specific numeric limit MUST be included in the permit. Additional "studies" or data collection efforts may not be substituted for enforceable permit limits where "reasonable potential" has been determined." US EPA has further interpreted 40 CFR 122.44(d) in *Central Tenets of the National Pollutant Discharge Elimination System (NPDES) Permitting Program* (Factsheets and Outreach Materials, 08/16/2002) that although States will likely have unique implementation policies there are certain tenets that may not be waived by State procedures. These tenets include that "where the preponderance of evidence clearly indicates the potential to cause or contribute to an exceedance of State water quality standards (even though the data may be sparse or absent) a limit MUST be included in the permit."

The California Water Code (CWC), Section 13377 states in part that: "...the state board or the regional boards shall...issue waste discharge requirements...which apply and ensure compliance with ...water quality control plans, or for the protection of beneficial uses..." Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Failure to include an effluent limitation for bis(2-ethylhexyl)phthalate in the proposed permit violates 40 CFR 122.44 and CWC 13377.

8. The proposed Permit fails to contain an Effluent Limitation for aluminum despite a clear reasonable potential to exceed waste quality standards in violation of Federal Regulations 40 CFR 122.44.

The discharge was sampled to contain aluminum at 53 $\mu\text{g/L}$, based on four samples collected between 7 February 2006 and 11 December 2006. US EPA's ambient criteria for the protection of freshwater aquatic life for aluminum for a 4-day average (chronic) and 1-hour average (acute) criteria for aluminum are 87 $\mu\text{g/L}$ and 750 $\mu\text{g/L}$, respectively. Federal regulations, 40 CFR § 122.44(d)(1)(ii), state "when determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, **the variability of the pollutant or pollutant parameter in the effluent**, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water." Emphasis added. Conducting a statistical analysis utilizing a proper and legal multiplier would result in a reasonable potential for aluminum to exceed the water quality objective. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

9. The proposed Permit fails to contain an Effluent Limitation for nickel despite a clear reasonable potential to exceed waste quality standards in violation of Federal Regulations 40 CFR 122.44.

The discharge was sampled to contain nickel at 80 $\mu\text{g/L}$. The drinking water MCL for nickel is 100 $\mu\text{g/l}$ and is a Chemical Constituents water quality objective in the Basin Plan. Federal regulations, 40 CFR § 122.44(d)(1)(ii), state “when determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, **the variability of the pollutant or pollutant parameter in the effluent**, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.” Emphasis added. Conducting a statistical analysis utilizing a proper and legal multiplier would result in a reasonable potential for nickel to exceed the water quality objective. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

10. The proposed Permit contains an Effluent Limitation for acute toxicity that allows mortality that exceeds the Basin Plan water quality objective and does not comply with Federal regulations, at 40 CFR 122.44 (d)(1)(i).

Federal regulations, at 40 CFR 122.44 (d)(1)(i), require that limitations must control all pollutants or pollutant parameters which the Director determines are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The Water Quality Control Plan for the Sacramento/ San Joaquin River Basins (Basin Plan), Water Quality Objectives (Page III-8.00) for Toxicity is a narrative criteria which states that all waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This section of the Basin Plan further states, in part that, compliance with this objective will be determined by analysis of indicator organisms.

The Tentative Permit requires that the Discharger conduct acute toxicity tests and states that compliance with the toxicity objective will be determined by analysis of indicator organisms. However, the Tentative Permit contains a discharge limitation that allows 30% mortality (70% survival) of fish species in any given toxicity test.

The Regional Board has looked hard and long to find some citation as to the source of the limitation that would allow or recommend 10% and 30% mortality, such a find however does not eliminate the more restrictive applicable Basin Plan objective that simply prohibits the discharge from causing mortality in the receiving stream.

Allowing 30% mortality in acute toxicity tests allows that same level of mortality in the receiving stream, in violation of federal regulations and contributes to exceedance of the

Basin Plan's narrative water quality objective for toxicity. Accordingly, the proposed Permit must be revised to prohibit acute toxicity in accordance with Federal regulations, at 40 CFR 122.44 (d)(1)(i).

11. The proposed Permit does not contain Effluent Limitations for chronic toxicity and therefore does not comply with Federal regulations, at 40 CFR 122.44 (d)(1)(i) and the SIP.

Proposed Permit states that: "On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP." The SIP, Section 4, Toxicity Control Provisions, Water Quality-Based Toxicity Control, states that: "A chronic toxicity effluent limitation is required in permits for all dischargers that will cause, have a reasonable potential to cause, or contribute to chronic toxicity in receiving waters."

Federal regulations, at 40 CFR 122.44 (d)(1)(i), require that limitations must control all pollutants or pollutant parameters which the Director determines are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including state narrative criteria for water quality. The Water Quality Control Plan for the Sacramento/ San Joaquin River Basins (Basin Plan), Water Quality Objectives (Page III-8.00) for Toxicity is a narrative criteria which states that all waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. The Proposed Permit states that: "...to ensure compliance with the Basin Plan's narrative toxicity objective, the discharger is required to conduct whole effluent toxicity testing...". However, sampling does not equate with or ensure compliance. The Tentative Permit requires the Discharger to conduct an investigation of the possible sources of toxicity if a threshold is exceeded. This language is not a limitation and essentially eviscerates the Regional Board's authority, and the authority granted to third parties under the Clean Water Act, to find the Discharger in violation for discharging chronically toxic constituents. An effluent limitation for chronic toxicity must be included in the Order. In addition, the Chronic Toxicity Testing Dilution Series should bracket the actual dilution at the time of discharge, not use default values that are not relevant to the discharge.

