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For Petitioner California Sportfishing Protection Alliance

**BEFORE THE STATE WATER RESOURCES CONTROL BOARD**

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**In the Matter of Waste Discharge Requirements For** )  
**City of Yuba City Wastewater Treatment Facility;** ) **PETITION FOR REVIEW**  
**California Regional Water Quality Control Board –** )  
**Central Valley Region Order No. R5-2007-0134;** )  
**NPDES No. CA0079260** )

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Pursuant to Section 13320 of California Water Code and Section 2050 of Title 23 of the California Code of Regulations (CCR), California Sportfishing Protection Alliance (“CSPA” or “petitioner”) petitions the State Water Resources Control Board (State Board) to review and vacate the final decision of the California Regional Water Quality Control Board for the Central Valley Region (“Regional Board”) in adopting Waste Discharge Requirements (NPDES No. CA0079260) for City of Yuba City Wastewater Treatment Facility, on 25 October 2007. *See* Order No. R5-2007-0134. The issues raised in this petition were raised in timely written comments.

**1. NAME AND ADDRESS OF THE PETITIONERS:**

California Sportfishing Protection Alliance  
3536 Rainier Avenue  
Stockton, California 95204  
Attention: Bill Jennings, Executive Director

**2. THE SPECIFIC ACTION OR INACTION OF THE REGIONAL BOARD WHICH THE STATE BOARD IS REQUESTED TO REVIEW AND A COPY OF ANY ORDER OR RESOLUTION OF THE REGIONAL BOARD WHICH IS REFERRED TO IN THE PETITION:**

Petitioner seeks review of Order No. R5-2007-0134, Waste Discharge Requirements (NPDES No. CA0079260) for the City of Yuba City Wastewater Treatment Facility. A copy of the adopted Order is attached as Attachment No. 1.

**3. THE DATE ON WHICH THE REGIONAL BOARD ACTED OR REFUSED TO ACT OR ON WHICH THE REGIONAL BOARD WAS REQUESTED TO ACT:**

25 October 2007

**4. A FULL AND COMPLETE STATEMENT OF THE REASONS THE ACTION OR FAILURE TO ACT WAS INAPPROPRIATE OR IMPROPER:**

CSPA submitted a detailed comment letter on 30 September 2007. That letter and the following comments set forth in detail the reasons and points and authorities why CSPA believes the Order fails to comport with statutory and regulatory requirements. The specific reasons the adopted Orders are improper are:

- A. The Order was adopted ignoring technical advice from the California Department of Fish and Game (DFG) regarding the Basin Plan (page III-8.00) Toxicity Water Quality Objective requirement that material and relevant information will be considered regarding compliance with the objective.**

After reviewing proposals for mixing zones in the area of the discharge the California Department of Fish and Game concluded that: "We would recommend that because of the anadromous species (in particular listed species present) and the potential for extended exposure to the proposed discharge, that the allowance of a mixing zone is not appropriate." Yet, despite this clear recommendation, the Order not only grants mixing zones it grants all of the assimilative capacity of the Feather River regardless of whether it was considered necessary to accommodate the poorly treated sewage.

The Fact Sheet to Order No. R5-2006-0096, the NPDES permit for the Linda County Water District (LCWD) Wastewater Treatment Plant (WWTP), included the following:

“The Discharger discharges treated wastewater to the Feather River at Shanghai Bend just upstream of Shanghai Falls. The *Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California; Final Rule*, (50 CFR Part 226.211), issued on 2 September 2005 and effective on 2 January 2006, designates the lower Feather River below Oroville Dam as critical habitat for Central Valley spring-run Chinook and Central Valley steelhead.

Regional Water Board staff consulted with the California Department of Fish and Game (DFG) regarding the fishery at Shanghai Bend and Shanghai Falls in the Feather River. A 17 November 2005 letter from DFG stated:

The Feather River in this area supports fall, late-fall, and spring-run Chinook salmon, steelhead trout, striped bass, American shad and a variety of other game and non-game species. Spring-run Chinook salmon are federal and state listed threatened species and steelhead trout is a federal listed threatened species.

Because of the river configuration at Shanghai Bend, adult anadromous fish including fall-, late fall- and spring-run Chinook salmon, steelhead trout, striped bass, and American shad often congregate immediately below Shanghai Bend for extended durations during their upstream migration. During lower flow periods the problem is exasperated, and in fact some species (American shad and striped bass) appear to be essentially blocked (DFG unpublished data) immediately below Shanghai Bend.

Additionally, juveniles (including listed federal and state species) use the area for rearing and migration. The entire instream production of salmonids (fall-, late fall- and spring-run Chinook salmon, and steelhead trout) in the Feather River and Yuba River must pass Shanghai Bend. The Yuba River is basically the last large river in the Central Valley that is maintained solely by natural in-stream production of salmon and steelhead trout, and is essentially the only wild steelhead fishery remaining in the Central Valley.

Because of the extended periods that juvenile and adult fish spend in the Feather River at Shanghai Bend, they would be subject to extended exposure to any discharges. It is likely that such exposure will ultimately result in decrease population viability and survival of salmonids and other species, including federal and state listed species. We would recommend that because of the anadromous species (in particular listed species

present) and the potential for extended exposure to the proposed discharge, that the allowance of a mixing zone is not appropriate.”

On 29 March 2005, DFG staff responded via email, in summary that: fish, specifically American Chad, Striped Bass, Chinook Salmon and Green Sturgeon are impacted by Shanghai Falls and tend to “hold a bit below the falls” and may remain below the falls for longer periods, particularly during low water years, thereby increasing exposure times, and that DFG would never support a project that discharges acutely toxic materials to a waterway that will likely soon be designated as critical habitat.

In June of 2003, the California Department of Water Resources (DWR) prepared a draft report *Juvenile Fishes of the Lower Feather River: Distribution, Emigration Patterns, and Association with Environmental Variables* which states in the introduction that “The Feather River is significant because it is the largest tributary to the Sacramento River system, is home to two federally listed endangered species (Central Valley spring-run Chinook salmon and Central Valley steelhead *Orcorhynchus mykiss*)...”

In email communications dated 27 December 2004, when asked about the Shanghai area of the Feather River, DWR staff stated:

Adult salmon could certainly be present as early as Mid-April through the fall, although the majority will be present June-September. There is no evidence or reason for adult salmon to spend any length of time in this area. We have done some radio tracking studies in the Feather [River] recently but very few fish were monitored this low in the river. I would be potentially concerned about sturgeon adults (white and green) however. We have observed them at Shanghai in June. During low flows they may spend a large amount of time there.

Large number of juveniles will be moving through the area from January through March...

A letter dated 25 April 1973 from the Wildlife Conservation Board discusses the Shanghai Bend area of the Feather River, in part, as follows:

The affected portion of the Feather River is a well-known shad and striped bass fishing area and, in spite of the lack of public access, is heavily fished. At least ten percent of all the Feather River shad fishing occurs in the vicinity of the 108-acre Steele property. This use amounts to about 4,000 angler days per year...Other angler attractions include runs of 50 to 60 thousand adult king salmon, which pass through the Shanghai Bend area each year and fair to excellent populations of smallmouth bass and channel catfish, which attract fishermen on a year-round basis.”

The Regional Board ignored all technical advice from the agencies stating that their technical expertise was not an “agency level recommendation”. The mixing zone allows for acute toxicity within a sensitive fishery of the Feather River despite the direct technical advice to not allow any mixing zone. Any technical explanation for ignoring the agencies recommendations was not given despite the Basin Plan (page III-8.00) Toxicity Water Quality Objective statement that material and relevant information will be considered regarding compliance with the objective.

**B. The Order Overestimates the Available Assimilative Capacity by Not Considering the Permitted Linda County Water District and City of Marysville Wastewater Discharges which will result in exceedances of water quality objectives contrary to Federal Regulation, 40 CFR 122.4 (a), (d) and (g) and California Water Code, section 13377.**

Based on the information provided in the Order, the determination of assimilative capacity presented in the Order fails to consider effluent water quality data for the Linda County Water District (LCWD) discharge to the Feather River. The Response to Comments presented at the Regional Board hearing admits that this information was not utilized in the mixing zone analysis, but incorrectly assesses that the Linda County discharge at criteria will not impact the mixing zone. The allowed mixing zone is based on sampling of the discharge and the receiving stream absent these discharges. A discharge at criteria will add to the pollutant load and will be critical in allowing a mixing zone analysis where the upstream sampling was below criteria or objectives. The upstream discharges will utilize assimilative capacity of the receiving stream even when discharging at criteria. The State Water Resources Control Board’s (State Board) Water Quality Order (WQO) 2004-0013 found (p. 13) the following:

*“The decision of the Regional Board to limit the City to 80% of the allocated assimilative capacity that will be granted is adequately justified. The relative flow contributions of the City [of Yuba City] and Linda [County Water District] are readily identified. If both dischargers were granted full dilution credits, at times there would be a lack of assimilative capacity. It is not appropriate to grant full dilution credits to one discharger on a stretch of river, so that another discharger would receive no dilution credits. Moreover, if there are more dischargers in the future, a more rigorous allocation scheme may be required.”*

The LCWD wastewater treatment plant (WWTP) is equipped with an outfall to the Feather River upstream of the Yuba City outfall. The Fact Sheet to Order No. R5-2006-0096 for the LCWD WWTP, at II.A (p.4), states that “[t]he existing outfall pipeline, which was a single point discharge at the shoreline, has not been used for many years.” Proposed upgrades to the LCWD plant include an outfall equipped with a diffuser, also to be located upstream of the Yuba City outfall. The Order fails to consider the permitted quantity (1.8 to 5.0 mgd) and quality of the LCWD discharge that is unaccounted for in receiving water (Feather River) data collected while the LCWD WWTP was not discharging. This failure results in over-estimation of assimilative capacity and, therefore, inaccurate and unprotective effluent limitations due to over-allocation of the

Feather River’s assimilative capacity. The City of Marysville has ponds located within the river banks which may occasionally flood, washing waste constituents downstream. The Order must be revised to consider the permitted quantity and quality of the LCWD WWTP discharge in assessing assimilative capacity. By failing to consider the Linda County discharge the mixing zone analysis is incomplete and the resultant Effluent Limitations will result in exceedance of water quality objectives contrary to Federal Regulations and the CWC. 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.”

**C. The Order fails to specify the point in the receiving stream where applicable criteria must be met as required by SIP Section 1.4.2.2.**

A very clearly 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 Order. The SIP is a legally adopted Policy of the Board which carries regulatory status and cannot simply be ignored as has been done here. The Regional Board cannot simply choose to ignore the requirements of the SIP. The “edge of the mixing zone” for each constituent has not been defined and the Order must be so modified. Monitoring to determine the accuracy of the mixing zone study at the required point of compliance must also be added to the permit to determine compliance.

