



# California Regional Water Quality Control Board

## Colorado River Basin Region

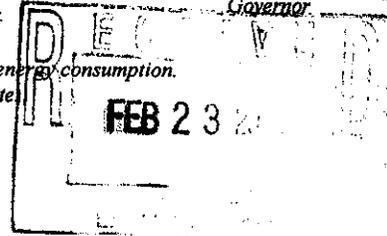


**Terry Tamminen**  
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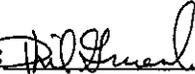
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**TO:** Celeste Cantú, Executive Director  
Tom Howard, Chief Deputy Director  
State Water Resources Control Board

**FROM:** Philip Gruenberg  
Executive Officer

**DATE:** 20 February 2004

**SIGNATURE:** 

**SUBJECT:** WATER QUALITY CONTROL POLICY FOR DEVELOPING CALIFORNIA'S  
CLEAN WATER ACT SECTION 303(d) LIST; DECEMBER 2003 (LISTING  
POLICY)

Thank you for the opportunity to provide comments on the draft "Water Quality Control Policy for Guidance on Assessing California Surface Water" (Draft Policy). We fully support the comments submitted by the TMDL Round Table, which includes Regional Board staff and managers who have years of experience interpreting water quality standards and evaluating a vast array of environmental data and information.

Primarily, we have major concerns with the resources, staff and funding alike, that would be needed to comply with this Policy. The Draft Policy specifies that all water bodies on the 2002 303(d) list would be reevaluated using the Policy over the next two listing cycles, which would place a tremendous strain on our already limited staff resources. In addition, requiring that all surface water bodies be assessed, including waters that have no previous monitoring data, along with the development of extensive fact sheets, is impractical given staff and budget constraints.

In addition, the binomial method with a 10% acceptable exceedance rate is the primary method proposed in the draft policy for evaluating water quality data. Although such an approach would provide consistency in how standards are evaluated, it is inconsistent with how standards are written. It would be feasible to use the binomial method as a screening tool in combination with a more comprehensive analysis that can take into account other relevant factors. We support the recommendation by the TMDL Round Table to use the binomial method in conjunction with a well defined "weight of evidence" method. Such an approach will help ensure that the Regional Boards will make reasoned decisions in determining whether standards are attained.

Finally, the Listing Policy proposes to supersede any Regional Board policies that address interpretation of narrative water quality objectives, but only for the purposes of the Listing

Policy. A dual system of standards interpretation would be established in those regions with such policies. One system of interpretation would exist for the Listing Policy and another system for all other Regional Board actions, resulting in confusion and inconsistency regarding how Regional Boards address water quality problems. We recommend that the following sentence in the Listing Policy (Section 6.2.3) be deleted: "This section supersedes any regional water quality control plan or water quality control policy to the extent of any conflict."

I appreciate your attention to our comments.

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Terry Tamminen  
Secretary for  
Environmental  
Protection

# California Regional Water Quality Control Board Lahontan Region



Arnold Schwarzenegger  
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## MEMORANDUM

**TO:** Craig J. Wilson  
TMDL Listing Unit  
Division of Water Quality  
SWRCB  
P.O. BOX 100  
Sacramento, CA 95812-0100

**FROM:** *for* Harold J. Singer  
Executive Officer

**DATE:** February 18, 2004

**SUBJECT: COMMENTS ON DRAFT SECTION (D) LISTING/DELISTING POLICY**

Thank you for the opportunity to comment on the State Water Resources Control Board's (State Board's) draft policy for the Clean Water Act Section 303(d) assessment process in California. Over the past two years, Lahontan Regional Board staff participated in policy development through the Total Maximum Daily Load (TMDL) Roundtable and submitted comments directly to State Board staff on several preliminary draft documents. Although the December 2003 draft policy includes some improvements in response to Roundtable and Regional Board comments on earlier drafts, it is inconsistent or partially inconsistent with many of the TMDL Roundtable's earlier recommendations. The Roundtable includes staff from all of the Regional Boards, with multidisciplinary expertise and years of hands-on experience in Section 303(d) assessment and TMDL development. Since the Regional Boards will have the primary responsibility for implementing the final policy, I believe that the State Board should give the Roundtable's recommendations serious consideration. I support the February 2004 comments of the TMDL Roundtable on the draft policy, including the suggested changes in policy language. The following additional comments and recommendations address issues of special concern to me and Regional Board staff.

