



California Sportfishing Protection Alliance

"An Advocate for Fisheries, Habitat and Water Quality"

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19 September 2006

Mr. Robert Schneider, Chairman
Ms. Pamela Creedon, Executive Officer
Mr. James C. Pedri, Assistant Executive Officer
Mr. Brian Smith, Senior WRC Engineer
Mr. Jim Rohrbach, WRC Engineer
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission
Hardcopy if Requested

RE: Waste Discharge Requirements (NPDES No. CA0078921) for City of Alturas
Wastewater Treatment Plant, Modoc County

Dear Messrs Schneider, Pedri, Smith and Ms. Creedon;

The California Sportfishing Protection Alliance and Watershed Enforcers (CSPA) has reviewed the Central Valley Regional Water Quality Control Board's (Regional Board) tentative NPDES permit (Order or Permit) for City of Alturas Wastewater Treatment Plant, Modoc County (Discharger) and submits the following comments.

Despite the fact that the public comment period closes on 20 September 2006, the proposed Permit is identified on the agenda as an uncontested item. CSPA requests the Permit be removed from the Uncontested Items Calendar and seeks status as a designated party for this proceeding. CSPA is a 501(c)(3) conservation and research organization established in 1983 for the purpose of conserving, restoring, and enhancing the state's fishery resources and their aquatic ecosystems and associated riparian habitats. CSPA has actively promoted the protection of water quality and fisheries 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 aquatic resources. CSPA members reside, boat, fish and recreate in and along waterways throughout the Central Valley.

1. The Basin Plan prohibits the discharge of wastewater to low flow streams as a permanent means of disposal

The Fact Sheet at page 2 states, "During some years there are periods of zero dilution in the Pit River at 001, primarily in the middle and late summer months." The Basin Plan, Implementation, Page IV-24-00, Regional Water Board prohibitions, states that: "Water bodies for which the Regional Water Board has held that the direct discharge

of waste is inappropriate as a permanent disposal method include sloughs and streams with intermittent flow or limited dilution capacity.” The proposed Permit characterizes the receiving stream as low flow, or ephemeral, with no available dilution. The proposed Permit does not discuss any efforts to eliminate the discharge to surface water and compliance with the Basin Plan Prohibition. Federal Regulation 40 CFR 122.4 states that no permit shall be issued for any discharge when the conditions of the permit do not provide for compliance with the applicable requirements of the CWA and are inconsistent with a plan or plan amendment. The permit must be amended to require that the Discharger develop a workplan to eliminate the wastewater discharge to surface water in accordance with the Basin Plan.

2. The Permit and Fact Sheet fails to provide or summarize monitoring data

The proposed Permit fails to summarize the data used in determining reasonable potential. We are unable to verify the reasonable potential analysis or assess whether the proposed Permit is protective due to the absence of data. The precedential State Board Order for the Yuba City Wastewater Treatment Facility states “[t]he findings or Fact Sheet should cite the specific data on which it [Regional Board] relied in its calculations.” Regional Board permits have routinely provided effluent and ambient monitoring data for detected constituents to justify reasonable potential and antidegradation analyses. The proposed Permit must be revised to include the data used in determining reasonable potential and in calculating concentration and mass effluent limitations.

3. The Permit is not protective of the Pitt River for 303(d) impairing constituents

Finding 10 of the proposed Order states that “[o]n 25 July 2003 the USEPA approved the State’s updated list of 303 (d) impaired waters, which lists the Pit River as impaired for nutrients, organic enrichment/low dissolved oxygen and temperature.” Finding 12 of the proposed Order states that “during some years there are periods of zero dilution in the Pit River at 001 [discharge point], primarily in the middle and late summer months” and that “[d]ilution, therefore, cannot be considered in the calculation of effluent limits at this time, and the Discharger will be required in this Permit to meet effluent limitations at end of pipe.” The Information Sheet for the proposed Order, on page 6, states that the Regional Board “has determined that the Alturas WWTP does not increase the temperature in the Pit River and is a negligible contributor of organic BOD during most of the year when there is adequate flow in the Pit River.”

