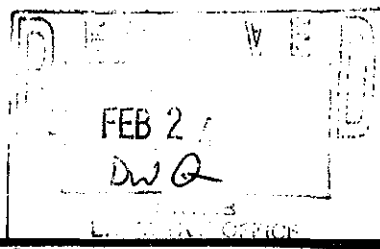




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February 18, 2004

Via Facsimile, Electronic Mail and U.S. Mail

Arthur G. Baggett, Jr., Chair
and Members
State Water Resources Control Board
P.O. Box 100
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SUBJECT: COMMENTS REGARDING THE STATE BOARD'S "WATER QUALITY CONTROL POLICY FOR DEVELOPING CALIFORNIA'S CLEAN WATER ACT SECTION 303(d) LIST AND DRAFT FUNCTIONAL DOCUMENT" (Dated December, 2003)

Dear Chairman Baggett and Members:

On behalf of Tri-TAC and the Southern California Alliance of POTWs (SCAP), we are pleased to provide our comments regarding the "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List and Draft Functional Equivalent Document" (draft dated December, 2003; hereinafter, "draft Listing Policy"). We appreciate the time and effort that you and your staff have dedicated to this important issue. Tri-TAC is a statewide organization comprised of members from public agencies and other professionals responsible for wastewater treatment. Tri-TAC is jointly sponsored by the California Association of Sanitation Agencies (CASA), the California Water Environment Association, and the League of California Cities. SCAP represents 61 public agencies that provide both water and wastewater treatment to nearly 18 million people in parts of Los Angeles, Orange, San Diego, Santa Barbara, Riverside, San Bernardino and Ventura counties. Together the constituencies for Tri-TAC and SCAP treat and safely reuse or dispose of over 2 billion gallons of wastewater each day, and serve most of the sewered population of California.

Before providing our substantive comments on specific aspects of the draft Listing Policy, we wish to convey our strong support for the State Water Resources Control Board's (State Board) goal of establishing a standardized approach for assigning water bodies to the state's 303(d) list. Overall, the draft Listing Policy represents a major step towards establishment of a consistent, scientifically and legally-defensible, and transparent approach to developing California's 303(d) list. Many aspects of the draft Listing Policy -- for example the data quality and quantity requirements, requirements for consistent and statistically valid data evaluations, and

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the implementation provisions -- provide a solid framework for listing and de-listing California's surface water under Clean Water Act Section 303(d). We also wish to state our support for CASA's comments on the draft Policy, and we hereby incorporate their letter by reference.

Consolidation/Structure of the Section 303(d) List

One of our primary concerns is the State Board's movement away from an "integrated" water quality assessment report format as was proposed in the July 2003 *Draft Policy for Guidance on Assessing California Surface Waters*, towards the revised "single list" structure proposed in the December 2003 draft Listing Policy. Under the current draft Listing Policy, there are no Monitoring, Planning, Pollution, Standards Fully Attained or Standards Partially Attained Lists, and no list separate from the 303(d) List for TMDLs Completed or Enforceable Programs. Under the draft Listing Policy, waters placed in the Enforceable Programs category will be assigned a low priority and will not be scheduled for TMDL development, but will still appear on the 303(d) list. We do not think that this is appropriate, because it creates an inherent conflict between the fact that, by definition, if other enforceable programs are in place a TMDL is not needed, and the fact that by virtue of placement of a water segment-pollutant combination on the 303(d) list, a TMDL is required. Therefore, creation of a separate Enforceable Programs list is preferable from a policy perspective, and is also legally defensible. See 40 CFR Section 130.7(b)(6)(iv); see also Memorandum from Geoffrey H. Grubbs, Director, Assessment and Watershed Protection Division, U.S. Environmental Protection Agency to Water Management Division Directors & Regional TMDL Coordinators, Regions I - X, "Guidance for 1994 Section 303(d) Lists" (November 26, 1993) at 3-4. In fact, U.S. EPA's 2004 Listing Guidance recommends the use of a multi-part list, similar to the approach set forth in the July 2003 version of the draft Listing Policy. Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act (July 21, 2003).