**D. The Order over allocates the assimilative capacity of the Feather River by more than 100% of the available capacity contrary to the Basin Plan’s *Water Quality Limited Segment Policy*, Federal Regulations and the California Water Code.**

The Order allocates approximately 100% of the assimilative capacity of the Feather River for limited constituents at the surface water discharge point 001. The mixing zone analysis is solely based on the analysis at discharge point 001. Effluent Limitations for discharge point are contained in Table 6. The Order also allows a discharge from ponds inside the river levee; discharge point 002. The effluent limitations for discharge point 001 and 002 are virtually identical. The discharges from points 001 and 002 will occur at the same time and are additive, thereby over allocating the assimilative capacity of the Feather River by greater than 100%. The combined discharges approaching or exceeding 200% of the assimilative capacity of the receiving stream will degrade each and every

beneficial use and will exceed all water quality standards for each limited constituent. While the Regional Board admits these fact to be true in their Response to Comments, presented at the Regional Board hearing (25/26 October 2007) the mixing zone analysis has not been modified. The Regional Board cites a non-binding operational plan that the ponds be emptied at the beginning of the rainy season; there is no such permit requirement. The Regional Board also asserts that it is unlikely that the pond and diffuser discharges would occur at the same time; the ponds would only flood during wet weather and discharge through the diffuser is the only option for the WWTP during this period – the discharges would have to occur simultaneously. Regional Board staff also asserts without any factual basis that significant dilution would be available during such occurrences; this is the purpose of a mixing zone study. The very point of our comments and petition is that the Regional Board has not completed the mixing zone analysis; the pond discharge is significant and has been ignored in the mixing zone analysis. Regional Board staff also point to a study of the pond discharges that was required under Order No. R5-2003-0085, which was upheld by the State Board on petition and has not been completed as required; again, the mixing zone analysis is deficient and is not complete or accurate.

This does not take into account the City of Marysville, who has also established a record of surface water discharges from their ponds during periods of high flow.

The Basin Plan, page IV-15.00, contains *The Water Quality Limited Segment Policy* which states that: “Additional treatment beyond minimum federal requirements will be imposed on dischargers to water Quality Limited Segments. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be achieved in the segment.” When discharging from discharge points 001 and 002; the Order allows water quality objectives to be exceeded by 100% contrary to the *Water Quality Limited Segment Policy*. 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.”

**E. The mixing zone analysis failed to consider that 15 diffuser ports were found to be plugged by sediments and cleared in December 2006 and the resulting analysis, based on all portals working is inaccurate and not protective of the beneficial uses of the receiving stream contrary to the CWC.**

A review of the discharge conditions at Yuba City revealed that 15 diffuser ports were found to be plugged by sediments. Sediments which are transported in significant volume during high flows plugged the ports, not large cobbles. A covered portal could mean instant lethality to aquatic life, degrading the aquatic life beneficial use of the receiving water by concentrating the pollutants at the other ports and also increasing the size of the mixing zone. The proposal for annual cleaning is inadequate to address constantly shifting sediments of the river bottom. At a minimum, monthly monitoring especially during periods of increased sediment load (winter high flow) must be required to provide a minimum assurance that the ports are properly working diffusing the waste constituents. 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." Failure to protect the aquatic life beneficial use is a violation of CWC Section 13377.

**F. The Order fails to protect the contact recreation (REC-1) beneficial use of the Feather River contrary to the California Water Code and Federal Regulations 40 CFR 122.4 (a), (d) and (g).**

Most NPDES permits issued by the Sacramento office of the Central Valley Regional Board contain the following discussion: "The principal infectious agents (pathogens) that may be present in raw sewage may be classified into three broad groups: bacteria, parasites, and viruses. Tertiary treatment, consisting of chemical coagulation, sedimentation, and filtration, has been found to remove approximately 99.5% of viruses. Filtration is an effective means of reducing viruses and parasites from the waste stream. The wastewater must be treated to tertiary standards (filtered), or equivalent, to protect contact recreational and food crop irrigation uses. The California Department of Health Services (DHS) has developed reclamation criteria, CCR, Division 4, Chapter 3 (Title 22), for the reuse of wastewater. Title 22 requires that for spray irrigation of food crops, parks, playgrounds, schoolyards, and other areas of similar public access, wastewater be adequately disinfected, oxidized, coagulated, clarified, and filtered, and that the effluent total coliform levels not exceed 2.2 MPN/100 ml as a 7-day median. As coliform organisms are living and mobile, it is impracticable to quantify an exact number of coliform organisms and to establish weekly average limitations. Instead, coliform organisms are measured as a most probable number and regulated based on a 7-day median limitation. Title 22 also requires that recycled water used as a source of water supply for non-restricted recreational impoundments be disinfected tertiary recycled water that has been subjected to conventional treatment. A non-restricted recreational impoundment is defined as "...an impoundment of recycled water, in which no limitations are imposed on bodycontact water recreational activities." Title 22 is not directly applicable to surface waters; however, the Regional Water Board finds that it is appropriate to apply an equivalent level of treatment to that required by DHS's

reclamation criteria because the receiving water is used for irrigation of agricultural land and for contact recreation purposes. To protect public health, DHS recommends that discharges to receiving streams with contact recreation and less than 20:1 dilution be oxidized, coagulated, filtered and adequately disinfected to provide a median total coliform organisms concentration of 2.2 MPN/100 mL at some point in the treatment process. The stringent disinfection criteria of Title 22 are appropriate since the receiving waters, at times, do not provide a 20:1 receiving water to effluent dilution ratio. Effluent may be used for the irrigation of food crops and/or for body-contact water recreation without a 20:1 dilution. To protect the beneficial uses, the Regional Water Board finds that the wastewater must be disinfected and adequately treated to prevent disease. The principal infectious agents (pathogens) that may be present in raw sewage may be classified into three broad groups: bacteria, parasites, and viruses. Tertiary treatment, consisting of chemical coagulation, sedimentation, and filtration, has been found to remove approximately 99.5% of viruses. Filtration is an effective means of reducing viruses and parasites from the waste stream. The wastewater must be treated to tertiary standards (filtered), or equivalent, to protect contact recreational and food crop irrigation uses.”

The Order does not require tertiary treatment. Contact recreation (REC-1) in the Feather River at the point of discharge is well documented as an extensively used fishing area and lies adjacent to a Yuba City park. The public has access to the point of discharge and there is significant documentation the point of discharge is heavily used for REC-1 uses. The public will be within the mixing zone; there is no immediate dilution for pathogens.

The Order does not contain a mixing zone for pathogens that protects the REC-1 beneficial use at the point of discharge. The public not only has access to the Feather River within any mixing zone, contact recreational activities occur within this zone. 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.” 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.

**G. Monitoring requirements are inadequate in accordance with Federal regulations, 40 CFR §§ 122.44(i), 122.48 and 40 CFR 122.41(j)(1), which require that NPDES permits 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.**

Facilities that discharge wastewater are required to evaluate compliance with the limitations established in the permit. The Order states that monitoring for the discharge from ponds at point 002 will be conducted at discharge point 001. The placement of wastewater disposal ponds within a floodplain is simply bad engineering. The permittee is responsible for providing a safe and accessible sampling point that is representative of the discharge, 40 CFR 122.41(j)(1). Allowing a wastewater discharge to go unmonitored because it is unsafe to enter the floodplain only compounds that bad judgment. The ponds should be properly closed; the City owns and operates a wastewater treatment plant that discharges directly to surface waters and the ponds are not necessary. A proper “emergency” pond could be constructed outside the floodplain if the City believes it is necessary. 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. According to the Order’s discussion of the pond system; the ponds are utilized for storage of wastewater effluent and are the point of discharge during periods of facility maintenance and upset. Pollutant concentrations in ponds magnify as water evaporates and as stated, the ponds receive wastewater unfit to discharge at point 001. The quality of wastewater discharged from the ponds will be significantly degraded compared to the effluent discharge at point 001. The discharge at point 001 is not representative of the quality of the wastes at point 002. Failure to require monitoring at discharge point 002 blatantly violates Federal Regulations, 40 CFR §§ 122.44(i) and 122.48.

**H. By Failing to Require Best Practicable Treatment and Control of the Yuba City Discharge, the Order Grants the City of Yuba City a Competitive Advantage over Other Central Valley Dischargers by Authorizing a Discharge of Significantly Poorer Water Quality.**

While both smaller and comparably-sized NPDES dischargers up and down the Central Valley are currently providing, or are upgrading to provide, tertiary treatment, nitrification, denitrification (reduces salt discharged), and non-chemical disinfection through ultraviolet radiation (*i.e.*, disinfection by a process that does not add salt), the Order authorizes the continued discharge of what is now an essentially substandard wastewater—the basic, secondary treated wastewater of three decades ago. Pretreatment program local limits are derived based on what industrial loads to the wastewater treatment facility can be received without causing the facility to exceed its discharge limits. The poor standards proposed for application to the City’s discharge allow the City to compete unfairly against other municipalities, counties, and utility districts by enabling it to receive industrial discharges at strengths far beyond what would be allowed at other wastewater treatment facilities. In addition, maintenance of a low-quality discharge allows the City to keep its rates low, since it will not have to pay for improvements, and potentially makes it more attractive to developers and home owners.

We have to question whether the Regional Board is colluding with the City of Yuba City to ensure that regional growth is restricted to that within Yuba City's sphere of influence. We wonder whether existing and potential dischargers to the Feather River, its tributaries (e.g., Nevada City, Grass Valley, Lake of the Pines, Lake Wildwood, Cascade Shores, Donner Summit, Olivehurst, River Highlands, Wheatland, Live Oak), and streams to which the Feather River is tributary (e.g., Sac Regional) have been notified of the proposed full allocation of assimilative capacity within the Feather River and its implications for their NPDES permits. The Order must be revised to require the City of Yuba City to provide best practicable treatment and control to eliminate its competitive advantage.

