



California Sportfishing Protection Alliance

"An Advocate for Fisheries, Habitat and Water Quality"

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30 January 2009

Mr. Ken Landau, Assistant Executive Officer
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6144
klandau@waterboards.ca.gov

VIA: Electronic Submission
Hardcopy if Requested

RE: Uncirculated Redline/Strikeout Late Changes: Renewal Of Waste Discharge Requirements (NPDES No. CA0078948) for City of Turlock Water Quality Control Facility, Stanislaus County

Dear Mr. Landau:

The California Sportfishing Protection Alliance (CSPA) has reviewed the late uncirculated redline/strikeout changes for the proposed Waste Discharge Requirements (NPDES No. CA0078948) for City of Turlock Water Quality Control Facility (Permit) and submits the following comments. Apparently, the Central Valley Regional Water Quality Control Board (Regional Board) no longer believes it is constrained by explicit regulatory requirements regarding issuance of NPDES permits that are contained in the federal Code of Regulations.

The proposed Permit for Turlock was properly issued for a 30-day public comment period and scheduled for consideration by the Regional Board on 5 February 2009. We submitted timely written comments regarding the proposed Permit on 3 January 2009 (attached). On 29 January 2009, one week prior to the Board meeting, we accessed the Regional Board's web site to determine if a response to our comments had been posted. We noted that a "redline/strikeout" version of the proposed Permit had been posted. We received no notice of the revision to the proposed Permit, although we have clearly established ourselves as an interested party. The "redline/strikeout" version of the proposed Permit was not posted for a 30-day period prior to the Board meeting, the public hearing for this matter. The "redline/strikeout" version of the proposed Permit was not circulated for public comment. The "redline/strikeout" version of the proposed Permit contains significant and substantial revisions.

The proposed Permit revisions include:

- Relaxation of the Effluent Limitations for copper,
- Relaxation of the Interim Effluent Limitation for Electrical Conductivity,

- An “estimated” point of compliance for mixing has been added absent a mixing zone analysis,
- A Finding regarding “Consistency with Mixing Zone Requirements” has been added to the Fact Sheet,
- A page and a half discussion has been added to the “Metals Translators” section of the Fact Sheet,
- The hardness used to calculate effluent Limitations for hardness dependant metals has been modified.
- A discussion of a schedule of compliance has been added for nitrate with reference to a Time Schedule Order,
- An “Outlier” determination was added to the discussion of chloride in the Fact Sheet,
- The Effluent Limitation calculation for copper has been significantly altered in the Fact Sheet,
- The compliance time schedule for electrical conductivity has been significantly altered,
- The “Water Effects Ratio (WER) and Metals Translators” finding in the Fact Sheet has been significantly altered,
- The “Dilution/Mixing Zone Study” finding in the Fact Sheet has been significantly altered,
- A finding for “Compliance Schedule for Aluminum” has been added to the Fact Sheet,
- The reasonable potential analysis for copper, lead and zinc have been significantly altered in Attachment G of the proposed permit

Federal Regulation 40 CFR 124.8 requires that:

(Applicable to State programs, see Sec. Sec. 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) (a) A fact sheet shall be prepared for every draft permit for a major HWM, UIC, 404, or NPDES facility or activity, for every Class I sludge management facility, for every 404 and NPDES general permit (Sec. Sec. 237.37 and 122.28), for every NPDES draft permit that incorporates a variance or requires an explanation under Sec. 124.56(b), for every draft permit that includes a sewage sludge land application plan under 40 CFR 501.15(a)(2)(ix), and for every draft permit which the Director finds is the subject of wide-spread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The Director shall send this fact sheet to the applicant and, on request, to any other person. (b) The fact sheet shall include, when applicable: (1) A brief description of the type of facility or activity which is the subject of the draft permit; (2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged. (3) For a PSD permit, the degree of increment consumption expected to result from operation of the facility or activity. (4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by Sec. 124.9 (for EPA-issued permits); (5) Reasons why any requested variances or alternatives to required standards do or do not appear justified; (6) A description of the procedures for reaching a final decision on the

draft permit including: (i) The beginning and ending dates of the comment period under Sec. 124.10 and the address where comments will be received; (ii) Procedures for requesting a hearing and the nature of that hearing; and (iii) Any other procedures by which the public may participate in the final decision. (7) Name and telephone number of a person to contact for additional information. (8) For NPDES permits, provisions satisfying the requirements of Sec. 124.56. (9) Justification for waiver of any application requirements under Sec. 122.21(j) or (q) of this chapter. (Emphasis added)

