



Tri-TAC

Jointly Sponsored by:
League of California Cities
California Association of Sanitation Agencies
California Water Environment Association

Reply to: Sharon N. Green, Chair
Tri-TAC
c/o Sanitation Districts of Los Angeles County
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January 25, 2005

Via U.S. and Electronic Mail

Arthur G. Baggett, Jr., Chair and Members
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95814

ATTN: Debbie Irvin, Clerk to the Board
dirvin@waterboards.ca.gov

Dear Chairman Baggett and Members:

**Comments on the Draft FED dated December 2004 for Proposed Revisions
to the Statewide Implementation Policy for Toxics – SWRCB Public Hearing
February 2, 2005, Agenda Item No. 4**

On behalf of Tri-TAC and the California Association of Sanitation Agencies (CASA), I am submitting these comments regarding the draft Functional Equivalent Document (FED) for the proposed revisions to the Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (SIP) currently being developed by the SWRCB. CASA and Tri-TAC are statewide organizations comprised of members from public agencies and other professionals responsible for wastewater treatment. Tri-TAC is jointly sponsored by CASA, the California Water Environment Association and the League of California Cities. The constituency base for CASA and Tri-TAC collects, treats and reclaims more than two billion gallons of wastewater each day and serves most of the sewered population of California.

We previously submitted comments on the scope of the FED on November 12, 2004, which are attached and incorporated herein by reference (see Attachment 1). Based on our review of the draft FED and various EPA documents, such as the California Toxics Rule (CTR), National Toxics Rule (NTR), and EPA's guidance on water effect ratios (WERs), we offer the following comments regarding Revisions to Section 1.2 and 1.3 of the SIP for your consideration.

Revisions to Section 1.2

The State Board's description of the present state policy on page 27 of the draft FED states that:

"The SIP does not allow discharge-specific WERs for metals to be used in permits."

We are unsure of the meaning of this statement and we request clarification. If the State Board's intent is to indicate that the SIP currently does not acknowledge in Sections 1.2, 1.3 and 1.4 that it is possible to adjust freshwater water quality criteria for arsenic, cadmium, chromium(III), chromium(VI), copper, lead, nickel, silver and zinc using site-specific WERs as pre-authorized in the NTR and CTR during the determination of reasonable potential and in the calculation of effluent limits, this needs to be clearly stated. It is our understanding that currently WERs can be developed and used to adjust freshwater criteria, but only if a Basin Plan amendment first is adopted by a Regional Board (RWQCB), and subsequently approved by the SWRCB, the Office of Administrative Law, and the U.S. Environmental Protection Agency (EPA). This can be a time-consuming and resource-intensive process, and it is unclear what benefits are derived. This adjustment of criteria through the use of WERs is similar to the pH and hardness adjustments that are also allowed for various metals in the NTR and CTR and for which reference is currently made in Section 1.2 and in Section 1.4 Calculation of Effluent Limitations, Step 2 of the existing SIP. Therefore, it is our understanding that it is the intent of the State Board with this amendment to modify the language of the SIP to allow RWQCBs to **adopt** and **use** site-specific WERs in the National Pollutant Discharge Elimination System (NPDES) permitting process without a Basin Plan amendment, which we strongly support.

As pointed out in our November 12, 2004 comment letter on the Scope of the FED, we believe that the proposed amendment language does not clearly explain the pollutants to which the proposed amendment applies, the meaning of the term "discharger-specific," or the conditions under which a Basin Plan amendment would still be required. Therefore, we have enclosed as Attachment 2 proposed modifications to the amendment that we recommend be adopted to clarify the intent of the proposed changes. Our proposed changes also include revisions to Section 5.2 to indicate that WERs established in accordance to USEPA guidance – Interim Guidance on Determination and Use of Water Effect Ratios for Metals (EPA-823-B-94-001), or by another scientifically defensible method for arsenic, cadmium, chromium(III), chromium(VI), copper, lead, nickel, silver and zinc are already pre-authorized by EPA and can be approved by RWQCBs at the NPDES permit adoption permit hearing or during adoption of a TMDL rather than through a Basin Plan amendment solely aimed at adopting a site-specific objective. Our proposed changes are consistent with page 28 of the draft FED, which states that "The development of WERs would still have to use USEPA guidance or other scientifically defensible protocols, but the approvals of WERs by the SWRCB and USEPA through the adoption of a Basin Plan provision would not be required." Another issue we believe should be addressed by the SWRCB before adoption of this amendment is to clarify either in the SIP or through guidance to RWQCBs that WERs approved through a permitting process should be administratively incorporated into Basin Plans, since the WERs would affect the underlying water quality standard and should be used for other purposes than permitting, such as water quality assessment and preparation of the Section 303(d) List. As such, it is important for WERs to be included together with the applicable water quality standards and be readily available to the public, following their approval.

Lastly, we also urge the SWRCB to consider approval during this SIP amendment process of two alternative methods for development of WERs and/or SSOs: the biotic ligand model (BLM) as an approved method for modification of the freshwater copper criteria, and the

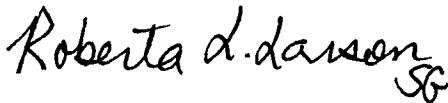
“Streamlined Procedure” for determining site-specific values for a WER (*see* <http://www.epa.gov/waterscience/criteria/copper/index.htm>). These methods have been developed and approved by EPA and made available to States, and are limited in scope at this time to copper, but would assist RWQCBs and dischargers in tailoring the water quality standards in appropriate ways for the protection of aquatic life.