**I. The Order Fails to Determine Reasonable Potential for Additive Toxicity within a mixing zone as required by the Basin Plan.**

The Basin Plan, at (IV-17.00), states the following:

*“Where multiple toxic pollutants exist together in water, the potential for toxicological interactions exists. On a case by case basis, the Regional Water Board will evaluate available receiving water and effluent data to determine whether there is reasonable potential for interactive toxicity. Pollutants which are carcinogens or which manifest their toxic effects on the same organ systems or through similar mechanisms will generally be considered to have potentially additive toxicity. The following formula will be used to assist the Regional Water Board in making determinations:*

$$\sum_{i=1}^n \frac{[\text{Concentration of Toxic Substance}]}{[\text{Toxicologic Limit for Substance in Water}]} < 1.0$$

*The concentration of each toxic substance is divided by its toxicologic limit. The resulting ratios are added for substances having similar toxicologic effects and, separately, for carcinogens. If such a sum of ratios is less than one, an additive toxicity problem is assumed not to exist. If the summation is equal to or greater than one, the combination of chemicals is assumed to present an unacceptable level of toxicological risk. For example, monitoring shows that ground water beneath a site has been degraded by three volatile organic chemicals, A, B, and C, in concentrations of 0.3, 0.4, and 0.04 mg/l, respectively. Toxicologic limits for these chemicals are 0.7, 3, and 0.06 mg/l, respectively. Individually, no chemical exceeds its toxicologic limit. However, an additive toxicity calculation shows:*

$$\frac{0.3}{0.7} + \frac{0.4}{3} + \frac{0.04}{0.06} = 1.2$$

*The sum of the ratios is greater than unity (>1.0); therefore the additive toxicity criterion has been violated. The concentrations of chemicals A, B, and C together present a potentially unacceptable level of toxicity.”*

The Fact Sheet to the Order states the following:

*“Based on its review of the Discharger’s response, the Regional Water Board concludes that an adequate zone of passage for aquatic organisms exists and full initial dilution should be allowed for the acute aquatic life criterion applicable to the discharge from the Facility (note that the Regional Water Board had already agreed that dilution can be provided for chronic aquatic life and human health protection criteria).”*

The calculations for determining the dilution credit are not shown, but it appears that the tentative permit proposes to fully allocate all remaining assimilative capacity in the Feather River for each constituent with a water quality based effluent limitation (WQBEL) and assimilative capacity.

The in-stream, after complete mixing, fractional toxicity or ratio for each constituent with a WQBEL based on full allocation of assimilative capacity is necessarily equal to unity. As demonstrated below, the in-stream, after complete mixing, additive effect of multiple chemicals with WQBELs based on full allocation of assimilative capacity which manifest their toxic effects on the same organ systems or through similar mechanisms must, therefore, present an unacceptable level of toxicity. Even if full allocation of assimilative capacity has not been granted, additive toxicity must still be evaluated.

***Additive Toxicity—Aquatic Toxicity from Heavy Metals***

The Order contains the following final effluent limitations for heavy metals:

Constituent	Units	AMEL <sup>1</sup>	MDEL <sup>2</sup>	CCC <sup>3,4</sup>	CMC <sup>4,5</sup>	CCC <sup>3,6</sup>	CMC <sup>3,6</sup>	MEC <sup>7</sup>
Copper <sup>8</sup>	mg/l	50	85	3.5	4.8	2.7	3.5	16 <sup>9</sup> /67 <sup>10</sup>
Lead <sup>8</sup>	mg/l	0.61	1.23	0.75	19	0.49	13	3.3 <sup>9</sup> /1.9 <sup>10</sup>
Zinc <sup>8</sup>	mg/l	661	984	46	46	34	34	110 <sup>9</sup> /120 <sup>10</sup>

<sup>1</sup> Average monthly effluent limitation

<sup>2</sup> Maximum daily effluent limitation

<sup>3</sup> Criterion continuous concentration (4-day average); numeric standard that must not be exceeded beyond the edge of the constituent-specific chronic toxicity mixing zone

<sup>4</sup> Based on hardness of 32 mg/l (as CaCO<sub>3</sub>) used in Order

<sup>5</sup> Criterion maximum concentration (1-hour average); numeric standard that must not be exceeded beyond the edge of the constituent-specific acute toxicity mixing zone

<sup>6</sup> Based on hardness of 23 mg/l (as CaCO<sub>3</sub>) from 3 January 2006 (see Attachment G to tentative permit)

<sup>7</sup> Maximum effluent concentration

<sup>8</sup> Total recoverable

<sup>9</sup> From Order

<sup>10</sup> From R5-2003-0089

Copper, lead, and zinc all act on aquatic organisms in the same fashion. Therefore, additive toxicity for these constituents must be considered.

Acute aquatic toxicity:

$$\left[ \frac{Conc_{Cu}}{CMC_{Cu}} \right] + \left[ \frac{Conc_{Pb}}{CMC_{Pb}} \right] + \left[ \frac{Conc_{Zn}}{CMC_{Zn}} \right] = \left[ \frac{4.8}{4.8} \right]_{Cu} + \left[ \frac{19}{19} \right]_{Pb} + \left[ \frac{46}{46} \right]_{Zn} = 3$$

Chronic aquatic toxicity:

$$\left[ \frac{Conc_{Cu}}{CMC_{Cu}} \right] + \left[ \frac{Conc_{Pb}}{CMC_{Pb}} \right] + \left[ \frac{Conc_{Zn}}{CMC_{Zn}} \right] = \left[ \frac{3.5}{3.5} \right]_{Cu} + \left[ \frac{0.75}{0.75} \right]_{Pb} + \left[ \frac{46}{46} \right]_{Zn} = 3$$

Order No. R5-2003-0089 found reasonable potential for cadmium, with an observed maximum effluent concentration of 6.4 mg/l for a sample collected 7 February 2002. In fact, Order No. R5-2003-0089 reported an average effluent cadmium concentration of 2.57 mg/l, based on the results of 29 sampling events. The criterion continuous concentration (CCC) for cadmium at a hardness of 32 mg/l is 1.0 mg/l, while the CCC for cadmium at a hardness of 23 mg/l is 0.78 mg/l. Cadmium concentrations in the Yuba City discharge will also contribute to additive toxicity.

Order No. R5-2003-0089 reported an observed maximum effluent total chromium concentration of 16 mg/l and an observed maximum upstream total chromium concentration of 7.2 mg/l. Chromium III is the most common valent state for chromium. Chromium III concentrations in the Yuba City discharge will also contribute to additive toxicity.

The Order reports an observed maximum effluent nickel concentration of 15 mg/l and an observed maximum upstream nickel concentration of 10 mg/l. The CCC for nickel at a hardness of 32 mg/l is 19 mg/l, while the CCC for nickel at a hardness of 23 mg/l is 15 mg/l. Nickel concentrations in the Yuba City discharge will also contribute to additive toxicity.

Order No. R5-2003-0089 reported an observed maximum effluent silver concentration of 0.35 mg/l. The maximum observed concentration was detected above the MDL of 0.12 mg/l, but below the quantification level. Silver concentrations in the Yuba City discharge will also contribute to additive toxicity.

The sum of the toxicity ratios for water in the Feather River, following complete mixing and beyond the boundary of any mixing zone, is greater than unity and, therefore, denotes an unacceptable risk of acute (lethal) aquatic toxicity within the Feather River. This alone is appalling, but the fact that Regional Board staff are proposing this for a stream designated as critical habitat and 303(d)-listed for unknown toxicity is both outrageous and unconscionable. Failure to correct the Order will likely result in a take of threatened

or endangered species as a direct outcome of the additive toxicity allowed under the Order.

The Order must be revised to reduce the effluent limitations for heavy metals (i.e., cadmium, chromium III, copper, lead, nickel, silver, and zinc) to levels that, when additive toxicity for these aquatic life toxicants is considered, will not result in acute or chronic toxicity.

***Additive Toxicity—Human Carcinogenicity***

The Order contains the following final effluent limitations for carcinogens (cancer-causing compounds):

Constituent	Units	AMEL <sup>1</sup>	MDEL <sup>2</sup>	HH <sub>water+org</sub> <sup>3</sup>	MEC <sup>4</sup>
Bis (2-ethylhexyl) phthalate	mg/l	269	820	1.8	36 <sup>5</sup> /149 <sup>6</sup>
Chlorodibromomethane	mg/l	76	166	0.41	0.88 <sup>5</sup> /1.4 <sup>6</sup>
Dichlorobromomethane	mg/l	111	280	0.56	4 <sup>5</sup> /7.6 <sup>6</sup>
Tetrachloroethylene	mg/l	164	514	0.8	8 <sup>5</sup> /7.7 <sup>6</sup>

<sup>1</sup> Average monthly effluent limitation

<sup>2</sup> Maximum daily effluent limitation

<sup>3</sup> Human health based on increased carcinogenicity risk of 1x10<sup>-6</sup> and consumption of both water and organisms

<sup>4</sup> Maximum effluent concentration

<sup>5</sup> From Order

<sup>6</sup> From R5-2003-0089

Bis (2-ethylhexyl) phthalate; chlorodibromomethane; dichlorobromomethane; TCDD-equivalents, and tetrachloroethylene are all carcinogens. Therefore, additive toxicity for these constituents must be considered.

Carcinogenicity Based on Consumption of Both Water and Organisms:

$$\left[\frac{Conc}{HH}\right]_{bis-2} + \left[\frac{Conc}{HH}\right]_{CDBM} + \left[\frac{Conc}{HH}\right]_{DCBM} + \left[\frac{Conc}{HH}\right]_{PCE} = \left[\frac{1.8}{1.8}\right]_{bis-2} + \left[\frac{0.41}{0.41}\right]_{CDBM} + \left[\frac{0.56}{0.56}\right]_{DCBM} + \left[\frac{0.8}{0.8}\right]_{PCE} = 4$$

The sum of the toxicity ratios for water in the Feather River, following complete mixing and beyond the boundary of any mixing zone, is greater than unity and, therefore, denotes an unacceptable risk of carcinogenicity within the Feather River.

In addition, the tentative permit fails to include effluent limitations for other carcinogens present in the discharge with reasonable potential to cause or contribute to an excursion of water quality standards, including the following:

- Arsenic
- Chloroform
- 2,3,7,8-TCDD equivalents
- MTBE
- Pentachlorophenol
- Trichloroethylene
- 2,4,6-Trichlorophenol

Order No. R5-2003-0089 reported an observed maximum effluent arsenic concentration of 44.9 mg/l from a sample collected 25 January 2001 and an observed maximum upstream total chromium concentration of 2.0 mg/l from a sample collected 9 December 2002. The primary maximum contaminant level is 10 mg/l. Arsenic concentrations in the Yuba City discharge will also contribute to additive carcinogenic toxicity.

