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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

AUG 26 2004

Mr. Arthur Baggett
Chairman
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 94912-0100

Dear Mr. Baggett:

The U.S. Environmental Protection Agency (EPA) has reviewed the draft final Water Quality Control Policy for developing the Clean Water Act Section 303(d) list, dated July 22, 2004. Although EPA is responsible for reviewing and acting upon State 303(d) listing decisions which will be based on an assessment methodology, we do not take formal action on the methodology itself. However, in anticipation of the next listing submission, we have conducted a detailed assessment to determine whether the revised Policy will yield listing decisions which are consistent with applicable water quality standards, the Clean Water Act and associated federal regulatory requirements.

We share the State's goal to develop clear listing guidelines that will strengthen the water quality assessment process and promote statewide consistency in listing decisions. It is very important for the State to adopt assessment guidelines that will also result in listing decisions that EPA can fully approve. We are concerned that the draft final Policy is inconsistent with federal listing requirements and applicable California water quality standards, and would therefore yield listing decisions that EPA cannot approve. In order to avoid a situation in which EPA would potentially have to add hundreds of waters and pollutants to the State's Section 303(d) list, we urge the State Board to revise the Policy to be fully consistent with State water quality standards and federal listing requirements. We would like to meet with your staff to discuss potential Policy modifications that would address our concerns and enable the State to achieve its overarching Policy goals.

We recognize and appreciate that the draft final Policy incorporates modifications that fully address several of our prior comments, including:

- acknowledgement of the requirement that State staff must directly assemble available data and information, and not rely solely upon public data submissions,
- deletion of minimum sample size requirements,

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- inclusion of provisions for listing based on ambient toxicity testing results regardless of whether the pollutants at issue have been identified,
- deletion of natural source exclusion language, and
- clarification of provisions concerning reliance on enforceable programs as a basis for not including impaired waters on the Section 303(d) list.

EPA commented on prior drafts of the Policy and identified various provisions that appeared inconsistent with federal listing requirements. We involved EPA Headquarters in our evaluation of the draft final Policy. This letter briefly discusses our remaining concerns, most of which were discussed in detail in our earlier comment letters (incorporated by reference with this letter).

1. Consistency with State Water Quality Standards and Federal Requirements

The draft Policy's central reliance upon binomial statistical tests to evaluate compliance with water quality standards for both toxic and conventional pollutants (Sections 3 and 4) is inconsistent with applicable California water quality standards and EPA technical and policy guidance. With the exception of dissolved oxygen, turbidity and (in part) bacteria objectives in some Regional Basin Plans, California water quality standards are not expressed in terms of allowable exceedance percentages. Therefore, except for these few pollutants, California approved water quality standards do not provide for the use of the binomial approach, or the Policy's tolerance for violation of water quality standards 5% of the time or more (for toxic pollutants) or 10% of the time or more (for conventional pollutants).

For example, applicable water quality standards for most toxic pollutants in California are based on the assumption that they will not be violated more than once every 3 years on average (see California Toxics Rule (CTR) at 40 CFR 131.38 (c)(2)(iii)). This corresponds to an allowable exceedance frequency of roughly 0.1% of the time, in contrast to the 5% assumed in the draft Policy. We interpret the CTR to mean that a water must be listed if there are 2 or more independent excursions of acute or chronic water quality standards within any 3 consecutive year time frame during the assessment period, or 2 or more independent excursions on average over the entire assessment period (e.g., four excursions in 6 years). The draft Policy's assumption that standards for conventional pollutants may be violated more than 10% of the time is similarly inconsistent with State water quality objectives, many of which are expressed as values never to be exceeded. Moreover, the provisions concerning potential listings for both toxic and conventional pollutants based on smaller sample sizes are inconsistent with applicable standards.

The draft Policy does not yet incorporate methods to recognize the differences in how standards are expressed (e.g., between chronic and acute toxic pollutant standards to protect aquatic life and human health standards expressed in terms of long term average values. The draft Policy also includes the default assumption of a 7-day averaging period (Section 6.1.5.6) that appears to be inconsistent with the manner in which several standards are expressed (e.g., objectives that are not to be exceeded at any time such as toxicity, pH,

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and bacteria). Similarly, the provision to average samples collected over up to 3 days to establish sample independence lacks a foundation in the existing water quality standards.

We believe the rationale provided in the Functional Equivalent Document (FED) for the use of the binomial approach and the use of these allowable exceedance assumptions in particular is inadequate. Rather than evaluating how California water quality standards are actually expressed, the FED provides examples from other States and EPA guidance to suggest that a range of viable exceedance frequencies might be appropriate for application in the Policy. It is misleading to cite other states' assessment procedures as the FED does not discuss how the other states' underlying water quality standards are different from California's. Moreover, the FED misrepresents EPA guidance as supporting the proposed approach. In particular, the FED relies heavily on examples presented in the Consolidated Assessment and Listing Methodology document (EPA, 2002) and in particular, draft appendices to that guidance, that are inapplicable in California's situation. EPA's guidance indicates that application of the binomial approach as proposed in the draft Policy is clearly inconsistent with the applicable California water quality standards and sound statistical practice. For example, as discussed in our prior comments, for a binomial statistical test to yield valid inferences in support of a water quality assessment, the evaluated data sets need to be closely examined to ensure that samples are independent and do not exhibit autocorrelation or serial correlation characteristics. Data collected through many monitoring programs does not meet these tests. The draft Policy does not recognize these limitations to the valid application of the binomial approach. As a result of these deficiencies, the draft Policy would likely result in inaccurate assessments and the failure to include on the Section 303(d) list large numbers of waters and pollutants that are reasonably likely to exceed applicable water quality standards.

