



ENVIRONMENTAL LAW FOUNDATION

1736 Franklin Street, 9th Floor, Oakland, California 94612 • 510/208-4555 • Fax 510/208-4562
www.envirolaw.org • envlaw@envirolaw.org

May 22, 2007

Via Electronic Mail (vkjain@waterboards.ca.gov)

Mr. Vinoo Jain
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

**Re: Tentative Order No. R5-2007-____, NPDES No. CA0078671
Waste Discharge Requirements for El Dorado Irrigation District, El Dorado
Hills Wastewater Treatment Plant, El Dorado County**

Dear Mr. Jain:

On behalf of the Environmental Law Foundation, a non-profit, public interest organization dedicated to protecting water quality throughout California, I would like to thank you for the opportunity to submit comments on Tentative Order No. R5-2007-____, NPDES No. CA0078671, authorizing the discharge of waste by the El Dorado Irrigation District, El Dorado Hills Wastewater Treatment Plant, into Carson Creek. It is our hope that this discharge will not degrade water quality—a requirement under California’s antidegradation policy, which requires that water quality be maintained. (See State Water Resources Control Board Resolution 68-16 (Oct. 24, 1968); 40 C.F.R. § 131.12.) In this connection, the extensive discussion in the Tentative Order’s Fact Sheet and the analysis performed by the discharger encourages us that the state’s antidegradation policy is at least finally getting the consideration it properly deserves. We hope that the Regional Board will require every new or expanding discharge going forward to be accompanied by an analysis such as the one prepared by the discharger in this case.

We are, however, concerned by what appear to be two fatal flaws in that analysis. First, the discharger’s antidegradation analysis proceeded to perform socioeconomic and alternatives analyses solely on the basis of finding “significant” degradation—a finding that itself is flawed given that it was improperly based on present water quality as the baseline for determining “significance” as well as a “significance” threshold that failed to account for cumulative impacts. Second, the analysis that the expected degradation is “necessary” assumed there were no alternatives to reducing the *amount* of the discharge and that there were no more stringent requirements that could be applied to *limit* the discharge. These two flaws combine to enable a slow and steady march to impairment in Carson Creek, with the Tentative Order already depleting the Creek’s assimilative capacity for upwards of ten additional pollutants all while a further 1.4 mgd of waste waits in the wings.¹ The Regional Board, therefore, needs to be aware that in approving this permit, it will be letting the camel’s nose—and much of its head and body—into the tent. Accordingly, we ask that the Regional Board not approve this Tentative

¹ Carson Creek is already impaired by aldrin, aluminum, copper, iron, manganese, and ammonia.

Order until these flaws are corrected and the state's antidegradation policy is properly implemented. (*In re Rimmon C. Fay*, SWRCB WQO 86-17 (Nov. 20, 1986), p. 24 ("Before approving waste discharge requirements which would result in a reduction in receiving water quality, the Regional Board must make appropriate findings applying the requirements of State Board Resolution No. 68-16 and the federal antidegradation policy."))

A. *The Antidegradation Analysis Improperly Proceeds to Perform Socioeconomic and Alternatives Analyses Solely on the Basis of "Significant" Degradation*

In conducting their antidegradation analysis, the discharger proceeded to perform socioeconomic and alternatives analyses solely on the basis of "significant" degradation, which the discharger measured as a 10% reduction in the remaining assimilative capacity for particular pollutants in Carson Creek. While proceeding in this way may be authorized by State Board guidance on implementing the state's antidegradation policy, that guidance is flawed given that requiring application of the state's antidegradation policy only to discharges that will result in "significant" degradation runs counter to both Resolution 68-16 and the federal requirements for Tier II, which simply state that existing high water quality shall be maintained unless certain findings are made. (*See* 40 C.F.R. § 131.12(a)(2).) The injection of such a foreign concept as "significance" into such considerations is improper and only serves to confuse things. After all, what does "significant" mean?

Indeed, defining "significant" as the discharger has done in the present case does nothing but further confounds the state's antidegradation policy. First, a 10% reduction in remaining assimilative capacity is only measurable in relation to pollutants that have numeric standards. Defining degradation as 10% of a narrative standard, however, is meaningless. As a consequence, all those standards are substantively ignored in any ensuing analysis such as the one performed by the discharger. The operative question that remains unanswered in such an analysis is what will be the impact of the discharge on water quality in relation to narrative standards.

Second, a 10% reduction in remaining assimilative capacity also relies on using present water quality as the baseline. (*See* El Dorado Irrigation District, *Antidegradation Analysis for the El Dorado Hills Wastewater Treatment Plant* (Apr. 2007), p. 12 ("creek water quality is characterized from monitoring data collected from March 2001 through February 2002").) Doing so, though, allows for a baseline that is a moving target that constantly marches toward the boundary between impairment and high quality. This effectively transforms the state's *antidegradation* policy into a *de facto* policy that assures that all waterbodies in the state will eventually be degraded to the very lowest possible water quality. This is improper as 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." (Region 9, U.S. EPA, *Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12* (June 3, 1987), p. 6); *see also* Arizona Department of Environmental Quality, *Antidegradation Implementation Procedures* (March 2005), p. 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.”); *see also id.* p. 1-3 (degradation is determined “from BWQ, not ambient water quality at the time a project application is submitted”).)