- 1. Issue: The draft policy's direction on transformation of data for use in the binomial model is inappropriate for assessment of compliance with most of the Lahontan Regional Board's numeric water quality objectives. This direction could result in listing of water bodies that are actually attaining standards.**

*California Environmental Protection Agency*

**Recommendation:** *The State Board should adopt the TMDL Roundtable's proposed policy language allowing the use of a Weight of Evidence Method (including alternate methods for transformation of data) in situations where multiple lines of evidence show that the Binomial Method is inappropriate.*

**Discussion:** The Lahontan Basin Plan includes more than 800 numeric water quality objectives for "conventional pollutant" parameters in specific surface water bodies. Most of these objectives are expressed as annual means, or as annual means plus annual 90<sup>th</sup> percentile values. To assess compliance with annual mean objectives under the December 2003 policy, Regional Board staff would be required to determine mean values for each year during at least the past 10 years, and consider each year's value a single "data point" within the binomial model. If the annual mean standard is exceeded in 5 or more of 10 years, the water body must be listed. This approach does not take improvements in water quality into account. If an annual mean objective is violated during the first 5 years but attained during the last 5 years, the water body must still be listed. To delist a water body listed for violation of an annual mean objective the Regional Board would need to wait at least 22 years to accumulate enough "data points" to assess compliance under the binomial model, even if the annual mean standard is attained during most of those years. (Section 4 of the draft policy specifies a minimum sample size of 22 for delisting, and a water body cannot be delisted if there are any exceedances of a water quality objective in a sample population of 22-37.) This assumes that a TMDL or enforceable program is not developed or the objective is not revised to address the problem in the interim. Similar problems could occur for water quality objectives expressed as annual 90<sup>th</sup> percentile levels. Given the limited resources available for monitoring and TMDL development, and the probability of future budget cuts, the policy's proposed approach will unnecessarily increase the number of listed waters in Region 6 and the length of time that a listed water body must remain on the list.

The U.S. Environmental Protection Agency (USEPA) currently allows listing and delisting based on attainment or nonattainment of standards over the time (generally two years) since the previous Section 303(d) list update cycle. For standards expressed as annual means, this approach is much simpler and more straightforward (and more transparent to the public) than the proposed transformation of data under the binomial method.

- Issue:** **The draft policy, as proposed, will greatly increase demands on Regional Board staff resources for Section 303(d) assessment. The impacts will be greater for regions with more surface water bodies. If additional funding cannot be provided, fewer resources will be available for other important tasks, including TMDL development.**

**Recommendation:** *The State Board should consider revising the policy to minimize increased demands on Regional Board staff time. The revised policy and/or the State Board resolution for adoption of the policy should recognize that, in the absence of additional resources, Regional Boards may not be able to perform Section 303(d) assessments at the level of detail envisioned by the policy. The State Board should consider providing direction, similar to that provided in the Enforcement Policy, regarding priorities for Regional Board assessment activities, in the event that all tasks cannot be completed for all water bodies with the resources available.*

**Discussion:** Since the mid-1980s the water quality assessment process, including both Section 303(d) and Section 305(b) assessment, has generally been an unfunded mandate to the Regional Boards. Specific components of the December 2003 draft listing policy that will increase demands on already limited staff resources include the following:

- The direction to assess data and information from the most recent 10-year period rather than data collected since the most recent list update cycle.
- Requirements for more intensive evaluation of data quality and quantity.
- The requirement for very detailed documentation of the assessment process for each water body. (The term “fact sheet”, implying a one-page summary, is inappropriate for documentation at this level of detail.)
- Work involved in assessing and documenting whether a water body should be placed on an “Enforceable Programs List” rather than the list of water bodies requiring TMDLs.
- Requirements for the assessment process to involve at least two Regional Board meetings and for written responses to be prepared for hearing testimony.
- The provision for reassessment of water bodies in response to requests by interested parties. Little direction is provided in the policy on this provision, and it is not clear whether these requests are expected to be processed as part of the next comprehensive list update process or as separate Regional Board actions between formal list updates. If the policy envisions processing of requests between formal updates, additional Regional Board staff time will be required to review the information submitted by interested parties, supplement it if necessary, and prepare agenda materials and administrative records. Large numbers of interested party requests between list update cycles could significantly disrupt other planning staff priorities set through the Triennial Review and TMDL workplan processes.

There could also be an increased Regional Board workload associated with other components of the Section 303(d) assessment process that are not specifically addressed in the policy, such as update of the information in the State/Regional Board GeoWBS database.

I support the TMDL Roundtable’s recommendation to remove language regarding separate “TMDLs Completed” and “Enforceable Programs” lists from the policy. The development and Regional Board approval of “enforceable programs” to address impaired surface waters should be done separately from the Section 303(d) assessment process. However, unless it is the State Board’s intent that listed waters should stay on the Section 303(d) list until standards are attained, the policy should include provisions for delisting waters with completed TMDLs or other previously approved “enforceable programs” to address the impairment and provide reasonable assurance that standards will be attained. (The TMDL Roundtable’s comments mention the dual requirements of Section 303(d) for lists of waters not attaining standards and

lists of waters requiring TMDLs. The introduction to the State Board's policy should be clarified to show which parts of Section 303(d) the policy is meant to address.)

Demands on Regional Board resources could also be reduced by:

- Focusing assessment on data and information collected since the last list update cycle, with the option to use older data if there is evidence that they are representative of current conditions.
- Allowing Regional Boards to adopt recommendations for Section 303(d) list changes following a public hearing at one Board meeting, with oral staff responses to hearing testimony.
- Providing policy direction that "interested party" requests for reassessment will be processed together with other information and data submitted by the public in response to the next formal Section 303(d) solicitation process, rather than considered as separate Regional Board actions between solicitation periods.
- Decreasing the frequency of comprehensive list updates (e.g., from every two years to every four years). If the USEPA requires more frequent submittals of lists under Section 303(d), the most recent California lists could be resubmitted, or the State Board and Regional Boards could conduct more focused assessments during the "off years."

Section E of the Enforcement Policy includes direction on prioritization of Regional Board enforcement actions. Similar direction on priorities for assessment work could be provided in the Section 303(d) listing policy, or in the State Board's resolution adopting the policy. Possible alternatives for prioritization include:

- Prioritizing assessment for specific categories of impairment (e.g., giving the highest priority to assessing and documenting problems associated with toxic pollutants and pathogens).
  - Giving the highest priority to assessment and documentation for water bodies with "credible" data from sources such as the U.S. Geological Survey whose quality assurance/quality control procedures do not need to be evaluated by Regional Board staff.
  - Requiring highly detailed documentation only for those water bodies recommended for high or medium priority under Section 5 of the listing policy. The policy could provide guidance on a minimum acceptable level of documentation for low priority waters.
3. **Issue:** High, medium, and low priority rankings for listed water bodies should not be linked to schedules for addressing the impairment, as recommended in Section 5 of the draft policy.

3. **Issue:** High, medium, and low priority rankings for listed water bodies should not be linked to schedules for addressing the impairment, as recommended in Section 5 of the draft policy.

**Recommendation:** *I support the TMDL Roundtable's recommendations that priority ranking of listed water bodies should not be linked to specific schedules for addressing impairments, and that schedules should be determined in the context of the USEPA/State Board partnership agreement and of each Fiscal Year's TMDL program workplan.*

**Discussion:** Section 5 of the draft policy directs the ranking of listed waters as high, medium, or low priority *for the development of TMDLs*, and also includes specific direction that TMDLs for high priority waters should be completed within two years, and TMDLs for medium priority waters should be completed in five years. The TMDL Roundtable is recommending a broader approach in that waters would be given priority rankings *for addressing the impairment* through TMDLs or alternative means, such as enforceable programs or revised standards.