Order No. R5-2003-0089 reported an observed maximum effluent chloroform concentration of 46 mg/l from a sample collected 2 September 1993 and a mean effluent chloroform concentration of 10.96 mg/l, based on 34 samples. The Order reports an observed maximum effluent chloroform concentration of 18 mg/l. The equivalent concentration for the Cal/EPA Office of Environmental Health Hazard Assessment (OEHHA) one-in-a-million cancer potency factor is 1.1 mg/l. In other words, on average, the Yuba City discharge exceeds the one-in-a-million cancer risk number by an order of magnitude. Chloroform concentrations in the Yuba City discharge will certainly contribute to additive carcinogenic toxicity.

Order No. R5-2003-0089 reported an observed maximum effluent methyl tertiary butyl ether (MTBE) concentration of 7.51 mg/l from a sample collected 23 June 1999. MTBE concentrations in the Yuba City discharge will contribute to additive carcinogenic toxicity.

Order No. R5-2003-0089 reported an observed maximum effluent pentachlorophenol concentration of 15.3 mg/l from a sample collected 2 August 2000 and a mean effluent pentachlorophenol concentration of 4.08 mg/l, based on 22 samples. The *California Toxics Rule* (CTR) pentachlorophenol criterion for protection of human health based on a one-in-a-million cancer risk for waters from which both water and aquatic organisms are consumed is 0.28 mg/l. In other words, on average, the Yuba City discharge exceeds the one-in-a-million cancer risk number by a factor of 14. Pentachlorophenol concentrations in the Yuba City discharge will certainly contribute to additive carcinogenic toxicity.

Order No. R5-2003-0089 reported an observed maximum effluent trichloroethylene concentration of 3.2 mg/l from a sample collected 26 September 2001. The CTR trichloroethylene criterion for protection of human health based on a one-in-a-million cancer risk for waters from which both water and aquatic organisms are consumed is 2.7 mg/l. Trichloroethylene concentrations in the Yuba City discharge will contribute to additive carcinogenic toxicity.

Order No. R5-2003-0089 reported an observed maximum effluent 2,4,6-trichlorophenol concentration of 7.8 mg/l from a sample collected 2 September 1993 and a mean effluent 2,4,6-trichlorophenol concentration of 2.96 mg/l, based on 22 samples. The CTR 2,4,6-trichlorophenol criterion for protection of human health based on a one-in-a-million cancer risk for waters from which both water and aquatic organisms are consumed is 2.1 mg/l. 2,4,6-Trichlorophenol concentrations in the Yuba City discharge will contribute to additive carcinogenic toxicity.

The Order states that three 2,3,7,8-TCDD equivalents (dioxin and furan congeners) were detected in the discharge and that the maximum observed effluent 2,3,7,8-TCDD equivalents concentration was  $1.78 \times 10^{-7}$  mg/l, as compared to the CTR criterion of  $1.3 \times 10^{-8}$  mg/l. The presence of these congeners in the Yuba City discharge will contribute to additive carcinogenic toxicity.

All told, this represents an entirely unacceptable risk of increased rates of cancer for individuals consuming fish and/or water from the Feather River downstream of the discharge and possibly from the Sacramento River as well. The Order must be revised to reduce the effluent limitations for carcinogens to levels that, when additive toxicity for carcinogens is considered, will not result in a combined increased cancer risk rate of more than one-in-a-million.

The Regional Board has simply failed to comply with the Basin Plan requirement that additive toxicity be evaluated in the mixing zone.

**J. The Proposed NPDES Permit Authorizes a Schedule of Compliance for Aluminum, Electrical Conductivity, gamma-BHC (Lindane), and Iron Contrary to Basin Plan Requirements.**

The Order includes a schedule of compliance for aluminum, gamma-BHC or lindane (an organochlorine pesticide), and iron. The final effluent aluminum limitations in the Order

are based on the Basin Plan's narrative toxicity objective and U.S. EPA's 1988 National Recommended Ambient Water Quality Criteria for protection of freshwater aquatic life for aluminum. While the Order lacks a final effluent limitation for electrical conductivity, reasonable potential to exceed the Basin Plan's site-specific electrical conductivity objective for the lower Feather River of 150 mmhos/cm as a 90<sup>th</sup> percentile was determined. The final gamma-BHC effluent limitation in the Order is based on the Basin Plan objective that total chlorinated hydrocarbon pesticides shall not be present in the water column at detectable concentrations. The final effluent iron limitation in the Order is based on the Basin Plan's chemical constituents objective and the California primary maximum contaminant level for iron. Note that these objectives were all in effect prior to 25 September 1995.

The Basin Plan, in its *Policy for Implementation of Water Quality Objectives*, states the following:

*“In no event shall an NPDES permit include a schedule of compliance that allows more than ten years (from the date of adoption of the objective or criteria) for compliance with water quality objectives, criteria or effluent limitations based on the objectives or criteria. Schedules of compliance are authorized by this provision only for those water quality objectives or criteria adopted after the effective date of this provision [25 September 1995].”*

The State Water Resources Control Board (State Board), in its Water Quality Order No. 2007-0004, concluded the following:

Conclusion III.12: *“Compliance schedules, if authorized, must have an endpoint that is consistent with the compliance schedule authorization.”*

Conclusion III.19: *“The compliance schedule authorization in the San Francisco Bay Basin Plan does not authorize a compliance schedule for numeric objectives that predated the effective date of the authorization provision and that have not been revised since the effective date of the objectives.”*

U.S. EPA, in a letter dated 20 April 2007 from Alexis Strauss, Director of Water Programs, to Tom Howard, then Acting Executive Director of State Board, stated the following:

*“We reiterate our conclusion that inclusion of the entire compliance schedule, including the final effluent limitation, in the enforceable permit provisions is necessary to ensure compliance with the Clean Water Act (CWA) and the implementing regulations. Specifically, the CWA defines a compliance schedule as an “...enforceable sequence of actions or operations leading to compliance with an effluent limitation...” [CWA section 502(17)]. In order for the provisions to be enforceable, they need to be included in the permit requirements...To ensure consistency with all these requirements, it is necessary to include the whole compliance schedule in the enforceable permit provisions...We have now concluded that it is also necessary to include these provisions in the permit itself in order to meet the statutory and regulatory requirements. We have reached this*

*conclusion as a result of comprehensive re-analysis of the CWA and EPA's implementing regulations prompted by increased scrutiny of compliance schedules in general, and the potential use of longer compliance schedules..."*

The Order must be revised to require immediate compliance with the Basin Plan objectives for iron, organochlorine pesticides, electrical conductivity, and aluminum (narrative toxicity objective). If a compliance schedule is deemed necessary, it must be appropriately placed in a Time Schedule Order or a Cease and Desist Order.

**K. The Order Utilizes an Inappropriate Hardness Value for Use in Assessing Reasonable Potential, Evaluating Assimilative Capacity, and Determining Effluent Limitations.**

The Fact Sheet to Order No. R5-2006-0096, the NPDES permit for the Linda County Water District (LCWD) Wastewater Treatment Plant (WWTP), included the following:

*"The United States Geological Survey (USGS) maintains flow- and water quality-monitoring stations on the Feather River at Gridley and on the Yuba River near Marysville. These two stations represent the nearest upstream, continuously operated monitoring stations. On 8 July 2003, at 12:30 p.m., a hardness value of 30 mg/L (as CaCO<sub>3</sub>) was measured at the "Feather River at Gridley" station with a flow of 10149 cfs. On the same day, at noon, a hardness value of 32 mg/L (as CaCO<sub>3</sub>) was measured at the "Yuba River near Marysville" station with a flow of 1516 cfs. The flow-weighted average hardness value is 30 mg/L (as CaCO<sub>3</sub>). Both hardness values were determined using Standard Method 2340B. According to Standard Methods for the Examination of Water and Wastewater, "Method 2340B, hardness by calculation, is applicable to all waters and yields the higher accuracy.""*

In addition, State Board Order WQO 2004-0013 found (p. 8) the following:

*"The SIP does not discuss the manner in which hardness is to be ascertained. The value selected should provide protection for all times of discharge under varying hardness conditions. Thus, it was appropriate for the Regional Board to use the worst-case observed minimum hardness. The City also claims that hardness is a specific type of translator and that the SIP provides statistical values for the median and 90<sup>th</sup> percentile to determine the appropriate value. The City is incorrect."*

Attachment G.to the Order shows upstream Feather River hardness values as low as 23 mg/l, from a sample collected 3 January 2006. This value of 23 mg/l is not entirely uncommon for the Feather River, as Attachment G also shows the following upstream receiving water hardness values:

1 November 2005	32 mg/l
8 June 2006	29 mg/l
27 January 2006	31 mg/l
7 February 2006	25 mg/l

3 February 2006                      32 mg/l  
 17 May 2006                            28 mg/l  
 3 January 2006                        23 mg/l

The impact of the selected hardness on criteria is shown below (all metals are shown as total recoverable; all units are in mg/l):

	CCC <sub>23</sub>	CCC <sub>32</sub>	CMC <sub>23</sub>	CMC <sub>32</sub>	B <sub>2003</sub>	B <sub>2007</sub>	MEC <sub>2003</sub>	MEC <sub>2007</sub>
Cadmium	0.78	1.0	0.89	1.2	0.29	0.29	6.4	0.54
Copper	2.7	3.5	3.5	4.8	3.3	6.5	67	16
Chromium III	62	81	520	680	7.2	--	16	12
Lead	0.49	0.75	13	19	ND	1	1.9	3.3
Nickel	15	20	140	180	10	10	8	15
Silver	--	--	0.32	0.57	ND	ND	0.35	0.15
Zinc	34	46	34	46	40	5.5	120	110

Note the reasonable potential for cadmium, and the lack of assimilative capacity for copper, lead, and zinc.

We are curious as to why and how the dynamic modeling mentioned in the Order is able to disregard the lack of assimilative capacity for copper, lead, and zinc but is apparently unable to consider the variable hardness of the receiving stream.

The Order must be revised to be protective of aquatic life by using the appropriate minimum receiving water hardness value of 23 mg/l in determining reasonable potential and in developing effluent limitations.

**L. The Order Includes an Inadequate Reasonable Potential Analysis and Inadequate Effluent Limitations by Using Incorrect Statistical Multipliers.**

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.

Attachment F: The reasonable potential analyses for CTR constituents fail to consider the statistical variability of data and laboratory analyses as explicitly required by the federal regulations. For example, a multiplier of 1 was used for all constituents instead of the required multiplier factors necessary to properly evaluate reasonable potential. The procedures for computing variability are detailed in Chapter 3, pages 52-55, of U.S. EPA’s *Technical Support Document For Water Quality-based Toxics Control (TSD)*.