Proposed Permit is quite simply wrong; by failing to include effluent limitations prohibiting chronic toxicity the proposed Permit does not "...implement the SIP". The Regional Board has commented time and again that no chronic toxicity effluent

limitations are being included in NPDES permit until the State Board adopts a numeric limitation. The Regional Board explanation does not excuse the proposed Permit's failure to comply with Federal Regulations, the SIP, the Basin Plan and the CWC. The Regional Board's Basin Plan, as cited above, already states that: "...waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses..." Accordingly, the proposed Permit must be revised to prohibit chronic toxicity (mortality and adverse sublethal impacts to aquatic life, (sublethal toxic impacts are clearly defined in EPA's toxicity guidance manuals)) in accordance with Federal regulations, at 40 CFR 122.44 (d)(1)(i) and the Basin Plan and the SIP.

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, the California Toxics Rule (CTR, 40 CFR 131.38(c)(4)).

In the proposed Permit a hardness value of 400 mg/L as CaCO₃ was used in place of the lowest hardness of the effluent. For establishing zinc WQBELs, a lowest hardness of the effluent (400 mg/L as CaCO₃) was used. Federal Regulation 40 CFR 131.38(c)(4) states that: "For purposes of calculating freshwater aquatic life criteria for metals from the equations in paragraph (b)(2) of this section, for waters with a hardness of 400 mg/l or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations." (Emphasis added).

The proposed Permit properly cites the Federal Regulation requiring the receiving water hardness be used to establish Effluent Limitations. The permit writer then cites "recent studies by several consultants" which "indicate that using the lowest receiving water hardness... is not always the most protective for the receiving water." Despite the statement by the permit writer, there is no such evidence in the proposed Permit. The ambient receiving water hardness is not presented to support the permit writer's arguments, nor are comparative Effluent Limitation values presented to defend the unsupported statements regarding which is more protective. Once again the public is subject to a bureaucrat "knowing better" and simply choosing to ignore very clear regulatory requirements. The Regional Board staff have chosen to deliberately ignore Federal Regulations placing themselves above the law. There are procedures for changing regulations if peer reviewed science indicates the need to do so, none of which have been followed. The proposed Permit failure to include Effluent Limitations for zinc based on the actual ambient hardness of the surface water is contrary to the cited Federal Regulation and must be amended to comply with the cited regulatory requirement.

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.

The proposed Permit, page 24 Compliance Schedules, requires design and installation of a diffuser and completion of a mixing zone/ dilution study. The Regional Board does not

know if the discharge is completely mixed with the receiving water, a principal component of a mixing zone analysis.

The Basin Plan, page IV-16.00, requires the Regional Board use EPA's *Technical Support Document for Water Quality Based Toxics Control (TSD)*. The TSD, page 70, defines a first stage of mixing, close to the point of discharge, where complete mixing is determined by the momentum and buoyancy of the discharge. Obviously the wastewater discharge at this stage is not completely mixed since there is no effluent diffuser. The second stage is defined by the TSD where the initial momentum and buoyancy of the discharge are diminished and waste is mixed by ambient turbulence. The TSD goes on to state that in large rivers this second stage mixing may extend for miles. The TSD, Section 4.4, requires that if complete mix does not occur in a short distance mixing zone monitoring and modeling must be undertaken.

The extensive SIP, Section 1.4.2.2, requirements for a mixing zone study apply here and must be analyzed before a mixing zone is allowed for this discharge. The proposed Effluent Limitations in the proposed Permit are not supported by the scientific investigation that is required by the SIP and the Basin Plan.

SIP Section 1.4.2.2 requires that a mixing zone shall not:

- a. Compromise the integrity of the entire waterbody.
- b. Cause acutely toxic conditions to aquatic life.
- c. Restrict the passage of aquatic life.
- d. Adversely impact biologically sensitive habitats.
- e. Produce undesirable aquatic life.
- f. Result in floating debris.
- g. Produce objectionable color, odor, taste or turbidity.
- h. Cause objectionable bottom deposits.
- i. Cause Nuisance.
- j. Dominate the receiving water body or overlap a different mixing zone.
- k. Be allowed at or near any drinking water intake.

The proposed Permit's allowance for a mixing zones have not addressed a single required item of the SIP. A very clear unaddressed requirement (SIP Section 1.4.2.2) for mixing zones is that the point(s) in the receiving stream where the applicable criteria must be met shall be specified in the proposed Permit. The "edge of the mixing zone" has not been defined for any single constituent. The proposed mixing zones should be denied until the proper studies have been completed and shown to be protective of all beneficial uses of the receiving stream.

14. Monitoring requirements are inadequate in accordance with Federal regulations, 40 CFR §§ 122.44(i) and 122.48, which require that NPDES permits to include requirements to monitor sufficient to assure compliance with permit limitations and requirements, the mass or other measurement specified in the permit for each pollutant limited in the permit, and the volume of effluent discharged from each outfall.

NPDES permits are required to include monitoring specifying the type, the interval, and the frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring. The monitoring of all effluent constituents on a “grab” basis when the limitations are established as a daily maximum (the average for the day) is insufficient to assure compliance with Permit limitations. The monitoring must be modified to be flow proportional composite samples.

15. The proposed Permit contains an inadequate antidegradation analysis that does not comply with the requirements of Section 101(a) of the Clean Water Act, Federal Regulations 40 CFR § 131.12 and State Board’s Resolution 68-16.

