



ENVIRONMENTAL LAW FOUNDATION

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December 17, 2008

Via Electronic Mail: commentletters@waterboards.ca.gov

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Re: Revision of the State's Antidegradation Implementation Guidelines

Dear Ms. Townsend:

On behalf of the Environmental Law Foundation, American Rivers, Butte Environmental Council, California Sportfishing Protection Alliance, California Trout, Center for Biological Diversity, Clean Water Now!, Coast Action Group, Community Water Center, Environmental Defense Center, Environmental Justice Coalition for Water, Friends of the River, Humbolt BayKeeper, Klamath Riverkeeper, Orange County Coastkeeper, Pacific Coast Federation of Fishermen's Associations and the Institute for Fisheries Resources, Russian Riverkeeper, San Diego Coastkeeper, San Francisco Baykeeper, San Luis Obispo Coastkeeper, Santa Barbara Channelkeeper, Santa Monica Baykeeper, Surfrider Foundation, and Monterey Coastkeeper, the undersigned wish to make the following comments with respect to the State Water Resources Control Board's ("State Board" or "Board") review of the state's anti-degradation policy and its implementation, and our July 17, 2007 petition to the board regarding the same ("petition"), attached hereto as Exhibit A. We appreciate your consideration of the petition, for fostering dialogue on this important issue, and for the opportunity to comment on this matter.

As discussed in detail in the petition, it is necessary for the Board to revise the implementation procedures for the state's anti-degradation policy in order to effectuate the spirit and letter of that policy, which at its core requires that water quality be maintained. Resolution 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California), which announced the state's anti-degradation policy, need not be altered. However, the current guidance for implementation of that policy is vague and unenforceable. Thus, implementation of that policy has been inconsistent and flawed, allowing polluters to skirt the anti-degradation mandate, and resulting in the degradation of the waters of the state.

The state's guidance for implementation of the anti-degradation policy is flawed in numerous, important ways. The state guidance improperly funnels implementation through a process

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which is discretionary and devoid of enforceable standards, ignores cumulative impacts, and improperly injects the concept of "significant degradation" into the anti-degradation policy. The guidance also allows for a sliding, improper water quality baseline, and improperly authorizes reliance on California Environmental Quality Act documents that are inadequate for purposes of implementing the state's anti-degradation policy. Moreover, the guidance fails to address implementation of the anti-degradation policy with regard to general permits, and with regard to effluent dominated and ephemeral/intermittent streams.

As illustrated by the examples presented in the petition of regional boards' failure to properly implement the anti-degradation policy, the state's lack of enforceable, administerable guidelines has resulted in inconsistent and flawed application of the anti-degradation policy, or no application of the policy, which has resulted in degradation of the state's water quality. Accordingly, we hereby reiterate our request that the State Board take action to remedy the state's failure to properly implement its anti-degradation policy.

Application of Anti-Degradation Policy to Groundwater

While the petition does not specifically highlight groundwater or the application of the anti-degradation policy to groundwater, it is the intent of the undersigned that the petition applies with equal force to groundwater as to surface water. It is clear that increased guidance on regulation of discharges into groundwater is necessary. Groundwater is an extremely important resource for the state of California. In addition, pollution of groundwater raises complex and unique issues,¹ and treatment and remediation of groundwater can be costly. However, though the California anti-degradation policy clearly applies to groundwater, guidance for the protection of groundwater, particularly with respect to the anti-degradation policy, is scant, and there has been essentially no enforcement of the policy with respect to groundwater discharges. This absence of meaningful implementation of the policy with respect to groundwater is in violation of the law.

As a result of this failure to implement and enforce the policy, many activities that affect groundwater quality, such as groundwater extraction and discharge of pollutants into groundwater, evade meaningful environmental review and enforcement. Thus, our groundwater is becoming degraded at an alarming rate, with disastrous consequences for California residents. Consistent, enforceable guidelines for the application of the anti-degradation policy to groundwater are, therefore, essential. Such guidelines would not only help to preserve this important resource for use by Californians, but would also help to alleviate the much-lamented costs of remediating already polluted groundwater resources,² and the harm to communities and natural resources that result from groundwater degradation.

¹ For example, as discussed during the November 17, 2008 scoping workshop ("scoping workshop"), groundwater, as opposed to surface water, does not benefit from initial dilution of pollutants or a mixing zone. Rather, groundwater pollution tends to travel as a plume for long distances, and for some contaminants, such as nitrates, there is no attenuation in groundwater.

² During the scoping workshop, it was argued that the Board should use caution with regulating groundwater pollution because of the potentially high cost of groundwater remediation. This argument only serves to emphasize

Anti-Degradation and Cost/Benefit Analysis

The Board should clarify the quantification of baseline water quality. While many highly complex methods may exist or be developed for determining whether a proposed use would degrade water quality, we echo the recommendations of the Environmental Protection Agency during the scoping workshop in urging the Board to define these concepts in terms of reduction of a water body's assimilative capacity.

We also encourage the State Board to make clear that compliance with the anti-degradation policy requires that the regional boards, in deciding whether a particular activity should be permitted under the anti-degradation policy, engage in a specific, well-defined anti-degradation analysis in order to determine whether any degradation will occur as a result of the proposed activity, and what the true costs and benefits of that activity will be. The purpose of the anti-degradation policy is to have a uniform process for performing anti-degradation analysis that allows the regional water boards to make decisions about potentially degrading activity in a fully informed and transparent manner. The regional boards should consider the true costs and benefits of any potentially degrading activity in a transparent manner, supported by evidence-based findings. In addition, in performing any cost/benefit analysis, the regional boards should determine whether the benefits to the people of California of a particular activity outweigh the true costs of that activity, including costs that are frequently externalized, such as the costs of mitigation and remediation, and the costs to impacted communities and ecosystems, if degradation is allowed to occur. In other words, the cost/benefit analysis of allowing degradation to occur should include a calculation to quantify *all* of the impacts of allowing a particular discharge to occur. Failure to engage in this analysis, make appropriate findings, or support any findings with evidence constitutes noncompliance with the policy.

In addition, where degradation is allowed to occur, those who engage in the degrading activity could be responsible for paying the costs of mitigation and remediation. By conducting a full anti-degradation analysis for each discharge permit, the State Board would be able to integrate a mitigation and remediation fee into the permit requirements for any activities that result in degradation of water quality. This would mean that dischargers seeking permission to degrade state waters could accurately gauge the costs of the proposed activity and that the public would not pay the price for such pollution. Such analysis would also assist the regional boards in complying with the spirit of the anti-degradation policy, which is to prevent degradation from occurring.

Water Recycling Programs

The issue of water recycling programs was raised during the scoping workshop. Several speakers warned against the impact of anti-degradation implementation on water recycling programs. As water is a precious and sometimes scarce resource in this state, we fully support the development and implementation of water recycling programs. However, such programs

the importance of consistent, strong regulation of pollution before entering groundwater. If the Board implements regulations which prevent damage to groundwater resources, funds need not be spent to erase that damage.

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should not be used as a means to evade mandated environmental review, and we urge the Board to simply apply the same standards to water recycling programs as to any other potential source of discharge.

Consideration of Other States' Anti-Degradation Implementation Guidelines

While the protection of water quality in California presents unique challenges and opportunities, we encourage you to examine the effective anti-degradation policies and implementation procedures of other states. As discussed in the petition, other states have created consistent, enforceable implementation guidelines.³ California is a state of tremendous resources and ingenuity, and we should implement the Clean Water Act's anti-degradation mandate legally and effectively in part by learning from the methods other states have successfully employed. We urge the Board to consider other states' guidelines, such as those of Arizona, New Mexico and Ohio, in revising the anti-degradation implementation guidelines for this state.⁴

The petition provides the Board with general procedures for the state's anti-degradation implementation policy. The undersigned urge adoption of the suggested procedures. In addition, we recommend that the implementation guidance be adopted as regulations, in order to guarantee that the implementation procedures are enforceable, are implemented consistently, and are not interpreted as merely "advisory." The undersigned also recommend that the Board consider performing routine audits of the regional boards' implementation of 68-16 and any revised implementation guidance, so as to guarantee consistent implementation across the state.

Thank you very much for your time and consideration of this important matter.

Sincerely,



Erin Ganahl
Environmental Law Foundation
1736 Franklin St, 9th Floor
Oakland, CA 94612

on behalf of

³ For example, Arizona's implementation guidelines require full anti-degradation analysis for general permits where degradation has been caused by permit non-compliance, and mandate that the permitting authority consider cumulative impacts in determining whether a proposed action will impact water quality.

⁴ See River Network's Antidegradation Online Report Database, which documents various states' anti-degradation policies and implementation guidelines, at: <http://rivernetwork.org/rn/antidegradation>.

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EXHIBIT A



ENVIRONMENTAL LAW FOUNDATION

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July 17, 2007

Via Hand Delivery

Chairwoman Tam Doduc and Fellow Board Members
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Re: Implementation of the State's Antidegradation Policy

Dear Chairwoman Doduc and fellow Board Members:

On behalf of the Environmental Law Foundation, American Rivers, Butte Environmental Council, California Sportfishing Protection Alliance, California Trout, Center for Biological Diversity, Clean Water Now!, Coast Action Group, Community Water Center, Environmental Defense Center, Environmental Justice Coalition for Water, Friends of the River, Humbolt BayKeeper, Klamath Riverkeeper, Orange County Coastkeeper, Pacific Coast Federation of Fishermen's Associations and the Institute for Fisheries Resources, Russian Riverkeeper, San Diego Coastkeeper, San Francisco Baykeeper, San Luis Obispo Coastkeeper, Santa Barbara Channelkeeper, Santa Monica Baykeeper, and Surfrider Foundation, the undersigned hereby petition the State Water Resources Control Board ("State Board" or "Board"), pursuant to California Government Code Section 11340.6 and Water Code Section 13143, to revise and formalize the procedures needed to faithfully implement the state's antidegradation policy, which at its core requires that water quality be maintained. Such revisions are necessary because the existing procedures, which are presently contained in several informal guidance documents, are inconsistent with that policy. Moreover, the State Board must formalize those procedures given widespread failure by the regional boards statewide to properly follow the existing guidance. Such problems with the present guidance have not only led to a failure to improve water quality throughout the state, they have caused water quality to deteriorate. Accordingly, the undersigned hereby request that the State Board take action to remedy the state's failure to properly implement its antidegradation policy.

A. *Water Quality in California Has Deteriorated*

Despite the initial successes in cleaning up California's waters in the early years of the Clean Water and Porter-Cologne Acts, water quality in California has deteriorated. For instance, between 1996 and 2002, the most recent years wherein the state's methodology for completing Section 305(b) reports assessing the state of California's waters was the same, the proportion of assessed water bodies that fully support all assessed uses has progressively decreased while the proportion of water bodies with at least one threatened use, or that are impaired for at least one

use, has progressively increased. (See California 305(b) Reports on Water Quality, 1996-2002.) The same pattern appears across individual uses such as aquatic life support, swimming, and drinking water supply. For these uses, as well as others, the proportion of assessed waters fully supporting these uses has shifted in favor of those waters where such uses are threatened, only partially supported, or not supported at all. Not surprisingly, the state's 303(d) list that lists the state's impaired water bodies grew 49% between 1996 and 2002.