The observed maximum effluent concentration (MEC) is the highest detected effluent concentration, but not necessarily the actual highest effluent concentration. As a result of using the multiplier of 1 and the artificially restricted data set of three years used in determining the maximum effluent concentration, there are constituents that do have reasonable potential that do not have effluent limitations in the Order.

The reasonable potential analyses for CTR constituents are flawed and must be recalculated. The fact that the SIP illegally ignores this fundamental requirement does not exempt the Regional Board from its obligation to consider statistical variability in compliance with federal regulations. Using the most complete data set available (*i.e.*, all available data) yields the greatest confidence that the observed maximum effluent concentration is somewhere near the actual maximum effluent concentration.

Using the statistical methods demonstrated in the TSD, one finds that in order to be 99% confident that the highest detected value is the actual highest value, a data set of at least 459 analytical results is needed. Monthly monitoring for the restricted three-year window gets only 36 results and about a 30% confidence level that the observed maximum effluent concentration is greater than the 99<sup>th</sup> percentile of the actual effluent concentrations.

Since federal regulations require effluent limits for each constituent that has reasonable potential to exceed a water quality objective, it is critical to use the fullest data set possible. The fewer results used in the reasonable potential analysis, the greater the likelihood that the permit will fail to include required and necessary effluent limitations.

**M. The Order Fails to Utilize All Valid, Reliable, and Representative Effluent Data in Conducting a Reasonable Potential and Effluent Limitation Derivation Calculations Contrary to U.S. EPA's Interpretation of Federal Regulations, 40 CFR 122.44(d).**

The Order states (p. F-27), the following with respect to the data set used in assessing reasonable potential and in determining effluent limitations:

*“The RPA was based on data from July 2003 through July 2006, which is the range of data the Discharger submitted as part of its Report of Waste Discharge. Additional data outside of this range was also analyzed where there was inadequate data to perform an analysis. This was specifically the situation for receiving water background concentrations for metals, pesticides, and other non-conventional pollutant parameters (e.g., nutrients). The same data set for the receiving water background concentrations were used in developing WQBELs.”*

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. U.S. 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 valid, reliable, and representative effluent data or instream background data are available they MUST be used in applicable reasonable potential and limits derivation calculations. Data may not be arbitrarily discarded or ignored.”

State Board Order WQO 2004-0013 found (p. 7) the following:

*“There is no basis for the City’s contention that older [than 4.5 years] data should be eliminated from review in determining reasonable potential. There is also no basis for the City’s claims that all “outlier” data, which are higher than most other data points, should be discarded. While outlier data that are shown to be unreliable should be discarded, such data are not unreliable simply because they are high. Because of the nature of publicly owned treatment works (POTWs) as receptacles of waste from numerous sources, there is no basis to claim that older data will not recur. Moreover, the use of a larger set of sample data improves the accuracy of projected concentrations, and such data should be included to show trends.”*

State Board Order WQO 2004-0013 concluded (p. 23) the following:

*“It is appropriate for the Regional Board to consider all available monitoring data in developing a permit for POTWs, including data older than 4.5 years and “outlier” data.”*

The Order must be revised to use all available and relevant monitoring data to assess reasonable potential, assimilative capacity, and to calculate final effluent limitations, as required by federal regulations and as directed by the State Board.

**N. The Order Fails to Impose Requirement for Additional Treatment beyond Minimum Federal Standards for Discharge to Water Quality Limited Segment as Required by Basin Plan**

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 that [a]dditional treatment beyond minimum federal standards will be imposed on dischargers to WQLSs..” The lower Feather River is listed as a WQLS for mercury, toxicity, Group A pesticides, and toxaphene. The lower Feather River is listed in the 303(d) list of impaired water bodies for diazinon, Group A pesticides, mercury, and unknown toxicity.”

The Order fails to impose any additional treatment requirements beyond the minimum federal standards of secondary treatment. The Order must be revised to comply with the Basin Plan and federal regulations.

**O. The Order Fails to Include Enforceable, Protective Final Effluent Limitations for 2,3,7,8-TCDD and Congeners or Equivalents and Instead Includes Requirements to Conduct Further Studies Contrary to U.S. EPA’s Interpretation of Federal Regulation, 40 CFR 122.44(d).**

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. U.S. 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.*”

The Order, Fact Sheet, discussion of each 2,3,7,8-TCDD shows the pollutants present a reasonable potential to exceed water quality standards and objectives which obligates derivation (40 CFR 122.44) of a protective Effluent Limitation. The Order instead requires studies contrary to 40 CFR 122.44 and US EPA’s *Central Tenets of the National Pollutant Discharge Elimination System (NPDES) Permitting Program*.

**P. The Order Fails to Include an Effluent Limitation for Nitrate Despite Sparse Data Contrary to U.S. EPA’s Interpretation of Federal Regulation, 40 CFR 122.44(d).**

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 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.*”

As stated in the Fact Sheet to Order No. R5-2003-0089,

“Untreated domestic wastewater contains ammonia. Nitrification is a biological process that converts ammonia to nitrite and nitrite to nitrate, and denitrification is a process that converts nitrate to nitrogen gas, which is then released to the atmosphere. Wastewater treatment plants commonly use nitrification and denitrification processes to remove ammonia, nitrate, and nitrite from the waste stream. Inadequate or incomplete nitrification or denitrification may result in the discharge of ammonia, nitrate, or nitrite to the receiving stream in unacceptable concentrations.

For waters designated as having the beneficial use of municipal and domestic supply (MUN), the Basin Plan includes a water quality objective that water “*shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations...: Tables 64431-A (Inorganic Chemicals)...*”. U.S. EPA has developed a primary MCL and an MCL goal of 1,000 mg/l for nitrite (as nitrogen). The primary MCL listed in Title 22 of the California Code of Regulations (CCR), Table 64431-A, is also 1,000 mg/l for nitrite as nitrogen. For nitrate, U.S. EPA has developed Drinking Water Standards (10,000 mg/l as Primary Maximum Contaminant Level) and Ambient Water Quality Criteria for protection of human health (10,000 mg/l for non-cancer health effects). Title 22 CCR, Table 64431-A, also includes a primary MCL of 10,000 mg/l for the sum of nitrate and nitrite, measured as nitrogen. Recent toxicity studies have indicated a possibility that nitrate is toxic to aquatic organisms.

The conversion of ammonia to nitrites and the conversion of nitrites to nitrates present a reasonable potential for the discharge to exceed the primary maximum contaminant levels for nitrite and the sum of nitrite and nitrate.”

Reasonable potential for the Yuba City discharge to exceed the California primary maximum contaminant level for nitrate exists and an effluent limitation for nitrate is required. The Order must be revised to include an effluent limitation for nitrate.

**Q. The Order Unnecessarily Authorizes the Use of More Assimilative Capacity than the Discharger Needs, Thereby Violating the Resolution 68-16 Requirement that Degradation Be in the Best Interest of the People of the State of California.**

Comparison of final limits included in Order to observed maximum effluent concentrations for the permitted discharge:

Constituent	AMEL	MDEL	Observed MEC
Chlorodibromomethane	76	166	0.88
Copper, Total Recoverable	50	85	16
Cyanide, Total (as CN)	24/	48/	9.4
Dichlorobromomethane	111	280	4.0
Diethyl Phthalate	10/	21/	3.7
Tetrachloroethylene	164	514	8.0
Zinc, Total Recoverable	661	984	110
Ammonia, Total (as N)	31	60	45
Molybdenum, Total Recoverable	1,999	--	16
Nitrite, Total (as N)	221	--	1.4

It is inconceivable that the resultant degradation of the Feather River from the permitting of concentrations so far in excess of what is actually needed by the City to avoid upgrades is somehow in the best interest of the people of the State of California.

We note that while the Fact Sheet to the Order purports to compare proposed effluent limitations with effluent limitations included in Order No. R5-2003-0089 and effluent monitoring data, the permit writer fails to include this information for certain constituents such as nitrate and nitrite—perhaps to avoid the professional embarrassment of having to explain, given the typical municipal wastewater total nitrogen concentration range of 20 mg/l to 60 mg/l, the illogical, unjustified, and unnecessary inclusion of a nitrite limitation of 221 mg/l (as N) for a supposedly nutritionally-dilute municipal and industrial wastewater discharge.

If the permit writer is reluctant to use standard scientific rounding conventions because rounding up would result in authorization of pollutant discharges in quantities that would result in in-stream exceedances of water quality objectives, perhaps that's an indication...

**R. The Order Authorizes Inappropriate and Illegal (40 CFR §122.45) Averaging Periods for Iron, Manganese, and Methylene Blue Active Substances.**

The Order includes the following limitations:

*IV.A.1.c: "Total Recoverable Iron. For a calendar year, the annual average total recoverable iron concentration in the effluent shall not exceed 300 µg/L."*

*IV.A.1.d: "Total Recoverable Manganese. For a calendar year, the annual average total recoverable manganese concentration in the effluent shall not exceed 2,899 µg/L."*

*IV.A.1.e: "Methylene Blue Active Substances (MBAS). For a calendar year, the annual average methylene blue active substances concentration in the effluent shall not exceed 100 mg/L."*

40 CFR §122.45 states that:

"For continuous discharges all permit effluent limitations...shall unless impracticable be stated as...[a]verage weekly and average monthly discharge limitations for POTWs."

U.S. EPA, in its *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001) (TSD) recommends a maximum daily limitation rather than an average weekly limitation for water quality based permitting.

It is not impracticable to state the secondary maximum contaminant levels for iron, manganese, and methylene blue active substances as average monthly discharge limitations and no attempt has been made by the permit writer to assert such a thing. The failure to include average monthly effluent limitations for these constituents is a direct violation of 40 CFR §122.45. The Order must be revised to state the effluent limitations for iron, manganese, and methylene blue active substances as monthly, rather than annual, averages.

**S. The Order fails to contain Effluent Limitations for a significant number of pollutants regulated in the prior Permit contrary to Federal Regulation, 40 CFR 122.4 (a), (d) and (g) and the California Water Code.**

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.”

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.

Order No. R5-2003-0089 found reasonable potential contained effluent limitations for the following constituents that are not limited in the Order:

Arsenic	cis-1,2-Dichloroethene	Thiobencarb
Bis (2-ethylhexyl) phthalate	MTBE	Trichloroethylene
Cadmium	Nitrite + Nitrate (as N)	2,4,6-Trichlorophenol
Chloroform	Pentachlorophenol	

The Order does not present any valid reason why reasonable potential for these constituents does not still exist. The Order must be revised to include effluent limitations for the constituents listed above.