The antidegradation analysis in the proposed Permit is simply deficient. The proposed Permit fails to undertake a rigorous antidegradation analysis for a new “major” discharge of pollutants. Specifically:

- a. The proposed Permit allows that dilution be used as a substitute for treatment and fails to contain mass based Effluent Limitations, with the exception of selenium, contrary to Federal Regulations 40 CFR 122.45 (f)(1)(iii) and the Board’s *Controllable Factors Policy*. The mass of pollutants being discharged is critical to a proper antidegradation analysis. Federal Regulation 40 CFR 122.45 (f)(1)(iii) states that: “All pollutants in permits shall have limitations, standards or prohibitions expressed in terms of mass except:...(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 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.” *Emphasis added*. Contrary to the cited regulation, the proposed Permit does not require the treatment of waste at this mine site. Dilution is allowed as a substitute for treatment. Virtually each regulated pollutant is granted a receiving stream dilution credit. Mixing zone allowances will increase the mass loadings of a pollutant to a waterbody and decrease treatment requirements. Accurate mass loadings are critical to mixing zone determinations and a proper antidegradation analysis.
- b. The Basin Plan, page IV-15.00, contains a *Controllable Factors Policy* which states that: “Controllable water quality factors are not allowed to cause further degradation of water quality in instances where other factors have already resulted in water quality objectives being exceeded. Controllable water quality factors are those actions, conditions, or circumstances resulting from human activities that may influence the quality of the waters of the State, that are subject to the authority of the State Water or Regional Water Board, and that may be reasonably controlled.” Treatment processes are readily available that can reliably achieve compliance and reasonably control the discharge. The antidegradation analysis does not discuss the *Controllable Factors Policy*.

- c. Despite the fact that the proposed Permit allows for a new discharge of up to 1,434,480 pounds/day of TDS (salt) to be discharged, the proposed Permit does not discuss that the Sacramento – San Joaquin Delta, to which Littlejohns Creek and French Slough are tributary is water quality limited for electrical conductivity (EC). The discharge of this quantity of salt must have an impact on the Delta, the only reference to the EC impacts to the Delta that could be located were found in the Fact Sheet which contains the following unsupported, undocumented conclusory statement: “The salinity impacts caused by the discharge in the Sacramento-San Joaquin Delta are likely to be minimal, because the discharges will only occur during wet weather periods when flow levels in the Delta are highest and salinity levels are lowest.” Unlike organic matter or volatile compounds, salts are conservative; they will remain in the environment and not degrade: the salt discharge at the mine site will end-up in the Delta. The antidegradation analysis does not discuss the Basin Plan requirement that: “*Additional treatment beyond minimum federal standards will be imposed on dischargers to WQLs*” with respect to the high mass of salt being discharged to the impaired Delta.
- d. The beneficial uses of the receiving stream include municipal and domestic supply (MUN), agricultural supply (AGR), industrial supply (IND), warm freshwater habitat (WARM), cold freshwater aquatic habitat (COLD) migration of both warm and cold water aquatic organisms (MIGR) and spawning, reproduction, and/or early development (SPWN). The discharge of TDS at the proposed Effluent Limitation of 4,000 mg/l and the corresponding EC of 5,400 umhos/cm exceed water quality objectives for each designated beneficial use. For example the agricultural water quality goal is 700 umhos/cm (recommended narrative objective) and the drinking water MCL is 900 umhos/cm (Chemical Constituents Objective). In a *Biological Significance* document sent to the Regional Board regarding the Musco Olive facility, dated November 1st 2006, James M. Harrington, Staff Water Quality Biologist with the California Department of Fish and Game, citing McKee and Wolf (1971 Water Quality Criteria) wrote that: “Surveys of inland fresh waters indicates that good mixes of fish fauna are found where conductivity values range between 150 and 500 umhos/cm. Even in the most alkaline waters, the upper tolerance limit for aquatic life is approximately 2000 umhos/cm.” Many industrial facilities are reliant on low salinity water for proper operation of their processes, for example in using waters of far superior quality that 4,000 mg/l of TDS; cooling towers routinely employ reverse osmosis (RO) systems to ensure their process is not fouled by salt accumulations. The proposed Permit allows an instream mixing zone for TDS, and therefore EC. A very clear unaddressed requirement (SIP Section 1.4.2.2) for mixing zones is that the point(s) in the receiving stream where the applicable criteria must be met shall be specified in the proposed Permit. The “edge of the mixing zone” has not been defined. The discharge of TDS at 4,000 mg/l degrades each of the cited designated beneficial uses of the receiving stream within the mixing zone. Since the proposed Permit does not comply with the SIP

- requirement to define the edge of the mixing zone; the Regional Board has no evidence whatever regarding the length of receiving stream where the beneficial uses are being exceeded and degraded. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.
- e. The Regional Board has the authority to grant mixing zones, however the Basin Plan (IV-17.00) requires that mixing zones be limited to “a small zone of initial dilution” and that the Discharger has demonstrated that the mixing zone will not adversely impact beneficial uses. In addition to the Basin Plan requirements, SIP Section 1.4.2.2 requires that a mixing zone be as small as practicable and shall not compromise the integrity of the entire waterbody, cause acutely toxic conditions to aquatic life, restrict the passage of aquatic life and adversely impact biologically sensitive habitats. The Regional Board has no information to indicate that the mixing zone for TDS and EC is limited to “a small zone of initial dilution” and that the mixing zone will not adversely impact beneficial uses. The size of the mixing zone is quite simply unknown. Based on the above cited DFG recommendations and reference to McKee and Wolf (1971 Water Quality Criteria) within the mixing zone the allowed TDS and EC values will cause acutely toxic conditions to aquatic life, restrict the passage of aquatic life and adversely impact biologically sensitive habitats. None of these issues have been defined. The proposed Permit does not comply with mixing zone requirements contained in the Basin Plan and the SIP.
- f. The antidegradation policy discussion contained in the proposed Permit, Fact Sheet page F-40, states that: “The long- and short-term effects of the discharge on arsenic and TDS levels downstream from the Facility were analyzed. For the purposes of the AAR, the short-term refers to the initial 3-year discharge period in which the Discharger is required to reduce the water level in Skyrocket Pit Lake to a maximum of 955 feet amsl. The short-term concentrations for arsenic and TDS are calculated to be 12 $\mu\text{g/L}$ and 615 mg/L, respectively. The long-term concentrations of arsenic and TDS are calculated to be 8 $\mu\text{g/L}$ and 511 mg/L respectively. In addition, the long-term average concentration of TDS upstream of the discharge is calculated to decrease from approximately 300 mg/L to 150 mg/L because lowering the level of Skyrocket Pit Lake is expected lower groundwater levels that contribute to TDS levels in Littlejohns Creek upstream of the proposed discharge point. The salinity impacts caused by the discharge in the Sacramento-San Joaquin Delta are likely to be minimal, because the discharges will only occur during wet weather periods when flow levels in the Delta are highest and salinity levels are lowest.” The discussion does not mention a 4,000 mg/l TDS discharge and does not mention undefined mixing zones. The discussion does not address there their cited numeric vales for TDS are achieved. It must be recognized that this is a new discharge to surface waters. There is no valid reason that the Discharger should be allowed to degrade beneficial uses of the receiving stream and degrade already impaired Delta waters. There is no reason that a new

