SCAP
SOUTHERN CALIFORNIA ALLIANCE OF
PUBLICLY OWNED TREATMENT WORKS

REGION 7
PUBLIC
COMMENTS

July 3, 2001

Phil Gruenberg
Colorado River Basin
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92392

Re: SCAP Comments on 2002 Water Quality Assessment and Update of the 303 (d) List of Impaired Waterbodies

Dear Mr. Gruenberg:

On behalf of the Southern California Alliance of Publicly Owned Treatment Works (SCAP), I am pleased to submit comments on the pending 305 (b) Water Quality Assessment and the 303 (d) list. SCAP's fifty-six public agency members provide wastewater and water services to over sixteen million residents in Southern California. The following comments were prepared by a workgroup of SCAP members.

1. SCAP encourages the Regional Board to carefully read and consider all comments submitted individually by our member agencies.
2. Under the Clean Water Act, as part of their biennial water quality assessments required under Section 305 (b), states are supposed to prepare analyses, among other things, of the extent to which "fishable/swimmable" uses have been or will be achieved, and what additional actions are necessary to achieve them; an estimate of the environmental impact, the economic and social costs, the economic and social benefits, and the estimated date of achievement; and a description of the nature and extent of nonpoint sources of pollutants, recommendations as to the programs which must be undertaken to control each category of such sources, and an estimate of the costs of implementing such programs. *33 U.S.C. Sec. 1315* The Regional Board must complete the required analyses during its water quality assessment, and we recommend that this be done prior to the 303 (d) listing process. We also request that a draft of the 305 (b) report be made available to the public for comment prior to being finalized and submitted to the State Water Resources Control Board.
3. SCAP supports the idea of a "preliminary list" or "watch list, on which waterbodies with inadequate or insufficient data would be placed in lieu of the 303 (d) list. Waters on the watch list would be targeted for further data gathering and assessment before either being placed on the 303 (d) list or designated as supporting the beneficial use(s). The National Research Council suggested such a list in their 2001 report assessing the effectiveness of TMDLs.[1] This has the potential to greatly reduce

[1] Assessing the TMDL Approach to Water Quality Management, prepublication copy, 2001.

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the burden caused by allocating valuable resources to addressing waters that may not truly be impaired, and focus funding and effort on true impairments.

4. SCAP urges caution regarding extrapolation of impacts on a specific waterbody based on data from a different body of water. Regional data, which have been generalized from limited data, when used, must be utilized appropriately.

5. SCAP believes that the Regional Board must only use adopted water quality standards, such as water quality objectives that have legally been adopted in the Basin Plan and approved by the State Water Resources Control Board, the Office of Administrative Law, and EPA, as the basis for the 305 (b) report or 303 (d) listings. Informal criteria that have not been formally adopted in accordance with Water Code requirements and the Administrative Procedures Act are known as "underground regulations" and cannot be legally used as the basis for the water quality assessment or 303 (d) listing.[2]

6. The Regional Board should specify what factors (including those listed below) are considered as "evidence," and how such evidence is weighted in making use of support/non-support decisions.

    a. Consider spatial, temporal (at several scales), and hydrologic variations and their effects on water quality when preparing the 2002 303 (d) list. We recommend that the Regional Board adopt a "weight of evidence" approach in preparing the 303 (d) list. Among other things, this will necessitate an understanding of variability in water quality data. In Southern California, stream flow is one of the largest sources of variability in water quality data. Stream flow is dependent on spatial, temporal (especially seasonal), and hydrologic variations. Not accounting for the effects of stream flow on water quality can bias the data set with respect to making impairment determinations. For the weight of evidence approach, one also will need to know how spatial variation was assessed, especially as it relates to effluent-dependent waterbodies. A good weight of evidence approach needs sample sets that are spatially and temporally representative of conditions in the waterbody. Sample locations should be characteristic of the main water mass or distinct hydrologic areas.

    b. For uses related to aquatic life, consider biological indicators as having a greater weight than pollutant concentration levels, to the extent that some waters may have unimpaired beneficial uses even though some chemical criteria have been exceeded. Among other reasons, this may occur because water quality objectives or criteria that are based on national guidance may not be reflective of local or site-specific conditions.