**T. The Order Fails to Include Mass Limitations for Persistent and/or Bioaccumulative or Bioconcentrating Constituents.**

The Fact Sheet to Order No. R5-2006-0096, the NPDES permit for the LCWD WWTP, included the following:

*“Oxygen-demanding substances, persistent, bioaccumulative toxics, and constituents with an associated total maximum daily load require mass limitations to protect the beneficial uses of the receiving water. Regional Board staff have included mass limitations for persistent, bioaccumulative, toxics based on the 9 November 1998 Federal Register Notice of Availability of Draft RCRA Waste Minimization PBT Chemical List. This document does not contain a comprehensive list, however, and additional constituents may require mass limitations as information becomes available.”*

The Regional Board included in that same Order mass limitations for the following constituents, which it apparently considered to be oxygen-demanding, persistent, and/or bioaccumulative toxics:

Ammonia, Total (as N)	Copper, Total Recoverable	Mercury, Total
Bis (2-ethylhexyl) phthalate	Cyanide, Total Recoverable	Nitrite (as N)
Chlorine	Diazinon	Nitrite + Nitrate (as N)
Chloroform	Dibenzo(a,h)anthracene	Oil and Grease
Chromium (VI), total recoverable	Lead, Total Recoverable	Zinc, Total Recoverable

The Order found reasonable potential for the following oxygen-demanding, persistent, and/or bioaccumulative constituents, but failed to include mass limitations:

Ammonia, Total (as N)	Dibenzo(a,h)anthracene	Nitrite (as N)
Chlorine	Diethyl Phthalate	Tetrachloroethylene
Copper, Total Recoverable	Lead, Total Recoverable	Thallium
Cyanide, Total Recoverable	Molybdenum, Total Recoverable	Zinc, Total Recoverable
Diazinon		

On petition, the State Board upheld the reasonable potential analyses and the need for effluent limitations in every regard except that of mass limitations from the ponds. While the exact number for the lbs/day loading was questioned by the State Board, the need for those limitations was not. State Board Order WQO 2004-0013 remanded the affected limitations to the Regional Board for reconsideration and vacated them in the interim; it did not order them removed. In effect, the State Board decision left placeholders for the final numbers, which were to be determined on remand. Therefore, the failure to include mass limitations for the constituents listed above constitutes backsliding and violates the State Board order. The Order must be revised to include mass limitations for the constituents listed above.

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.”*

Federal Regulations, 40 CFR 122.45 (f), states the following with regard to mass limitations:

- “(1) all pollutants limited in permits shall have limitations, standards, or prohibitions expressed in terms of mass except:  
For pH, temperature, radiation or other pollutants which cannot be expressed by mass;  
When applicable standards and limitations are expressed in terms of other units of measurement; or  
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.”*

Federal Regulations, 40 CFR 122.45 (B)(1), states the following: *“In the case of POTWs, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow.”* Design flow has no bearing on concentration limits. This failure to include mass limitations is in direct violation of 40 CFR 122.45 (B)(1). 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.

**U. Assimilative Capacity for EC already given up with LCWD permit and the Order allows over allocation of the Feather River contrary to the Basin Plan.**

The Basin Plan, page IV-15.00, contains *The Water Quality Limited Segment Policy* which states that: “Additional treatment beyond minimum federal requirements will be imposed on dischargers to water Quality Limited Segments. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be achieved in the segment.” The Order includes an interim effluent limitation for electrical conductivity of 1,000 mmhos/cm as a monthly average that is to be effective throughout the term of the permit and authorizes a dry weather discharge flow of up to 10.5 mgd. Order No. R5-2003-0089 included a final effluent limitation of 830 mmhos/cm as a 30-day, 90<sup>th</sup> percentile and authorized a dry weather discharge flow of up to 7.0 mgd. Order No. R5-2006-0096, for the Linda County Water District discharge to the Feather River, included the following discussion regarding allocation of the remaining assimilative capacity for electrical conductivity:

*“Electrical Conductivity—The Basin Plan includes a water quality objective that electrical conductivity (at 25°C) “[s]hall not exceed 150 micromhos/cm (90 percentile) in well-mixed waters of the Feather River.” One of the water bodies to which this objective applies is the Feather River from the Fish Barrier Dam at Oroville to the Sacramento River. Electrical conductivity in the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the Basin Plan objective for electrical conductivity in the Feather River. An Effluent Limitation for electrical conductivity is included in this Order and is based on the Basin Plan objective for electrical conductivity in the Feather River and consideration of available assimilative capacity.*

*The maximum 30-day 90<sup>th</sup> percentile effluent and receiving water (R-1) electrical conductivity concentrations for the period beginning 1 January 2001 and ending 31 August 2005 were 777 µmhos/cm and 146 µmhos/cm, respectively. The human health dilution ratio (described in WQBEL Calculations IV.C.4.d on page 63) is appropriate to use because it applies to criteria that are applicable over longer time periods than the toxicity dilution ratios.*

*Yuba City’s WWTP discharge consumes a portion of the EC dilution available in the Feather River. WDRs Order No. R5-2003-0085 permits Yuba City’s WWTP to discharge up to 7.0 mgd of effluent with a maximum allowable EC concentration of 830 µmhos/cm to the Feather River. Using a mass balance, the 90<sup>th</sup> percentile EC of the Feather River would be 149.42 µmhos/cm.*

$$EC = \frac{(EC_{Linda} Q_{Linda}) + (EC_{Yuba\ City} Q_{Yuba\ City}) + (EC_{Feather\ River} Q_{Feather\ River})}{(Q_{Linda} + Q_{Yuba} + Q_{Feather})}$$

$$149.42 \text{ } \mu\text{mhos/cm} = \frac{((780 \text{ } \mu\text{mhos/cm} \times 5.0 \text{ mgd}) + (830 \text{ } \mu\text{mhos/cm} \times 7.0 \text{ mgd}) + (146 \text{ } \mu\text{mhos/cm} \times 2318 \text{ mgd}))}{(5.0 \text{ mgd} + 7.0 \text{ mgd} + 2318 \text{ mgd})}$$

*This Order includes a maximum 30-day 90<sup>th</sup> percentile Effluent Limitation for electrical conductivity of 780 µmhos/cm that is based upon the WWTP’s 30-day 90<sup>th</sup> percentile effluent electrical conductivity concentration.*

This Order grants the remainder of the EC assimilative capacity of the Feather River to this discharge. Redistribution of EC allocation for discharges to the Feather River may be considered when this Order is renewed or reopened.” [emphasis added]

If one discharge of 5.0 mgd at 780  $\mu$ mhos/cm plus another discharge of 7.0 mgd at 830  $\mu$ mhos/cm means the full utilization of the Feather River’s assimilative capacity for electrical conductivity, then clearly one discharge of 5.0 mgd at 780  $\mu$ mhos/cm plus another discharge of 10.5 mgd at 1,000  $\mu$ mhos/cm would result in over-allocation of the Feather River’s assimilative capacity for electrical conductivity. The Order includes an effluent limitation for electrical conductivity of 1,000  $\mu$ mhos/cm as a monthly average that is to be effective throughout the term of the permit and authorizes a dry weather discharge flow of up to 10.5 mgd. Order No. R5-2003-0089 included a final effluent limitation of 830  $\mu$ mhos/cm as a 30-day, 90<sup>th</sup> percentile and authorized a dry weather discharge flow of up to 7.0 mgd.

#### Electrical Conductivity

Federal Regulations, 40 CFR 122.44 (d)(i), requires that; “Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.” Failure to establish effluent limitations for EC that are protective of the site-specific Basin Plan water quality objective for electrical conductivity in the Feather River blatantly violates 40 CFR 122.44.

Federal Regulation, 40 CFR 122.44, which mandates an effluent limitation be established if a discharge exceeds a water quality objective. State Board Water Quality Order 2005-005 states, in part that: “...*the State Board takes official notice [pursuant to Title 23 of California Code of Regulations, Section 648.2] of the fact that operation of a large-scale reverse osmosis treatment plant would result in production of highly saline brine for which an acceptable method of disposal would have to be developed. Consequently, any decision that would require use of reverse osmosis to treat the City’s municipal wastewater effluent on a large scale should involve thorough consideration of the expected environmental effects.*” The State Board does not have the authority to ignore Federal Regulation. Bay Area treatment plants have been utilized for RO brine disposal previously.

#### **V. The Order contains an incomplete Antidegradation analysis contrary to Federal Regulations and the State and Regional Board’s Antidegradation Policy.**

Despite the extensive expansion allowed by the Order, the antidegradation analysis discussion in the Order is not simply deficient, it is literally nonexistent. The brief discussion of antidegradation requirements, in the Findings and Fact Sheet, consist only of skeletal, unsupported, undocumented conclusory statements totally lacking in factual

analysis. The failure to undertake a rigorous antidegradation analysis for the expansion of a “major” discharge of pollutants into a critical and legally impaired water body is appalling.

The permit states that the action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of Division 13 of the Public Resources Code in accordance with Section 13389 of the CWC. The action to adopt an NPDES permit may be exempt from CEQA; however the Order discusses significant expansion of the wastewater treatment plant which is not exempt from CEQA. Later in the Fact Sheet, the permit discusses a CEQA document that was completed for the wastewater treatment plant expansion. The CEQA discussion within the permit must be expanded to discuss all of the water quality impacts discovered during the CEQA analysis. The permit states Discharger HAS proposed mitigation measures in their EIR, yet no such mitigation measures are identified or discussed in the permit. Intensive sampling for four-years is not mitigation. While it is true that the Regional Board is exempt from Chapter 3 of CEQA, it is not exempt from all of CEQA. The CEQA discussion of water quality issues is relevant to the antidegradation policy discussion.

As a part of the Antidegradation Policy, Dischargers are required to provide BPTC. The Antidegradation Policy, State Water Resources Control Board Resolution No. 68-16, states that: “Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit to the people of the State will be maintained.” The Antidegradation Policy has been incorporated into the Basin Plan. Waste Discharge Requirements must require that the treatments systems provide BPTC. It is not in the best interest of the people of the State to allow a mixing zone that is toxic to aquatic life, that does not protect the contact recreation beneficial use for fishermen in the mixing zone and allows Yuba City to provide antiquated wastewater treatment. Yuba City’s system produces secondary unnitrified wastewater, while tertiary treatment has become common place in the Central Valley to protect water quality.

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.

Any antidegradation analysis must comport with implementation requirements in State Board Water Quality Order 86-17, State Antidegradation Guidance, APU 90-004 and Region IX Guidance. The conclusory, unsupported, undocumented statements in the Permit are no substitute for a defensible antidegradation analysis.

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 does not discuss the economic impacts to neighboring communities by granting all of the assimilative capacity of the Feather River to Yuba City.