Other indicators of water quality also show a general decrease in water quality statewide. For instance, between 1998 and 2002 the areal extent of fish advisories by the Office of Environmental Health Hazard Assessment increased both in lakes and rivers. (See California 305(b) Reports on Water Quality, 1998-2002.) Likewise, between 1998 and 2005, the number of drinking water standard violations reported by the Department of Health Services normalized by annual rainfall has increased over time. (See Division of Drinking Water and Environmental Management, CA Dept. of Health Services, Public Water Systems Violations Reports & Annual Compliance Report for Public Water Systems, 1998-2005, at <http://www.dhs.ca.gov/ps/ddwem/publications/default.htm>.)

The degradation, moreover, is not only limited to surface water. Groundwater too has been degraded over time. For instance, a 1998 report by the USGS noted that nitrate concentrations in ground water in the San Joaquin-Tulare Basins have increased since the 1950s. (Dubrovsky, N.M., Kratzer, C.R., Brown, L.R., Gronberg, J.M., and Burow, K.R., 1998, Water Quality in the San Joaquin-Tulare Basins, California, 1992-95: U.S. Geological Survey Circular 1159, at <http://water.usgs.gov/pubs/circ1159>, updated April 17, 1998.) The same is true for the Santa Ana basin. (Kenneth Belitz, et al., Water Quality in the Santa Ana Basin, California, 1999-2001 (Circular 1238, 2004), p. 8.)

None of this degradation should be occurring, though, given that the federal Clean Water Act and state Porter-Cologne Act both have as their central goal the protection and *maintenance* of water quality. (33 U.S.C. § 1251 (a) (objective is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters"); Water Code § 13000 ("the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation"); see also Pub. Res. Code § 30231 ("the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored").) In fact, California's Porter-Cologne Water Quality Control Act is specifically premised on the fact that "[w]ater resources that have once become degraded may be practically impossible to restore to a useable or acceptable quality." (Final Report of the Study Panel to the California State Water Resources Control Board 1 (March 1969).) The Study Panel to the California State Water Resources Control Board ("State Board") that recommended passage of the Porter-Cologne Act further noted that "[i]t costs much less in the long run—and the result is much more certain—to spend the money needed for an effective water quality control program than to try to salvage water resources that have been allowed to become unreasonably degraded." (*Id.*; see also Sen.Rep. No 92-414, 1st Sess., pp. 76-77 (1971) ("Striving toward, and maintaining the pristine state is an objective which minimizes the burden to man in maintaining a healthy environment, and

which will provide for a stable biosphere that is essential to the well-being of human society.”.) The water quality degradation that has occurred in the state, therefore, not only offends the law, it also offends common fiscal sense. The State Board, accordingly, must act to halt and reverse these trends in water quality. (See State Water Resources Control Board Mission Statement at <http://www.waterboards.ca.gov/about/mission.html> (“The State Board’s mission is to preserve, enhance and restore the quality of California’s water resources.”).)

B. California’s Antidegradation Policy

Part of the arsenal that California has at its disposal to prevent water quality degradation is the state’s antidegradation policy. This policy, announced in Resolution 68-16—Statement of Policy with Respect to Maintaining High Quality of Waters in California—was developed in response to a directive from the United States Department of the Interior calling for the adoption of state “antidegradation” policies. This policy states:

1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.
2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharges necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

(State Water Resources Control Board, Resolution 68-16 (Oct. 24, 1968).)

In 1986, the State Board interpreted this policy to incorporate the requirements set out in 40 C.F.R. § 131.12 for a state antidegradation policy under the Clean Water Act.¹ Those

¹ See *In re Rimmon C. Fay*, SWRCB WQO 86-17 (Nov. 20, 1986), p. 20 (“The federal antidegradation policy is part of the Environmental Protection Agency’s water quality standards regulations, and has been incorporated into the state’s water quality protection requirements.”); see also *id.* at p. 23, fn. 11 (“For waters subject to the federal antidegradation policy, both the requirements of the federal antidegradation policy and the express requirements of State Board Resolution No. 68-16 should be satisfied.”).

requirements set out three tiers of protection that must be applied to protect water quality against degradation. First, existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. (40 C.F.R. § 131.12(a)(1).) This represents what is called "Tier 1" protection. Second, where the quality of the waters exceeds levels necessary to support the propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the state (1) finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located; (2) assures water quality adequate to protect existing uses fully; and (3) assures that the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control are being achieved. (*Id.* § 131.12(a)(2).) This represents Tier 2 protection. Last, where 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, existing water quality shall be maintained and protected. (*Id.* § 131.12(a)(3).) This represents Tier 3 protection.

The federal requirements also mandate that a state "identify the methods for implementing . . . [its antidegradation] policy." (40 C.F.R. § 131.12.) Accordingly, the State Board has issued two informal guidance documents: a memorandum dated October 7, 1987 from William Attwater, Chief Counsel to the State Water Resources Control Board, to the Regional Board Executive Officers (the "Attwater Memo") and an Administrative Procedures Update from the State Board to the regional board staff dated July 2, 1990 (APU 90-004). There is also a September 13, 1994 "Fact Sheet" prepared by Frances L. McChesney, Senior Staff Counsel, Office of Chief Counsel, that analyzes the state's antidegradation policy in a Q&A format. Together, these documents set out the basic procedure by which regional boards should implement the state's antidegradation policy. According to this guidance, "if the Regional Board has no reason to believe that existing water quality will be reduced due to the proposed action," no antidegradation findings must be made at all. (APU 90-004, p. 2.) If some degradation is expected, the guidance directs that a full antidegradation analysis be conducted only when "in the Regional Board's judgment, [a regulatory action] will result in a significant increase in pollutant loadings." (*Id.*, p. 3.) Otherwise, as long as the "Regional Board decides that the discharge will not be adverse to the intent and purpose of the State and federal antidegradation policies," only a cursory analysis, if any, is required. (*Id.*, p. 2.)

C. *The Failure to Maintain Water Quality Has Resulted from Defective and Ineffective Implementation of the State's Antidegradation Policy*

In 1998, EPA noted that across the country, antidegradation policies were "significantly underused as a tool to attain and maintain water quality and plan for and channel important economic and social development that can impact water quality." (63 Fed.Reg. 36742, 36780 (July 7, 1998).) Such is the case in California where implementation of the state's antidegradation policy has clearly failed to fulfill either the spirit or the letter of that policy. This failure is partially the result of defective implementation guidance that is inconsistent with the policy. The failure is

also the result of nonperformance on the part of the regional boards to apply that policy. All this warrants revision and formalization of the procedures to implement the state's antidegradation policy to ensure proper and effective implementation. Such revisions, as set forth in Section D below, must make implementation more robust, objective, and self-executing.

1. *Implementation of the State's Antidegradation Policy Is Based on Flawed Guidance*

A review of the state's implementation guidance reveals that it is inconsistent with both the state's antidegradation policy itself and EPA's requirements for such implementation guidance. Those requirements are fairly clear. First, "the State should develop procedures to document the degree to which water quality exceeds that necessary to protect the uses." (Region 9, U.S. EPA, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12 (June 3, 1987), p. 3 [hereafter "EPA Guidance"].) Second, "the State should develop procedures that quantify the extent to which water quality will be lowered as a result of the proposed action." (*Id.*)

Yet the state's implementation guidance fails to faithfully implement these requirements. This can most readily be seen by comparing the implementation flow chart that is appended to APU 90-004—a flowchart that summarizes the prior six pages of guidance setting out how regional boards should implement the state's antidegradation policy—with the flowchart attached to EPA's guidance. Absent from the state's flowchart is the requirement in both Tier 1 and Tier 2 that the regional boards assure that designated and existing uses be fully protected and maintained. Also absent is the requirement that the regional boards determine under Tier 2 that the highest statutory and regulatory requirements are met, or even under Resolution 68-16 that the best practical treatment or control has been applied. Instead, the state's implementation guidance focuses more on establishing categorical exemptions from implementation than setting forth procedures "to document the degree to which water quality exceeds that necessary to protect existing uses" or to "quantify the extent to which water quality will be lowered by a proposed action." (EPA Guidance, p. 3; *see* APU 90-004, p. 2 (setting forth four cases when complete antidegradation analyses are not required).) Moreover, the guidance largely consists of nothing more than normative statements where the regional boards are "urged" to consider things such as the nature of non-threshold pollutants and ambiguous language granting the regional boards a tremendous amount of unfettered discretion in implementing the state's antidegradation policy. (APU 90-004, p. 2.) All told, the guidance is fatally inconsistent with the policy that the guidance is intended to implement.

a. The Guidance Improperly Funnel Implementation Through a Wholly Discretionary and Standardless Process

One way in which the state's implementation guidance is flawed is that it allows a regional board to avoid having to justify a degrading discharge whenever "using its best professional judgement and all available pertinent information, the Regional Board decides that the discharge will not be adverse to the intent and purpose of the State and federal antidegradation policies."

(APU 90-004, p. 2.) Such "guidance" is defective in that it fails to provide the regional boards with any actual, objective standards to drive their decision making. For instance, with the exception of four categorical exemptions, the guidance does not define what might or might not be "adverse to the intent and purpose of the State and federal antidegradation policies." Nor does it define "all pertinent information." The result is that often regional boards simply conclude that the discharge is consistent with the state's antidegradation policy even though the discharge will result in an increased mass loading of pollutants.

In other instances, regional boards simply conclude that no degradation will result because the permit prohibits degrading discharges. This, though, is pure sophistry and tautology with the regional boards simply assuming the conclusion. Absent from the analysis is any consideration of the actual effectiveness of the measures or the likelihood with which the prohibitions will be realized, *i.e.* the likelihood of compliance. This could be based on past compliance history or on a reasoned analysis of general compliance by industry class. Other states specifically consider prior compliance in implementing their antidegradation policy. For instance, New Mexico's antidegradation policy implementation procedures specify that the procedures apply to the renewal of permits for existing discharges including a single source with a history of permit noncompliance. (New Mexico Water Quality Control Commission, State of New Mexico Continuing Planning Process, Appendix A, p. 2 (Dec. 14, 2004).) Likewise, Arizona requires that general permits be subject to full antidegradation review where degradation has been caused by permit noncompliance. (Arizona Department of Environmental Quality, *Antidegradation Implementation Procedures* (March 2005 final draft), p. 3-16 [hereafter "AZ Procedures"].)

This absence of standards is compounded by the fact that the guidance commends the determination of whether the state's antidegradation policy applies in any particular case to the regional boards' "best professional judgment"—a wholly unreviewable and subjective standard.² The problem with this is that the guidance funnels implementation of the state's antidegradation policy through "best professional judgment" rather than any objective standard whenever there is uncertainty about whether degradation will actually occur. The guidance, after all, requires a complete antidegradation analysis only in cases where a discharge "will result in a significant increase in pollutant loadings." (APU 90-004, p. 3 (emphasis added).) This results in the absurd consequence that where there is uncertainty about a discharge's water quality impacts, less study and analysis is actually required than where it is certain that degradation will occur. Other states' policies are implemented just the opposite, requiring a complete analysis in any situation where a regulated discharge *has the potential* to degrade water quality. (*E.g.*, AZ Procedures, pp. 1-4, 3-1, 3-16.) Indeed, EPA's guidance mandates that a state perform an antidegradation analysis if "the action *could* or will lower water quality." (EPA Guidance, p. 4 (emphasis added).) All told, then, the state's implementation guidance structurally fails to properly implement the state's antidegradation policy.