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[2] Cal. Gov. Code Sec. 11340 defines "regulation," in relevant part, as "every rule, regulation, order, or standard of general application or the amendment, supplement, or revision of any rule, regulation, order, or standard adopted by any state agency to implement, interpret, or make specific the law enforced or administered by it." Cal. Gov. Code Sec. 11342 An "underground regulation" is invalid and unenforceable because it has not been promulgated in accordance with the Administrative Procedures Act. *Frankel v. Kizer*, 21 Cal. App. 4th 743, 747 (Cal. App. 2d Dist., Dec. 13, 1993).

c. Consider on a case-by-case basis, whether or not a waterbody is oligotrophic, mesotrophic, or eutrophic and provide criteria for each type.

d. Eliminate subjective criteria such as "significant amount observed."

7. In the 1997 interagency 303 (d) listing guidance, EPA and SWRCB directed the Regional Boards to delist waters if certain factors were met. One guideline that does not appear to have been fully implemented called for recognition of control measures already in place – or expected to be installed within the next listing cycle – that will result in protection of beneficial uses. Control measures that should be considered an adequate basis for delisting include permits, clean up and abatement, cease and desist, or time schedule orders, and watershed management plans that are enforceable and include a time schedule for compliance with objectives. Prior EPA 303 (d) guidance also recommended this be taken into account. For example, within the Los Angeles Region, many inland waters are listed as being impaired by ammonia, yet all of the publicly owned treatment works are under compliance schedules to meet the ammonia water quality objectives contained in the Basin Plan in the next 1-2 years. Presumably, these waters will come into compliance with the ammonia objective when these dischargers meet this requirement. Therefore, we recommend that the Regional Board review these and other 303 (d) listings for which enforceable requirements have been adopted during this listing cycle.

8. In reviewing your prior staff reports regarding adoption of water quality assessment and/or 303 (d) listing, there has been very little explanation provided regarding how assessment decisions were made. Therefore, the following items reflect SCAP's recommendations that we believe are essential for the 2002 water quality assessment process.

In a recent Draft EPA Consolidated Assessment and Listing Methodology (CALM) report, several good recommendations are made for how states should conduct their listing processes. We are including several items based on CALM, as well as some additional items, that summarize the analytical and public review process we recommend the Regional Board follow. These comments supplement the comments previously submitted by SCAP regarding opportunities for public participation in the water quality assessment process.

- A thorough explanation of the thinking process that went into each decision should be made available in writing.
- The Regional Board should document each of the types of data that support water quality decision-making and explain how they are used in the context of applicable water quality standards to support different water quality determinations.
- A description of and reference for the quality assurance procedures should be included in water quality assessment and listing documentation. The Regional Board should define data quality requirements and how they utilize and interpret data to make decisions about whether the waterbody is impaired or attaining water quality standards.

- Metadata for the field data, i.e., when measurements were taken, locations, number of samples, detection limits, etc., should be in the administrative record and, upon request, made available to interested parties. The Regional Board should recognize that not all data are of equal value for assessing water quality standards attainment/impairment. Results of chemical data or any other type of data analysis are of limited value unless they are accompanied by documentation about sample collection (SOPs), analytical methods, and quality control protocols. Electronic copies of data and metadata should be made available, upon request.
- When data from citizen volunteer group's water quality monitoring efforts is used, the name of the group, the hours of training in water quality assessment completed by members of the group, SOPs, documentation of training of volunteers in both sampling and field testing, and whether a state certified lab was utilized should be provided. Finally, these data must meet the Regional Board's prior agreed upon standards for data quality.
- Sample size is an important element of data quality. In general, in the CALM draft, EPA is recommending that in order to have a high level of confidence in the results, a sample size of at least 30 samples is necessary. Recognizing that sample size is a big debate, we believe that a statistically-bases approach should be used in the listing process, with an adequate sample size. Therefore, the 5 samples, and sometimes 3 samples, used in prior assessment and listing processes seem less than sufficient. Not withstanding all the arguments about sample size, the tremendous implications of attainment/impairment decisions argue for the use of rigorous and statistically-valid data sets.
- What are the compelling reasons to list a waterbody, and does one reason have more weight than another?
- Fact sheets that explain proposed listings and delistings, including constituents of concern, the data used, and the water quality standard and the basis for the decision to list or delist must be provided to the public when the list is made available for public review. This is absolutely essential to enable informed public review, and will go a long way towards instilling confidence in the process and analysis prepared by the Regional Board.