Third, compounding the flaws inherent in using present water quality as the baseline is the fact that the discharger’s trigger point for conducting further socioeconomic and alternatives analyses fails to incorporate a cumulative cap that factors in prior, cumulative degradation.² As EPA recommends, “[t]o address situations where there are multiple or repeated increases in discharges . . . states . . . [should] 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).” (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”].) Thus, it is not enough, as the discharger has done, to analyze further only those pollutant discharges that use up more than 10% of the remaining assimilative capacity.³ As EPA warns, that can result in the majority of the total assimilative capacity being used without substantial antidegradation analyses being performed along the way. (*See* OST Memo, p. 3.) Thus, it remains an open question under the discharger’s analysis which pollutants might actually be using up a substantial portion of the Creek’s cumulative assimilative capacity but which did not trigger the Regional Board’s reasonable potential analysis, thus being left unregulated even though they should be.

The result of all these flaws—ignoring narrative water quality standards, using ambient water quality as the baseline, and adopting a trigger for further analysis that lacks a cumulative cap—all result in a skewed antidegradation analysis that underestimates and misrepresents the extent of the degradation that will cumulatively occur in Carson Creek. The balancing that the Regional Board must perform prior to authorizing the discharge, therefore, will be based on

² One way to conceptualize such a trigger with a cumulative cap is to calculate the cumulative proportion of Carson Creek’s baseline assimilative capacity (i.e., determined by the best water quality in Carson Creek 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 in Carson Creek (factoring in prior and cumulative degradation) |
| B | = | baseline water quality in Carson Creek |
| 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. This will allow assimilative capacity to cumulatively decrease up to 10% before more rigorous analysis and justification is required for all future discharges.

³ The fact that more in depth analysis was performed for some pollutants does not obviate the necessity for conducting such analyses for all the pollutants that should be subject to such analysis given that the state’s antidegradation policy requires implementation on a pollutant-by-pollutant basis. (*In re Environmental Health Coalition*, SWRCB Order No. 91-10 (Sept. 26, 1991), p. 10.)

flawed and incomplete information and misperceptions regarding the impact of the discharge. After all, a 10% reduction in water quality from present-day water quality may not seem so significant, but the same degradation cumulatively measured from the best water quality in Carson Creek will be much more significant and much more representative of the actual degradation that the discharge will cause.

Given that the discharger used an improper baseline and trigger in its antidegradation analysis, the Regional Board should require the discharger to redo the antidegradation analysis in relation to all the pollutants in the discharge; and if any significance threshold is used, it should be based on a cumulative cap on degradation as measured from the best water quality in Carson Creek since 1968.

B. The Tentative Order Fails to Properly Balance the Proposed Degradation Against Socioeconomic Needs

1. The Tentative Order Fails to Find That the Economic or Social Development Being Accommodated Is Important

Inasmuch as the Regional Board is not a planning agency with jurisdiction over local development plans, it still—as directed by the Clean Water and Porter-Cologne Acts—must determine on its own that the development being accommodated is actually “important” before authorizing any degradation. (*See* 40 C.F.R. § 131.12(a)(2).) In this connection, it is not acceptable for the Regional Board to accept this development as “important” simply because the discharger says so. The Regional Board must exercise its own independent judgment in making this determination.

In the present case, though, the Tentative Order demonstrates that the Regional Board has failed to do that. First, the Tentative Order authorizes degradation without even finding that the development being accommodated is actually “important.” All that the Fact Sheet says is that the “proposed Order allows wastewater utility service necessary to accommodate housing and economic expansion in the area.” (Tentative Order, p. F-58.) This is insufficient. Moreover, this is not simply a trivial omission. (*See* 63 Fed.Reg. 36742, 36784 (July 7, 1988) (“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.”).) Rather it indicates that the Regional Board has failed to fulfill its role as the permitting agency in this case to evaluate and weigh the circumstances warranting the discharge. This is clearly demonstrated by the absence from the Tentative Order of any analysis of the growth being accommodated. Critically, *what will happen if the growth is not accommodated?* If there are no socioeconomic consequences to prohibiting the discharge, then clearly the growth being accommodated cannot be important.

It is not surprising, therefore, that the State Board’s guidance on implementing the state’s antidegradation policy directs regional boards to compare “the projected baseline socioeconomic profile of the affected community without the project . . . [with] the projected profile with the project.” (APU 90-004, p. 5.) This neither the discharger nor the Regional Board has done,

taking the development—and the discharge—as givens. Consequently, not only has the Regional Board failed to make the finding that the development being accommodated is “important,” it has also failed to conduct any analysis to provide the substantial evidence necessary to support such a finding.