² As opposed to using "best professional judgment," regional boards could employ such objective tools as water quality modeling to determine whether a discharge will result in degradation.

b. The Guidance Improperly Ignores Cumulative Impacts

The structural flaws outlined above are compounded by the fact that the state's implementation guidance is completely silent with regard to how regional boards should factor cumulative impacts into their analysis of whether degradation could occur. The guidance assumes a static world in which nothing has changed independent of the discharge being considered. This leads to flawed implementation of the state's antidegradation policy given that "[r]epeated or multiple small changes in water quality (such as those resulting from actions which do not require detailed analyses) can result in significant water quality degradation." (EPA Guidance, p. 6.) Accordingly, EPA mandates that a state's determination of whether or not degradation could occur "include the cumulative impacts of all previous and proposed actions and reasonably foreseeable actions which would lower water quality below the established baseline." (*Id.*; see also Ephraim S. King, Director of Office of Science and Technology, U.S. EPA, mem. to Water Management Division Directors, Regions 1-10, Tier 2 Antidegradation Reviews and Significance Thresholds (Aug. 10, 2005), p. 3 [hereafter "OST Memo"] (failure to incorporate cumulative impacts can result in the majority of the total assimilative capacity of a water body being used without substantial antidegradation analyses being performed along the way).) Other states' implementation procedures, such as Arizona's, specifically mandate that the permitting authority consider cumulative impacts in determining whether a proposed action will impact water quality. As set out in the March 2005 draft of the Arizona Department of Environmental Quality's Antidegradation Implementation Procedures,

The antidegradation review for individually AZPDES-permitted facilities will be based upon the assigned protection level and baseline water quality . . . of the receiving water, the existing uses of the segment, applicable water quality standards, flow regime of the receiving water, pollutants of concern associated with the discharge, projected impacts on the receiving water, *cumulative impacts from other pollutant sources*, and the significance of any degradation that might occur as a result of the discharge.

(AZ Procedures, p. 3-12 (emphasis added).) California's implementation guidance, however, is silent on this issue, leaving the regional boards to implement the state's antidegradation policy in a way that is inconsistent with the policy itself.

c. The Guidance Improperly Injects the Concept of "Significant Degradation" into the State's Antidegradation Policy

The state's implementation guidance is also inconsistent with the state's antidegradation policy in that the guidance adopts a standard of "significant degradation" in determining when socioeconomic and alternatives analyses must be performed. (APU 90-004, p. 3.) The injection of such a concept into implementation of the state's antidegradation policy, however, is clearly inconsistent with that policy itself. After all, both Resolution 68-16 and the federal requirements for Tier II simply state that existing high water quality "shall be maintained" unless certain

findings are made. (40 C.F.R. § 131.12(a)(2).) Moreover, EPA has stated that to comply with the federal requirements for an antidegradation policy, a "State must find that any action which would lower water quality is necessary to accommodate important economic and social development" *whether or not water quality is significantly lowered*. (EPA Guidance, p. 7.) Part and parcel of making this finding is determining that the development "requires the lowering of water quality which cannot be mitigated through reasonable means." (*Id.*) Obviously, such a determination can only be reached after alternatives to the degrading discharge have been analyzed. Otherwise, the Regional Board could not rationally conclude that the discharge is "necessary." Basic principles of administrative law require that the regional boards do *some* analysis to support the finding that any social development being accommodated by the discharge is "important." (*See Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515-16.) To defer the necessary analyses to cases where the degradation is first determined to be significant, therefore, invites the regional boards to err.

Conducting antidegradation analyses only for "significant" degradation is also fraught with many practical problems. After all, how should "significant degradation" be defined? That term is not defined anywhere in the guidance. Numeric interpretations could be used, but numeric interpretations of "significance" can only be valid in relation to pollutants that have numeric standards. Such numeric interpretations are meaningless with regard to narrative standards, leading all those standards to be substantively ignored in any ensuing analysis. Furthermore, any interpretation has to factor in prior, cumulative degradation as discussed above. To handle that, EPA recommends that states "incorporate a cumulative cap on the use of total assimilative capacity (i.e., the baseline assimilative capacity of a waterbody established at a specified point in time)." (OST Memo, p. 3.) Implementing such a cap, however, introduces another slew of issues including how the values of the variables needed to compute that cap should be determined.³ Clearly, then, the concept of "significant degradation" is problematic from an implementation perspective, often resulting in more work being expended on avoiding required analyses than would actually be expended conducting them.

³ One possible way to conceptualize such a trigger with a cumulative cap is to calculate the cumulative proportion of a water body's baseline assimilative capacity (i.e., determined by the best water quality in a water body historically) that will be used by the discharge. For instance, the trigger, T, can be calculated as

$$T = \frac{WQ_r - B}{WQO - B}$$

where

- WQ_r = resulting predicted water quality (factoring in prior and cumulative degradation)
- B = baseline water quality
- WQO = pollutant-based water quality objective
- T = proportion of baseline assimilative capacity used

Then, where T is greater than a particular threshold, say 10%, more in-depth socioeconomic and alternatives analyses must take place. The question remains, however, how predicted and baseline water quality are determined, let alone, what trigger is appropriate.

d. The Guidance Improperly Allows for a Sliding Water Quality Baseline

Another flaw in the state's implementation guidance that is that allows regional boards to use present water quality as the baseline for measuring the significance of the degradation that triggers the state's antidegradation policy. As stated in APU 90-004,

Baseline quality is defined as the best quality of the receiving water that has existed since 1968 when considering Resolution No 68-16, or since 1975 under the federal policy, unless subsequent lowering was due to regulatory action consistent with State and federal antidegradation policies. If poorer water quality was permitted, the most recent water quality resulting from permitted action is the baseline water quality to be considered in any antidegradation analysis.

(APU 90-004, p. 4.) When combined with the requirement that antidegradation analyses only be conducted for "significant degradation," the sliding baseline authorized by the state's implementation guidance effectively transforms the state's *antidegradation* policy into a de facto *degradation* policy that assures that all water bodies in the state will eventually be degraded to the very lowest possible level bit by bit, with every existing discharge immunized against consistent, rigorous alternatives reviews during permit renewal. This is inconsistent with the state's antidegradation policy wherein baseline water quality is more properly conceptualized as the level of water quality that *must be protected*. It should, therefore, only be allowed to be adjusted upward, not downward as the state's guidance allows. Indeed, using present water quality as the baseline directly conflicts with EPA guidance that requires that baseline water quality "remain fixed unless some action improves water quality." (EPA Guidance, p. 6; *see also* AZ Procedures, pp. 4-3 ("Antidegradation policy generally does not allow a lowering of BWQ [baseline water quality]. That is, BWQ is not a moving target, unless it moves in the direction that reflects improving water quality."), 1-3 (degradation is determined "from BWQ, not ambient water quality at the time a project application is submitted").) The "immunization" of existing discharges also conflicts with the Clean Water Act's central goal of *eliminating* discharges, not just managing their impacts. (33 U.S.C. § 1251(a)(1) ("it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985").) By granting dischargers an effective "license to pollute," the implementation guidance preempts the regional boards from taking advantage of the opportunities provided them through permit renewal. Overall, the sliding baseline authorized by the state's implementation guidance renders that guidance fundamentally and fatally flawed.

e. The Guidance Improperly Authorizes Reliance on CEQA Documents that Are Inadequate for Purposes of Implementing the State's Antidegradation Policy

Yet another flaw in the guidance is that the guidance structurally allows regional boards to base their determinations regarding degradation on CEQA documents. (APU 90-004, pp. 2, 3.) This is problematic given that those CEQA documents analyze impacts based on present water

quality as the baseline. (Cal. Code Regs. tit. 14, § 15125(a) (environmental conditions as they exist at the time of the notice of preparation serve as the baseline for CEQA analyses).) Present water quality, however, as discussed above, cannot be the baseline for any effective antidegradation analysis. Consequently, the regional boards often rely on CEQA documents that are not suitable for antidegradation purposes.

f. The Guidance Fails to Address Implementation of the Antidegradation Policy with Regard to General Permits

Another key deficiency in the state's implementation guidance is that it fails to provide any direction on how the regional and state boards should implement the state's antidegradation policy when issuing general permits. Such permits authorize many discharges at once, across multiple watersheds, usually with minimal or no further discretionary action or review. (See e.g., Water Quality Order No. 97-03-DWQ (statewide general industrial stormwater permit); Water Quality Order 99-08-DWQ (statewide general construction stormwater permit); Order No. R1-2005-0011 (general permit for sand and gravel mining), Order No. R6-00-03 (general construction stormwater permit).) The state's antidegradation policy, though, requires that the regional and state boards consider the characteristics of each individual water body when authorizing discharges. (40 C.F.R. § 131.12(a); see also Water Code §§ 13263(a), 13241(b).) For instance, whether a water body is subject to Tier I, II, or III determines the level of protection that that water body must be given. (EPA Guidance, p. 4 ("Prior to proceeding with a detailed analysis . . . the affected water body should be assessed to determine whether or not it falls into either Tier 1 or Tier III.")) Furthermore, for Tier 2, the regional boards must find that any degradation occurring as a result of a discharge authorized under a general permit is necessary to accommodate social and economic growth *in the area of the waters being affected*. (40 C.F.R. § 131.12(a)(2).) These individualized considerations regarding discharges and receiving waters are "contrary to the concept of a general permit."⁴ (*Ohio Valley Environmental Coalition v. Horinko* (S.D.W.Va 2003) 279 F.Supp.2d 732, 761 (quoting Final Reissuance of National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit for Industrial Activities, 65 Fed.Reg. 64746, 64794 (Oct. 30, 2000)).) Yet the state's implementation guidance is silent on how these considerations should be made when issuing a general permit.

⁴ As the *Horinko* court stated:

When a general permit is issued under section 402 or section 404 [of the CWA], the State simply does not know the specific locations of discharges that might be covered by the general permit; discharge locations are not known until individuals seek permission to discharge under the general permit. In light of this fact, the court does not understand how the State could determine, at the time the general permit is issued, that each potential discharge that might some day be covered by the general permit is "necessary to accommodate important economic or social development in the area in which the waters are located." [citation omitted]

(*Ohio Valley Environmental Coalition v. Horinko* (S.D.W.Va 2003) 279 F.Supp.2d 732, 761.)