SCAP is very aware of the tremendous burden this process puts on the Regional Board staff. These comments imply changes that we think will improve the process. SCAP looks forward to working with you during this process and recommends informal workshop meetings for this purpose.

Regards,

Raymond C. Miller
Executive Director

cc: Teresa Newkirk

California Regional Water Quality Control Board
Colorado River Basin Region

Winston H. Hickox
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August 6, 2001

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SUBJECT: SCAP COMMENTS ON 2002 WATER QUALITY ASSESSMENT AND UPDATE OF THE 303(d) LIST OF IMPAIRED WATERBODIES

Dear Mr. Miller:

Phil Gruenberg asked that I reply to your July 3, 2001 letter, which comments on the 2002 Water Quality Assessment and the update of the 303(d) list of impaired waterbodies. This letter responds to your comments on changes that could improve the updating process. The Colorado River Basin Regional Board will hold a special meeting on October 10, 2001 in La Quinta to consider public input on the 303(d) list for this region. In addition, the Regional Board staff also looks forward to working with your organization during this process.

Background

The Porter-Cologne Water Quality Control Act, which is contained in Division 7 of the California Water Code (CWC), establishes the responsibilities and authorities of the Regional Water Quality Control Board (Regional Board), including authority and responsibility for regional water quality control and planning (CWC § 13000 et seq.) for all of the State waters within the Region. The Regional Board has established water quality standards (WQS) for all of the waters in the Region, including waters within the Salton Sea Transboundary Watershed, in its Water Quality Control Plan for the Colorado River Basin (Basin Plan). Enclosed is a copy of the Basin Plan. Title 40, Code of Federal Regulations (40 CFR), Part 130.3, defines a WQS as the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect those uses.

The Regional Board is also responsible for implementing the pollution control measures required by the Federal Clean Water Act[1] (CWA) for the waters of the United States within

[1] The Clean Water Act is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The amended Federal Water Pollution Control Act is commonly referred to as the "Clean Water Act" and is contained in Title 33, U.S. Code, Section 1251 et seq. The CWA section numbers referenced in this document refer to the section numbers of the 1977 amendment.

the region. Section 303(d)(A)(1) of the Clean Water Act (CWA) requires the Regional Board, to:

- Identify the Region's waters that do not comply with water quality standards applicable to such waters after the application of technology-based effluent limits;
- Rank the impaired waterbodies, taking into account factors including the severity of the pollution and the uses made of such waters; and

- Establish TMDLs for those pollutants causing the impairments to ensure that impaired waters attain their beneficial uses.

Our water resources protection efforts are also guided and dictated by the State Water Resources Control Board's Strategic Plan (updated in 1997). A key component of the Strategic Plan is the implementation of an integrated watershed management approach for water resources protection. The approach factors in pollution from point and nonpoint sources.

TMDL Elements

A TMDL is defined as the sum of the individual waste load allocations (WLAs) for point sources of pollution, plus the load allocations (LAs) for nonpoint sources of pollution and natural background pollution, plus a margin of safety (MOS) such that the capacity of the waterbody to assimilate pollutant loadings without violating water quality standards is not exceeded. That is,

$$TMDL = \Sigma WLA + \Sigma LA + MOS$$

Where Σ = the sum, WLA = waste load allocations, LA = load allocations (including load allocations for natural and background sources) and MOS = margin of safety. A TMDL can be expressed in terms of either mass per time, toxicity, concentration, a specific chemical, or other appropriate measure [40 CFR 130.3(I)].

