



California Sportfishing Protection Alliance

"An Advocate for Fisheries, Habitat and Water Quality"

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4 December 2009

Mr. Vincent Christian
Regional Water Quality Control Board
San Francisco Bay Region
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VIA: Electronic Submission
Hardcopy if Requested

RE: Tentative Order, NPDES Permit No. CA0038121, for the Town of Yountville/California Veterans Home Joint Wastewater Reclamation Facility, Napa County

Dear Mr. Christian;

The California Sportfishing Protection Alliance (CSPA) has reviewed the Tentative Order, NPDES Permit No. CA0038121, for the Town of Yountville/California Veterans Home Joint Wastewater Reclamation Facility (Permit) and respectfully submits the following comments.

- 1. The proposed Permit fails to contain Effluent Limitations that are protective of the contact recreational beneficial use of the receiving stream contrary to Federal Regulation 40 CFR 122.44 and CWC 13377. The proposed Permit allows for the Bypass of parts of the treatment processes contrary to Federal Regulation 122.41 (m)(1) resulting in less restrictive discharge standards. Best Practicable Treatment and Control (BPTC) of the discharge is not provided as required by Resolution 68-16 (Antidegradation Policy).**

The Yountville wastewater treatment plant is currently being upgraded to provide Title 22 tertiary treatment. The proposed Permit however only contains Effluent Limitations requiring a secondary level of treatment.

Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Contact recreation is a beneficial use of the receiving stream. The proposed permit fails to include an Effluent Limitation for total coliform organisms necessary to protect the contact recreational beneficial use. The California Water Code (CWC), Section 13377 states in part that: "...the state board or the regional boards shall...issue waste discharge requirements... which apply and ensure compliance with ...water quality control plans, or for the protection of beneficial uses..."

The proposed Permit contains an Effluent Limitation (page 13, a, c) for total coliform organisms of 23 MPN/100 ml as a 5-day mean for discharges to surface waters. The limitation is based on

the technical capability of providing secondary treatment. Page 6 of the proposed Permit states that: *“Phase I of the upgrades is underway. This phase includes modifying the Plant’s filters and disinfection system to produce Title 22 tertiary recycled water. It currently produces Title 22 secondary recycled water.”* A tertiary (Title 22) treatment plant is capable of reliably meeting a coliform standard of 2.2 MPN/100 ml.

The California Department of Public Health (DPH) has developed reclamation criteria, California Code of Regulations, Title 22, Division 4, Chapter 3 (Title 22), for the reuse of wastewater. Title 22 requires that for spray irrigation of food crops, parks, playgrounds, school yards, 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. Title 22 is not directly applicable to surface waters; however, it is appropriate to apply DPH’s science used to develop the reclamation criteria because the surface water is used for contact recreation. Coliform organisms are intended as an indicator of the effectiveness of the entire treatment train and the effectiveness of removing other pathogens. Title 22 specifies the level necessary to protect the public health during recreational activities, regardless of whether in a “recreational impoundment” or surface water. The proposed Permit fails to recognize the science behind DPH’s Title 22 for protecting contact recreational use and ignores the Basin Plan water quality objective for total coliform organisms. If DPH requires that a coliform standard of 2.2 MPN/100 ml is necessary to protect a recreational impoundment; that same level is technically necessary to protect recreational uses in surface waters.

Failure to utilize the capability of the tertiary (Title 22) wastewater treatment plant, allowing a reduced secondary effluent quality when discharging to surface waters, constitutes a bypass of treatment processes contrary to Federal Regulation 40 CFR 122.41 (m)(1). This failure to require the Discharger to fully utilize the tertiary portion of the treatment system not only fails to meet the level necessary to protect the contact recreational uses of the receiving stream but also allows for the discharge of a significantly higher level of all wastewater pollutants. Specifically, BOD and TSS are regulated at 30 mg/l as a monthly average as opposed to 10 mg/l, which is the capability of a tertiary system. Both BOD and TSS are indicator parameters representative of the amount of pollutants being discharged. The proposed Permit states that: *“Regional Water Board concurrently adopted a Cease and Desist Order for copper, zinc, cyanide, dichlorobromomethane, and total ammonia, because historical data indicate the Discharger will not be able to comply with the new limits. The Cease and Desist Order does not address pH because the Discharger can comply with the new pH requirements by modifying its operations.”* A tertiary system will also likely reduce the level of pollutants, which are currently the subject of the proposed Cease and Desist Order, copper, zinc, cyanide and dioxins, possibly eliminating the need for any compliance schedule. Compliance schedules are required to be as short as is practicable; that is not the case here if simply continuing to operate already available systems would achieve compliance.