There is nothing resembling an economic or socioeconomic analysis in the Permit. There are viable alternatives that have never been analyzed. The Discharger could upgrade to a conventional tertiary, nitrification, denitrification, ultraviolet disinfection system or install micro-filtration treatment equipment. The evaluation contains no comparative costs. As a rule-of-thumb, U.S. EPA recommends that the cost of compliance should not be considered excessive until it consumes more than 2% of disposable household income in the region. This threshold is meant to suggest more of a floor than a ceiling when evaluating economic impact. In the *Water Quality Standards Handbook*, U.S. EPA interprets the phrase "*necessary to accommodate important economic or social development*" with the phrase "*substantial and widespread economic and social impact.*"

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 Feather River to the region and the potential effects upon those who rely on and use the Feather and Sacramento Rivers, as well as 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 receiving streams. Nor has the case been made that there is no alternative for necessary housing other than placing it where its wastewater must discharge directly into sensitive waters. It is unfortunate that the agency charged with implementing the Clean Water Act has apparently decided it is more important to protect the polluter than the environment.

There is nothing in the Order resembling an alternatives analysis evaluating less damaging and degrading alternatives. Unfortunately, the Order fails to evaluate and discuss why there is no alternative other than discharging to surface waters. Other communities have successfully disposed of wastes without discharging additional pollutants to degraded rivers. The discharger certainly has the option of purchasing offsets. A proper alternatives analysis would cost out various alternatives and compare each of the alternatives' impacts on beneficial uses.

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

be considered BPTC for wastewater discharges of impairing pollutants into critically sensitive ecological areas containing listed species that are already suffering degradation. If this is not the case, the antidegradation analysis must explicitly detail how and why an out-of-date secondary treatment system that facilitate increased mass loadings of impairing constituents can be considered BPTC.

There is nothing in the Order resembling an analysis that ensures that existing beneficial uses are protected. While the Order identifies the constituents that are included on the 303(d) list as impairing receiving waters, it fails to discuss how and to what degree the identified beneficial uses will be additionally impacted by the discharge. Nor does the Order analyze the incremental and cumulative impact of increased loading of non-impairing pollutants on beneficial uses. In fact, there is almost no information or discussion on the composition and health of the identified beneficial uses. Any reasonably adequate antidegradation analysis must discuss the affected beneficial uses (*i.e.*, numbers and health of the aquatic ecosystem; extent, composition and viability of agricultural production; people depending upon these waters for water supply; extent of recreational activity; *etc.*) and the probable effect the discharge will have on these uses.

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 State 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.”

NPDES permits must include any more stringent effluent limitation necessary to implement the Regional Board Basin Plan (Water Code 13377). The Order fails to properly implement the Basin Plan’s Antidegradation Policy.

**W. The Order 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 criterion 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 Order 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 Order contains a discharge limitation that allows 30% mortality (70% survival) of fish species in any given toxicity test. Accordingly, the Order must be revised to prohibit acute toxicity in accordance with Federal regulations, at 40 CFR 122.44 (d)(1)(i).

**X. The Order Does Not Contain Effluent Limitations for Chronic Toxicity and Therefore 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. The Order 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 Order 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. Accordingly, the Order must be revised to prohibit chronic toxicity in accordance with Federal regulations, at 40 CFR 122.44 (d)(1)(i).

**Y. Contrary to Findings in the Order the Order Violates State and Federal Endangered Species Acts.**

As discussed above, the Feather River is listed on the 303(d) list as impaired because of unknown toxicity and is home to species protected by state and federal endangered species acts. There is no remaining assimilative capacity for toxicity or toxic pollutants. Astonishingly, the Order allows acute toxicity, fails to limit chronic toxicity and, as we discuss below, includes effluent limits that are not protective of listed species. The Order is likely to result in the illegal “take” of listed species and will likely result in the destruction or adverse modification of critical habitat in violation of Section 9 of the federal Endangered Species Act (ESA).

The Order has been developed with federal funds and is issued pursuant to U.S. Environmental Protection Agency (U.S. EPA) authorization. Consequently, the Regional Board and/or U.S. EPA must enter into formal consultation with both the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA. The discharge of toxicity and toxic pollutants by the Discharger is a violation of Section 9 of the ESA and requires an incidental take permit pursuant to Section 10 of the ESA. The Regional Board’s issuance of an Order that authorizes and/or “causes” an illegal “take” is also a violation of Section 9 of the ESA. Consequently, both the Discharger and the Regional Board must secure incidental take permits from NMFS and USFWS.

The Order will also likely result in an illegal “take” of listed species pursuant to Section 2080 of the California Fish and Game Code; *i.e.*, the California Endangered Species Act (CESA). The Discharger must obtain a permit under Section 2081 or a consistency determination under Section 2080.1 of CESA. Unlike ESA, CESA requires that authorized take be “fully mitigated” and that all required measures be “capable of successful implementation.” Since there are no provisions for time schedules under CESA, the Discharger must comply with protective limits as soon as possible and certainly prior to any increase in the rate of discharge. The inadequate toxicity, ammonia, and metals limitations in the Order must be revised to be fully protective of listed species. The Discharger and Regional Board must initiate consultation with the California Department of Fish and Game.

**Z. Failure to Include an Effluent Limitation for Dissolved Oxygen Violates Federal Regulations.**

The discharge contains oxygen-demanding substances. The Order contains a Receiving Water Limitation for dissolved oxygen. The discharge presents a reasonable potential to cause or contribute to exceedance of the Basin Plan’s water quality objective for dissolved oxygen. In accordance with Federal Regulations, 40 CFR 122.44, the Order is required to contain an Effluent Limitation for dissolved oxygen and must be revised accordingly.

**AA. The Order fails to include limits and monitoring for methylmercury.**

The Tentative Permit includes an interim effluent mass limitation, or cap, for total mercury. Inexplicably, it ignores methylmercury; the bioaccumulative and biodamaging

form of mercury. Regional Board TMDL staff has consistently maintained that the pending Delta Mercury TMDL will require substantial reductions in the mass loading of methylmercury from wastewater treatment plants. The Tentative Permit must include an interim cap on methylmercury loading.

The Tentative Permit states that, if the Regional Board determines that a mercury offset program is feasible, the Order may be reopened to reevaluate the interim mercury mass loading limitation(s) and the need for mercury offset program. An explicit permit re-opener to include final load reductions established in the Delta Mercury TMDL must be incorporated in the Order.

The Monitoring and Reporting Program does not contain monitoring for methylmercury. Sampling for methylmercury is critical to support the mercury TMDL and the allocation of loads.

**BB. 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 frequency of monitoring is insufficient to assure compliance with Permit limitations. Continuous EC and turbidity should be required as they are inexpensive. Continuous EC monitoring is especially critical to determine the critical values related to the numerous EC discussions and studies in the proposed Order.

**CC. Regional Board Authority to Issue Compliance Schedules Under the CTR Has Now Lapsed.**

The Order includes an interim limitation and compliance schedule for compliance with the CTR aquatic toxicity criteria for lead.

40 CFR §131.38(e)(3) formerly authorized compliance schedules delaying the effective date of WQBELs being set based on the NTR and CTR. Pursuant to 40 CFR §131.38(e)(8), however, this compliance schedule authorization *expressly expired* on May 18, 2005, depriving the State and Regional Boards with any authority to issue compliance schedules delaying the effective date of such WQBELs. Indeed, the EPA Federal Register Preamble accompanying the CTR stated as much, noting, “*EPA has chosen to promulgate the rule with a sunset provision which states that the authorizing compliance schedule provision will cease or sunset on May 18, 2005.*”

The Regional Board may contend that the EPA Federal Register Preamble has effectively extended this compliance schedule authority when the Preamble observed, “[I]f the State

*Board adopts, and EPA approves, a statewide authorizing compliance schedule provision significantly prior to May 18, 2005, EPA will act to stay the authorizing compliance schedule provision in today's rule.*" It is true that the State Board subsequently adopted its Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, enacted by State Board Resolution No. 2000-015 (March 2, 2000) ("State Implementation Plan" or "SIP") and that the SIP provides for compliance schedules without imposing a May 18, 2005 cutoff. U.S. EPA, however, *has not* acted to stay 40 CFR §131.38(e)(8) by the only means it can lawfully do so: notice and comment rulemaking that amends 40 CFR §131.38(e)(8). Without such a rulemaking, 40 CFR §131.38(e)(8) remains the law and it unequivocally ends authorization to issue compliance schedules after May 18, 2000. *See Friends of the Earth, Inc. v. Environmental Protection Agency*, 446 F.3d 140 (D.C. Cir. 2006).

Even if 40 CFR §131.38(e)(8) did not preclude issuing compliance schedules which delay the effective date of WQBELs set under the NTR and CTR, the CWA itself precludes such compliance schedules—and any compliance schedule which delays the effective date of WQBELs past 1977.

Numerous courts have held that neither U.S. EPA nor the States have the authority to extend the deadlines for compliance established by Congress in CWA section 301(b)(1). 33 U.S.C. §1311(b)(1); *See State Water Control Board v. Train*, 559 F.2d 921, 924-25 (4th Cir. 1977) ("Section 301(b)(1)'s effluent limitations are, on their face, unconditional"); *Bethlehem Steel Corp. v. Train*, 544 F.2d 657, 661 (3d Cir. 1976), *cert. denied sub nom. Bethlehem Steel Corp. v. Quarles*, 430 U.S. 975 (1977) ("Although we are sympathetic to the plight of Bethlehem and similarly situated dischargers, examination of the terms of the statute, the legislative history of [the Clean Water Act] and the case law has convinced us that July 1, 1977 was intended by Congress to be a rigid guidepost").

This deadline applies equally to technology-based effluent limitations and WQBELs. *See Dioxin/Organochlorine Ctr. v. Rasmussen*, 1993 WL 484888 at \*3 (W.D. Wash. 1993), *aff'd sub nom. Dioxin/Organochlorine Ctr. v. Clarke*, 57 F.3d 1517 (9th Cir. 1995) ("The Act required the adoption by U.S. EPA of 'any more stringent limitation, including those necessary to meet water quality standards,' by July 1, 1977") (citation omitted); *Longview Fibre Co. v. Rasmussen*, 980 F.2d 1307, 1312 (9th Cir. 1992) ("[Section 1311(b)(1)(C)] requires achievement of the described limitations 'not later than July 1, 1977.' ") (citation omitted). Any discharger not in compliance with a WQBEL after July 1, 1977, violates this clear congressional mandate. *See Save Our Bays and Beaches v. City & County of Honolulu*, 904 F. Supp. 1098, 1122-23 (D. Haw. 1994).