The Basin Plan (p. IV.7.00) states “[a]dditional treatment beyond minimum federal requirements will be imposed on dischargers to WQLSs [water quality limited segments; similar to 303(d)-listed water bodies].” Unfortunately, no supporting information (*e.g.*, summary of effluent and receiving water temperatures) is provided or cited to substantiate the assertion that the discharge from the Alturas WWTP does not increase the temperature in the Pit River. Nor does it appear that an evaluation was done to assess whether the discharge contributes to elevated temperatures in the Pit River. 40

CFR 122.44(d)(1)(i) states, “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.”

The federal regulations require determining whether the discharge not only causes, but whether the discharge has a reasonable potential to cause or contribute to an excursion. The proposed Permit appears to consider only whether the discharge from the Alturas WWTP is the sole cause of the elevated temperatures in the Pit River. The proposed Permit must be revised to evaluate whether the discharge may contribute to temperatures in the Pit River in excess of what is protective of all beneficial uses.

The fact that at times, the discharge constitutes the full flow of the receiving stream and the statement that the discharge from the Alturas WWTP “*is a negligible contributor of organic BOD*” is contradictory. The sole contributor of BOD cannot be a negligible contributor.

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 Clean Water Act (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. The Regional and State Board’s Antidegradation Policy and Federal Regulations require best practicable treatment and control (BPTC) be provided.

The proposed Order fails to require BPTC for the discharge with respect to the 303(d) list parameters.

- a. *Nutrients*—Biological nutrient removal (BNR) treatment technology is available and used by Central Valley dischargers for enhanced phosphorus uptake. Nitrification and denitrification of wastewaters are common treatments provided at WWTPs to achieve compliance with ammonia and nitrate limitations and to effectively reduce nitrogen content in the wastewater.
- b. *Organic enrichment/low dissolved oxygen*—Secondary treatment technologies, required by federal regulations and the proposed Order, achieve a minimum of 85% removal of biochemical oxygen demand (BOD). Biochemical oxygen demand (BOD) is a measure of the amount of oxygen used in the biochemical oxidation of organic matter. Tertiary/advanced secondary treatment technologies, typically involving coagulation and filtration, can achieve better than 95% removal of BOD. Nearly all of the wastewater treatment facilities in the Central Valley that are discharging to low-flow or ephemeral streams are currently either providing an equivalent-to-tertiary level of treatment (>95% removal of

BOD) or are in the process of upgrading to achieve that level of treatment. NPDES permits regulating these facilities include average monthly effluent limitations of 10 mg/l for both BOD and TSS, based on the technical capabilities of an equivalent-to-tertiary/advanced secondary treatment system. The proposed order includes effluent limitations for turbidity and total coliform organisms based on equivalent-to-tertiary treatment standards, but does not include the appropriate corresponding BOD and TSS limitations. It is unclear why the same standard has not been applied here.

- c. *Temperature*—The City of Placerville is in the process of constructing cooling towers at the Hangtown Creek WWTP to reduce effluent temperature. The City of Roseville has completed construction and currently operates cooling towers at their Dry Creek WWTP.

4. The Permit must include an effluent limitation for cyanide

Finding 11 and the Information Sheet, at page 3, in the proposed Order state that “[c]yanide was detected in the effluent and receiving water at elevated levels, however, the accuracy of the analysis was questionable.” The proposed Permit does not include an explanation (e.g., blank contamination) as to why the permit-writer believes the accuracy of the analysis was questionable.

5. The Permit’s compliance schedules are illegal

40 C.F.R. section 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 C.F.R. section 131.38(e)(8), however, this compliance schedule authorization expressly expired on May 18, 2005, depriving the State and Regional Boards of 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. EPA, however, has not acted to stay 40 C.F.R. section 131.38(e)(8) by the only means it can lawfully do so: notice and comment rulemaking that amends 40 C.F.R. section 131.38(e)(8). Without such a rulemaking, 40 C.F.R. section 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 C.F.R. section 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 the 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 the 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 Permit, 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).