The Fact Sheet circulated with the proposed Permit for public comment was made incomplete by the modifications contained in the “redline/strikeout” version. The Fact Sheet was not reissued or circulated for public comment. Therefore, the Fact Sheet, as it will be presented for consideration by the Regional Board, does not set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit as required by federal regulation.

Federal Regulation 40 CFR 124.10, *Public Notice of Permit Actions and Public Comment Period* require that:

Scope. (1) The Director shall give public notice that the following actions have occurred: (i) A permit application has been tentatively denied under Sec. 124.6(b); (ii) (Applicable to State programs, see Sec. Sec. 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) A draft permit has been prepared under Sec. 124.6(d); ... (b) Timing (applicable to State programs, see Sec. Sec. 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)). (1) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under paragraph (a) of this section shall allow at least 30 days for public comment. ... (e) (Applicable to State programs, see Sec. Sec. 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) In addition to the general public notice described in paragraph (d)(1) of this section, all persons identified in paragraphs (c)(1) (i), (ii), (iii), and (iv) of this section shall be mailed a copy of the fact sheet or statement of basis (for EPA-issued permits), the permit application (if any) and the draft permit (if any). (Emphasis added)

Public notification was not given of the revised (“redline/strikeout”) permit and Fact Sheet and 30 days have not been allowed for public comment as required by federal regulation.

Federal Regulation 124.11; *Public comments and requests for public hearings*;

(Applicable to State programs, see Sec. Sec. 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) During the public comment period provided under Sec. 124.10, any interested person may submit written comments on the draft permit or the permit application for 404 permits when no draft permit is required (see Sec. 233.39) and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in Sec. 124.17. (Emphasis added)

The right to submit written comments has been denied by the failure to properly circulate the revised “redline/strikeout” version of the proposed Permit. Since the right and opportunity to submit written comments was been thwarted by the Regional Board’s failure to circulate the revised permit for public comment; such comments cannot be considered in making the final decision and answered as provided in Sec. 124.17.

Federal Regulation 40 CFR 124.13; *Obligation to raise issues and provide information during the public comment period;*

All persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Director's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period (including any public hearing) under Sec. 124.10. Any supporting materials which are submitted shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State or Federal statutes and regulations, EPA documents of general applicability, or other generally available reference materials. Commenters shall make supporting materials not already included in the administrative record available to EPA as directed by the Regional Administrator. (A comment period longer than 30 days may be necessary to give commenters a reasonable opportunity to comply with the requirements of this section. Additional time shall be granted under Sec. 124.10 to the extent that a commenter who requests additional time demonstrates the need for such time.) (Emphasis added)

The right to submit written comments has been denied by the failure to properly circulate the revised “redline/strikeout” version of the proposed Permit. The right and opportunity to submit written comments was been thwarted by the Regional Board’s failure to circulate the significantly revised permit for public comment. We have not requested a comment period longer than 30 days, but insist that a minimum of 30 days be provided to allow us a reasonable opportunity to comply with the requirements of Federal Regulation 124.13 for the significant permit issues contained in the “redline/strikeout” modifications. The option of submitting oral comments during the allotted 3 to 5 minutes in the public hearing would hardly allow us the opportunity to simply read the list of significant changes that have been made to the proposed Permit by the “redline/strikeout” document. Oral comments would also prohibit the Regional Board staff from properly making any modification to the permit and answering our comments as provided in Section 124 17. Failure to reissue the proposed Permit including the “redline/strikeout” changes; denies us the ability to fulfill our requirements under federal regulation to “raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period”. Failure to reissue the proposed Permit including the “redline/strikeout” changes also denies the Regional Board’s consideration of our comments in making their final decision as required by Federal Regulation.