We recommend that the State Board go back to including on the 303(d) list only those waters that do not attain water quality standards due to pollutants, and for which a TMDL is required. Other categories of waters, such as those with TMDLs already completed or with enforceable programs in place to bring the water into attainment, should be placed on separate lists, and not on the 303(d) list. The current proposal consisting of separate categories within a single 303(d) list is a more sweeping approach, which is problematic because of the implications of placing waters on the list (e.g., that a TMDL must be completed, interim permitting issues, etc.). In addition, because this approach will by definition result in a larger list (for example, waters currently on the separate Enforceable Programs list will now become part of the 303(d) list), it will create a misleading impression of poor or declining water quality in California.

In this regard, we strongly urge the State Board to establish an official "planning or monitoring" list, separate from the 303(d) list. The draft Listing Policy does not include the concept of a planning or monitoring list, although a Monitoring List was established during the 2002 listing cycle, and included as part of the July 2003 draft Listing Policy. A planning or monitoring list is important for cases where the cause of impairments are undetermined (e.g., unknown toxicity), cases where impairments are due to "pollution" rather than "pollutants", cases where data are insufficient to determine if impairment exists, and cases where water quality standards may be inappropriate. An example of a situation where a planning or monitoring list would be useful is given in the Draft FED. When considering natural sources of pollutants, the State Board has recognized that sometimes it is not possible to determine *a priori* without site-specific study if the source is not a result of human activity (Draft FED, pg. 214-215). In the Draft FED, the State Board states that it would be appropriate to list these waters, and determine

what portion of the contamination may be due to natural sources during development of the TMDL. However, we feel this is an instance where placement of the water body on a planning or monitoring list would be preferable, so that the extent of natural sources of pollutants could be investigated to determine if a TMDL is even an appropriate or necessary action to address the issue. All water bodies on the planning or monitoring list would need to be further studied before being placed on the 303(d) list if impaired (or could be de-listed if found to not be impaired). Use of a planning or monitoring list has been strongly recommended by the National Academy of Sciences (NAS) in its report to Congress because it would avoid inappropriate listings, unnecessary TMDLs, and unwise use of resources. Additionally, since the State Board established a Monitoring List during the 2002 listing cycle, it will provide continuity to officially establish a Monitoring List as part of the Listing Policy. If this is not done, it is unclear what will happen to waters that were included on the 2002 Monitoring List.

Review of the Existing Section 303(d) List Using New Listing Policy

We recommend that the State Board reconsider the provisions for re-evaluation of water bodies identified on previous 303(d) lists using the Listing Policy once it is finalized. Some listings included on previous 303(d) lists may be inappropriate because of inadequate data quantity or quality, evidence that natural sources have caused or contributed to the impairment, and/or were based on water quality standards that are inappropriate. Ideally, we would recommend the State Board adopt Alternative 1 of the Draft FED (pg. 189) and incorporate a requirement to review the entire existing section 303(d) list so it is consistent with the Listing/Delisting Policy. We recognize, however, that reassessing all of the listings presents a significant burden on the State and Regional Water Quality Control Boards (Regional Boards), at a time when resources are very limited. Therefore, we support the State Board's recommendation to establish an application process, whereby an interested party can request that an existing listing be reassessed under the provisions of the new Listing Policy. We strongly disagree, however, with the requirement contained in Alternative 2 (Draft FED, pg. 190) specifying that an existing listing can only be changed if new data and information are available. Instead, we request that the recommended alternative be modified such that the State and Regional Boards will re-evaluate all requested existing listings, whether or not new data and information are available, because even waters that have not been monitored since the initial listing may fail to meet the listing factors and data quantity and data quality requirements under the new Listing Policy. Simply put, we believe that if a water body could not be listed under the provisions of the new Listing Policy, the listing does not belong on the 303(d) list.