Finding 15 of the proposed Order cites the Policy for Implementation of Toxics Standard in Inland Surface Waters, Enclosed Bays and Estuaries of California (State Implementation Policy or SIP) at Section 2.1 and states that “Section 2.1, further states

that compliance schedules may be included in NPDES permits provided that the following justification has been submitted:... ‘(a) documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream; (b) documentation of source control measures and/or pollution minimization measures efforts [sic] currently underway or completed; (c) a proposal for additional or future source control measures, pollutant minimization actions, or waste treatment (i.e., facility upgrades); and (d) a demonstration that the proposed schedule is as short as practicable.’ This Order requires the Discharger to provide this information.” Pursuant to the SIP, this information must be submitted prior to the provision of a compliance schedule in the proposed Permit. Even if a compliance schedule were allowable, the proposed Order inappropriately allows a compliance schedule despite the fact that the City of Alturas has not submitted the justification required by the SIP. It is the clear intent of the SIP that the required request, documentation and justification for a compliance schedule be submitted prior to drafting the Permit, presumably with the permit application for renewal. Since this information has not been submitted, as required by the SIP, a compliance schedule for CTR based effluent limitations cannot be included in the proposed Permit and the Permit must be revised accordingly to remove the compliance schedules to a Cease and Desist Order

6. The proposed Order misstates EPA chlorine recommendations

The proposed Order, in Finding 18 and in the Information Sheet at page 6, state that the U.S. EPA-recommended maximum one-hour average and four-day average chlorine concentrations for the protection of aquatic life are 0.02 mg/l and 0.01 mg/l, respectively. The actual recommended maximum concentrations are 0.019 mg/l as a one-hour average and 0.011 mg/l as a four-day average.

7. The Permit must include mass-based limitations

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

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

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

However, mass-based effluent limits alone may not assure attainment of water quality standards in waters with low dilution. In these waters, the quantity of effluent discharged has a strong effect on the instream dilution and therefore upon the RWC. At the extreme case of a stream that is 100 percent effluent, it is the effluent concentration rather than the mass discharge that dictates the instream concentration. Therefore, EPA recommends that permit limits on both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards.”

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:
- (i) For pH, temperature, radiation or other pollutants which cannot be expressed by mass;
 - (ii) When applicable standards and limitations are expressed in terms of other units of measurement; or
 - (iii) If in establishing permit limitations on a case-by-case basis under 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

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

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.”

Traditional wastewater treatment plant design utilizes average dry weather flow rates for organic, individual constituent, loading rates and peak wet weather flow rates for hydraulic design of pipes, weir overflow rates, and pumps.

Increased wet weather flow rates are typically caused by inflow and infiltration (I/I) into the sewer collection system that dilutes constituent loading rates and does not add to the mass of wastewater constituents.

For POTWs priority pollutants, such as metals, have traditionally been reduced by the reduction of solids from the wastestream, incidental to treatment for organic material. Following adoption of the CTR, compliance with priority pollutants is of critical importance and systems will need to begin utilizing loading rates of individual constituents in the WWTP design process. It is highly likely that the principal design parameters for individual priority pollutant removal will be based on mass, making mass based Effluent Limitations critically important to compliance. The inclusion of mass limitations will be of increasing importance to achieving compliance with requirements for individual pollutants.

As systems begin to design to comply with priority pollutants, the design systems for POTWs will be more sensitive to similar restrictions as industrial dischargers currently face where production rates (mass loadings) are critical components of treatment system design and compliance. Currently, Industrial Pretreatment Program local limits are frequently based on mass. Failure to include mass limitations would allow industries to discharge mass loads of individual pollutants during periods of wet weather when a dilute concentration was otherwise observed, upsetting treatment processes, causing effluent limitation processes, sludge disposal issues, or problems in the collection system.