discharger should be granted any mixing zone for TDS and EC. While the SIP is not directly applicable to TDS and EC, the spirit of the SIP, Section 2.1, is that: “Compliance schedules shall not be allowed in permits for new discharges” or more simply paraphrased new dischargers must comply immediately.

- g. The proposed Permit also fails to discuss the Biostimulatory impacts for the discharge of nitrogen compounds in the discharge on the beneficial uses of the receiving stream. The proposed Permit fails to discuss undesirable aquatic plant growth and diminished dissolved oxygen due to the discharge of Biostimulatory substances, specifically nitrate, nitrite and ammonia.
- h. The proposed Permit fails to protect the designated cold water aquatic life beneficial use. The proposed Permit states, on page 6 *Water Quality Control Plans* that the beneficial uses include cold freshwater habitat (COLD) and cold migration of aquatic organisms (MIGR). The Basin Plan water quality objective for waters designated as COLD require a minimum dissolved oxygen level of 7.0 mg/l. The receiving stream is outside the boundaries of the Delta which carries a site specific objective for DO of 5.0 mg/l. As quoted above: “DO concentrations in the effluent ranged from 0.88 mg/L to 11 mg/L, with an average of 5.7 mg/L, for 15 samples collected by the Discharger from 13 January 2004 through 28 October 2006. Background concentrations in Littlejohns Creek ranged from 0.7 mg/L to 7.3 mg/L, with an average of 4.0 mg/L, for 13 samples collected by the Discharger from 14 January 2004 through 26 May 2006. Therefore, the effluent exceeded the Basin Plan DO objective. Furthermore, the receiving water regularly exceeds the Basin Plan objective and no assimilative capacity for DO is available.” The proposed Permit does not cite any means of compliance for dissolved oxygen. An enforcement document is not currently proposed for this new non-compliant discharge.
- i. The proposed Permit, page 24 Compliance Schedules, requires design and installation of a diffuser and completion of a mixing zone/ dilution study. The Regional Board does not know if the discharge is completely mixed with the receiving water, a principal component of a mixing zone analysis. The extensive SIP, Section 1.4.2.2, requirements for a mixing zone study apply here and must be analyzed before a mixing zone is allowed for this discharge. The proposed Effluent Limitations in the proposed Permit are not supported by the scientific investigation that is required by the SIP and the Basin Plan. The proposed Permit’s allowance for a mixing zones have not addressed a single required item of the SIP. A very clear unaddressed requirement (SIP Section 1.4.2.2) for mixing zones is that the point(s) in the receiving stream where the applicable criteria must be met shall be specified in the proposed Permit. The “edge of the mixing zone” has not been defined for any single constituent. The proposed mixing zones should be denied until the proper studies have been completed and shown to be protective of all beneficial uses of the receiving stream.

- j. The ultimate goal of the Federal Clean Water Act as expressed in Section 101 is the elimination of the discharge of pollutants into navigable waters by 1985. The Act throughout, places an emphasis on the control and reduction of the discharge of pollutants by point sources as interim goals. Technology based effluent limitations are required by Section 301 of the Act for all point sources. A standard of “best available technology” (BPT) is required by 1977, and a more stringent standard of “best available technology” (BAT) is required by 1983 for industrial point sources. Best practicable treatment and control (BPTC) is also required by the State and Regional Board’s Antidegradation Policy (Resolution 68-16). It would appear that denitrification followed by reverse osmosis (RO) is BAT and BPTC and would therefore be a requirement for treatment of the wastewater discharge.

Section 101(a) of the Clean Water Act, the basis for the antidegradation policy, states that the objective of the Act is to “restore and maintain the chemical, biological and physical integrity of the nation’s waters.” Section 303(d)(4) of the Act carries this further, referring explicitly to the need for states to satisfy the antidegradation regulations at 40 CFR § 131.12 before taking action to lower water quality. These regulations describe the federal antidegradation policy and dictate that states must adopt both a policy at least as stringent as the federal policy as well as implementing procedures. (40 CFR § 131.12(a).)

California’s antidegradation policy is composed of both the federal antidegradation policy and the State Board’s Resolution 68-16. (State Water Resources Control Board, Water Quality Order 86-17, p. 20 (1986) (“Order 86-17”); Memorandum from William Attwater, SWRCB to Regional Board Executive Officers, “federal Antidegradation Policy,” pp. 2, 18 (Oct. 7, 1987) (“State Antidegradation Guidance”).) As part of the state policy for water quality control, the antidegradation policy is binding on all of the Regional Boards. (Water Quality Order 86-17, pp. 17-18.) Implementation of the state’s antidegradation policy is guided by the State Antidegradation Guidance, SWRCB Administrative Procedures Update 90-004, 2 July 1990 (“APU 90-004”) and USEPA Region IX, “Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12” (3 June 1987) (“Region IX Guidance”), as well as Water Quality Order 86-17.