For example, Section 3.1 of the Draft Listing Policy specifies that "Visual assessments or other semi-quantitative assessments may not be used as the sole line of evidence to support a 303(d) listing." Therefore, existing listings that were originally placed on the 303(d) list based solely on this type of information should be re-evaluated and removed from the 303(d) list if it is determined that the water body was originally listed using only visual or semi-quantitative information. We propose that the draft Listing Policy also be modified to specify that the interested party would be required to make a "prima facie case" that the listing is inappropriate or would not be made under the new Listing Policy. A "prima facie case" is one that will prevail in the absence of contrary evidence. We believe this approach will appropriately balance the burden of proof between the interested parties desiring a review and the State and Regional Boards, which must ensure that waters placed on the Section 303(d) list are rightfully included.

Assessment of Data Using California Listing and Delisting Factors

In the proposed listing and delisting factors, the draft Listing Policy uses a statistical evaluation procedure known as binomial testing for determining if waters should or should not be included on the State's 303(d) list. We support the use of the binomial approach as prescribed in the draft Listing Policy. The binomial approach is an improvement over the "laissez faire" approach used in past listing cycles, whereby Regional Boards made their own decisions about how many samples to use and how many exceedances led to placement of a waterbody on the 303(d) list. In particular, the binomial process is used to balance Type I and Type II error rates, namely, the likelihood of falsely listing a site when in fact there is not a problem (Type I) versus failing to list when there is a problem (Type II). For sample sizes around 20, there is a good balance of Type I and Type II error rates, so that there is a balanced approach between environmental protection and the costs of achieving that protection.

We believe that while the draft Listing Policy outlines a methodology that will produce a more consistent and scientifically valid basis for listing and de-listing water segments than currently exists, it also provides the State and Regional Boards with sufficient flexibility to address water bodies of concern on a case-by-case basis, when the State or Regional Boards determine that provisions under the draft Listing Policy do not appropriately address these water bodies. While we still have some concerns regarding the use of the alternate data evaluation listing factor, these provisions in the Policy do allow the State and Regional Boards a mechanism to address water segments where limited, special circumstances would not otherwise be addressed under other standard provisions of the draft Listing Policy.

In addition to the alternate data evaluation provisions, the draft Listing Policy also contains built-in flexibility under several other listing factors. For example, under the draft Listing Policy, the recommended alternative regarding data age requirements allows the Regional Boards flexibility in determining the circumstances for inclusion of older data and information in a listing decision (pg. 209, Draft FED). Also, under the alternate data evaluation provisions, Regional Boards may use alternate exceedance frequencies, if their use can be justified considering site-specific factors. Thus, although we have concerns regarding potential misuse of this listing factor in circumstances where credible, objective data and other information might not otherwise justify placing a water segment on the 303(d) list, we believe that numerous provisions of the draft Listing Policy give the Regional Boards sufficient flexibility to address those situations where other provisions of the Policy may not address special site-specific concerns. To maintain this critical balance between technical rigor and the flexibility to consider site-specific factors and multiple lines of evidence, we urge the State Board to maintain the requirements for Regional Board justifications currently included in the Alternate Data Evaluation listing factor (Section 3.1.11).

Assessment of Trends in Water Quality

We are concerned that the section of the draft Listing Policy regarding Trends in Water Quality conflicts with the data quality and quantity requirements outlined elsewhere in the draft Listing Policy (e.g., Section 6.2 of the Draft Listing Policy), and allows listings even when water quality standards are not exceeded. Our major concern is that this may lead to unnecessary or inappropriate listings, when the State's resources would be better used on waters with clear evidence that standards are not attained. Waters that may at some future point have standards that

are exceeded should be monitored, and should have appropriate control strategies to avoid impairment (i.e. they should be placed on the planning or monitoring list, which, as discussed above, we recommend be established through this Listing Policy). However, a 303(d) listing and TMDL are not necessarily required to properly address these situations.