The guidance is also silent on how the public participation required by the state's antidegradation policy should take place in the context of issuing a general permit. Clearly, participation only at the time of adopting the general permit is insufficient given that the public (and the state for that matter as noted above) cannot be aware of the nature and location of specific discharges that will be covered under the permit. The public participation that takes place when adopting the permit, therefore, cannot be meaningful.⁵ (*Horinko, supra*, 279 F.Supp.2d at p. 761 ("public participation as required by section 131.12(a)(2) would be *impossible* since the permit issuing authority would not know about the particular discharge to tier 2 waters before a NOI was submitted.")) Yet despite such thorny implementation issues, as noted above, the state's implementation guidance provides no direction for the regional boards (and the State Board) regarding how to implement the state's antidegradation policy with regard to general permits. The result is that general permits are routinely issued with detrimental effects to water quality. (*See, infra*, Section C.2.f.)

g. The Guidance Fails to Address Implementation of the Antidegradation Policy with Regard to Effluent Dominated Waters

Finally, another deficiency in the state's implementation guidance is that it fails to address how the state's antidegradation policy should be implemented in the context of ephemeral and intermittent streams and the creation of effluent dominated waters ("EDWs") through the discharge of wastewater into such streams.⁶ This is a major oversight given that a large proportion of the state's waters are intermittent or ephemeral. Moreover, as the Central Valley Regional Board noted in a 2000 draft report, "there are consequences of increasing flows into

⁵ It should be noted that such general permit schemes are not only inconsistent with the state's antidegradation policy, they are also inconsistent with the Clean Water Act's public participation requirements. (*See Environmental Defense Center, Inc. v. U.S. EPA* (9th Cir. 2003) 344 F.3d 832, 857 ("it is the NOIs, and not the general permits, that contain the substantive information about how the operator of a small MS4 will reduce discharges to the maximum extent practicable. Under the Phase II Rule, NOIs are functionally equivalent to the permit applications Congress envisioned when it created the Clean Water Act's public availability and public hearing requirements. Thus, if the Phase II Rule does not make NOIs 'available to the public,' and does not provide for public hearings on NOIs, the Phase II Rule violates the clear intent of Congress."); *Minnesota Center for Environmental Advocacy v. Minnesota Pollution Control Agency* (Minn.App. 2003) 660 N.W.2d 427, 435 ("Neither the single hearing held before the general permit was issued, nor the public meetings to discuss the annual reports after the implementation of the SWPPPs, are substitutes for a public hearing held before the SWPPPs are implemented. Because there is no opportunity for public hearings on each SWPPP, the general permit procedure violates the public participation requirements of the Clean Water Act."))

⁶ That the state's antidegradation policy applies to these water bodies is beyond question. (U.S. EPA, Questions and Answers on Antidegradation (Aug. 1995), p. 3, at <http://www.epa.gov/waterscience/standards/handbook/handbookappxG.pdf> ("The fact that sport or commercial fish are not present does not mean that the water may not be supporting an aquatic life protection function. An existing aquatic community composed entirely of invertebrates and plants, such as may be found in a pristine alpine tributary stream should still be protected whether or not such a stream supports a fishery."))

[intermittent or ephemeral] streams that go beyond the traditional chemical concerns.”⁷ (Central Valley Regional Water Quality Control Board, Effluent Dominated Water Bodies (Sept. 2000 Draft), p. iii [hereafter [“EDW Report”].) In such streams, high quality water is not the only issue. Rather, increased flow and altered flow regimes are important as well. (*Id.*, p. 15; Sheldon, et al., *Using Disaster to Prevent Catastrophe: Referencing the Impacts of Flow Changes in Large Dryland Rivers*, 16 *Regulated Rivers: Research & Management* 403, 404 (2000) (“most river ecologists recognize ‘flow’ as the driving force in riverine ecology”).)

The fact is that changing a stream's flow from ephemeral to perennial through the addition of treated wastewater “can be detrimental to species that respond to the ephemeral nature of the stream.” (EDW Report, *supra*, p. 16; Sheldon et al, *supra*, p. 404 (“There is evidence that alteration of a river's natural flow regime is likely to modify the distribution and availability of habitats, with adverse consequences for the native biota.”).) For instance, many species of amphibians such as the threatened California red-legged frog are adapted to periodic drying. Ephemeral streams, therefore, are their natural habitat. When water flow is continued throughout the year, this species is subject to competition from the more aggressive bullfrog, which requires perennial stream conditions. Some crustaceans too are particularly adapted to persisting in or colonizing ephemeral waters, including tadpole shrimp, clam shrimp, fairy shrimp, seed shrimp, waterfleas, and copepods.⁸ Eggs of these crustaceans can lay dormant in the bottom of ephemeral waters for years until they sense favorable conditions for hatching. The alteration of the flow regimes on which these species depend displaces them in favor of other species better adapted to more constant flows.⁹ (*See generally* O'Keefe and Moor, *Changes in the Physico-Chemistry and Benthic Invertebrates of the Great Fish River, South Africa, Following an Interbasin Transfer of Water*, 2 *Regulated Rivers: Research & Management* 39-55 (1988) (demonstrating considerable changes in taxa resulting from conversion of intermittent stream to perennial stream); Snaddon and Davies, *A Preliminary Assessment of the Effects of a Small South African Inter-basin Water Transfer on Discharge and Invertebrate Community Structure*, 14 *Regulated Rivers: Research & Management* 421-41 (1998) (same); Stromberg, et al., *Altered Stream-flow Regimes and Invasive Plant Species: the Tamarix Case*, 16 *Global Ecology and Biogeography* 381-393 (May 2007); Hassan and Egozi, *Impact of Wastewater Discharge on Channel Morphology of Ephemeral Streams*, 26 *Earth Surface Processes and Landforms* 1285-1302 (2001) (finding that wastewater

⁷ Indeed, the creation of such effluent dominated waters skirts the edge of legality. (40 C.F.R. § 131.10(a) (stating that waste transport or assimilation can never be a designated use for any water of the United States).)

⁸ *See generally*, D.Belk, *Zoogeography of the Arizona Fairy Shrimps (Crustacea: Anostraca)*, 12 *J. Arizona Academy of Science* 70-78 (1978); R. A. Cole, et al, *Diversity of Aquatic Animals in New Mexico*, 36 *New Mexico J. of Science* 79-100 (1996).

⁹ There is a common misperception that such species are “hardy” given their adaptation to harsh environmental conditions. Nothing, though, could be further from the truth given that not only are these species particularly susceptible to changed flow regimes, they also are also more sensitive to pollution than other species such as the fish that are often used in establishing water quality standards. (*See generally* W.J. Birge, et al., Chapter 14a, *in* *Ecotoxicology of Amphibians and Reptiles* (Society of Environmental Toxicology and Chemistry (SETAC) Press 2000), pp. 727-791.)

flows causes shift from dry ephemeral channel to a continuous flow pattern with attendant changes in supported biota.)

In this context, it is clear that proper implementation of the state's antidegradation policy requires at least some focus on water *quantity* and flows in addition to an analysis of traditional water quality when intermittent or ephemeral streams are at issue. (See U.S. EPA, Questions and Answers on Antidegradation (Aug. 1995), p. 3, at <http://www.epa.gov/waterscience/standards/handbook/handbookappxG.pdf> ("Species that are in the water body and which are consistent with the designated use (i.e., not aberrational) must be protected, even if not prevalent in number or importance." (emphasis in original)).)

The state's implementation guidance, however, is silent with regard to such streams, leaving the regional and state boards to focus only on water quality (if they even conduct an antidegradation analysis for such waterbodies). For example, as of 2000, the Central Valley Regional Board had adopted approximately 50 permits for discharges of treated municipal wastewater into ephemeral water bodies or water bodies with limited dilution capacity, altering the beneficial uses of those water bodies despite the command of the state's antidegradation policy that existing uses shall be maintained and protected. Instead, the physical integrity of these streams was sacrificed, inevitably reducing these streams' biological integrity. (See Attachment to Letter from Chairman Arthur Baggett to U.S. EPA Water Docket Staff, Comment on Advanced Notice of Proposed Rulemaking on Definition of "Waters of the United States" (Mar. 13, 2003), p. 7 (noting that changes to physical integrity invariably reduce biological integrity).) The result is that the varied and sensitive biota that have adapted for millennia to arid conditions and intermittent flows are wiped out—wholly in violation of the Clean Water Act's goal to provide for the protection and propagation of fish, shellfish, and wildlife. (See 33 U.S.C. § 1251(a)(2).) This unfortunate circumstance has arisen largely—and solely—due to deficiencies in the state's guidance on implementing its antidegradation policy, which is supposed to serve as a general water quality standard wherever there is none that would protect existing uses.

Overall then, given all the faults and shortcomings described above, it is clear that the state's implementation guidance is defective and inconsistent with the antidegradation policy that it is intended to implement. These defects have precluded the state from fulfilling the letter and spirit of the state's antidegradation policy—that water quality be protected and maintained—even if the regional and state boards had dutifully followed that guidance to a tee. However, as demonstrated below, the regional and state boards have not even managed to properly implement the guidance, resulting in a double hit to the state's water quality. It is clear then, that the State Board must revise its guidance and set out a more specific and robust implementation policy that will ensure that California's water quality will be maintained.

2. *The Regional Boards Routinely Fail to Properly Implement California's Antidegradation Policy*

The problem with California's antidegradation policy is not just that the implementation guidance is flawed. A major component of the problem is also that the regional boards across the

state fail to faithfully implement the policy regardless of the flawed guidance. For instance, the Central Valley Regional Board staff recently admitted, on the record, that the Board had failed to properly implement the state's antidegradation policy with regard to discharges to land from food processors. According to staff,

Little emphasis was placed on assuring conformance with all of the required elements of the State Water Resources Control Board Resolution No. 68-16, *Statement of Policy With Respect to Maintaining High Quality Waters In California* (hereafter Antidegradation Policy), which is incorporated by reference in the Basin Plan. Waste discharge requirements have allowed wastewater storage and percolation-disposal from unlined or poorly-lined impoundments and application of wastewater to cropland at "agronomic rates" for the nutrients contained in the wastewater. Management measures were largely focused on prevention of nuisance conditions (e.g., stillage guidelines from the wine industry) without test plots or other direct demonstration that they would be effective in preventing unreasonable degradation of groundwater quality.

* * *

Although required by the State Board's Antidegradation Policy, dischargers have not been required to implement "best practicable treatment and control practices" ("BPTC"; i.e., the best of treatment or control practices that have been demonstrated to be technologically practicable and economically feasible) to ensure that any affect on groundwater quality was the minimum reasonably achievable.

(Central Valley Regional Water Control Board, Staff Report accompanying Item 23 on the Board's Jan. 28, 2005 meeting agenda, p. 4, at http://www.swrcb.ca.gov/rwqcb5/available_documents/waste_to_land/FoodProcessingInfoItem/StaffRpt.pdf.) This failure to properly implement the state's antidegradation policy occurred despite knowledge that food processing wastewater is typically of much higher strength than domestic wastewater, for which the Regional Board routinely applies more stringent treatment or control. (See Central Valley Regional Water Control Board, Staff Report accompanying Item 15 on the Board's Mar. 17, 2006 meeting agenda, p. 1, at <http://www.waterboards.ca.gov/centralvalley/tentative/0603/food-processing/food-processing-staff-rpt.pdf>.) The result is that over 90% of the food processors that monitor groundwater are known to have or suspected to have degraded groundwater with salts, nitrates, and other pollutants.