The Regional Board must apply the antidegradation policy whenever it takes an action that will lower water quality. (State Antidegradation Guidance, pp. 3, 5, 18, and Region IX Guidance, p. 1.) Application of the policy does not depend on whether the action will actually impair beneficial uses. (State Antidegradation Guidance, p. 6. Actions that trigger use of the antidegradation policy include issuance, re-issuance, and modification of NPDES and Section 404 permits and waste discharge requirements, waiver of waste discharge requirements, issuance of variances, relocation of discharges, issuance of cleanup and abatement orders, increases in discharges due to industrial production and/or municipal growth and/or other sources, exceptions from otherwise applicable water quality objectives, etc. (State Antidegradation Guidance, pp. 7-10, Region IX Guidance, pp. 2-3.) Both the state and federal policies apply to point and nonpoint source pollution. (State Antidegradation Guidance p. 6, Region IX Guidance, p. 4.)

The federal antidegradation regulations delineate three tiers of protection for waterbodies. Tier 1, described in 40 CFR § 131.12(a)(1), is the floor for protection of all waters of the United States. (48 Fed. Reg. 51400, 51403 (8 Nov. 1983); Region IX Guidance, pp. 1-2; APU 90-004, pp. 11-12.) It states that “[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” Uses are “existing” if they were actually attained in the water body on or after November 28, 1975, or if the water quality is suitable to allow the use to occur, regardless of whether the use was actually designated. (40 CFR § 131.3(e).) Tier 1 protections apply even to those waters already impacted by pollution and identified as impaired. In other words, already impaired waters cannot be further impaired.

Tier 2 waters are provided additional protections against unnecessary degradation in places where the levels of water quality are better than necessary to support existing uses. Tier 2 protections strictly prohibit degradation unless the state finds that a degrading activity is: 1) necessary to accommodate important economic or social development in the area, 2) water quality is adequate to protect and maintain existing beneficial uses, and 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved. (40 CFR § 131.12(a)(2).) Cost savings to a discharger alone, absent a demonstration by the project proponent as to how these savings are “necessary to accommodate important economic or social development in the area,” are not adequate justification for allowing reductions in water quality. (Water Quality Order 86-17, p. 22; State Antidegradation Guidance, p. 13.) If the waterbody passes this test and the degradation is allowed, degradation must not impair existing uses of the waterbody. (48 Fed. Reg. at 51403). Virtually all waterbodies in California may be Tier 2 waters since the state, like most states, applies the antidegradation policy on a parameter-by-parameter basis, rather than on a waterbody basis. (APU 90-004, p. 4). Consequently, a request to discharge a particular chemical to a river, whose level of that chemical was better than the state standards, would trigger a Tier 2 antidegradation review even if the river was already impaired by other chemicals.

Tier 3 of the federal antidegradation policy states “[w]here high quality waters constitute an outstanding national resource, such as waters of national and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water shall be maintained and protected. (40 CFR § 131.12(a)(3).) These Outstanding National Resource Waters (ONRW) are designated either because of their high quality or because they are important for another reason. (48 Fed. Reg. At 51403; State Antidegradation Guidance, p. 15). No degradation of water quality is allowed in these waters other than short-term, temporary changes. (Id.) Accordingly, no new or increased discharges are allowed in either ONRW or tributaries to ONRW that would result in lower water quality in the ONRW. (EPA Handbook, p. 4-10; State Antidegradation Guidance, p. 15.) Existing antidegradation policy already dictates that if a waterbody “should be” an ONRW, or “if it can be argued that the waterbody in question deserves the same treatment {as a formally designated ONRW},” then it must be treated as such, regardless of formal designation. (State Antidegradation Guidance, pp. 15-16; APU 90-004, p. 4.) Thus the Regional Board is required in each antidegradation analysis to consider whether

the waterbody at issue should be treated as an ONRW. It should be reiterated that waters cannot be excluded from consideration as an ONRW simply because they are already “impaired” by some constituents. By definition, waters may be “outstanding” not only because of pristine quality, but also because of recreational significance, ecological significance or other reasons. (40 CFR §131.12(a)(3).) Waters need not be “high quality” for every parameter to be an ONRW. (APU 90-004, p. 4) For example, Lake Tahoe is on the 303(d) list due to sediments/siltation and nutrients, and Mono Lake is listed for salinity/TDC/chlorides but both are listed as ONRW.

The State Board’s APU 90-004 specifies guidance to the Regional Boards for implementing the state and federal antidegradation policies and guidance. The guidance establishes a two-tiered process for addressing these policies and sets forth two levels of analysis: a simple analysis and a complete analysis. A simple analysis may be employed where a Regional Board determines that: 1) a reduction in water quality will be spatially localized or limited with respect to the waterbody, e.g. confined to the mixing zone; 2) a reduction in water quality is temporally limited; 3) a proposed action will produce minor effects which will not result in a significant reduction of water quality; and 4) a proposed activity has been approved in a General Plan and has been adequately subjected to the environmental and economic analysis required in an EIR. A complete antidegradation analysis is required if discharges would result in: 1) a substantial increase in mass emissions of a constituent; or 2) significant mortality, growth impairment, or reproductive impairment of resident species. Regional Boards are advised to apply stricter scrutiny to non-threshold constituents, i.e., carcinogens and other constituents that are deemed to present a risk of source magnitude at all non-zero concentrations. If a Regional Board cannot find that the above determinations can be reached, a complete analysis is required.

Even a minimal antidegradation analysis would require an examination of: 1) existing applicable water quality standards; 2) ambient conditions in receiving waters compared to standards; 3) incremental changes in constituent loading, both concentration and mass; 4) treatability; 5) best practicable treatment and control (BPTC); 6) comparison of the proposed increased loadings relative to other sources; 7) an assessment of the significance of changes in ambient water quality and 8) whether the waterbody was a ONRW. A minimal antidegradation analysis must also analyze whether: 1) such degradation is consistent with the maximum benefit to the people of the state; 2) the activity is necessary to accommodate important economic or social development in the area; 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved; and 4) resulting water quality is adequate to protect and maintain existing beneficial uses. A BPTC technology analysis must be done on an individual constituent basis; while tertiary treatment may provide BPTC for pathogens, dissolved metals may simply pass through.