Section 6.2.5 of the Draft Listing Policy, Data Quantity Assessment Process, requires that "Data used to assess water quality standards attainment should be actual data that can be quantified and qualified. Information that is descriptive, estimated, modeled, or projected may be used as ancillary lines of evidence for listing or delisting decisions." (Draft Listing Policy, Appendix-20). However, Section 3.1.10 of the draft Listing Policy allows a water segment to be listed based on any listing factor that shows a trend of "declining" water quality standards attainment, and is therefore projected to exceed water quality standards at some point in the future, even though water quality objectives actually do not need to be exceeded to satisfy this listing factor. Although the State Board requires the use of data collected for at least three years, the draft Listing Policy does not specify the amount of data that must be collected to evaluate the declining trend, or how much data is required to establish the baseline condition the trend will be compared to. Three years of data may be insufficient to determine the influence of seasonal effects and interannual effects, and to separate out the occurrence of adverse biological response or degradation of biological populations from within-site variability for those factors. Trends in water quality may be linked to hydrologic conditions (e.g., cyclical drought conditions that recur throughout much of Central and Southern California) rather than increases in pollutant loading or long-term degradation of water quality conditions.

The draft FED itself acknowledges that "At present, there are no widely accepted approaches for documenting trends in water quality" and that "Trend data are available from some long-term monitoring programs but can be difficult to interpret because of problems with the characteristics of the data (Gilbert, 1987). These problems can include changes in analytical procedures, seasonal changes, correlated data, and baseline conditions. In general, trend analysis may be statistically difficult. For example, adequate sample sizes over long periods are rarely available." (Draft FED, pg. 139). Indeed, the Draft FED seems to support the case against using trends as a listing factor.

We encourage the State Board to carefully address these concerns and develop a policy that consistently requires the use of objective methods to evaluate impairments based on actual, not projected, exceedances of water quality standards, combined with a demonstration that the beneficial uses of the water body are also being impacted. Therefore, we recommend that the State Board adopt an alternative not proposed in the Draft FED, and drop "trends in water quality" as a factor in the Listing Policy.

Weight of Evidence Approach

We strongly support the use of a "weight of evidence" approach in the Listing Policy, because the requirement for multiple lines of evidence to support listing not only strengthens the listing methodology, but also provides the Regional Boards and the State Board flexibility in interpreting multiple lines of evidence as dictated by site-specific factors in the water body. We support the recommended alternative (Alternative 1, Draft FED pgs. 45-46) to incorporate a weight of evidence approach to determine the attainment of standards based on the available data. We agree that multiple lines of evidence should be assessed when evaluating human health,

toxicity, nuisance condition, adverse biological response, and degradation of biological populations or communities. These factors are not sufficient by themselves as a basis for listing since these responses may be attributable to factors other than exceedances of water quality objectives, such as physical habitat limitations. However, as currently described in the draft Listing Policy, the weight of evidence approach is not applied broadly enough in the recommended alternative. The weight of evidence approach should be applied to other listing factors as well. Evaluation of water column measurements and bioaccumulation of pollutants in aquatic life tissue should also employ the consideration of multiple lines of evidence. For example, the mere presence of a pollutant above an objective in ten percent of the samples taken does not necessarily demonstrate impairment. In such cases, the magnitude of the exceedance should also be considered, whereby de minimis exceedances would not be given as much weight as large exceedances. Most importantly, a demonstration that the beneficial uses of the water body are being impacted should be required as part of the weight of evidence approach when evaluating all listing factors, including exceedances of numeric water quality criteria.

Bioaccumulation of Pollutants in Aquatic Life Tissue

We disagree with the minimum number of exceedances required under the Draft Listing Policy, Section 3.1.5, for placement of a water segment on the 303(d) List based on aquatic life tissue samples. For water column constituents for sample populations of less than 20, 5 or more sample exceedances are required for 303(d) listing, whereas only 3 exceedances of aquatic life tissue evaluation guidelines are required for placement on the 303(d) list. As with the July 2003 preliminary version of the Draft Policy, the State Board has unjustifiably "lowered the hurdle" for tissue-based listings as compared to water column constituents.