Our specific written comments, which must be included in the record of decision for this order, regarding the “redline/strikeout” version of the proposed Permit are as follows:

1. The Effluent Limitation for copper has been revised to be less stringent based on the incorrect hardness and an undefined “metal translator”.

The Effluent Limitations for copper have been significantly relaxed to 8.9 µg/l as a monthly average and 15 ug/l as a maximum daily from the original proposed Permit values of 7.4 ug/l and 12 ug/l, respectively. Federal Regulation 40 CFR 131.38(c)(4) states that: “For purposes of calculating freshwater aquatic life criteria for metals from the equations in paragraph (b)(2) of this section, for waters with a hardness of 400 mg/l or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations.” (Emphasis added).

The original proposed Permit, Fact Sheet Finding No. m, stated that the effluent hardness was used to develop the Effluent Limitation for copper and our comment cites the CTR requirement to use the instream ambient hardness for developing limitations. The “redline/strikeout” version of the proposed Permit modified Finding No. m to reflect the use of the “reasonable worst-case representative ambient hardness of 89 mg/l as CaCO₃”. The revision fails to define the source of the hardness data. Attachment H, of the proposed Permit, clearly shows that the worst-case ambient hardness of the receiving stream is 32 mg/l as measured on 24 May 2006. Use of the lowest measured hardness of 32 mg/l results in a significantly lower Effluent Limitation for copper than use of the unidentified hardness of 89 mg/l. Hardness dependant metals exhibit greater aquatic toxicity at lower hardness levels. Therefore, use of a higher hardness value in developing an Effluent Limitation will not protect the aquatic life beneficial uses of the receiving waters. The Effluent Limitations for copper must be revised to 3.4 ug/l (CCC) and 4.6 ug/l (CMC) based on the lowest recorded “worst case” ambient hardness of the receiving stream (32 mg/l).

The hardness dataset in Attachment H established the lowest “worst case” hardness at 32 mg/l. However, the dataset represents only two years of data. The dataset does sufficiently reflect that the lower harnesses occur during periods of high flow. There are only three recorded data points in Attachment H representing high flow events and there is no indication that the actual highest flows of the receiving stream were measured or sampled. It is reasonable that flows will occur in the receiving stream higher than those recorded and presented in Attachment H. Correspondingly, there is no evidence that 32 mg/l represents the actual lowest “worst case” hardness of the receiving stream. While use of 32 mg/l hardness would be significantly more protective of the aquatic life beneficial uses of the receiving stream than the 89 mg/l used in the proposed Permit; there is no evidence that the “worst case” hardness has been captured.

2. The revised Permit reasonable potential analysis for copper, lead and zinc and the Effluent Limitation for copper are based on a metals translator study that has not been sufficiently defined in accordance with Federal Regulation 40 CFR 124.8.

The proposed Permit was revised by the “redline/strikeout” version to accept a metals translator for establishing limitations for copper, lead and zinc. As is stated above, Federal Regulation 40 CFR 124.8 requires that Fact Sheets shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The revised Permit however does not contain sufficient factual information or methodological information to determine the criteria used to develop the translators. The revised Permit does

state that only effluent samples were utilized although US EPA guidance recommends sampling upstream downstream and far field in addition to effluent sampling to develop a proper translator. The revised Permit does not state whether US EPA's *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion (EPA 823-B-96-007)* was utilized for developing the translator, whether guidance was followed, or summarize sufficient information regarding the study to make an informed opinion regarding its acceptability. The proposed permit revisions also do not discuss compliance with the SIP, Section 1.4.1 *Translators for Metals and Selenium*. This information is critical since the result is that the effluent Limitation for copper has been relaxed and Effluent Limitations for lead and zinc are not included in the proposed Permit in large part based on the translator study. The proposed Permit revision is incomplete in its discussion of the translators and therefore does not comply with the requirements of Federal Regulation 40 CFR 124.8.

3. The proposed Permit fails to include an Effluent Limitation for zinc as required by Federal Regulations 40 CFR 122.44 and the permit should not be adopted in accordance with California Water Code Section 13377.