The antidegradation review process is especially important in the context of waters protected by Tier 2. See EPA, Office of Water Quality Regulations and Standards, Water Quality Standards Handbook, 2nd ed. Chapter 4 (2nd ed. Aug. 1994). Whenever a person proposes an activity that may degrade a water protected by Tier 2, the antidegradation

regulation requires a state to: (1) determine whether the degradation is “necessary to accommodate important economic or social development in the area in which the waters are located”; (2) consider less-degrading alternatives; (3) ensure that the best available pollution control measures are used to limit degradation; and (4) guarantee that, if water quality is lowered, existing uses will be fully protected. 40 CFR § 131.12(a)(2); EPA, Office of Water Quality Regulations and Standards, Water Quality Standards Handbook, 2nd ed. 4-1, 4-7 (2nd ed. Aug. 1994). These activity-specific determinations necessarily require that each activity be considered individually.

For example, the APU 90-004 states:

“Factors that should be considered when determining whether the discharge is necessary to accommodate social or economic development and is consistent with maximum public benefit include: a) past, present, and probably beneficial uses of the water, b) economic and social costs, tangible and intangible, of the proposed discharge compared to benefits. The economic impacts to be considered are those incurred in order to maintain existing water quality. The financial impact analysis should focus on the ability of the facility to pay for the necessary treatment. The ability to pay depends on the facility’s source of funds. In addition to demonstrating a financial impact on the publicly – or privately – owned facility, the analysis must show a significant adverse impact on the community. The long-term and short-term socioeconomic impacts of maintaining existing water quality must be considered. Examples of social and economic parameters that could be affected are employment, housing, community services, income, tax revenues and land value. To accurately assess the impact of the proposed project, the projected baseline socioeconomic profile of the affected community without the project should be compared to the projected profile with the project...EPA’s Water Quality Standards Handbook (Chapter 5) provides additional guidance in assessing financial and socioeconomic impacts”

The antidegradation analysis must discuss the relative economic burden as an aggregate impact across the entire region using macroeconomics. Considering the intrinsic value of the Delta to the entire state and the potential effects upon those who rely and use Delta waters, it must also evaluate the economic and social impacts to water supply, recreation, fisheries, etc. from the Discharger’s degradation of water quality in the Delta.

There is nothing resembling an analysis buttressing the unsupported claim that BPTC is required. An increasing number of wastewater treatment plants around the country and state are employing reverse-osmosis (RO), or even RO-plus.

Alternatively, Tier 1 requires that existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. By definition, any increase in the discharge of impairing pollutants to impaired waterways unreasonably degrades beneficial uses and exceeds applicable water quality standards.

Prohibition of additional mass loading of impairing pollutants is a necessary stabilization precursor to any successful effort in bringing an impaired waterbody into compliance.

The State Board has clearly articulated its position on increased mass loading of impairing pollutants. In Order WQ 90-05, the Board directed the San Francisco Regional Board on the appropriate method for establishing mass-based limits that comply with state and federal antidegradation policies. That 1990 order stated “[I]n order to comply with the federal antidegradation policy, the mass loading limits should also be revised, based on mean loading, concurrently with the adoption of revised effluent limits. The [mass] limits should be calculated by multiplying the [previous year’s] annual mean effluent concentration by the [four previous year’s] annual average flow. (Order WQ 90-05, p. 78). USEPA points out, in its 12 November 1999 objection letter to the San Francisco Regional Board concerning Tosco’s Avon refinery, that ‘[a]ny increase in loading of a pollutant to a water body that is impaired because of that pollutant would presumably degrade water quality in violation of the applicable antidegradation policy.’”

Any project that allows a single new industrial discharger to artificially minimize waste management costs by externalizing the disposal of wastes to already degraded waterways that are part of the common property right of all 36 million Californians has not met the test of “maximum benefit of the people of the State” and cannot be consistent with state and federal antidegradation policies. The proposed increase in pollutant mass loading will inescapably and detrimentally affect aquatic life, contribute to violations of water quality standards and increase the risks and costs to the millions of people who depend upon the Delta for their drinking/irrigation/recreation water. Any increase housing and/or economic expansion facilitated by the proposed Permit will be at the expense of other communities that will incur the consequences of larger load reductions when TMDL load allocations are instituted.

NPDES permits must include any more stringent effluent limitation necessary to implement the Regional Board Basin Plan (Water Code 13377). The Tentative Permit fails to properly implement the Basin Plan’s Antidegradation Policy. The discharge must be capable of achieving 100% compliance with Effluent and Receiving Water Limitations prior to allowing the new discharge.

16. The proposed Permit is fundamentally flawed because it fails to identify either BAT or BCT for RMKM’s discharge.

All NPDES permits must include, at a minimum, effluent limitations that implement the best available treatment control economically achievable (“BAT”) or best conventional . . . (“BCT”). 40 C.F.R. § 125.3(a) (“Technology-based treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act”). “[E]ach NPDES permit shall include conditions meeting the following requirements when applicable. (a)(1) *Technology-based effluent limitations and standards* based on: effluent limitations and standards promulgated under section 301 of the CWA, or new source performance standards promulgated under section 306 of CWA, on case-by-case effluent limitations determined

under section 402(a)(1) of CWA, or a combination of the three, in accordance with §125.3 of this chapter.” 40 C.F.R. § 122.44(a)(1). For toxic pollutants, including for example arsenic, chromium, selenium and zinc, [I]limitations must control all toxic pollutants which the Director [in this case the Regional Board] determines (based on information reported in a permit application under §122.21(g)(7) or in a notification under §122.42(a)(1) or on other information) are or may be discharged at a level greater than the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under §125.3(c) of this chapter. . . .” 40 C.F.R. § 122.44(e). If necessary to protect water quality standards, a NPDES must also include water quality-based effluent limitations to the extent such limitations are more stringent than a BAT-derived limitation. 40 C.F.R. § 122.44(d).