Although theoretically factors such as bioaccumulation, adverse biological response, and degradation of biological populations and communities may suggest some measure of water segment impairment, the relationship between a pollutant and the impairment is often far less clear in these types of measures as compared to exceedances in the water column. In the case of tissue-based exceedances, the relationship between concentrations in the water column and concentrations in fish tissue may be unclear due to the transient nature of many fish populations and the fact that, in many instances where elevated fish tissue levels are observed, legacy pollutants that have accumulated in sediments or elsewhere in the environment may be the cause, rather than ongoing pollutant loadings for which a TMDL can be developed. Therefore, a lower exceedance rate for these types of listings is not justified. Listings based on exceedances of tissue evaluation guidelines, if used at all, should require evidence of an established relationship between tissue levels and water column concentrations. Accordingly, we support the State Board's decision to not use Maximum Tissue Residue Levels (MTRLs) and Elevated Data Levels (EDLs) to evaluate shellfish or fish tissue data. Instead of the simplistic approach whereby just 3 exceedances of aquatic life tissue evaluation guidelines are required for placement on the 303(d) list, evaluation of potential listings for bioaccumulation of pollutants in aquatic life tissue should employ a weight of evidence approach, as described under Issue 3, Alternative 1 of the draft FED.

Water/Sediment Toxicity

As with the July 2003 draft Listing Policy, we are very concerned about guidelines under Section 3.1.6 of the draft Listing Policy that allow for the placement of water segments on the

303(d) list for toxicity alone. Despite the fact that the draft Listing Policy states on pg. 4, "If the pollutant has not been identified, studies identifying the pollutant causing or contributing to the toxicity shall be completed prior to the development of a TMDL," we do not believe it makes sense to list a water body for toxicity, unless it can be shown that the toxicity is significant from a statistical perspective, persistent, and associated with an identified pollutant.

All of these conditions need to be met in order to successfully develop a TMDL for toxicity. If there is some doubt that "a" pollutant, or "which" pollutant, is causing toxicity, the water should not be placed on the 303(d) list, since toxicity alone reflects a condition of the water body, and not a pollutant for which a TMDL can be developed. We therefore support using a weight of evidence approach for evaluating toxicity listings, as is outlined under Alternative 3 of the Draft FED (Draft FED, pg. 109), and support elimination of Alternative 2 (using toxicity alone as a listing factor), from the State Board's recommended alternatives.

We also disagree that fewer exceedances are acceptable to support a listing (e.g., for sample populations less than 10, when 3 or more samples exceed the evaluation guideline, the segment shall be listed) for toxicity. The Draft FED states that "For toxicity testing, fewer samples (e.g., ten samples) are acceptable because these measurements are more persistent and integrative of water quality conditions and longer periods of time. Consequently, a higher false acceptance error rate is acceptable and appropriate for toxicity." As explained above, persistence of the toxic condition should be one of the requirements for listing. It is very possible, however, that 3 samples exhibiting toxicity may represent sporadic instances of toxicity, rather than persistent conditions. Also, the Policy does not specify whether three consecutive toxic samples are required, or whether three toxic samples from different seasons are necessary. The reliance upon such a small number of samples may make it difficult to sufficiently represent the spatial and temporal characteristics of the water body, or to determine whether the conditions are persistent. Such instances would be more appropriately placed on a monitoring or planning list, until the nature of the toxic events, and the associated pollutant(s), can be better characterized, to see if a TMDL is necessary or can even be developed.

Adverse Biological Response and Degradation of Biological Populations and Communities

We support the requirement that multiple lines of evidence be evaluated when assessing these listing factors, since these biological responses may be attributable to factors other than exceedances of water quality objectives (e.g., physical habitat limitations, overfishing, disease, or invasive exotic species, none of which are conducive to a TMDL solution).