Congress provided no blanket authority in the Clean Water Act for extensions of the July 1, 1977, deadline, but it did provide authority for the States to foreshorten the deadline. CWA section 303(f) (33 U.S.C. § 1313(f)) provides that: "[n]othing in this section [1313] shall be construed to affect any effluent limitations or schedule of compliance required by any State to be implemented prior to the dates set forth in section 1311(b)(1) and

*1311(b)(2) of this title nor to preclude any State from requiring compliance with any effluent limitation or schedule of compliance at dates earlier than such dates.”*

Because the statute contains explicit authority to expedite the compliance deadline but not to extend it, the Regional Board may not authorize extensions beyond this deadline in discharge permits.

The July 1, 1977, deadline for achieving WQBELs applies equally even if the applicable WQS are established after the compliance deadline. 33 U.S.C. section 1311(b)(1)(C) requires the achievement of “more stringent limitations necessary to meet water quality standards . . . established pursuant to any State law . . . or required to implement any applicable water quality standard established pursuant to this chapter.” Congress understood that new WQS would be established after the July 1, 1977, statutory deadline; indeed, Congress mandated this by requiring states to review and revise their WQS every three years. *See* 33 U.S.C. § 1313(c). Yet, Congress did not draw a distinction between achievement of WQS established before the deadline and those established after the deadline.

Prior to July 1, 1977, therefore, a discharger could be allowed some time to comply with an otherwise applicable water quality-based effluent limitation. Beginning on July 1, 1977, however, dischargers were required to comply as of the date of permit issuance with WQBELs, including those necessary to meet standards established subsequent to the compliance deadline.

In the Clean Water Act Amendments of 1977, Congress provided limited extensions of the July 1, 1977, deadline for achieving WQBELs. In CWA section 301(i), Congress provided that “publicly-owned treatment works” (“POTWs”) that must undertake new construction in order to achieve the effluent limitations, and need Federal funding to complete the construction, may be eligible for a compliance schedule that may be “in no event later than July 1, 1988.” 33 U.S.C. § 1311(i)(1) (emphasis added). Congress provided for the same limited extension for industrial dischargers that discharge into a POTW that received an extension under section 1311(i)(1). *See* 33 U.S.C. § 1311(i)(2). In addition, dischargers that are not eligible for the time extensions provided by section 1311(i) but that do discharge into a POTW, may be eligible for a compliance schedule of no later than July 1, 1983. *See* 33 U.S.C. § 1319(a)(6).

The fact that Congress explicitly authorized certain extensions indicates that it did not intend to allow others, which it did not explicitly authorize. In *Homestake Mining*, the Eighth Circuit held that an enforcement extension authorized by section 1319(a)(2)(B) for technology-based effluent limitations did not also extend the deadline for achievement of WQBELs. 595 F.2d at 427-28. The court pointed to Congress' decision to extend only specified deadlines: “[h]aving specifically referred to water quality-based limitations in the contemporaneously enacted and similar subsection [1319](a)(6), the inference is inescapable that Congress intended to exclude extensions for water quality-based permits under subsection [1319](a)(5) by referring therein only to Section [1311](b)(1)(A). *Id.* at 428 (citation omitted). By the same reasoning, where Congress

extended the deadline for achieving effluent limitations for specific categories of discharges and otherwise left the July 1, 1977, deadline intact, there is no statutory basis for otherwise extending the deadline.

The Clean Water Act defines the term effluent limitation as: “*any restriction established . . . on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.*” 33 U.S.C. § 1362(11).

The term schedule of compliance is defined, in turn, as “*a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.*” 33 U.S.C. § 1362(17). The purpose of a compliance schedule is to facilitate compliance with an effluent limitation by the applicable deadline by inserting interim goals along the way: “[a] *definition of effluent limitations has been included so that control requirements are not met by narrative statements of obligation, but rather are specific requirements of specificity as to the quantities, rates, and concentration of physical, chemical, biological and other constituents discharged from point sources. It is also made clear that the term effluent limitation includes schedules and time tables of compliance. The Committee has added a definition of schedules and time-tables of compliance so that it is clear that enforcement of effluent limitations is not withheld until the final date required for achievement.*” S. Rep. No. 92-414, at 77, *reprinted in* 1972 U.S.C.C.A.N. 3668 (Oct. 28, 1971) (emphasis added). Thus, Congress authorized compliance schedules, not to extend its deadlines for achievement of effluent limitations, but to facilitate achievement by the prescribed deadlines.

In *United States Steel Corp.*, the industry plaintiff argued that 33 U.S.C. § 1311(b)(1)(C) allows the July 1, 1977, deadline to be met simply by beginning action on a schedule of compliance that eventually would result in achieving the technology- and water quality-based limitations. 556 F.2d at 855. The Court of Appeals disagreed: “[w]e *reject this contorted reading of the statute. We recognize that the definition of ‘effluent limitation’ includes ‘schedules of compliance,’ section [1362(11)], which are themselves defined as ‘schedules . . . of actions or operations leading to compliance’ with limitations imposed under the Act. Section [1362(17)]. It is clear to us, however, that section [1311(b)(1)] requires point sources to achieve the effluent limitations based on BPT or state law, not merely to be in the process of achieving them, by July 1, 1977.*” *Id.* Thus, compliance schedule may not be used as a means of evading, rather than meeting, the deadline for achieving WQBELs.

Finally, a compliance schedule that extends beyond the statutory deadline would amount to a less stringent effluent limit than required by the CWA. States are explicitly prohibited from establishing or enforcing effluent limitations less stringent than are required by the CWA. *See* 33 U.S.C. § 1370; Water Code §§ 13372, 13377. The clear language of the statute, bolstered by the legislative history and case law, establishes unambiguously that compliance schedules extending beyond the July 1, 1977, deadline

may not be issued in discharge permits. The Order, however, purports to do just that. By authorizing the issuance of permits that delay achievement of effluent limitations for over thirty years beyond Congress' deadline, the Permit makes a mockery of the CWA section 301(b)(1)(C) deadline and exceeds the scope of the Regional Board's authority under the Clean Water Act and the Porter-Cologne Act. 33 U.S.C. § 1311(b)(1)(C). The Order must be revised to comply with the regulations.

**DD. The Order backslides by failing to contain Effluent Limitations as stringent as the previous permit contrary to Federal Regulation 40 CFR 122.44(l).**

The previous NPDES permit for Yuba City contained Effluent Limitations for:

Bis (2-ethylhexyl) phthalate	2,4,6-Trichlorophenol
Chloroform	Nitrite + Nitrate (as N)
Thiobencarb	Trichloroethylene
Arsenic	Iron – mass limit
cis-1,2-Dichloroethene	manganese – mass limit
MTBE	MBAS – mass limit
Pentachlorophenol	
Cadmium	

These constituents are not limited in the Order. In accordance with Federal Regulation 40 CFR 122.44(l) a renewed NPDES permit must contain effluent limitations at least as stringent as the previous permit.

**5. THE MANNER IN WHICH THE PETITIONERS ARE AGGRIEVED.**

CSPA is a non-profit, environmental organization that has a direct interest in reducing pollution to the waters of the Central Valley. CSPA's members benefit directly from the waters in the form of recreational hiking, photography, fishing, swimming, hunting, bird watching, boating, consumption of drinking water and scientific investigation. Additionally, these waters are an important resource for recreational and commercial fisheries.

Central Valley waterways also provide significant wildlife values important to the mission and purpose of the Petitioners. This wildlife value includes critical nesting and feeding grounds for resident water birds, essential habitat for endangered species and other plants and animals, nursery areas for fish and shellfish and their aquatic food organisms, and numerous city and county parks and open space areas.

CSPA's members reside in communities whose economic prosperity depends, in part, upon the quality of water. CSPA has actively promoted the protection of fisheries and water quality throughout California before state and federal agencies, the State Legislature and Congress and regularly participates in administrative and judicial proceedings on behalf of its members to protect, enhance, and restore declining aquatic resources.

CSPA member's health, interests and pocketbooks are directly harmed by the failure of the Regional Board to develop an effective and legally defensible program addressing discharges to waters of the state and nation.

**6. THE SPECIFIC ACTION BY THE STATE OR REGIONAL BOARD WHICH PETITIONER REQUESTS.**

Petitioners seek an Order by the State Board to:

- A. Vacate Order No. R5-2007-0134 (NPDES No. CA0079260) and remand to the Regional Board with instructions prepare and circulate a new tentative order that comports with regulatory requirements.
- B. Alternatively; prepare, circulate and issue a new order that is protective of identified beneficial uses and comports with regulatory requirements.

**7. A STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT OF LEGAL ISSUES RAISED IN THE PETITION.**

CSPA's arguments and points of authority are adequately detailed in the above comments and our 30 September 2007 comment letter. Should the State Board have additional questions regarding the issues raised in this petition, CSPA will provide additional briefing on any such questions.

The petitioners believe that an evidentiary hearing before the State Board will not be necessary to resolve the issues raised in this petition. However, CSPA welcomes the opportunity to present oral argument and respond to any questions the State Board may have regarding this petition.

**8. A STATEMENT THAT THE PETITION HAS BEEN SENT TO THE APPROPRIATE REGIONAL BOARD AND TO THE DISCHARGERS, IF NOT THE PETITIONER.**

A true and correct copy of this petition, without attachment, was sent electronically and by First Class Mail to Ms. Pamela Creedon, Executive Officer, Regional Water Quality Control Board, Central Valley Region, 11020 Sun Center Drive #200, Rancho Cordova, CA 95670-6114.

A true and correct copy of this petition, without attachment, was sent to the Discharger in care of: Mr. William Lewis, Utilities Director, Yuba City Wastewater Treatment Facility, 302 Burns Drive, Yuba City, CA 95991.

**9. A STATEMENT THAT THE ISSUES RAISED IN THE PETITION WERE PRESENTED TO THE REGIONAL BOARD BEFORE THE REGIONAL BOARD ACTED, OR AN EXPLANATION OF WHY THE PETITIONER**

**COULD NOT RAISE THOSE OBJECTIONS BEFORE THE REGIONAL BOARD.**

CSPA presented the issues addressed in this petition to the Regional Board in a 30 September 2007 detailed comment letter that was accepted into the record.

If you have any questions regarding this petition, please contact Bill Jennings at (209) 464-5067 or Michael Jackson at (530) 283-1007.

Dated: 24 November 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Bill Jennings". The signature is written in a cursive, flowing style.

Bill Jennings, Executive Director  
California Sportfishing Protection Alliance

Attachment No. 1: Order No. R5-2007-0134