2. *The Tentative Order Fails to Require All Reasonable Alternatives to the Discharge*

Under the state’s antidegradation policy, in order for the Regional Board to authorize any degradation in Carson Creek, the Regional Board must first find that such degradation is “necessary.” (40 C.F.R. § 131.12(a)(2).) This finding is “among the most important and useful aspects of an antidegradation program and potentially an extremely useful tool in the context of watershed planning.” (63 Fed.Reg. 36742, 36784 (July 7, 1998).) Making this finding, though, requires making a sub-finding that the *amount* of the degradation itself cannot at all be minimized further, a sub-finding that can only be reached after a complete and rigorous analysis of all the alternatives to eliminating *and* minimizing the discharge. As EPA has said, the Regional Board must “ensure[] that all feasible alternatives to allowing the degradation have been adequately evaluated, and that the least degrading reasonable alternative is implemented.” (See 63 Fed.Reg. at 36784; *see also* 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”).)

The antidegradation analysis supporting the Tentative Order, though, fails to make such assurances specifically in regard to alternatives that might minimize if not avoid the discharge. For instance, no conservation measures that would limit the extent of the increase in the discharge appear to have been considered. As discussed above, though, part and parcel of mitigating potential degradation is avoiding that degradation in the first place. Another alternative that does not appear to be considered is requiring new developments to reuse the reclaimed water for watering their common areas, etc. Yet a third alternative that went unanalyzed is the application of more stringent effluent limitations that are technically feasible yet not presently proposed or implemented, such as for phosphorus and other pollutants, where those pollutants will degrade water quality without necessarily triggering a reasonable potential to cause exceedances of water quality objectives. The antidegradation policy is, after all, part of the state’s water quality standards. Water quality based effluent limitations (“WQBELs”), therefore, need not be set only at the actual water quality objective. They can also be set at more protective levels.⁴ (See Frances L. McChesney, State Water Resources Control Board, Fact Sheet (Sept. 13, 1994), p. 11 (“Resolution 68-16 may require the discharge to attain levels that are

⁴ In this context, it is important to keep in mind that “feasibility” does not translate into “cheapest.” Alternatives under the state’s antidegradation policy should only be considered “infeasible” if they are technologically impracticable or if their cost is unreasonable. (See 63 Fed.Reg. at 36784 (“where less-degrading alternatives are more costly than the pollution controls associated with the proposal, the State . . . should determine whether the costs of the less degrading alternative are reasonable.”).) After all, “[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.” (Final Report of the Study Panel to the California State Water Resources Control Board (Mar. 1969), p. 1.)

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more stringent, i.e. of higher quality, than if the discharge only attained water quality objectives.”.) Here, though, the WQBELs were only set at the water quality objectives.

Second, it appears as though the Tentative Order never comes to any conclusion regarding whether the costs of any of the analyzed alternatives are or are not reasonable. Rather, it appears as though the Tentative Order simply adopts the cheapest means of handling the increased discharge. The State Board has said, though, that “[c]ost savings alone, absent any demonstration as to how these costs savings are necessary to accommodate important social and economic development, are not a sufficient basis for determining consistency with the federal antidegradation policy.” (*In re Rimmon C. Fay*, SWRCB WQO 86-17, p. 22, fn. 10.) All the Fact Sheet does, though, is report costs. Nowhere is there any discussion that these costs are truly unreasonable. This might be difficult where the monthly increase in service costs for existing customers need only rise by \$2/month to implement at least one of the considered alternatives. Similarly, it is not clear how increases of \$15/month more for new customers will make the projected socioeconomic growth “economically impractical,” as the Fact Sheet presently states, especially where the average estimate across all of California of the willingness to pay for clean water is \$15.46/month. (Douglas M. Larson and Daniel K. Lew, *Clean Water in California: What is it Worth?* ARE Update (Summer 2001), p. 6 at http://www.agecon.ucdavis.edu/outreach/update_articles/summer2001_2.pdf.) That willingness to pay, moreover, increases with each additional \$10,000 in household income (\$2.08/month) and with each additional year of education (\$2/month) over the average. (*Id.* pp. 5-6.)

If the Regional Board were to actually conduct an economic analysis, it would surely find that the increased costs associated with the alternatives are barely a tiny percentage of the presumed socioeconomic *benefits* that will accrue to the region from the development. The Board, though, has not done such an analysis, choosing instead to buy lock, stock, and barrel the discharger’s doom and gloom scenario and proceed down a path that will be difficult if not impossible to reverse. The Board, therefore, should not adopt this permit until it has done the necessary study and analysis to justify the degradation that the proposed discharge will cause. (*In re Rimmon C. Fay* at p. 24.)

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Thank you for your time in considering these comments. If you have any questions, please do not hesitate to contact me. I look forward to working with you and the Regional Board to address these concerns.

Sincerely,



Dan Gildor