The Regional and State Board’s Antidegradation Policy requires the application of best practicable treatment and control (BPTC) of the discharge. When the Discharger is “currently in the process of constructing” tertiary treatment system, a permit that contains only secondary treatment standards cannot possibly be considered BPTC. The proposed Permit does not require the application of BPTC and does therefore not comply with the Antidegradation Policy.

The failure to require tertiary treatment when discharging to surface waters may also be considered an Environmental Justice issue. Tertiary treatment is, or shortly will be, provided for golf course and vineyard irrigation. Playing golf and making wine are generally not associated with lower income communities; whereas contact recreational activities in local creeks may be. The Discharger is providing and the Regional Board is requiring tertiary treated wastewater for golf course and vineyard irrigation but allowing a lower quality of wastewater to be discharged to surface waters where contact recreation is a designated beneficial use.

2. The proposed Permit fails to contain an Effluent Limitation for total chlorine residual that is protective of the aquatic life beneficial uses of the receiving stream contrary to Federal Regulation 40 CFR 122.44.

The proposed Permit contains an Effluent Limitation for total chlorine, as an instantaneous maximum, of 0.0 mg/l. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. NPDES regulations at 40 CFR 122.44(d)(1)(i) mandate that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion (WQC), such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

US EPA has established water quality criteria for the protection of fresh water aquatic life for chlorine of 19 ug/l (0.019 mg/l) as a 1-hour average and 11 ug/l (0.011 mg/l) as a 4-day average. The use of chlorine at the wastewater treatment plant for disinfection establishes reasonable potential for this toxic pollutant to be discharged to surface waters. The Basin Plan establishes a water quality objective as Effluent Limitations for chlorine in Table 4-2. The Basin Plan only establishes an objective of 0.0 mg/l, which is not tied to a detection limit. Wastewater dischargers and the associated laboratories in California routinely meet a detection limit of 0.01 mg/l for chlorine, although consultants debate this topic.

Using proper significant figures, a discharge of chlorine at 0.04 mg/l would be rounded to 0.0 mg/l using the Regional Board single significant figure. This number clearly exceeds toxic levels as prescribed by US EPA's ambient criteria. This discharge of toxic levels of chlorine would however not be a violation of the proposed Permit. The proposed Permit must be modified to utilize US EPA's ambient criteria for the protection of freshwater aquatic life for chlorine in developing the Effluent Limitation.

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

the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP).

Domestic wastewater treatment plants, by their nature, contain numerous toxic constituents and present a reasonable potential to exceed the Basin Plan's narrative Toxicity water quality objective. Even a well maintained and operated wastewater treatment plant can experience upsets and bypass resulting in toxic discharges. Infrequent, monthly or quarterly, toxicity testing is not sufficient to state that a domestic wastewater treatment plant has not discharged toxic constituents in toxic concentrations during a five year life of an NPDES permit. An easy and specific example here is that ammonia has been sampled in the effluent at 8 mg/l whereas the water quality objective has been at 0.45 mg/l, clearly toxic levels.

Proposed Permit, State Implementation Policy states that: "On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP."

The SIP, Section 4, Toxicity Control Provisions, Water Quality-Based Toxicity Control, states that: "A chronic toxicity effluent limitation is required in permits for all dischargers that will cause, have a reasonable potential to cause, or contribute to chronic toxicity in receiving waters." The SIP is a state *Policy* and CWC Sections 13146 and 13247 require that the Board in carrying out activities which affect water quality shall comply with state policy for water quality control unless otherwise directed by statute, in which case they shall indicate to the State Board in writing their authority for not complying with such policy.