We also support the draft Listing Policy's requirement that if adverse biological response or degradation of a biological population is demonstrated, these impacts need to be shown to be associated with water or sediment concentrations of pollutants (Draft Listing Policy, pgs. 5 and 6) in order to be listed. We support the requirement to assess multiple lines of evidence for this listing factor, and urge the State Board to exercise caution when evaluating adverse biological response, because, as acknowledged in the Draft FED, "These types of data are typically water body-specific; often are not collected using standard procedures; are usually the result of research projects; and are not part of major ambient monitoring programs." (Draft FED, pg. 126)

Similarly, we support the State Board's requirement to use bioassessment data and information only if it is associated with water and sediment measurements, because, as stated in

the Draft FED, "Relying on bioassessment data alone does not allow for determination of associated causes and sources of impairments necessary to determine attainment of a beneficial use." (Draft FED, pg. 133). However, the assessment of water bodies based on these listing factors is still problematic due to the reliance on comparison of the response or community structure to that of a reference condition. Although the Draft FED provides some guidance on how reference sites are to be selected and used, the selection of appropriate reference conditions, particularly for streams in highly modified urban watersheds, is difficult, yet it is critical to the determination of impairment. In some watersheds, minimally impacted or reference conditions may not exist, and therefore a determination would have to be made as to the best attainable or "desired" condition for comparison, before an evaluation of impairment or attainment status could be made. The Draft FED notes that when selecting reference sites, that "Actual sites that represent best attainable conditions of a water body should be used." (Draft FED, pg. 135) How will the "best attainable condition" for a water body be determined? If a water body is shown to be ecologically limited due to physical habitat factors alone, is that site then considered to be the best attainable condition? Sites where degradation of the biological community is due to physical habitat factors are not suitable for placement on the 303(d) list, since this impact is not due to a pollutant for which a TMDL can be developed.

Also, comparison to reference conditions may be difficult because ecologically one would expect to find more and more differences between a water segment and the reference location as the sample size increases. As more information is collected, differences between the water body in question and the reference site may be due to factors that are not accounted for, such as temperature/climate, soil conditions, and as mentioned above, integrity of the physical habitat. In other words, the reference site may be changing independently from the test site, due to factors other than water quality; however, it may appear that the test site is impaired due to differences between it and the reference site. These same types of issues regarding baseline conditions are also associated with assessments of water quality trends, as previously discussed.

Interpreting Narrative Water Quality Objectives/Use of Numerical Evaluation Guidelines

The draft Listing Policy states that "When evaluating narrative water quality objectives or beneficial use protection, RWQCBs and SWRCB shall identify numeric evaluation guidelines that represents standards attainment or beneficial use protection. The guidelines are not water quality objectives and should only be used for the purpose of developing the section 303(d) list." (Draft Listing Policy, pg. 17). We continue to maintain that evaluation guidelines being used to interpret narrative objectives may not be used as a substitute for the proper adoption of new numeric objectives, or as "translator mechanisms" required under 40 CFR Section 131.11(a)(2), without first adopting those objectives in accordance with Sections 13241 and 13242 of the Water Code. Any numeric values which are used as the basis for 303(d) listing are being used in many of the same ways that adopted numeric water quality objectives would be used. Therefore, the draft Listing Policy should require that numeric "evaluation guidelines" used to interpret narrative objectives for the purposes of 303(d) listing either be adopted as water quality objectives consistent with Water Code and Administrative Procedures Act requirements or that the numeric guidelines be adopted as part of the 303(e) continuing planning process, subject to public notice and comment.

In addition, the State Board should recognize in the draft Listing Policy that sediment quality guidelines such as ERMs and PELs are used to indicate potential effects, and do not

measure actual beneficial use impairment. These sediment guidelines are merely a predictive tool, and do not indicate whether a sediment pollutant is bioavailable or not. Section 6.2.5 of the draft Listing Policy, Data Quantity Assessment Process, requires that "Data used to assess water quality standards attainment should be actual data that can be quantified and qualified. Information that is descriptive, estimated, modeled, or projected may be used as ancillary lines of evidence for listing or delisting decisions." (Draft Listing Policy, pg.20). It should be further emphasized in the draft Listing Policy that evaluation guidelines such as these should only be used as part of a weight of evidence approach.