The simple fact is that unless the regional and state board staffs are called on their implementation of the state's antidegradation policy, they are all too apt to give that policy short

shriff.¹⁰ This results in a categorical failure statewide to properly implement the state's antidegradation policy. As demonstrated below—and as demonstrated by the various petitions for review filed by ELF and other petitioners with the State Board—such failure is not an isolated event. Rather regional boards (and the State Board) routinely skirt the state's antidegradation policy, failing to implement that policy properly.¹¹ For instance, regional boards hardly ever establish what baseline water quality is, often assuming without any basis that existing water quality is the baseline. (See e.g., Tentative Order R5-2007-XXXX, NPDES Permit No. CAXXXXXXXX, Waste Discharge Requirements for the City of Angels Wastewater Treatment Plant.) Regional boards also often fail to fully document their findings as required by the implementation guidance not to mention standard principles of administrative law. (See, e.g., Tentative Order No. R7-2007-0034, NPDES No. CA0105007, Waste Discharge Requirements for the City of Westmorland, Westmorland Wastewater Treatment Plant.) Other common implementation failures include failing to adapt template language to specific circumstances relating to particular discharges. (See, *infra*, Section C.2.g.) These are just some of the recurrent themes that any systematic audit of regional and state board actions will reveal, themes that are demonstrated in the case studies below.

a. San Vicente Creek - Region 3

San Vicente Creek is a Class I stream located in the Santa Cruz Mountains that enters the Pacific Ocean approximately 9 miles north of the city of Santa Cruz. The stream has approximately 9.3 miles of main stem and 11.3 miles of tributary blue line stream, and drains a watershed of approximately 11.1 square miles. That watershed is primarily privately owned and is managed for timber production, open pit mining, cattle grazing, urbanization, and water diversion. San Vicente Creek is the sole source drinking water supply for the town of Davenport and it supports an anadromous fishery for endangered Coho Salmon and Steelhead Trout.

The Creek was put on the state's 303(d) list for sediment in 2006. In the four years preceding the listing, the Regional Board took only two actions regarding the creek,¹² issuing waivers of waste discharge requirements for two timber harvest plans, one for Redtree Properties

¹⁰ In a stunning admission, a senior engineer with the Central Valley Regional Board recently stated in an email regarding implementation of the state's antidegradation policy that "[i]mplementation of this policy is new to many of us." That implementation should be "new" to regional board staff in 2007, twenty years after the Attwater Memo, is beyond the pale.

¹¹ The highlighting of only a few case studies below should not suggest that some regional boards are consistently and faithfully applying the state's antidegradation policy. Indeed, since February 2007, ELF has filed over 20 comments on permits before regional boards across the state noting deficiencies in each regional board's implementation of the state's antidegradation policy. The exclusion of some regional board actions here was necessary simply for brevity and to avoid redundancy.

¹² The only other action that the Regional Board took with regard to San Vicente Creek preceding its listing was to issue revised waste discharge requirements to RMC Pacific Materials' cement plant. Those discharges, however, do not affect the creek as the plant discharges to the Pacific Ocean, not San Vicente Creek.

to selectively log 278 acres (THP No. 1-03-042 SCR) and one for RMC Pacific Materials to selectively log 740 acres (THP No. 1-03-082 SCR). These two harvests were to be conducted concurrently over the following two years.

A review of the Board's resolutions and staff reports regarding these two harvest plans reveals that the Board relied heavily on CEQA documents prepared by the California Department of Forestry and Fire Protection ("CDF"). According to the Board, CDF had "considered all the potential significant environmental effects of the Plan[s] and made a finding that the timber operations will not have a significant effect on the environment." (R3-2004-0009 (Mar. 19, 2004), p. 1; R3-2004-0035 (May 13, 2004), p. 1.) The Board therefore concluded with regard to each timber harvest that "[i]f the proposed timber harvest is conducted in the manner prescribed in the Plan, and the conditions of this Order a waiver of the ROWD and waste discharge requirements is in the public interest and is consistent with applicable water quality control plans, including the Water Quality Control Plan, Central Coast Region." (R3-2004-2009, p. 2; R3-2004-0035, p.2.)

The Board, however, never made any statement regarding the state's antidegradation policy, nor is there any analysis in the waivers or the staff reports that would indicate that the Board considered the state's antidegradation policy. Clearly, that policy applied in the context of issuing the waivers. After all, San Vicente Creek is a water of the United States and even non-point sources of pollution must still be made to comply with that policy. (Attwater Memo, p. 6 ("The federal antidegradation policy is applicable to changes in water quality resulting from either point source or nonpoint source discharges."); EPA Guidance, p. 5 ("Both point and non-point sources of pollution are subject to antidegradation requirements.")) Moreover, waivers of waste discharge requirements are specifically subject to the state's antidegradation policy. (Attwater Memo, p. 9 ("A proposed waiver of waste discharge requirements would also be subject to the federal antidegradation policy if the waiver would result in a lowering of surface water quality.")) Thus, one would expect the Regional Board to have conducted an antidegradation analysis, particularly here where the Board recognized that the harvest plans constituted at least a moderate risk to water quality. Indeed, the staff noted their specific concern with the re-grading of roads during the rainy season but opted not to analyze the impacts above and beyond the conclusion by CDF that the timber operations would not have significant effects on the environment. (Staff Report for Regular Meeting of March 19, 2004, Item 13, Waiver of Waste Discharge Requirements for the RMC 2004-2006 Timber Harvest, THP No. 1-03-082 SCR, Santa Cruz County Order No. R3-2004-0009, p. 10 ("Re-grading of roads during the wet season is a concern of Regional Board staff. However, no reports or evidence of water quality problems caused by such grading have been reported.")) Consequently, the harvests took place with no special measures in place to protect San Vicente Creek.

Unfortunately, water quality data demonstrate that the authorized timber operations tipped the balance in San Vicente Creek sharply toward impairment. For instance, turbidity monitoring data from the Davenport Sanitation District demonstrates that in the two years subsequent to the granting of the waivers, the number of water quality standard exceedances resulting from turbidity in San Vicente Creek more than doubled from an average of 16 per water year between 2002-

2004 to 36 in 2005 and then more than doubled again to 80 in 2006 when the bulk of the impacts from the harvesting would have been felt.¹³

Clearly degradation resulted from the issuance of the waivers, degradation that would have been avoided if the Board had actually engaged in any form of substantive antidegradation analysis. After all, the Board recognized that there was a risk of impairment from the timber operations in issuing the waivers. A properly conducted antidegradation analysis would have placed San Vicente Creek at least into Tier 2—a water body that was not at the time listed as impaired, where “water quality objectives are currently being attained.”¹⁴ (Staff Report, p. 4.) Under Tier 2, the waivers could not have been issued unless they ensured that all cost-effective and reasonable best management practices were being employed. Yet all the waivers did was add a set of monitoring requirements above and beyond those management practices set out in the timber harvest plans¹⁵—management practices that are widely recognized as being insufficient to protect water quality.¹⁶ Indeed, those practices have never actually even been fully certified as “best management practices” under the Porter-Cologne and Clean Water Acts. (See Letter from Daniel W. McGovern, EPA Region IX administrator, to SWRCB, July 29, 1988) (declining to take action to certify forest practice rules as best management practices under the CWA.) Proper implementation of the state's antidegradation policy would have lead the Regional Board to specify additional best management practices to minimize the degradation to the maximum extent

¹³ Some of this increase could be attributed to increased rainfall in the Santa Cruz area between 2002 and 2004, which tended to be average, and 2005 and 2006 in each of which rainfall was 143% of average. The increase in rainfall cannot account, however, for the over two fold increase in the number of exceedances between 2005 and 2006, years with closely similar rainfall amounts and monthly precipitation patterns.

¹⁴ In light of the 2006 listing and the fact that the number of water quality exceedances already surpassed the impairment threshold, it could be argued that San Vicente Creek was already a Tier 1 water body at the time the Board issued the waivers. The Board, though, never addressed which protective tier San Vicente Creek fell in because the Board never conducted any form of antidegradation analysis. Had the Regional Board done so and determined that San Vicente Creek was subject to Tier 1 protection, the harvests would likely not have been allowed given the threat of degradation.

¹⁵ See Staff Report at p. 1 (“No additional mitigation measures beyond those contained in the timber harvest plan are proposed to be added via this Waiver, except for recommended monitoring and reporting requirements.”).

¹⁶ See, e.g., University of California Committee on Cumulative Watershed Effects, et al., A Scientific Basis for the Prediction of Cumulative Watershed Effects 24 (Report No. 46, June 2001) (“it is the collective judgment of this committee that BMPs do NOT remove off-site impacts. They may reduce them, when the BMPs function well, but they do not remove them, especially when they are tested by severe storms. It is the collective failure of BMPs to mitigate off-site impacts that results in residual, significant cumulative effects.”); Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat 24 (June 1999) (“the F[orest] P[ractice] R[ule]s, as currently written, do not ensure sufficient protection of salmonid habitat nor offer scientifically-based determinations of the potential impacts of THPs on salmonids.”); California Senate Office of Research, Timber Harvesting and Water Quality 1 (Dec. 2002) (“California forestry practices have been criticized in a number of state and federal government and scientific and academic reports as insufficient to protect public trust resources such as fisheries and water quality.”).

practicable—including prohibiting the harvesting if necessary. The Regional Board, though, did not do so, in large part because it failed to consider and implement the state's antidegradation policy. The result has been that water quality in San Vicente Creek has deteriorated to such an extent that it is now listed as an impaired water body—a poster child for the failure of the regional and state boards to faithfully implement the state's antidegradation policy.

b. Laguna de Santa Rosa - Region 1

The City of Santa Rosa owns and operates the Santa Rosa Subregional Water Reclamation Facility that discharges treated wastewater to the Laguna de Santa Rosa, a water of the United States that is presently severely impaired by biostimulatory substances, i.e. nutrients such as nitrogen and phosphorus. As Catherine Kuhlman, Executive Officer of the North Coast Regional Board stated in a letter to the State Board,

One of the most widely recognized impacts to the Laguna de Santa Rosa water quality has been the exceedance of the assimilative capacity for biostimulatory substances (nutrients), primarily phosphorus and nitrogen. The level of phosphorus entering the Laguna de Santa Rosa in sediment, agricultural runoff, and effluent discharges is so great that phosphorus is sequestered into the sediment, and cycled into the biota with any additions of available nitrogen. The nitrogen levels are additionally seen in concentrations that have direct impacts on water quality, including transient levels of unionized ammonia in exceedance of wildlife criteria. Together, the excess biostimulatory substances (phosphorus and nitrogen) contribute to additional secondary water quality impairments, including nuisance plant growth (*Ludwigia* is a recent example of particular concern) impairing REC1 and REC2 beneficial uses, and low dissolved oxygen levels.

(Cat Kuhlman, Executive Officer, North Coast Regional Water Quality Board, letter to Selicia Potter, Acting Clerk to the State Board (Dec. 1, 2005), *Comments on SWRCB Staff Recommendation for the 2004-2006 303(d) List Update*, p. 1-2.) In a follow-up letter, Ms. Kuhlman reiterated that

In the case of Laguna de Santa Rosa, it is clear (1) that beneficial uses are impaired by excessive aquatic growth, including the invasive *Ludwigia hexapetala*, (2) that infestations of nuisance aquatic growth including *Ludwigia hexapetala* are associated with nutrient enrichment, among other facts, and (3) nutrient loads (both ongoing and historic) have a reasonable potential to be a promoting factor in the observed impairment by *Ludwigia hexapetala* and other aquatic vegetation. Nutrients thus pose a risk to maintenance of water quality standards in the Laguna.

