



California Sportfishing Protection Alliance

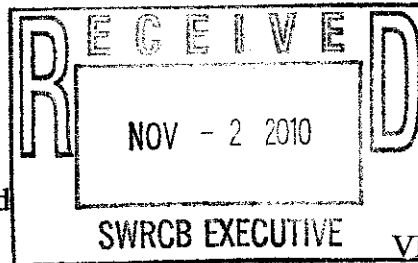
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1 November 2010

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 "T" Street, 24th Floor
P.O. Box 100
Sacramento, CA 95814
commentletters@waterboards.ca.gov



VIA: Electronic Submission
Hardcopy if Requested

RE: **Comment Letter – Vector Control Permit**

Dear Ms Townsend and Members of the State Board:

The California Sportfishing Protection Alliance (CSPA) appreciates the chance to comment on the proposed NPDES permit for residual pesticide discharges from vector control applications, and the efforts staff has made in addressing these complex issues.

Permit for Residual Pesticide Discharges to Waters of the United States from Spray Applications

The proposed General Permit covers the point source discharge of pesticide residues resulting from spray applications using 1) larvicides* containing *Bacillus thuringiensis kurstaki* (Btk), nucleopolyhedrovirus, and Spinosad A and D; 2) adulticides* containing acetamiprid, bifenthrin, carbaryl, esfenvalerate, lambda cyhalothrin, malathion, naled, pheromone, piperonyl butoxide (PBO), and pyrethrins; 3) larvicide/adulticide products containing cyfluthrin and imidacloprid; and 4) herbicides* containing aminopyralid, chlorsulfuron, clopyralid, glyphosate, imazapyr, and triclopyr butoxyethyl ester.

Malathion has a recommended water quality criteria (US EPA National Recommended Water Quality Criteria for Fresh Water Aquatic Life Protection) of 0.1 ug/l. Glyphosate has an established US EPA primary drinking water standard (maximum contaminant level (MCL) of 700 ug/l. Most of the other listed pesticides have toxicity level recommendations from USEPA's Office of Pesticides *Ecotoxicity Database*.

The proposed Permit states that:

“Section 301(b) of the CWA and 40 C.F.R § 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. The federal regulation mandates 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 excursion of a water quality standard, including numeric and narrative objectives within a standard. Section 122.44(k)(3) of 40 C.F.R. allows the use of other requirements such as BMPs in lieu of numeric effluent limits if the latter are infeasible. The State Water Board finds that numeric effluent limits for pollutant discharges associated with the application of pesticides are infeasible because:

This General Permit regulates discharges of residual pesticides which are pesticide ingredients or breakdown products that are present after the use of the pesticide for pest control. Therefore, the exact effluent is unknown; and it would be impractical to provide effective treatment, given the numerous short duration intermittent pesticide releases to surface waters from many different locations.

The effluent limitations contained in this General Permit are narrative and include requirements to develop and implement a PAP that describes appropriate BMPs, including compliance with all pesticide label instructions, as well as requirements to comply with receiving water limitations.

The BMPs required herein constitute Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) and are intended to: 1) minimize the area and duration of impacts caused by the discharge of pesticides in the target area* and 2) allow for restoration of water quality and protection of beneficial uses of the receiving waters to pre-application quality following completion of an application event*.”

- 1. The proposed Permit fails to include numeric Effluent Limitations as required by federal regulation 40 CFR 122.44 (d).**

The proposed Permit states that Effluent Limitations are infeasible because the pesticide ingredients and breakdown products are unknown; yet then list numerous such products throughout the Order and in Table 3. Certainly, Effluent Limitations can be established for those identified constituents. Effluent Limitations are therefore feasible for the listed pesticides.

The proposed Permit states that Effluent Limitations are infeasible because “it would be impractical to provide effective treatment.” The proposed permit discusses the means of

compliance by the Discharger. The Discharger can limit their applications as opposed to providing treatment; however this is not at issue. The feasibility of developing Effluent Limitations is not dependant on the Discharger's means of compliance. Treatment technologies do not impact whether it is feasible to develop Effluent Limitations.