Delisting Factors

Section 4 of the draft Listing Policy states that "All listings of water segments shall be reevaluated if the listing was based on faulty data. Faulty data include, but are not limited to, typographical errors, improper quality assurance/quality control procedures, or limitations related to the analytical methods that would lead to improper conclusions regarding the water quality status of the segment." (Draft Listing Policy, pg. 10) We support this provision, but we also request that this section be expanded to include specific language to allow the delisting of a water body if the data quality and data quantity requirements under the new policy are not met by the data used to support the existing listing. Existing listings that do not meet the Listing Policy's data quality or data quantity requirements should be delisted if a reevaluation of the listing is requested by an interested party, and it is shown through the reevaluation that the listing was based on insufficient or poor quality data. For example, existing listings based solely on visual assessments or other semi-quantitative assessments should be removed from the 303(d) list, because these listings were originally based on insufficient data, and would therefore fail to meet the listing requirements under the draft Listing Policy.

As discussed previously, we strongly recommend that the State Board re-evaluate all existing listings upon request, whether or not new data and information are available, where the applicant makes a prima facie showing that the listing is flawed. We feel that if a water body could not be listed under the provisions of the draft Listing Policy, the water segment-pollutant combination does not belong on the 303(d) list. This approach is consistent with Section 6.1 of the draft Listing Policy, which states that "In performing the reassessment the RWQCBs shall use the California Listing Factors (i.e., waters shall be assessed as if they had never been listed before) to assess each water segment-pollutant combination." (Draft Listing Policy, pg. 14).

Aggregation of Data by Reach/Area

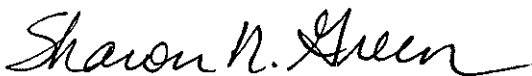
We disagree with the State Board's recommendations for aggregation of data under Section 6.2.5.6 of the draft Listing Policy. The draft Listing Policy states that "Data must be measured at one or more sites in the water segment in order to place a water segment on the section 303(d) list. Data related to the same pollutant from two or more adjoining segments shall be combined provided that there is at least one measurement above the applicable water quality objective in each segment of the water body. The pooled data shall be analyzed together." (Draft Listing Policy, pg. 22) This could be interpreted to mean that a single exceedance in each water segment could lead to placement of both segments on the 303(d) list. This approach seems to be in conflict with the State Board's requirement to list waters using data that are spatially representative of the reach, per Section 6.2.5.3 of the draft Listing Policy, as well as with minimum data quantity and temporal requirements.

Regarding spatial representation, the draft Listing Policy states that "Samples shall be collected to be representative of spatial characteristics of the water segment. To the extent possible, all samples should be collected to statistically represent the segment of the water body or collected in a consistent targeted manner that represents the segment of the water body." (Draft Listing Policy, pg. 21) For example, if an upstream reach is determined to be impaired based on several samples that exceed the water quality objective, and the downstream reach has one exceedance above the water quality objective from a sample taken at the top of the reach, the entire downstream segment could potentially be listed using the pooled data, even if samples taken further downstream in the downstream reach show that the segment attains the water quality objective. Also, if one reach is more frequently monitored than the other, the pooled data from the two segments will be biased. We encourage the State Board to eliminate the language regarding the pooling of data from adjoining reaches. Each reach should be evaluated separately, and special attention should be given to proper weighting of data in instances where one part of a water segment may be more frequently monitored. If the State Board does retain this provision, the Board should consider making it applicable to delisting situations as well.

Conclusion

In closing, we would like to commend the State Board staff for their hard work towards developing a reasonable, balanced, and scientifically-based approach toward water quality assessment and development of the state's 303(d) list. We support the State Board moving forward with the draft Listing Policy. We also support the State Board in their goal to have the Listing Policy in place before the next update of the 303(d) list is completed. Development of the next 303(d) list under the provisions of the Listing Policy will help focus the 303(d) list on the State's real water quality problems.

Sincerely,



Sharon Green, Chair
Tri-TAC



Raymond C. Miller, Executive Director
SCAP

cc: Celeste Cantu, Executive Director
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