(Cat Kuhlman, letter to Tam Doduc (Jan. 31, 2006), *Additional Comments for the 2004-2006 303(d) List Update*, p. 2.)

Despite this impaired state, the Regional Board reissued the discharge permit to Santa Rosa, finding that the permit was "consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution 68-16" despite the fact that the Board recognized that further degradation of the Laguna could result. (See California Regional Water Quality Control Board, North Coast Region, Order No. R1-2006-0045, NPDES No. CA0022764 (Sept. 20, 2006) Finding L.) As the fact sheet explained,

This Order may allow some degradation of the quality of waters of the state by virtue of the fact that it permits the discharge of waste exerting a biochemical oxygen demand, containing suspended solids, biostimulatory substances and elevated temperature above ambient conditions into a waterway impaired for dissolved oxygen, sediment, nitrogen, phosphorus, and temperature. Nevertheless, this Order is consistent with Resolution 68-16 because (1) such degradation is consistent with the maximum benefit to the people of the state, (2) the discharge is the result of wastewater utility service that is necessary to accommodate housing and economic expansion, and (3) it results in a high level of treatment of sewage waste. This Order requires tertiary treatment or equivalent, which is a high level of treatment that is considered BPTC for most constituents in the wastewater and will result in attaining water quality standards applicable to the discharge.

(Order No. R1-2006-0045, p. F-11.) These were the only statements made by the Board in connection with the state's antidegradation policy.

Even the most cursory review of the Order and accompanying Fact Sheet, however, demonstrates that the Regional Board failed to properly implement the state's antidegradation policy—the Board justified this degradation only in relation to Resolution 68-16. Absent from the Board's discussion is any evidence of their analysis under 40 C.F.R. § 131.12. Laguna de Santa Rosa, though, is a water of the United States. (Order No. R1-2006-0045, p. F-2.) The federal antidegradation policy, therefore, clearly applies. (Attwater Memo, p. 3 ("the State and regional Boards must apply the federal antidegradation policy to all 'waters of the United States' within the State of California".)) So where is the Board's analysis under 40 C.F.R. § 131.12? For instance, where is the recognition that the Laguna is a Tier 1 water body with respect to many of the impairing pollutants in the discharge?¹⁷ In this connection, the Board admitted that it was allowing degradation, setting the limit for nitrogen at 10 mg/L—the drinking water

¹⁷ "[T]he requirement that existing instream uses be protected is not satisfied if existing instream beneficial uses will be impaired, even for a portion of a water body." (Attwater Memo, p. 11.)

standard—without any relation to the level of nitrogen already impairing the Laguna. Under the federal components of the state's antidegradation policy, such degrading levels of nitrogen would be prohibited. But nowhere is there any recognition of this requirement.

Furthermore, even if the Laguna were only a Tier 2 water body, where is the evidence to support the finding that the degradation is “necessary to accommodate important economic or social development?”¹⁸ This finding requires that the Regional Board look at alternatives, both in terms of treatment levels and in terms of discharge amounts—in order to assure that the least amount of degradation arises from the discharge. (63 Fed.Reg. 36742, 36784 (July 7, 1998) (state must “ensure[] that all feasible alternatives to allowing the degradation have been adequately evaluated, and that the least degrading reasonable alternative is implemented”).) Moreover, where is the analysis—let alone finding—that demonstrates that the economic development being accommodated is “important?”¹⁹ (*See id.* (“The significance of determining if an activity will provide for important social or economic benefit is that, absent important social or economic benefit, degradation under tier 2 must not be allowed.”).) The absence of these findings and the analysis that would support these findings indicate a failure to fully and faithfully implement the state's antidegradation policy.²⁰ This is critical given that proper implementation would have resulted in substantial modifications to the permit with increased requirements on the discharger.

Third, even with regard to the discharge's consistency with Resolution 68-16, there is nothing in the record to support any of the Regional Board's sub-conclusions it made in making its findings. For instance, the Regional Board says that the potential degradation is consistent with the maximum benefit to the people of the state. On what did the Regional Board base this conclusion? Clearly, not the administrative record it had before it given that that record demonstrates that the biostimulatory pollutants in the discharge contribute to the growth of *Ludwigia hexapetala*, an invasive aquatic weed that provides protective habitat for mosquitos rendering largely ineffective the application of insecticides. These mosquitos, in turn, serve as vectors for the West Nile virus. Eradication of *Ludwigia* will cost local agencies \$1.9 million over five years. (Cat Kuhlman, letter to Tam Doduc (Jan. 31, 2006), *Additional Comments for the 2004-2006 303(d) List Update*, p. 1.) How, then, did the Regional Board conclude that allowing

¹⁸ This determination must be made “whether or not water quality is significantly lowered.” (EPA Guidance, p. 7.)

¹⁹ In this connection, the record is devoid of any information about a purported housing and economic expansion that would otherwise support any degradation. Indeed, the City in its permit application disclaimed any need for the discharge based on housing and economic expansion. Instead, the City opted to cap their discharge at the currently permitted level and handle the increased waste volumes through their Integrated Recycled Water Program. Thus, there was no justification for the Board to conclude that the likely degradation was necessary in order to accommodate any housing and economic expansion.

²⁰ Also absent is any finding, required under Tier 2, “that all *other* new and existing point sources are achieving the highest regulatory requirements and that nonpoint sources are controlled by best management practices.” (*Horinko, supra*, 279 F.Supp.2d at p. 751 (emphasis in original).)

a discharge that will only worsen the *Ludwigia* infestation is in the maximum benefit to the people of the state? Unfortunately, the Regional Board did not conduct a complete antidegradation analysis that would have included a complete analysis of the economic and social costs of the discharge.

Last, the Regional Board's justification for the discharge—that the facility already applies tertiary treatment or the equivalent, “which is a high level of treatment that is considered BPTC for most constituents in the wastewater”²¹—is inapposite given that “[t]he critical issue in determining whether the three-part test established by the policy must be applied is not the level of treatment provided, but whether receiving waters will be effected [sic].” (Attwater Memo, p. 5.) In the case of the Santa Rosa permit, the record was replete with evidence that the discharger could do more through facility optimization and improvements to achieve greater de-nitrification in its discharge. Yet the Board shirked its responsibility to require such improvements, leaving the discharger instead only to *study* the feasibility of improvements all while water quality in Laguna de Santa Rosa would continue to degrade. The result is an overall failure on the part of the regional board to faithfully implement the state's antidegradation policy.

c. Agricultural Waiver of Waste Discharge Requirements - Region 5

It is well accepted that agriculture is the leading source of pollution in assessed rivers and streams as well as lakes across the nation. (Office of Water, U.S. EPA, National Water Quality Inventory, 2000 Report 15, 22 (EPA-841-R-02-001, Aug. 2002).) This is no different in California where, statewide, approximately 9,493 miles of rivers/streams and some 513,130 acres of lakes/reservoirs are listed on the 303(d) list as being impaired by irrigated agriculture. (State Water Resources Control Board, About Agricultural Waivers at http://www.waterboards.ca.gov/agwaivers/docs/about_agwaivers.pdf.) Of these, approximately 2,800 miles, or approximately 28%, have been identified as impaired specifically by pesticides. (*Id.*)

With such a dramatic impact on the environment, one would expect that implementation of the state's antidegradation policy with respect to agricultural discharges would be particularly stringent. That, however, is not the case. For example, in 2006, the Central Valley Regional Water Quality Control Board adopted two conditional waivers of waste discharge requirements for discharges from irrigated lands: one for individual dischargers, Order No. R5-2006-0054, and one for categorical groups of dischargers, R5-2006-0053.

The findings that the Regional Board made with regard to these waivers and their consistency with the state's antidegradation policy are located in Finding 23 of the coalition group waiver and Finding 21 of the individual discharger waiver. The two findings are identical. According to the Regional Board, it was not necessary to conduct an antidegradation analysis because (1) many of the water bodies impacted by the discharges were already impaired water

²¹ Order No. R1-2006-0045 p. F-11.

bodies such as to preclude application of Resolution 68-16, which only applies to high quality waters; and (2) the waivers prohibit discharges that would result in any degradation anyway.

Such statements indicate that the Regional Board has not learned any lessons from the mistakes it made with regard to degradation and its regulation of food processors. First, in adopting the 2006 waivers, the Regional Board only applied Resolution 68-16, ostensibly because "[t]he Conditional Waivers implement the Water Code, not the Clean Water Act." (Staff Report in Support of Item __, June 22, 2006, Appx, B Response to Comments, p. 22.) As discussed above, however, the federal requirements of the state's antidegradation policy also apply to conditional waivers and non-point sources. (*Supra*, p. 16; *see also* Attwater Memo, pp. 6, 9; EPA Guidance, p. 5.) After all, the policy is part of the state's water quality standards such that it cannot be ignored even when just implementing the Water Code. Thus, the Regional Board should have analyzed and made findings regarding the impact that the waivers would have on water quality even in impaired waters, conducting a Tier 1 analysis.

Second, with regard to the high quality waters, the Regional Board states on the one hand that the waivers do not authorize further degradation of such waters, yet on the other, requires only that discharges comply with water quality standards. Water quality in so-called "high quality waters," though, exceeds water quality standards, so allowing discharges that meet water quality standards will *de facto* lower the high water quality to the water quality standard. As such, Tier 2 findings would be required, yet such findings—regarding the necessity of lowering water quality to accommodate important economic or social development in the area, and that the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for non-point sources are being achieved—are absent from the waivers or the supporting staff report.

Third, the Regional Board's antidegradation analysis assumed full compliance with the waiver such that participants would actually apply best management practices that would meet water quality objectives. However, the waivers themselves never specify the best management practices that should be adopted. Thus, the Board adopted a "wait and see" approach wherein degradation that arises as a result of the waivers would be dealt with in the future. This, though, was the same approach that the Board adopted with the food processors—an approach that has proven itself to be entirely inadequate.

d. Sterling Caviar LLC - Region 5

Sterling Caviar, LLC owns and operates a fish farm that produces white sturgeon and caviar. The farm discharges waste that includes solids from uneaten feed and fish feces, along with arsenic, nitrate, and manganese as well as chemicals and therapeutic agents into the Betts-Kismat-Silva preserve, a wetland established by the Natomas Basin Conservancy as part of a habitat conservation plan for protecting the endangered Giant Garter Snake and the Swainson's Hawk.

For the past 21 years, this discharge has been occurring without any authorization. In March 2007, the Central Valley Regional Board finally issued the facility a permit. In doing so, the Board reasoned that issuing the permit was consistent with the state's antidegradation policy because the permit did not provide for an increase in the volume and mass of pollutants that had been discharged up till then. (Order No. R5-2007-0012, p. F-26.) In other words, the Board used present water quality as the baseline for their analysis *even though that water quality had resulted from an illegal discharge*. Not only does this fly in the face of the state's antidegradation policy itself, it also runs counter to the state's implementation guidance that says that the baseline for analysis is the best water quality obtained since 1968 "unless subsequent lowering was due to regulatory action consistent with State and federal antidegradation policies." (APU 90-004, p. 4.) An illegal discharge, however, is not regulatory action "consistent" with the state's antidegradation policy. As such, the baseline in this case could not include the unlawful discharge. Rather, the Board should have utilized background water quality absent the unlawful discharge as the baseline.