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." The California Toxics Rule (CTR) Water Quality Standard for zinc is 43 µg/l based on Attachment H, of the proposed Permit, which clearly shows that the worst case ambient hardness of the receiving stream is 32 mg/l as measured on 24 May 2006. The wastewater discharge maximum observed 62.9 was ug/l. Clearly the discharge exceeds the CTR water quality objective. The proposed Order fails to establish an effluent limitation for zinc. The "redline/strikeout" version of the proposed Permit modified Finding No. m to reflect the use of the "reasonable worst-case representative ambient hardness of 89 mg/l as CaCO₃". The revision fails to define the source of the hardness data. Attachment H, of the proposed Permit, clearly shows that the worst-case ambient hardness of the receiving stream is 32 mg/l as measured on 24 May 2006.

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."

4. The proposed Permit fails to contain an Effluent Limitation for lead in violation of the California Toxics Rule, Federal Regulations (40 CFR 122.44), the California Water Code (CWC), Section 13377 and the State's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP).

The maximum observed effluent (MEC) concentration for lead was 1.4 µg/l, which exceeds the California Toxics Rule (CTR) CCC water quality standard of 0.71 µg/l. The CTR criteria was assessed using Attachment H, of the proposed Permit, which clearly shows that the worst case ambient hardness of the receiving stream is 32 mg/l as measured on 24 May 2006. In accordance with Federal Regulations, 40 CFR 122.44, the Regional Board is required to establish an effluent limitation if a pollutant is measured in the effluent which presents a reasonable potential to exceed a water quality standard of objective. In accordance with the SIP, Section 1.3, since the maximum effluent concentration exceeded a water quality standard, an effluent limitation is required. California Water Code, section 13377, requires that: “Notwithstanding any other provision of this division, the state board and the regional boards shall, as required or authorized by the Federal Water Pollution Control Act, as amended, issue waste discharge and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.” The “redline/strikeout” version of the proposed Permit modified Finding No. M to reflect the use of the “reasonable worst-case representative ambient hardness of 89 mg/l as CaCO₃”. The revision fails to define the source of the hardness data. Attachment H, of the proposed Permit, clearly shows that the worst-case ambient hardness of the receiving stream is 32 mg/l as measured on 24 May 2006.

The maximum measured effluent concentration of lead was 1.4 µg/l which clearly exceeds the CTR water quality standard of 0.71 µg/l and in accordance with Federal and State Regulations and the SIP, effluent limitations are required. 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.

- 5. The revised proposed Permit grants a mixing zone for Effluent Limitations for human health based criteria that appears to be based on “estimates” contained in the Discharger’s “Antidegradation Analysis” despite that an “approved dilution/mixing zone study” has not been submitted (page F-29). The proposed Permit contains an allowance for a mixing zone that does not comply with the requirements of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP) or the Basin Plan.**

The proposed Permit revisions (page F-29) “estimate” that complete mixing occurs in the receiving stream 1,000 feet downstream from the point of discharge. A “completely mixed discharge” is defined by the SIP, Appendix 1-1, when a pollutant concentration is less than 5% different across a transect of the waterbody at a point within two stream/river widths from the point of discharge. The SIP, Section 1.4.2, requires that for incompletely mixed discharges; mixing zones will only be considered following the completion of a mixing zone study by the Discharger. The Permit allows for mixing zones for human health based criteria absent any mixing zone analysis. The SIP also requires that if a Regional Board allows a mixing zone and dilution credit, the permit shall specify the point in the receiving water where the applicable