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. There has been no argument that domestic sewage contains toxic substances and presents a reasonable potential to cause toxicity if not properly treated and discharged. An effluent limitation for chronic toxicity must be included in the Order. In addition, the Chronic Toxicity Testing Dilution Series should bracket the actual dilution at the time of discharge, not use default values that are not relevant to the discharge.

Proposed Permit is quite simply wrong; by failing to include effluent limitations prohibiting chronic toxicity the proposed Permit does not "...implement the SIP". The Regional Board's Basin Plan already states that: "...waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses..." Accordingly, the proposed Permit must be revised to prohibit chronic toxicity (mortality and adverse sublethal impacts to

aquatic life, (sublethal toxic impacts are clearly defined in EPA's toxicity guidance manuals)) in accordance with Federal regulations, at 40 CFR 122.44 (d)(1)(i) and the Basin Plan and the SIP.

4. The proposed Permit establishes Effluent Limitations for metals based on an average, rather than the worst case, hardness of the ambient upstream receiving water hardness as required by Federal Regulations, the California Toxics Rule (CTR, 40 CFR 131.38(c)(4)).

Page F-14 of the proposed Permit states that: "e. Receiving Water Hardness. Ambient hardness values are used to calculate freshwater WQOs that are hardness dependent. In determining WQOs for this Order, Regional Water Board staff used a hardness of 99 mg/L as CaCO₃, which is the adjusted geometric mean of 12 hardness data points collected in the Napa River upstream and downstream of the discharge point through the "Collaborative Napa River Receiving Water Evaluation." The proposed Permit does not cite the lowest observed ambient hardness of the receiving stream; that value is of critical importance.

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).

SWRCB presidential Order No. WQ 2008-0008 (Corrected) regarding a petition for consideration of the City of Davis' NPDES Permit states and concludes that:

"Based on the current record, it would be more appropriate to use the lowest reliable upstream receiving water hardness values of 78 mg/l for Willows Slough Bypass and 85 mg/l for Conaway Ranch Toe Drain for protection from acute toxicity impacts, regardless of when the samples were taken or whether they were influenced by storm events. Because high flow conditions may deviate from the design flow conditions for selection of hardness as specified in the CTR, it may not be necessary, in some circumstances, to select the lowest hardness values from high flow or storm event conditions. Regardless of the hardness used, the resulting limits must always be protective of water quality criteria under all flow conditions."

"Conclusion: The Central Valley Water Board was justified in using upstream receiving water hardness values rather than effluent hardness values. However, for protection from acute toxicity impacts in the receiving waters, which can occur in short durations even during storm events, in this case, based on the existing record, the Central Valley Water Board should have used the lowest valid upstream receiving water hardness values of 78 mg/l for Willow Slough Bypass and 85 mg/l for Conaway Ranch Toe Drain. Effluent limitations must protect beneficial uses considering reasonable, worst-case conditions. We recognize that this approach does not necessarily agree with conclusions in other guidance stating that low flow conditions are the "worst-case" conditions. However, nothing in this Order is intended to suggest that low flows are inappropriate for determining the reasonable, worst-case conditions in other contexts." (Emphasis added)

The result of using a higher average hardness value is that metals are toxic at higher concentrations, discharges have less reasonable potential to exceed water quality standards and the resulting Permits have fewer Effluent Limitations. Metals are more toxic in lower hardness water. For example; if the receiving water hardness is sampled at 25 mg/l and 50 mg/l, a corresponding chronic discharge limitation for copper based on the different hardness's would be 2.9 ug/l and 5.2 ug/l, respectively. Obviously, the limitation based on the lower ambient receiving water hardness is more restrictive.

The Regional Board did not use the lowest observed upstream hardness as required in WQO 2008 0008. The proposed Permit failure to include Effluent Limitations for metals based on the lowest actual ambient hardness of the surface water is contrary to the cited Federal Regulation and must be amended to comply with the cited regulatory requirement. The proper use of the lowest observed upstream hardness may also lead to additional constituents exhibiting a reasonable potential to exceed water quality standards; the reasonable potential analysis must be recalculated using the lowest observed upstream ambient hardness of the receiving stream.