“Technology-based treatment requirements, including BAT, may be imposed through one of the following three methods. . . (2) On a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable. The permit writer shall apply the appropriate factors listed in §125.3(d) and shall consider: (i) The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and (ii) Any unique factors relating to the applicant.” 40 C.F.R. § 125.3(c)(2). “These factors must be considered in all cases, regardless of whether the permit is being issued by EPA or an approved State.” 40 C.F.R. § 125.3(c)(2) (comment).

To determine BAT or BCT for a discharger, the permit writer must consider specific factors set forth in the federal regulations. 40 C.F.R. § 125.3(d). For BCT requirements, the factors include: “(i) The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived; (ii) The comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources; (iii) The age of equipment and facilities involved; (iv) The process employed; (v) The engineering aspects of the application of various types of control techniques; (vi) Process changes; and (vii) Non-water quality environmental impact (including energy requirements).” 40 C.F.R. § 125.3(d)(2). For BAT requirements, the factors include “(i) The age of equipment and facilities involved; (ii) The process employed; (iii) The engineering aspects of the application of various types of control techniques; (iv) Process changes; (v) The cost of achieving such effluent reduction; and (vi) Non-water quality environmental impact (including energy requirements). 40 C.F.R. § 125.3(d)(3). Notably absent for the criteria for establishing BAT is any cost vs. benefit consideration.

Technology-based treatment requirements are applied prior to or at the point of discharge. 40 C.F.R. § 125.3(e). “Technology-based treatment requirements cannot be satisfied through the use of “non-treatment” techniques such as flow augmentation and in-stream mechanical aerators.” 40 C.F.R. § 125.3(e). In certain cases, such in-stream techniques may be used to supplement BAT in order to achieve water quality standards. 40 C.F.R. § 125.3(e)(1)-(3).

The preliminary draft and its accompanying fact sheet fail to provide any evidence that staff has prepared a sufficient analysis of either the best available technology or best conventional technology that applies to the RMKM discharges. The fact sheet indeed simply sidesteps this critical component of the permit writing process by referencing the absence of a national categorical BAT standard for inoperative mines. Of course, in the absence of categorical standards, it is incumbent upon the permit writing agency to prepare an assessment of applicable BAT for a facility based on the agency best professional judgment but applying the same criteria relied upon by EPA in establishing the nationwide BAT standards. In California, the Regional Board's BAT determination must be supported by the weight of the evidence. Water Code § 13320.

Meridian's proposal to simply dilute wastewater by discharging it to Littlejohns Creek during high flow events does not amount to BAT. *See* 40 C.F.R. § 125.3(e). CSPA has retained an expert on wastewater treatment systems for inoperative mines – Jim Kuipers of Kuipers & Associates. Mr. Kuipers has prepared a report setting forth his expert opinion regarding BAT for the RMKM. That report accompanies this comment letter. Mr. Kuipers concludes that “[t]his BPJ evaluation indicates that membrane filtration/reverse osmosis is the BAT for treatment of spring and pit lake water from Royal Mountain King Mine. RO treatment will reduce nitrate concentrations to nearly 1.0 mg/L, TDS to less than 140 mg/L and arsenic to less than 10ppb.” Report at 14. Mr. Kuipers also notes that a version of this BAT method treating 25 to 50 percent of RMKM's effluent would still meet narrative-derived and numeric water quality standards for total dissolved solids, arsenic and nitrate of 450 mg/L, 10 ug/L, and 1-3 mg/L, respectively. *Id.* at 15. CSPA recommends including numeric effluent limitations for those three parameters (as well as other parameters) based on that BAT.

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

The proposed Permit does not include criteria to protect the creek from biostimulatory substances such as nitrate. Nitrate is a parameter of concern at this site, since explosives were used in the mining operations and past data have been elevated. Elevated nitrate is present in Littlejohn's Creek upstream of RMKM as well, which may be due to other mining operations and agricultural activities. The average nitrate in the ODS springs has varied from 9.5 to 32.1 mg/L over the past six years and Skyrocket Pit Lake has been as high as 10 mg/L (SES, 2006). An average of 7 mg/L for the discharge water was used by Meridian in its modeling to show the effect of nitrate on the creek (SES, 2007).

Because applying BAT to RMKM's effluent can reduce nitrate levels in the company's effluent down to 1.2 mg/L (*see* Kuipers Report at 14) and because studies indicate that nitrates have adverse impacts to trout at concentrations in the range of 1 mg/L, the NPDES permit must include an effluent limitation for nitrate.¹ To the extent a reasonable

¹ Kincheloe et al, 1979 used sodium nitrate and found chronic toxicity at concentrations of 1.1 mg/L to salmonid embryos; 2.3 mg/L to rainbow trout eggs. A recent summary of toxicity tests was compiled

potential analysis applicable to water quality-based effluent limitations pursuant to 40 C.F.R. § 122.44(d)(1)(i) applies, the fact sheet indicates that staff, thus far, has failed to implement all of the relevant water quality standards required by the Basin Plan. Staff rejected including a nitrate effluent limitation based solely on its application of the MCL for nitrate of 10 mg/L. *See* Preliminary Draft, Attachment G. That standard is human-health based and is not protective of aquatic beneficial uses designated for Littlejohns Creek. Pursuant to 40 C.F.R. § 122.44(d)(1), water quality-based effluent limitations must be promulgated to implement narrative standards as well as numeric standards included in a State's water quality standards. This aspect of the draft permit ignores that mandate.