The proposed Permit states that Effluent Limitations are infeasible because pesticides are discharged for short durations. Acute toxicity impacts occur during short durations; generally based on a 1-hour average (US EPA's ambient criteria documents). Higher dose rates could impact receiving waters for longer periods of time and the pesticides may remain resident in the aquatic environment.

Even the proposed Permit cites that: "It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit (40 C.F.R. §122.41(c)) confirming it is the Discharger's responsibility to achieve compliance and the State Board's responsibility to develop a protective Permit by including numeric Effluent Limitations. Compliance does not equate to the feasibility to develop numeric limitations.

The proposed Permit fails to include an Effluent Limitation for Malathion based on the recommended water quality criteria (US EPA National Recommended Water Quality Criteria for Fresh Water Aquatic Life Protection) of 0.1 ug/l.

The proposed Permit fails to include an Effluent Limitation for Glyphosate based on US EPA's primary drinking water standard (maximum contaminant level (MCL) of 700 ug/l.

The proposed Permit fails to include an Effluent Limitation for chronic toxicity. 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.

The proposed Permit fails to include an Effluent Limitation for 1) larvicides* containing *Bacillus thuringiensis kurstaki* (Btk), nucleopolyhedrovirus, and Spinosad A and D; 2) adulticides* containing acetamiprid, bifenthrin, carbaryl, esfenvalerate, lambda cyhalothrin, naled, pheromone, piperonyl butoxide (PBO), and pyrethrins; 3) larvicide/adulticide products containing cyfluthrin and imidacloprid; and 4) herbicides* containing aminopyralid, chlorsulfuron, clopyralid, imazapyr, and triclopyr butoxyethyl ester all of which have exhibited toxicity to aquatic life according to US EPA's Office of Pesticides *Ecotoxicity Database*.

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 proposed Permit cites that Basin Plans contain narrative toxicity objectives; for example 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 Fact Sheet contains sufficient information to verify that the use of these pesticides presents a reasonable potential to exceed toxic levels and degrade the beneficial uses of receiving waters.

US EPA's Office of Pesticides *Ecotoxicity Database* shows the application of 1) larvicides* containing *Bacillus thuringiensis kurstaki* (Btk), nucleopolyhedrovirus, and Spinosad A and D; 2) adulticides* containing acetamiprid, bifenthrin, carbaryl, esfenvalerate, lambda cyhalothrin, naled, pheromone, piperonyl butoxide (PBO), and pyrethrins; 3) larvicide/adulticide products containing cyfluthrin and imidacloprid; and 4) herbicides* containing aminopyralid, chlorsulfuron, clopyralid, imazapyr, and triclopyr butoxyethyl ester presents a reasonable potential to cause toxicity within the receiving stream causing degradation to the aquatic life beneficial use.

The application of Malathion and Glyphosate threaten to exceed the recommended ambient water quality criteria and the drinking water MCL, respectively.

The State Board has not proven the case that Effluent Limitations are infeasible and in accordance with Federal regulation 40 CFR 122.44 (d) Effluent Limitations for 1) larvicides* containing *Bacillus thuringiensis kurstaki* (Btk), nucleopolyhedrovirus, and Spinosad A and D; 2) adulticides* containing acetamiprid, bifenthrin, carbaryl, esfenvalerate, lambda cyhalothrin,

malathion, naled, pheromone, piperonyl butoxide (PBO), and pyrethrins; 3) larvicide/adulticide products containing cyfluthrin and imidacloprid; and 4) herbicides* containing aminopyralid, chlorsulfuron, clopyralid, glyphosate, imazapyr, and triclopyr butoxyethyl ester must be included in the proposed Permit.

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

The proposed Permit is for a newly regulated discharge; therefore there is an allowance for an increased discharge of pollutants to surface waters.

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 State and Regional Boards are 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 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.