TMDLs represent a mass loading that may occur over a given time period to attain and maintain water quality standards. Mass loadings from WWTPs are critical to determining individual discharger allocations once a TMDL has been completed.

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.

Once toxicity numeric limitations (TUs) have been established, it is necessary to convert toxicity units that can be directly related to mass.

8. The Permit must include an effluent limitation for ammonia

No effluent limitations for ammonia are included in the proposed Order. Ammonia is inherently present in untreated domestic wastewater. Ammonia is known to cause toxicity to aquatic organisms. Nitrification is a biological process that converts ammonia to nitrite and nitrite to nitrate. Denitrification is a process that converts nitrate to nitrite or nitric oxide and then to nitrous oxide or nitrogen gas, which is then released to the atmosphere. Inadequate or incomplete nitrification may result in the discharge of ammonia to the receiving stream. Nitrate and nitrite are known to cause adverse health effects in humans, such as methemoglobinemia (blue-baby syndrome). The Basin Plan prohibits the discharge of chemical constituents in concentrations that adversely affect

beneficial uses. Municipal and domestic water supply and aquatic habitat, including spawning, reproduction, and/or early development, are beneficial uses of the Pit River. U.S. EPA has developed Primary Maximum Contaminant Levels (MCLs) for the protection of human health for nitrite and nitrate of 1 mg/l and 10 mg/l, respectively, and pH- and temperature-dependent Ambient Water Quality Criteria for ammonia. The discharge from the Alturas WWTP has a reasonable potential to cause or contribute to an in-stream excursion above water quality standards for ammonia, nitrite, and nitrate. Effluent Limitations for ammonia, nitrite, and nitrate must be included in the proposed NPDES Permit to assure protection of the beneficial uses of aquatic habitat and municipal and domestic supply.

In addition, for such a highly toxic constituent, the proposed quarterly monitoring of the effluent for ammonia is entirely inadequate. Total ammonia (as nitrogen) in the discharge should be monitored at a minimum frequency of at least weekly. The proposed Monitoring and Reporting Program should be revised accordingly and should include requirements that ammonia monitoring be conducted concurrently with biotoxicity monitoring and that pH and temperature be recorded at the time of ammonia sample collection.

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

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

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

For an ephemeral or low flow stream, allowing 30% mortality in acute toxicity tests allows that same level of mortality in the receiving stream, in violation of federal regulations and contributes to exceedance of the Basin Plan's narrative water quality objective for toxicity. Accordingly, the Order should be revised to prohibit acute toxicity.

10. The Permit must contain a limitation for chronic toxicity

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

The proposed Permit states that: "...to ensure compliance with the Basin Plan's narrative toxicity objective, the discharger is required to conduct whole effluent toxicity testing..." However, sampling does not equate with or ensure compliance.

The proposed Permit requires the Discharger to conduct an investigation of the possible sources of toxicity if a threshold is exceeded. This language is not a limitation and essentially eviscerates the Regional Board's authority, and the authority granted to third parties under the Clean Water Act, to find the Discharger in violation for discharging chronically toxic constituents. An effluent limitation for chronic toxicity must be included in the Order.

In addition, the requirement to monitor for chronic toxicity only once during the Permit cycle is entirely inadequate.

11. The receiving water limitation for dissolved oxygen must be revised

The proposed Permit includes Receiving Water Limitation F.1, which requires the discharge to not cause concentrations of dissolved oxygen in the receiving water to fall below 7.0 mg/l. For surface water bodies outside of the Delta, the Basin Plan includes the water quality objective that "...*the monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95 percentile concentration shall not fall below 75 percent of saturation.*" This objective must also be incorporated into the Receiving Water Limitations.

In addition, the proposed Monitoring and Reporting Program requirements should be revised to include % saturation for dissolved oxygen in the receiving stream.