The policy's direction on scheduling is unrealistic. It is unrealistic in that each prospective TMDL is unique, and schedules must be determined on a TMDL-specific basis, depending on the availability of information and data, the availability of staff and/or contract resources, and the concerns of stakeholders. Because of the necessity for TMDL implementation programs, TMDL development in California involves much more than the simple calculations that the USEPA has approved as TMDLs in some other states. TMDLs and TMDL implementation programs for high priority waters such as Lake Tahoe may take much longer than two years to develop because of the scientific and political complexity of the issues to be addressed. Alternative means of addressing impairment in high priority water bodies, including enforceable programs and standards revisions, also involves complex issues and may also take longer than two years.

The draft policy language would result in a Section 303(d) list containing TMDL schedules that are outdated before the list receives final approval, due to budget changes and other considerations. There would be no opportunity to update these schedules for least two years. Such a list would be confusing to the public, and could create unrealistic expectations. Schedules determined through the workplan process can be updated frequently through the tracking and reporting process.

4. **Issue:** The draft policy's direction on the use of bioassessment data in Section 303(d) assessment is unrealistic given the unique nature of bioassessment methodology and the unavailability of funds for the additional monitoring that would be needed to meet the requirements of the policy.

**Recommendation:** *I support the TMDL Roundtable's suggested revisions to reduce the level of detail in the policy regarding the use of bioassessment data in listing and delisting, and to make bioassessment data one of a number of sources that could be used in a Weight of Evidence Method. However, if the State Board decides that more detailed policy language on bioassessment is desirable, the revised policy should address the Region 6 issues below.*

**Discussion:** Region 6 has been at the forefront of statewide efforts to use bioassessment to document background conditions and the impacts of human activities and to develop water quality objectives based on biocriteria. Our regional Surface Water Ambient Monitoring Program (SWAMP) coordinator reviewed the draft listing policy and identified a number of concerns with the December 2003 language.

- Section 3.1.9 directs listing if a water body shows significant degradation of biological populations or communities and the degradation is associated with water or sediment concentrations of pollutants. Listing should not be based on bioassessment data alone. Bioassessment data may indicate correlation with a pollutant, but do not indicate causation. Decreased biological integrity may be wholly or partially caused by factors other than pollutants. Existing resources for monitoring, including SWAMP funding, are inadequate for the follow-up studies that would be necessary to link population or community impairment to pollutants.
- Section 3.1.9 references Section 3.1.6 for direction to be followed in using bioassessment data for listing. However, Section 3.1.6 does not list all of the possible pollutants that could impair biological integrity, without involving toxicity. Its reference to the use of two "stations" for toxicity sampling is inappropriate for bioassessment, since stream bioassessment normally involves sampling of reaches rather than discrete stations. If the final policy language keeps the cross reference between the two sections, Section 3.1.6 should be supplemented to ensure that it is compatible with bioassessment methodology. The revised language should allow for listing whenever bioassessment data indicate impairment and a scientifically valid association with a pollutant of any type can be demonstrated.
- Bioassessment results are not appropriate for use with the binomial model as directed in the second paragraph of Section 3.1.9 and in Section 4.9. Bioassessment relies upon integrative composite samples and multimetric or multivariate-derived indices. Bioassessments do not (and cannot) rely on the same statistical tests and guidelines as the assessment methods for sediment quality, fish/shellfish consumption, or bioaccumulation. Also, the costs of collecting the sample numbers required for assessment under the binomial model (including samples from reference stream reaches as well as reaches believed to be impaired or recovering from impairment) would be prohibitive.

Please contact me at (530) 542-5412, Robert Dodds at (530) 542-5410 or Chuck Curtis at (530) 542-5460 if you wish to discuss the comments and recommendations above.

cc: Stan Martinson, DWQ  
Ken Harris, DWQ

JEU/cart:303d Policy comments 2-18-04  
[TMDL's-Listing File]