We also note that the manner in which the draft Policy frames the binomial statistical tests for listing and delisting waters is inconsistent with the approaches discussed in EPA guidance and applied by other states (e.g., Florida and Arizona) that use this approach. For example, the draft Policy makes different assumptions regarding allowable standards exceedance frequencies for use in evaluating whether to list or delist a particular water body-pollutant combination. For conventional pollutants, for example, the draft Policy assumes a 10% exceedance rate is acceptable when deciding whether to list a water, but assumes a 25% exceedance rate is acceptable when deciding whether to remove a currently listed water from the list. These differences in assumed acceptable exceedance rates have the effect of rendering the separate "delisting" test unprotective and arbitrary. As discussed above, neither assumed exceedance rate is consistent with most of California's applicable water quality standards or EPA guidance.

2. Weight of Evidence Analysis

The draft Policy includes some provisions authorizing the inclusion of waters and pollutants on the Section 303(d) list based on a weight of evidence approach (Sections 3.1.11 and 4.11). These provisions appear vague and their application discretionary on the part of the State and Regional Boards. We refer to our prior comments on this issue, which

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have not been addressed in the draft final Policy. We are concerned the State may not fully consider all lines of available evidence and identify all impaired and threatened waters based on a preponderance of the evidence. The Policy could be revised to clarify and make mandatory the application of a weight of evidence evaluation approach for assessing all waters that are not identified for listing based on the other assessment procedures.

3. Sediment, Temperature, Toxicity, and Nutrients

We understand how difficult it is to articulate rules for general application with respect to evaluation of narrative water quality objectives and toxicity objectives. Nevertheless, we are concerned that the draft Policy provisions concerning evaluation of possible clean sediment, temperature, toxicity and nutrient impairment remain too vague to provide meaningful guidance to staff who would conduct the assessments.

4. Threatened Waters

We appreciate the inclusion of provisions authorizing the inclusion of threatened waters on the Section 303(d) list (Section 3.1.10). However, the provision requiring the demonstration of current adverse effects to beneficial uses as a condition for projecting that a water is expected to violate standards in the future appears inconsistent with federal listing requirements. We thus recommend this provision be deleted.

5. "Ancillary" Data and Information

The Policy should be revised to authorize the listing of waters based solely on "ancillary" data and information sources that may not meet all of the proposed quality assurance expectations in Section 6.1, but which together satisfy a reasonable weight of evidence test demonstrating probable water quality threat or impairment. For example, available water quality data indicating high frequencies and magnitudes of water quality standards exceedances would likely provide a reliable basis for listing even if supporting quality assurance information is not perfect. It appears the Policy does not authorize listing in this type of situation case because no data are available that meet all of the proposed quality assurance tests.

6. Priority Ranking, Targeting, and Scheduling

The revised Policy now provides for preparation of TMDL development schedules. We recommend the Policy require a clearer process for setting scheduling priorities and documenting the basis for these schedules. The Policy should note that waters scheduled for TMDL development within the next two years are identified pursuant to the requirement of 40 CFR 130.7(b)(4). Finally, the Policy should stress the importance of setting schedules consistent with EPA's 1997 national policy that TMDLs be established within approximately 8-13 years of their initial listings.

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7. Documentation Needed For All Assessed Waters

We support the proposal to require development of water body-specific fact sheets to support assessment determinations. As drafted, the Proposal appears to require fact sheet preparation only for waters that are being newly listed or delisted (Section 6.1.2.2). The State must prepare documentation demonstrating how data and information for all waters was considered in the assessment process, even in cases where the waters in question are not proposed for listing or delisting (40 CFR 130.7(b)(6)).

8. Public Participation and Evidence Burdens

We are concerned that the proposed Policy creates public participation expectations that may discourage public input to the process and conflict with federal requirements. Members of the public may be less willing to submit data and information for consideration in the assessment process if they must also provide detailed quality assurance information and assessment recommendations. In many cases useful data and information are contained in reliable information sources such as journals and agency reports that should be considered even if QA/QC information is not fully available to the submitter. The State is required to consider any data and information submitted, even if quality assurance information and assessment recommendations are not provided (40 CFR 130.7(b)(5)).

Although we generally agree that public concerns should be raised before the Regional Board prior to raising them before the State Board, there may be situations in which the public may validly raise issues before the State Board that were not raised before a Regional Board (e.g., a Regional Board listing recommendation was not included in materials available to the public, or issues of Statewide consistency arise concerning assessment of similar water body conditions). The Policy should provide opportunities for the public to raise these types of issues.

As discussed in detail in our prior comments, we remain concerned that the proposed Policy establishes a burden of proof to list a water body that is inconsistent with the evidentiary standards commonly used in California legal proceedings and in other water quality program decision making. We urge the State to adopt more balanced assessment criteria that more fully recognize the environmental and public health costs of failing to identify impaired and threatened waters on the Section 303(d) list.

Conclusion

In prior listing cycles, EPA worked successfully with State staff to minimize the number of waters and pollutants EPA had to add to California's Section 303(d) list. In 2002, for example, EPA modified listings for only 20 water bodies (our of more than 1000 waters assessed by the State). The draft listing Policy would establish listing requirements that are inconsistent with State water quality standards, sound environmental assessment practices, and federal listing requirements. Unless the Policy is modified to address our remaining concerns, it appears likely that the State will develop Section 303(d) listing

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decisions that fail to include hundreds of impaired and threatened water bodies and pollutants. EPA would be required to disapprove the State-submitted list and add these waters and pollutants to the Section 303(d) list. We would appreciate the opportunity to work with your staff to identify options for modifying the Policy so that this outcome can be avoided. If you have questions concerning these comments, please call me at (415) 972-3572 or David Smith at (415) 972-3416.

Sincerely,

Alexis Strauss
Director
Water Division

26 August 2004

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