5. The proposed Permit fails to contain Effluent Limitations for chlorodibromomethane and bis(2-ethylhexyl)phthalate which were limited in the existing permit. Failure to include these limitations is contrary to the Antibacksliding requirements of the Clean Water Act and Federal Regulations, 40 CFR 122.44 (I)(1).

Under the Clean Water Act (CWA), point source dischargers are required to obtain federal discharge (NPDES) permits and to comply with water quality based effluent limits (WQBELs) in NPDES permits sufficient to make progress toward the achievement of water quality standards or goals. The antibacksliding and antidegradation rules clearly spell out the interest of Congress in achieving the CWA's goal of continued progress toward eliminating all pollutant discharges. Congress clearly chose an overriding environmental interest in clean water through discharge reduction, imposition of technological controls, and adoption of a rule against relaxation of limitations once they are established.

Upon permit reissuance, modification, or renewal, a discharger may seek a relaxation of permit limitations. However, according to the CWA, relaxation of a WQBEL is permissible only if the requirements of the antibacksliding rule are met. The antibacksliding regulations prohibit EPA from reissuing NPDES permits containing interim effluent limitations, standards or conditions less stringent than the final limits contained in the previous permit, with limited exceptions. These regulations also prohibit, with some exceptions, the reissuance of permits originally based on best professional judgment (BPJ) to incorporate the effluent guidelines promulgated under CWA §304(b), which would result in limits less stringent than those in the previous BPJ-based permit. Congress statutorily ratified the general prohibition against backsliding by enacting §§402(o) and 303(d)(4) under the 1987 Amendments to the CWA. The amendments preserve present pollution control levels achieved by dischargers by prohibiting the adoption of less stringent effluent limitations than those already contained in their discharge permits, except in certain narrowly defined circumstances.

When attempting to backslide from WQBELs under either the antidegradation rule or an exception to the antibacksliding rule, relaxed permit limits must not result in a violation of applicable water quality standards. The general prohibition against backsliding found in §402(o)(1) of the Act contains several exceptions. Specifically, under §402(o)(2), a permit may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant *if*: (A) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation; (B)(i) information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or (ii) the Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under subsection (a)(1)(B) of this section; (C) a less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy [(e.g., Acts of God)]; (D) the permittee has received a permit modification under section 1311(c), 1311(g), 1311(h), 1311(i), 1311(k), 1311(n), or 1326(a) of this title; or (E) the permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit, and has properly operated and maintained the facilities, but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).

Even if a discharger can meet either the requirements of the antidegradation rule under §303(d)(4) or one of the statutory exceptions listed in §402(o)(2), there are still limitations as to how far a permit may be allowed to backslide. Section 402(o)(3) acts as a floor to restrict the extent to which BPJ and water quality-based permit limitations may be relaxed under the antibacksliding rule. Under this subsection, even if EPA allows a permit to backslide from its previous permit requirements, EPA may never allow the reissued permit to contain effluent limitations which are less stringent than the current effluent limitation guidelines for that pollutant, or which would cause the receiving waters to violate the applicable state water quality standard adopted under the authority of §303.49.

Federal regulations 40 CFR 122.44 (l)(1) have been adopted to implement the antibacksliding requirements of the CWA:

- (1) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under Sec. 122.62.)
- (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such

permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

(i) Exceptions--A permit with respect to which paragraph (1)(2) of this section applies may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant, if:

(A) Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

(B)(1) Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or (2) The Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b);

(C) A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy;

(D) The permittee has received a permit modification under section 301(c), 301(g), 301(h), 301(i), 301(k), 301(n), or 316(a); or

(E) The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).

(ii) Limitations. In no event may a permit with respect to which paragraph (1)(2) of this section applies be renewed, reissued, or modified to contain an effluent limitation which is less stringent than required by effluent guidelines in effect at the time the permit is renewed, reissued, or modified. In no event may such a permit to discharge into waters be renewed, issued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard under section 303 applicable to such waters.

None of the cited exceptions were utilized by the Regional Board in removing the Effluent Limitations for chlorodibromomethane and bis(2-ethylhexyl)phthalate. Monitoring under the existing permit would not eliminate the validity of the original data used to establish a reasonable potential which resulted in the establishment of Effluent Limitations for these constituents.