CWA Section 303(d) and 40 CFR Part 130.0 et seq., specify the components and requirements of a TMDL. Essentially, the TMDL is a "pollution budget" developed to achieve water quality standards and must:

- Show how the TMDL will result in attainment of standards of concern in the specific waterbody;
- Identify and explain the basis for the total allowable load(s) such that the water body loading capacity is not exceeded;
- Identify and explain the basis for individual waste load allocations for point sources and load allocations for nonpoint sources of pollution;

- Explain how an adequate margin of safety is provided to account for uncertainty in the analysis; and,
- Account for seasonal variations and critical conditions concerning the flow, loading, and other water quality parameters.

If the State fails to develop a TMDL, or USEPA rejects the State's TMDL, USEPA must develop one (CWA 303(d)(D)(2), 40 CFR 130(c)). Upon approval of the TMDL by USEPA, the Regional Board is required to incorporate the TMDL, along with appropriate implementation measures, into its Water Quality Control Plan (Basin Plan) (40 CFR 130.6(c)(1), 130.7). A TMDL should have at least the components shown in Table 1.1, below:

Table 1: Basic Technical TMDL Components

Component	Purpose
Problem Statement	Identifies the context for TMDL development and WQS issues that prompted TMDL development
Numeric target	Identifies specific instream goals and endpoints for the TMDL which ensure attainment of applicable WQS
Source Analysis	Identifies and describes the magnitude and location of all significant point, nonpoint and background sources of the pollutant to the waterbody.
Loading Capacity Linkage Analysis	Specifies the critical quantitative link between applicable WQS and the TMDL. Loading capacity reflects the amount of a pollutant that may be delivered to the waterbody and still achieve WQS
Load Allocations, Waste Load Allocations, Margin of Safety	Provides the calculations for total allowable loads and allocation of these loads among different sources such that applicable WQS are attained, while accounting for seasonal variation and uncertainty in the analysis of the data
Monitoring Plan	Assesses TMDL implementation and effectiveness and provides for TMDL adjustment as needed
Implementation Plan	Specifies nonpoint source Best Management Practices, point source controls, and other actions necessary to implement the TMDL

Source: USEPA 1998, USEPA 2000

TMDL Implementation

The Regional Board controls pollution from point sources by implementing a variety of full regulatory programs, including the National Pollutant Discharge Elimination System (NPDES) Program for point sources discharging into waters of the United States. The State's approach to control nonpoint source pollution is contained in the State's *"Plan For California's Nonpoint Source Pollution Control Program,"* including *"Volume I: Nonpoint Source Program Strategy and Implementation Plan for 1998-2013 (PROSIP)"* and *"Volume II: California Management Measures for Polluted Runoff (CAMMPR)"* (State NPS Management Plan).

The cornerstone of the State NPS Management Plan is control of nonpoint source pollution by implementing a "three-tiered approach," consisting of implementation of self-determined best management practices (Tier 1), regulatory-encouraged best management practices (Tier 2), and effluent requirements (Tier 3). Sequential movement through the tiers (e.g. Tier 1 to Tier 2 to Tier 3) is not required of the Regional Board. Depending on the water quality impacts and severity of the NPS problem, the Regional Board may move directly to the enforcement actions specified in Tier 3. Also, the Regional Board can choose to implement a combination of water quality control mechanisms from each of the Tiers as well as additional remedies (e.g., enforcement orders) as provided under the CWC.

Thank you for your additional comments on the 303(d) listing and on the Section 305(b) process. Please call Doug Wylie at (760) 346-8565 or me at (760) 776-8931 if you have questions about this matter and for up to date information on the 303(d) process.

Sincerely,

TERESA NEWKIRK
Environmental Specialist IV

TN:tn

Cc: DOUG WYLIE

File: 303(d) Listing