Using that baseline, degradation under the permit will clearly occur even though the permit assures compliance with water quality objectives—background water quality is by definition cleaner than the water quality objectives. Thus, the Board should have conducted a Tier 2 analysis. Instead, the Board made a series of findings that the Board interpreted as demonstrating consistency with the state's antidegradation policy. These findings, however, are inadequate and inapposite to that policy. For instance, the Board found that the permitted discharge was consistent with the state's antidegradation policy because the discharge "will not have significant impacts on aquatic life, municipal and domestic supply, and recreation uses." (Order No. R5-2007-0012, p. F-27.) The requirement for an antidegradation analysis, however, "does not depend upon identification of any discernible impact on beneficial uses." (Attwater Memo, p. 5.) Rather, what matters is whether a discharge will degrade water quality in relation to the baseline.

Next, the Board found that the permitted discharge was consistent with the state's antidegradation policy because compliance with the permit "will ensure the discharge does not cause a violation of water quality objectives, requires the use of best practicable treatment or control of the discharge, and ensures the highest water quality consistent with the maximum benefit to the people of the State will be maintained." (Fact Sheet, F-27.) Absent from this finding is the finding under Tier 2 that the lowering of water quality is necessary to accommodate important economic and social development. As EPA Guidance sets out, such a finding must be made "whether or not water quality is significantly lowered." (EPA Guidance, p. 7.) According to EPA, such a finding must include a determination that economic and social development will occur as a result of the discharge, that that development *requires* a lowering of water quality that cannot be mitigated through reasonable means, and that the lowering of water quality does not result from inadequate treatment, less-than-optimal operation of adequate treatment facilities, or a failure to implement methods to reduce or eliminate non-point source pollution. (*Id.*)

The Board made none of these findings. Indeed, nowhere in the record is there any consideration of any alternatives to the discharge. For discharges to a Tier 2 water body, the absence of such consideration clearly manifests faulty implementation of the state's

antidegradation policy. This is particularly unfortunate in this case given that the receiving water is a preserve established to protect endangered species. By cursorily allowing degradation of that receiving water, the Regional Board put those species and the plans to protect them at risk. Clearly, this is not a result that could ever have been intended under the Porter-Cologne and Clean Water Acts.

e. Fish Hatcheries - Region 6

On a single day in 2006, the Lahontan Regional Water Quality Control Board considered the renewal of five discharge permits for five fish hatcheries on the east slope of the Sierra: Hot Creek Fish Hatchery (R6V-2006-0027), Mojave River Fish Hatchery (R6V-2006-0028), Mount Whitney Fish Hatchery (R6V-2006-0029), Fish Springs Fish Hatchery (R6V-2006-0030), and Black Rock Fish Hatchery (R6V-2006-0031). In terms of implementing the state's antidegradation policy, the five permits were identical. Each contained a single finding that stated:

Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

Each order also included the following single statement in Attachment F:

Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution No. 68-16.

No other "detail," however, was provided in either the orders or the fact sheets, not even the pro forma analysis often found in permit renewals that because the permit maintains the status quo, no degradation will occur. The basis behind the Regional Board's determination that these

orders were consistent with the state's antidegradation, therefore, remains a complete mystery.²² This not only violates the letter and spirit of the state's antidegradation policy, it also violates the basic requirements of administrative law that the Regional Board "bridge the analytic gap between the raw evidence and ultimate decision or order." (*Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515-16.)

f. General Industrial Stormwater Permit - State Board

The State Board itself is not wholly without fault in failing to implement the state's antidegradation policy. For example, in 1997, the State Board adopted Water Quality Order No. 97-03-DWQ, a statewide general permit authorizing the discharge of industrial stormwater under certain conditions. As a NPDES permit, one would have expected the State Board to make some finding regarding the state's antidegradation policy. However, no such finding can be found in the permit or the supporting fact sheet.

Indeed, as noted above, it is not even clear how the State Board could have even made such a finding—and thereby issue the general permit—given that the state's antidegradation policy requires that findings be made that are specific to the particular and individual water bodies that will be impacted. (See 40 C.F.R. § 131.12(a)(2) (requiring finding that "allowing lower water quality is necessary to accommodate important economic or social development *in the area where the waters are located.*" (emphasis added)); EPA Guidance, p. 4 ("Prior to proceeding with a detailed analysis . . . the affected water body should be assessed to determine whether or not it falls into either Tier 1 or Tier III.")) In the case of the industrial stormwater permit, then, the State Board would have had to have required some review and approval of the NOI's filed subsequent to the permit with specific focus and attention given to the individual water bodies that would be receiving the discharges. (*Horinko, supra*, 279 F.Supp.2d at p. 761.) No such review or approval takes place, however, under this permit. Consequently, there was and will

²² The use of such "boilerplate" language is not isolated to these cases, but rather is rampant, demonstrating a failure on the part of the regional boards to give each discharge the particularized attention it deserves. For instance, in the course of a single year (2006), of the ten individual NPDES permits issued by the North Coast Regional Water Quality Control Board, six contained identical language as above in the findings and fact sheet referencing a nonexistent discussion in the fact sheets regarding how the permit was consistent with the state's antidegradation policy. (See Order No. R1-2006-0020, NPDES No. CA0006017, Pacific Lumber Company, PALCO Scotia; Order No. R1-2006-0049, NPDES No. CA0022888, City of Ukiah Wastewater Treatment Plant; Order No. R1-2006-0027, NPDES No. CA0024520, Sierra Pacific Industries, Arcata Division Sawmill; Order No. R1-2006-0022, NPDES No. CA0022978, Redway Community Services District, Redway Wastewater Treatment Facility; Order No. R1-2006-0007, NPDES No. CA002357, Covelo Community Services District, Wastewater Treatment Plant; Order No. R1-2006-0001, NPDES No. CA0022756, City of Crescent City, Wastewater Treatment Facility.) One permit contained no language at all in its Fact Sheet regarding antidegradation (Order No. R1-2006-0021, NPDES No. CA0022748, City of Rio Dell), and one permit focused its entire discussion regarding antidegradation on whether the permit authorized any backsliding—a completely separate requirement under the Clean Water Act. (See Order No. R1-2006-0004, NPDES No. CA0022977, City of Cloverdale.) Of the remaining two permits adopted in 2006, one was for the City of Santa Rosa discussed *supra*, and one was for a groundwater remediation project. In the course of the year, therefore, the North Coast Regional Water Quality Control Board completely failed to properly implement the state's antidegradation policy.

never be any antidegradation review at all for these discharges, clearly a violation of the state's antidegradation policy.²³ The result has been an abject failure to maintain water quality. For instance, between 2001 and 2002, 99.9% of samples taken from industrial facilities enrolled under the general permit in Region 4 exceeded the California Toxics Rule continuous criteria for copper. (Watershed Advisory Group, California Industrial Stormwater Data Presentation, submitted to State Board as comments on Draft Industrial Stormwater Permit (June 23, 2003).) The failure to meet water quality standards is also evident for lead (99.9% exceedance) and zinc (92.4%). (*Id.*) Clearly, then, degradation of the state's waters is occurring despite the state's antidegradation policy.

g. City of Fortuna WWTP - Region 1

As suggested above, the use of boilerplate language in the findings and the fact sheets of permits is rampant and indicates the failure by the regional boards to give each permitting decision the particularized attention that decision deserves. For instance, the North Coast Regional Board issued a tentative permit for the City of Fortuna Wastewater Treatment Plant in 2007. The fact sheet said that "This Order may allow some degradation of the quality of waters of the state by virtue of the fact that it permits the discharge of waste containing suspended solids and elevated temperature above ambient conditions into a waterway containing suspended solids and temperature." Apparently, this is the same template language that the North Coast Region tends to use in all of its permits. After all, the antidegradation language in the Santa Rosa permit discussed above tracks this language closely. (Order No. R1-2006-0045, p. F-11 ("This Order may allow some degradation of the quality of waters of the state by virtue of the fact that it permits the discharge of waste exerting a biochemical oxygen demand, containing suspended solids, biostimulatory substances and elevated temperature above ambient conditions into a waterway impaired for dissolved oxygen, sediment, nitrogen, phosphorus, and temperature."))

After ELF provided comments on the draft order, staff altered the finding, finding instead that the discharge would not result in any degradation. According to the response to comments, "[u]pon reviewing this permit template language, I find that it is not applicable to the City of Fortuna wastewater treatment facility." (Lisa Bernard, Sanitary Engineering Associate, North Coast Regional Water Quality Control Board, letter to Dan Gildor, Environmental Law Foundation, Response to Comments on Draft Board Order R1-2007-2007, NPDES Permit No.

²³ The same is true of the general waste discharge requirements issued by the North Coast Regional Water Quality Control Board for sand and gravel mining, Order No. R1-2005-0011. That Order authorizes such operations regardless of the characteristics of the particular water bodies in which these operations occur. Some of these water bodies, though, are Outstanding National Resource Waters in which no degradation can be allowed. Yet the General Permit is silent with regard to these rivers despite acknowledging that it only assures that water quality objectives will be maintained. (Executive Officer's Summary Report Regarding Public Hearing to Consider Adoption of a Negative Declaration and Order No. R1-205-0011, Item 2, June 21, 2005, pp. 1-2 ("The General WDRs authorize discharges associated with sand and gravel mining, excavation, and aggregate washing activities *only to the extent that such discharges will not violate water quality objectives* of the Water Quality Control Plan for the North Coast Region" (emphasis added)); *see also* Order No. R1-2005-0011 §§ C (discharge prohibitions), D (receiving water limitations) (detailing compliance only with water quality standards).)

CA0022730, April 23, 2007, p. 1.) This response begs the question why it took a comment letter shining a light on the language regarding compliance with the state's antidegradation policy to have staff "review the permit template language" and adjust it to fit the particular circumstances of the discharge being authorized. One can only wonder how many other permits have been adopted without the benefit of such "review."

Overall, then, it is clear that the state and regional boards are failing to properly implement the state's antidegradation policy. The State Board, therefore, must revise and formalize the procedures to implement that policy if that policy is ever going to be faithfully and consistently implemented.

D. The State Board Must Revise and Formalize the Procedures to Implement the State's Antidegradation Policy in Order to Prevent Further Unnecessary Degradation

In light of the above, it is clear that the State Board must revise and formalize the procedures to implement the state's antidegradation policy. The formalized procedures should clearly set out the steps that regional boards must take to properly implement the state's antidegradation policy. Accordingly, the undersigned request that the State Board adopt the following general procedures as the state's policy for implementing the state's antidegradation requirements.

- a) Scope and Coverage: The state's antidegradation policy shall extend to any discretionary action undertaken by the State or regional boards that may result in a lowering of water quality. The procedures below must be followed in implementing that policy.
- b) Individual permits:
 1. Establishing the baseline: Prior to approving any application or request relating to a proposed or existing discharge of waste, the state or regional boards shall require the applicant to propose what baseline water quality should be for purposes of conducting future antidegradation analyses. That baseline shall be set at the best water quality of the receiving water since 1968. Upon submission of a proposed baseline, the state or regional boards shall review the proposal and alter it as they deem appropriate. Prior to approving the application, the state or regional boards shall provide for public comment specifically on the baseline subsequent to the public notice provisions below. Once adopted, the baseline shall remain fixed unless water quality in the receiving water improves. The state or regional board shall require dischargers to continually monitor water quality and shall update the baseline accordingly but only in a manner that reflects improving water quality.