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.

Meridian proposes to discharge untreated effluent to Littlejohns Creek for the next three or more years whenever the creek is flowing high enough to achieve 10:1 dilution. The effluent limitations for TDS, arsenic and various metals then assume a dilution greater than 10:1 will be achieved. Thus, applying an MCL for arsenic of 10 ug/L (which again CSPA does not believe is protective of all beneficial uses designated for Littlejohns Creek because it is only human-health based), the draft permit proposes an effluent limitation of 140 ug/L, apparently applying a 14:1 dilution credit to the discharge. Obviously, if the discharge occurs when 10:1 dilution is being achieved, any effluent limitation purporting to credit a discharger with dilution must be limited to 10:1. This error is evident for other parameters as well.

In addition, several of the proposed limitations are well in excess of the anticipated performance of Meridian's dilution system. How a BAT based limitation could be in excess of the actual performance of a discharger makes no legal or logical sense.

19. BAT was required to be achieved as of March 31, 1989. Hence, any schedule for Meridian to comply with a receiving water limit for arsenic is unauthorized. *See* Draft Permit, ¶ V.A.16.

and reviewed by Camargo et al. 2005; this article included a study where toxic effects were noted when nitrate was 4.5 mg / l for benthic macroinvertebrates (Camargo and Ward, 1995). Other studies by Marco et al, 1999 using sodium and potassium nitrate showed that freshwater amphibians are also sensitive to nitrate. References: Kincheloe, J.W., Wedemeyer, G.A., Koch, D.L. 1979. Tolerance of developing salmonids eggs and fry to nitrate exposure. *Bull. Environ. Contam. Toxicol*, 23:577-578. Camargo, J.A., A. Alonso, and A. Salamanca, 2005. Nitrate toxicity to aquatic animals: a review with new data for freshwater invertebrates. *Chemosphere* 58:1255-1267. Camargo, J.A. and J.V. Ward, 1995. Nitrate (NO₃-N) toxicity to aquatic life: a proposal of safe concentrations for two species of Nearctic freshwater invertebrates. *Chemosphere* 31:3211-3216. Marco, A. C. Quilchano, and A. Blaustein, 1999. Sensitivity to Nitrate and Nitrite in Pond-Breeding Amphibians from the Pacific Northwest, USA . *Env. Toxicology and Chemistry*, vol 18, no. 12: 2836-2839.

Because BAT is available that would reduce arsenic in Meridian's discharge to levels that would not pose any concern to water quality standards, the draft permit's proposed schedule of compliance to achieve an excessive water quality standard for arsenic in Littlejohns Creek is not authorized. No schedules of compliance can be included to achieve BAT-based limitations at RMKM. 40 C.F.R. § 122.47(a)(1) ("*Time for compliance*. Any schedules of compliance under this section shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA"). In the case of toxic pollutants discharged from RMKM, the statutory compliance deadline to comply with BAT was March 31, 1989. 40 C.F.R. § 125.3(a)(2)(iii)(B) ("For permits issued on a case-by-case (BPJ) basis under section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989"). The same is true for the nonconventional pollutants that are included or should be included in RMKM's permit, including for example, nitrate and total dissolved solids. 40 C.F.R. § 125.3(a)(2)(v)(B). In addition, because RMKM is a new discharger, federal authority to employ a schedule of compliance is extremely restricted and not applicable to RMKM. "(2) The first NPDES permit issued to a new source or a new discharger shall contain a schedule of compliance only when necessary to allow a reasonable opportunity to attain compliance with requirements issued or revised after commencement of construction but less than three years before commencement of the relevant discharge."²

20. The Proposed Permit fails to properly apply the federal regulation applicable to noncontinuous discharges.

In addition to the above, 40 C.F.R. § 122.45(e) provides specific guidance relating to non-continuous discharges such as is proposed by Meridian. That regulation states that "[d]ischarges which are not continuous, as defined in §122.2, shall be particularly described and limited, considering the following factors, as appropriate: (1) Frequency (for example, a batch discharge shall not occur more than once every 3 weeks); (2) Total mass (for example, not to exceed 100 kilograms of zinc and 200 kilograms of chromium per batch discharge); (3) Maximum rate of discharge of pollutants during the discharge (for example, not to exceed 2 kilograms of zinc per minute); and (4) Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure (for example, shall not contain at any time more than 0.1 mg/l zinc or more than 250 grams (1/4kilogram) of zinc in any discharge)." The draft permit neither mentions nor embodies this requirement.

² 40 C.F.R. § 122.2 defines *New discharger* as "any building, structure, facility, or installation: (a) From which there is or may be a 'discharge of pollutants;' (b) That did not commence the 'discharge of pollutants' at a particular 'site' prior to August 13, 1979; (c) Which is not a 'new source;' and (d) Which has never received a finally effective NPDES permit for discharges at that 'site.'" *Site* means "the land or water area where any 'facility or activity' is physically located or conducted, including adjacent land used in connection with the facility or activity." *Id.*

Please also note as part of CSPA's comments our previous submission of a report prepared by Tetra Tech entitled, "Littlejohns Creek Physical Habitat and Beneficial Use Reconnaissance," dated July 2, 2007. CSPA believes the Tetra Tech report provides important evidence of the existing conditions found in Littlejohns Creek downstream of the Royal Mountain King Mine site as well as human impacts to the watershed above the Mine that are relevant to the Regional Board's drafting and consideration of a National Pollutant Discharge Elimination System (NPDES") permit for the Mine.

Thank you for considering these comments. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Jennings". The signature is fluid and cursive, with the first name "Bill" written in a larger, more prominent script than the last name "Jennings".

Bill Jennings, Executive Director
California Sportfishing Protection Alliance