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

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

For example, the APU 90-004 states:

"Factors that should be considered when determining whether the discharge is necessary to accommodate social or economic development and is consistent with maximum public benefit include: a) past, present, and probably beneficial uses of the water, b) economic and social costs, tangible and intangible, of the proposed discharge compared to benefits. The economic impacts to be considered are those incurred in order to maintain existing water quality. The financial impact analysis should focus on the ability of the facility to pay for the necessary treatment. The ability to pay depends on the facility's source of funds. In addition to demonstrating a financial impact on the publicly – or privately – owned facility, the analysis must show a significant adverse impact on the community. The long-term and short-term socioeconomic impacts of

maintaining existing water quality must be considered. Examples of social and economic parameters that could be affected are employment, housing, community services, income, tax revenues and land value. To accurately assess the impact of the proposed project, the projected baseline socioeconomic profile of the affected community without the project should be compared to the projected profile with the project...EPA's Water Quality Standards Handbook (Chapter 5) provides additional guidance in assessing financial and socioeconomic impacts"

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

Alternatively, Tier 1 requires that existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. By definition, any increase in the discharge of impairing pollutants to impaired waterways unreasonably degrades beneficial uses and exceeds applicable water quality standards. Prohibition of additional mass loading of impairing pollutants is a necessary stabilization precursor to any successful effort in bringing an impaired waterbody into compliance.

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

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

- 3. A new or expanded wastewater discharge may not be allowed into an Impaired Waterway unless all existing discharges have been identified and are subject to compliance schedules.**

Under the Clean Water Act and the NPDES permit regulations (40 CFR 122.4(i)), when a new source seeks to obtain a permit for a discharge of pollutants to a stream segment already exceeding its water quality standards for that pollutant, no permit may be issued. An exception to this prohibition is where the new source demonstrates, before the close of the public comment period for the proposed permit, that: (1) there are sufficient remaining pollutant load allocations for the discharge, and (2) existing dischargers in the stream segment are subject to compliance schedules designed to bring the stream segment into compliance with applicable water quality standards. The Ninth Circuit Court of Appeals has ruled in *Friends of Pinto Creek v. United States Environmental Protection Agency* that a new or expanded wastewater discharge may not be allowed into an impaired waterway unless all existing discharges have been identified and are subject to compliance schedules.

The proposed Permit does not identify impaired waterbodies. The State Board has recently adopted a new 303d list of impaired water bodies. Many of those water bodies are impaired for pesticides and/or unknown toxicity. The pesticides listed in the proposed Permit present a reasonable potential to be discharged at levels that cause toxicity within receiving waters. All existing discharges of pesticides and/or unknown toxicity have not been identified and are not subject to compliance schedules.

The State Board must, in accordance with 40 CFR 122.4(i), demonstrate that (1) there are sufficient remaining pollutant load allocations for the discharge, and (2) existing dischargers in the stream segment are subject to compliance schedules designed to bring the stream segment into compliance with applicable water quality standards for this new discharge prior to adopting the proposed Permit.

- 4. The proposed Permit utilizes instream mixing rather than developing Effluent Limitations pollutants absent a mixing zone analysis as required by the SIP.**

The proposed Permit states that: "The effluent limitations contained in this General Permit are narrative and include requirements to develop and implement a PAP that describes appropriate BMPs, including compliance with all pesticide label instructions, as well as requirements to comply with receiving water limitations."

The State's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California* (SIP), Section 1.4.2.2, contains requirements for a mixing zone study which must be analyzed before a mixing zone is allowed for a wastewater discharge. Properly adopted state Policy requirements are not optional. The proposed Permit, in requiring compliance with Receiving Water Limitations rather than Effluent Limitations in effect grants a defacto mixing zone. Failure to develop Effluent Limitations and allowing instream mixing is not supported by the scientific investigation that is required by the SIP.

SIP Section 1.4.2.2 requires that a mixing zone shall not:

1. Compromise the integrity of the entire waterbody.
2. Cause acutely toxic conditions to aquatic life.
3. Restrict the passage of aquatic life.
4. Adversely impact biologically sensitive habitats.
5. Produce undesirable aquatic life.
6. Result in floating debris.
7. Produce objectionable color, odor, taste or turbidity.
8. Cause objectionable bottom deposits.
9. Cause Nuisance.
10. Dominate the receiving water body or overlap a different mixing zone.
11. Be allowed at or near any drinking water intake.

The proposed Permit's defacto mixing zones have not addressed a single required item of the SIP. A very clear unaddressed requirement (SIP Section 1.4.2.2) for mixing zones is that the point(s) in the receiving stream where the applicable criteria must be met shall be specified in the proposed Permit. The "edge of the mixing zone" or any other parameter of the mixing zone has been defined.

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