If establishing the baseline is infeasible, then the baseline shall be set, for purposes of the present applicant only, at the level of water quality that would

be attained in the water body absent any present and historical discharge by the applicant.

2. Establishing degradation: Prior to approving any application or request relating to a proposed or existing discharge of waste, the state or regional boards shall require the applicant to demonstrate through water quality modeling whether the discharge will possibly lower water quality in the receiving water from the baseline determined above. An increase in mass loading of any pollutant is sufficient to qualify as degradation. This demonstration must factor in all other previous and proposed discharges and reasonably foreseeable discharges to the receiving water as well as the applicant's compliance history.
3. Tier 1 protection: If lower water quality from the baseline is possible for any pollutant in the discharge stream that is presently impairing existing uses in the receiving water, the discharge of that pollutant shall only be allowed pursuant to an adopted and approved TMDL. All effluent dominated waters shall be afforded Tier 1 protection.
4. Tier 3 protection: If lower water quality from the baseline is possible for any pollutant in the discharge stream for a receiving water that is, or is upstream from a water body that is, an Outstanding National Resource Water, the discharge shall be prohibited unless lower water quality
 - (i) is strictly limited in time (i.e., less than one month);
 - (ii) will not impact any of the receiving water's resource values; and
 - (iii) is necessary for an activity that will improve water quality.

Discharges of treated sanitary wastewater may be allowed if there is no alternative discharge location, the discharge will not result in unreasonable lowering of water quality, and if the discharge existed before the receiving water was determined to be an Outstanding National Resource Water.

5. Tier 2 protection: The state or regional boards shall not take any discretionary action determined above to lower water quality for any pollutant in the discharge stream without first demonstrating subject to the public notice provisions below and in conjunction with the discharger if appropriate that (1) there shall be achieved the highest statutory and regulatory requirements for all other new and existing point sources in the watershed in which the degrading discharge occurs; (2) there shall be achieved all cost-effective and reasonable best management practices for nonpoint source control in the watershed in which the discharge occurs; (3) the social or economic

development being accommodated by the discharge is important; (4) the discharge is necessary; (5) lower water quality is in the maximum benefit of the people of the State and (6) resulting water quality fully protects existing uses. This demonstration shall be required regardless of whether the discharge is new or existing and whether the projected lowering of water quality from the baseline is significant or not.

(i) *Demonstrating Importance and Maximum Benefit:* In order to demonstrate whether the economic or social development being accommodated is important and whether the lower water quality is consistent with the maximum benefit to the people of the State, the state or regional boards must fully engage in the public notice provisions below. The state and regional boards shall make their own independent finding regarding importance. The state and regional boards shall not defer to any other finding regarding importance but may take such findings into account. In determining whether lower water quality is consistent with the maximum benefit of the people of the State, the state or regional boards shall consider at a minimum:

- (1) the present condition of the local economy, the changes in the number and types of jobs expected as a result of the proposed activity, state and local tax revenue to be generated as a result of the proposed activity, and other economic and social factors as the state or regional board deems appropriate;
- (2) the anticipated impact of the proposal on human health and endangered or threatened species;
- (3) the benefits associated with maintaining a higher level of water quality for uses such as fishing, recreation, tourism and other commercial activities, aesthetics, or other use and enjoyment by humans;
- (4) the benefits of preserving assimilative capacity for future industry and development.

The state and regional boards may rely on prior findings regarding the importance of the permitted activity provided that nothing has substantially changed that might alter the original finding.

(ii) *Demonstrating necessity:* In order to demonstrate the necessity of the discharge, the discharger shall analyze a range of alternatives

that includes both non-degrading as well as less degrading alternatives and mitigation measures. The alternatives considered must at a minimum include:

- (1) pollution prevention techniques or alternative production methods (such as changes in plant processes, source reduction, and substitution with less toxic substances) and water conservation measures;
- (2) Additional or enhanced treatment levels;
- (3) Improved operation and maintenance of existing treatment systems;
- (4) Discharge to a collection system that provides a higher level of treatment than proposed;
- (5) No-discharge alternatives that incorporate recycling or reusing wastewater, or land application where appropriate;
- (6) Increased storage requirements that preclude or limit the necessity of a discharge;
- (7) Seasonal or controlled discharge options to avoid critical conditions of water quality.

Failure by the discharger to incorporate technologically feasible alternatives shall result in the denial of the permit. Cost savings alone, absent any demonstration as to how these costs savings are necessary to accommodate important social and economic development (see above), shall not be a sufficient basis for determining necessity.

Dischargers that can demonstrate that they are already achieving an advanced level of treatment shall only have to demonstrate that no less degrading or non degrading alternative has become available since the discharge was last authorized. If such an alternative has become available, the discharger must adopt such alternative or else the regional or state board shall deny the permit.

c) General Permits:²⁴

1. The coverage of general permits shall not extend to water bodies whose water quality is not sufficient to protect all existing and designated uses or to Outstanding National Resource Waters.

2. In all other cases, general permits may be issued or renewed provided solely that

(i) The general permit provides that the requirements set forth above for individual permits are met in each individual application of the general permit and describes in detail how the permit ensures that cumulative uses of the general permit will not result in an unreasonable lowering of water quality.

(ii) The general permit prohibits discharges that individually or cumulatively lower water quality or cause or contribute to exceedances of Water Quality Standards.

(iii) The general permit contains an adequate monitoring program sufficient to determine compliance with the above prohibition.

(iv) The general permit contains provisions to provide public notice of individual applications for coverage under the general permit to all interested parties defined below as well as in the local paper and on the state or regional board's websites. Such notice shall provide the public with 30 days to provide comment on the application and its consistency with the state's antidegradation policy. Such notice shall list the facilities involved and the affected receiving waters; a description of the process used to identify and select the least degrading alternative that can be feasibly implemented; a review by staff of the likelihood that such application and use of the general permit will result in lower water quality within the receiving water; and a contact name to receive comments. Staff's review shall include but not be limited to a review of all sampling data and any other appropriate information available to board staff. A public hearing shall be held regarding the application's consistency with the state's antidegradation policy upon request of any member of the public.

²⁴ Nothing herein should be interpreted as an admission regarding the validity of general permits under the Clean Water Act.

- (v) The regional and state boards shall maintain lists of interested parties that shall receive the notices described above. Any member of the public shall be added to such lists upon request.

The state or regional boards shall require an individual permit whenever public comment or the agency's own determination demonstrates that the proposed activity may result in an unreasonable lowering of water quality.

d) Public notice:

- (i) Any public comment period related to implementation of the state's antidegradation policy shall not be for less than 30 days from the date of the notice.
- (ii) The state or regional boards shall provide an early opportunity for public comment on any discretionary act that might lower water quality. For any request for authorization or certification of a discharge or any other request relating to a discharge, notice of the opportunity to comment on such request shall be published within 30 days of receipt of the request. The notice shall provide a description of the proposed activity and shall include an identification of the water quality parameters for which there is expected to be a lowering of water quality, an overview of the water body expected to experience lowered water quality including any information regarding whether the water body should be designated an Outstanding National Resource Water, the uses that are most sensitive to lowered water quality, and a description and overview of the alternatives that the discharger has considered.
- (iii) Notice of all proposed activities that may lower water quality shall also be provided to the California Resources Agency, the Department of Fish & Game, the United States Fish and Wildlife Service, the United States Environmental Protection Agency, and any affected local or areawide planning agencies. The state or regional boards' executive director may initiate additional federal, state, or local intergovernmental consultation as appropriate. The notice shall specifically request in addition to general comments, input regarding a determination that the economic or social development being accommodated is important and whether lower water quality will be consistent with the maximum benefit of the people of the State.
- (iv) A summary of any review comments and recommendations provided by local or regional planning commissions, zoning boards

and any other entities the state or regional boards consult regarding the proposal shall be made part of any tentative or final order.

(v) The state or regional boards shall use all reasonable efforts to provide notice to the community and shall provide notice to all known interested parties. The state or regional board shall maintain a list of such interested parties, and interested parties shall be added to such a list upon request. Notice may be made via electronic mail.

(vi) Upon the close of the public comment period provided in the notice, the state or regional boards shall collect all comments and transmit them, along with any state or regional board comments on alternatives, to the discharger who shall then incorporate the proposed alternatives or demonstrate that the proposed alternatives will either not result in better water quality than originally anticipated under the discharger's plans or are technologically infeasible or economically unreasonable. Failure to incorporate comments in this manner shall result in the denial of the permit.

e) ONRWs:

1. The State Board shall maintain a directory of all water bodies that have been determined to be Outstanding National Resource Waters. In authorizing or certifying any activity in a water body that has not yet been designated an Outstanding National Resource Water, the state or regional boards shall consider and evaluate designating that particular water body as an Outstanding National Resource Water.
2. All Areas of Special Biological Significance shall be considered Outstanding National Resource Waters. River segments that are components of the state and/or federal Wild and Scenic River systems shall also be considered Outstanding National Resource Waters.

f) Findings: In making any finding regarding the consistency of any state or regional board action with the state's antidegradation policy, the state or regional board must document in the findings or supporting fact or information sheet the basis for those findings complete with citations where appropriate.

g) Definitions:

1. *Unreasonable lowering of water quality.* An unreasonable lowering of water quality is the lowering of water quality that can be prevented through the application of technologically feasible alternatives.

2. *Effluent dominated waters:* A water body is an effluent dominated water if it is dominated or greatly influenced by any particular discharge or group of discharges. Such water bodies shall have their physical integrity as it existed prior to 1975 maintained and protected unless it can be established that such physical integrity is not necessary to support any species that were present that are adapted to the ephemeral or intermittent flow conditions and that the physical integrity is not necessary to protect species from invasive species.
3. *Advanced level of treatment.* Dischargers that implement the best available technology or controls shall be determined to provide an advanced level of treatment.

E. The State Board Has the Authority to Formalize the State's Antidegradation Policy and Revisions to the Policy's Implementing Procedures

California Water Code Section 13160 designates the State Board as the state water pollution control agency for all purposes stated in the federal Clean Water Act. Thus, it falls on the State Board to develop a statewide antidegradation policy and to identify the methods for implementing that policy given federal requirements for such actions. (40 C.F.R. § 131.12(a).) The same results under state law given that Water Code Section 13140 exclusively empowers the State Board to "formulate and adopt state policy for water quality control." (Water Code § 13140.) Moreover, Water Code Section 13143 requires the Board to periodically review and revise state policy for water quality control, such as the antidegradation policy and its implementation procedures. Accordingly, the State Board has the authority to revise, reissue, and formalize implementation procedures regarding the state's antidegradation policy. The undersigned petitioners, therefore, call on the State Board to take this action today so that the steady decline in water quality in California's waters can be stopped and reversed. Failure on the part of the State Board to do so this will result in Petitioners seeking redress from EPA or the courts as appropriate.

Sincerely,



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Re: Implementation of California's Antidegradation Policy
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