criteria/objectives must be met. In this case the proposed Permit only “estimates” where the objective must be met. Mixing zones are regions within public waters adjacent to point source discharges where pollutants are diluted and dispersed at concentrations that routinely exceed human health and aquatic life water quality standards (the maximum levels of pollutants that can be tolerated without endangering people, aquatic life, and wildlife.) Mixing zone policies allow a discharger’s point of compliance with state and federal water quality standards to be moved from the “end of the pipe” to the outer boundaries of a dilution zone. The CWA was adopted to minimize and eventually eliminate the release of pollutants into public waters because fish were dying and people were getting sick. The CWA requires water quality standards (WQS) be met in all waters to prohibit concentrations of pollutants at levels assumed to cause harm. Federal Antidegradation regulations at 40 CFR 131.12 requires that states protect waters at their present level of quality and that all beneficial uses remain protected. The corresponding State Antidegradation Policy, Resolution 68-16, requires that any degradation of water quality not unreasonably affect present and anticipated beneficial uses. Resolution 68-16 further requires that: “Any activity which produces or may produce or increase 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 (Resolution 68-16) allows water quality to be lowered as long as beneficial uses are protected (pollution or nuisance will not occur), best practicable treatment and control (BPTC) of the discharge is provided, and the degradation is in the best interest of the people of California. Water quality objectives were developed as the maximum concentration of a pollutant necessary to protect beneficial uses and levels above this concentration would be considered pollution. The Antidegradation Policy does not allow water quality standards and objectives to be exceeded. Mixing zone are regions within public waters adjacent to point source discharges where pollutants are diluted and dispersed at concentrations that routinely exceed water quality standards.

The Antidegradation Policy (Resolution 68-16) requires that best practicable treatment or control (BPTC) of the discharge be provided. Mixing zones have been allowed in lieu of treatment to meet water quality standards at the end-of-the-pipe prior to discharge. To comply with the Antidegradation Policy, the trade of receiving water beneficial uses for lower utility rates must be in the best interest of the people of the state and must also pass the test that the Discharger is providing BPTC. By routinely permitting excessive levels of pollutants to be legally discharged, mixing zones act as an economic disincentive to Dischargers who might otherwise have to design and implement better treatment mechanisms. Although the use of mixing zones may lead to individual, short-term cost savings for the discharger, significant long-term health and economic costs may be placed on the rest of society. An assessment of BPTC, and therefore compliance with the Antidegradation Policy, must assess whether treatment of the wastestream can be accomplished, is feasible, and not simply the additional costs of compliance with water quality standards. A BPTC case can be made for the benefits of prohibiting mixing zones and requiring technologies that provide superior waste treatment and reuse of the wastestream.

6. The “redline/strikeout” version of the proposed Permit adds language to the Chloride Finding (page F-53) that defends discarding data from the reasonable potential analysis based on statistical definitions contrary to Federal Regulations, 40 CFR 122.44(d) and Section 1.2 of the SIP.

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 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.” The Regional Board has failed to use valid, reliable and representative data in developing limitations, contrary to the cited Federal Regulation.

The *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries Of California* (SIP), Section 1.2 requires that: “When implementing the provisions of this Policy, the RWQCB shall use all available, valid, relevant, representative data and information, as determined by the RWQCB. The RWQCB shall have discretion to consider if any data are inappropriate or insufficient for use in implementing this Policy. Instances where such consideration is warranted include, but are not limited to, the following: evidence that a sample has been erroneously reported or is not representative of effluent or ambient receiving water quality; questionable quality control/quality assurance practices; and varying seasonal conditions.”

Statistical procedures are valid tools for assessing trends and analyzing data. It must be recognized however that statistical procedures are not scientific laws. In wastewater engineering it is commonplace for individual data points to be peaks or depressions far from the statistical norm. This is could be attributed to slug load discharges, discharge practices from local industries, or simply the infrequency of sampling wastewater effluents. Wastewater effluent is generally not sampled continuously; in this instance the proposed permit states that chloride was sampled 32 times over an 18-month period, or less than twice a month. It must also be recognized that wastewater treatment personnel tend to perform their daily functions as a matter of routine, such as sampling the effluent at the same time every day. The likely hood of data peaks being “real” absent erroneously reporting, questionable quality control/quality assurance practices or varying seasonal or daily conditions is more defensible than the data being an “outlier”, hence the EPA and SIP requirement that data may not be arbitrarily discarded or ignored. The proposed permit must be amended to include an Effluent Limitation for chloride based on the 384 mg/l data point which exceeds the drinking water standard of 250 mg/l.

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 written in a cursive, flowing style with some loops and flourishes.

Bill Jennings, Executive Director
California Sportfishing Protection Alliance