6. The proposed Permit fails to contain an Antidegradation analysis and therefore does not comply with the requirements of Section 101(a) of the Clean Water Act, Federal Regulations 40 CFR § 131.12, the State Board's Antidegradation Policy (Resolution 68-16) and California Water Code (CWC) Sections 13146 and 13247.

CWC Sections 13146 and 13247 require that the Board in carrying out activities which affect water quality shall comply with state policy for water quality control unless otherwise directed by statute, in which case they shall indicate to the State Board in writing their authority for not complying with such policy. The State Board has adopted the Antidegradation Policy (Resolution 68-16), which the Regional Board has incorporated into its Basin Plan. The Regional Board is required by the CWC to comply with the Antidegradation Policy.

Section 101(a) of the Clean Water Act (CWA), 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 CWA 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 (40 CFR § 131.12(a)) 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.

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 Chief Counsel William Attwater, SWRCB to Regional Board Executive Officers, “federal Antidegradation Policy,” pp. 2, 18 (Oct. 7, 1987) (“State Antidegradation Guidance”). As a state policy, with inclusion in the Water Quality Control Plan (Basin Plan), 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. 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. 51403; State Antidegradation Guidance, p. 15). No degradation of water quality is allowed in these waters other than short-term, temporary changes (Id.). Accordingly, no new or increased discharges are allowed in either ONRW or tributaries to ONRW that would result in lower water quality in the ONRW (EPA Handbook, p. 4-10; State Antidegradation Guidance, p. 15). Existing antidegradation policy already dictates that if a waterbody “should be” an ONRW, or “if it can be argued that the waterbody in question deserves the same treatment [as a formally designated ONRW],” then it must be treated as such, regardless of formal designation (State Antidegradation Guidance, pp. 15-16; APU 90-004, p. 4). Thus the Regional Board is required in each antidegradation analysis to consider whether the waterbody at issue should be treated as an ONRW. It should be reiterated that waters cannot be excluded from consideration as an ONRW simply because they are already “impaired” by some constituents. By definition, waters may be “outstanding” not only because of pristine quality, but also because of recreational significance, ecological significance or other reasons (40 CFR §131.12(a)(3)). Waters need not be “high quality” for every parameter to be an ONRW (APU 90-004, p. 4). For example, Lake Tahoe is on the 303(d) list due to sediments/siltation and nutrients, and Mono Lake is listed for salinity/TDC/chlorides but both are listed as ONRW.

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

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

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.

There is nothing in the Permit resembling an analysis that ensures that existing beneficial uses are protected. While the Permit 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 Permit 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.

The antidegradation analysis in the proposed Permit 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. Specifically, the proposed Permit does not discuss with regard to the Antidegradation Policy:

- The Discharger has the capability to provide tertiary treatment yet only secondary treatment is required under the proposed Permit. The available tertiary level of treatment can be considered best practicable treatment and control (BPTC) of the discharge. BPTC is a requirement of the Antidegradation Policy. How is it in the best interest of the people of the state that this community is not required to operate an existing tertiary treatment system?
- The Antidegradation discussion must analyze the water quality differences between secondary and tertiary treated wastewaters and justify why the Discharge has not been required to operate the tertiary system while discharging to surface waters. Since the tertiary system is complete, the only cost would be for operations. The additional cost of operations must be compared to the increased water quality benefits when discharging tertiary treated effluent as compared to secondary.
- The Antidegradation discussion must address why compliance schedules are being allowed for copper, zinc, cyanide, dioxin-TEQ, dichlorobromomethane, and ammonia rather than requiring operation of the Discharger's tertiary system. What are the impacts to the beneficial uses of the receiving water as compared to the operational cost of the existing tertiary system?
- The Antidegradation discussion must address that secondary treated wastewater is not fit for contact recreational uses and that a tertiary treatment system is readily available yet not being required to protect this beneficial use.
- The Antidegradation discussion must address the removal of Effluent Limitations for chlorodibromomethane and bis(2-ethylhexyl)phthalate.

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

Sincerely,



Bill Jennings, Executive Director
California Sportfishing Protection Alliance