12. Stringent coliform limitations must apply twelve months a year

Provision H.4 of the proposed Permit states, in part, that "[i]f upstream receiving water flow is not monitored, the more stringent final effluent limits for coliform will apply annually during the period 15 June through 15 November. (While there can be low flow conditions during the period 15 November through 15 January, there is no irrigation of food crops or contact recreation in progress at that time.)"

The significance of the 15 November through 15 January period is unclear. No information is supplied to support the assertion that there is no food crop irrigation or contact recreation occurring from mid-November to mid-January. The Pit River experiences high recreational use and, while the peak recreational use occurs in summer, contact recreational activity has been observed twelve months a year. Further, there is no discussion of whether riparian water rights holders divert water for personal consumption.

The Basin Plan does not limit the protection of beneficial uses in the Pit River to specified calendar periods. It simply states that they must be protected. Failure to adopt a permit that does so violates the Basin Plan. The Regional Board cannot de-designate the Pit River for the beneficial uses of agricultural irrigation or contact recreation without completing a Use Attainability Analysis and amending the Basin Plan. Failure to include protective limitations year-round appears to be an attempt to circumvent the Basin Plan amendment process. Additionally, failure to provide tertiary treatment, or equivalent, year-round is a failure to provide BPTC. Tertiary treatment, or equivalent, is provided by numerous facilities year-round throughout the Central Valley.

13. Effluent limitations for metals must be expressed as total recoverable

Federal regulations require expression of effluent limitations for metals as total recoverable. The effluent limitations for copper and zinc included in the proposed Permit do not comply with this requirement. The proposed Permit must be revised accordingly.

14. The proposed Permit does not contain an Effluent Limitation for oil and grease in violation of Federal Regulations 40 CFR 122.44

The proposed Permit is for a domestic wastewater treatment plant. Domestic wastewater treatment plants, by their nature, receive oil and grease in concentrations from home cooking and restaurants that present a reasonable potential to exceed the Basin Plan water quality objective for oil and grease.

Oil and grease is highly toxic to aquatic life: toxic at concentrations as low as 0.1 mg/L and sublethal toxicities are reported at 10-100 $\mu\text{g/L}$. It is also persistent, bioaccumulative and highly toxic in sediment. The USEPA's water quality standard for oil and grease is stated as: "a) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater and marine species, each having a demonstrated high susceptibility to oils and petrochemicals, b) Levels of oils or petrochemicals in the sediment which cause deleterious effects to the biota should not be allowed and c) surface waters shall be virtually free from floating nonpetroleum oils of vegetable or animal origin, as well as petroleum-derived oils." Goldbook, Quality Criteria for Water, EPA 440/5-86-001. The Basin Plan limit for oil and grease is "[w]aters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses." Basin Plan, III-5.00.

The Central Valley Regional Board has a long established history of including oil and grease limitations in NPDES permits at 15 mg/l as a daily maximum and 10 mg/l as a monthly average. While the 10 and 15 mg/l limits are not protective of receiving waters, their incorporation in most permits is clear proof that such limits are BPTC for POTWs. Failure to include an effluent limitation for oil and grease in the proposed Permit violates 40 CFR 122.44.

15. The proposed Permit contains an inadequate reasonable potential analysis 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.

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 CTR 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 USEPA’s *Technical Support Document For Water Quality-based Toxics Control*.

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.

16. Monitoring requirements are inadequate

The proposed Monitoring and Reporting Program requires weekly grab samples for effluent pH. pH can and is monitored on a continuous basis at many facilities throughout the Central Valley. pH can change rapidly and is relatively inexpensive to monitor on a continuous basis. The proposed Monitoring and Reporting Program should be revised to require continuous monitoring of effluent pH.

There is no adequate justification for reducing the monitoring frequency for zinc, copper, and hardness after one year.

The Effluent Monitoring section of the proposed Monitoring and Reporting Program requires a grab sample for priority pollutants. Priority pollutants include volatiles, for which grab samples are inappropriate.

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

Sincerely,

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

Bill Jennings, Executive Director
California Sportfishing Protection Alliance