Revisions to Section 1.3

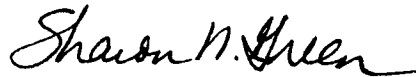
CASA and Tri-TAC support the State Board’s proposed elimination of the ambient background-only trigger for the determination of reasonable potential, which currently leads to the inclusion of an effluent limit even in cases where a constituent is not detected in the effluent. We do not believe that the current approach provides any additional water quality protection. However, we believe adoption of the staff-recommended Alternative 2 will continue to require effluent limits even when they are not necessary to protect ambient water quality. Alternative 2 will result in the application of effluent limits even when detected levels are well below the criteria. Therefore, we request that Alternative 2, which recommends a revision to Step 6, further modify Section 1.3 by deleting both Steps 5 and 6. If the effluent exceeds a water quality objective reasonable potential is already triggered through Step 4. If a water quality objective is exceeded in the receiving water only and is a problem, this would be identified during water quality assessment conducted as part of the 303(d) listing process, which would result if appropriate, in the development of Total Maximum Daily Loads (TMDLs). Once these TMDLs are developed, waste load allocations (WLA) for point sources which are protective of water quality would be determined. If Alternative 2 is not modified as outlined above, at a minimum we recommend that if the ambient background concentrations exceed a water quality criterion/objective and the compound is detected in the effluent but is below the criterion/objective, that monitoring rather than a limit be required to help identify any potential increasing trends in the effluent. Our proposed revisions are shown in Attachment 2. We also would like to point out that, as currently drafted, the proposed amendment to the RPA process will likely not result in reductions in monitoring costs as claimed on p. 33, since monitoring will still be required for pollutants for which the ambient background concentration exceeds the water quality criteria/objective, even if the pollutant is not detected in the effluent. The Economic Considerations section of the FED should be modified to accurately the SWRCB’s intent regarding modification of monitoring requirements as a result of this amendment.

Proposed revisions to the SIP amendments addressing our comments are shown in Attachment 2. Thank you for your consideration of our comments. If you have any questions, please contact Sharon Green or Martha Rincon at (562) 699-7411.

Sincerely,



Roberta L. Larson
Director, Legal & Regulatory Affairs
CASA



Sharon N. Green
Chair
Tri-TAC

Enclosures

cc: Dena McCann, SWRCB Staff
Ben Horenstein, Co-Chair, Tri-TAC Water Committee
Terrie Mitchell, Co-Chair, Tri-TAC Water Committee
Mike Dillon, CASA Executive Director



Tri-TAC
Jointly Sponsored by:
League of California Cities
California Association of Sanitation Agencies
California Water Environment Association

Reply to: Sharon N. Green, Chair
Tri-TAC
c/o Sanitation Districts of Los Angeles County
P.O. Box 4998
Whittier, CA 90607

Via Electronic and U.S. Mail

November 8, 2004

Dena McCann
Division of Water Quality
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 94812-1000

**SUBJECT: COMMENTS REGARDING THE SCOPE OF THE FED FOR
PROPOSED REVISIONS TO THE STATE IMPLEMENTATION POLICY
FOR TOXICS**

Dear Ms. McCann:

These comments are submitted on behalf of Tri-TAC and the California Association of Sanitation Agencies (CASA). 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 CASA, the California Water Environment Association, and the League of California Cities. CASA is a nonprofit association of 111 public agencies providing wastewater collection, treatment, recycling and disposal services to millions of Californians.

Tri-TAC and CASA support the development of a Functional Equivalent Document for the two substantive amendments proposed by SWRCB staff to the Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (the "SIP"). Our comments on each of these proposed amendments follow. We do not have any comments at this time on Issue 3 (revisions of non-regulatory language of the SIP).

Issue 1: Revisions to Section 1.2 to Allow Adjustment of Criteria for Metals with Discharge-Specific Water Effect Ratios

Tri-TAC and CASA support the proposed amendment to the SIP to allow water effects ratios (WERs) to be established without amending the relevant Basin Plan to establish a site-specific objective, as contemplated by the National Toxics Rule (NTR) and California Toxics Rule (CTR). It does not make sense to require agencies to undertake a Basin Plan amendment process to adjust metals criteria in a manner expressly allowed by EPA when establishing the water quality criteria in the NTR, as well as in the CTR. As EPA stated in a 1994 memo to regional Water Division Directors and State Water Quality Standards Program Directors, "[t]he National Toxics Rule was a formal rulemaking process with notice and comment by which EPA pre-authorized the use of a correctly applied water-effect ratio As indicated on page 60866 of the preamble to the National Toxics Rule, the rule was constructed as a rebuttable presumption. The water-effect ratio is assigned a value of 1.0 until a different water-effect ratio is derived from suitable tests representative of conditions in the affected waterbody." As EPA emphasized in the memo, the State must ensure that the calculations and data analysis are done completely and correctly, even if the WER is established through a permitting action or establishment of a Total Maximum Daily Load. This obligation would not change with this amendment to the SIP to allow approval of WERs through the permitting process.

The major advantages of proceeding with this amendment are that there will be reductions in the time and administrative costs necessary to process WERs through Basin Plan amendments, while achieving equally protective water quality criteria that are tailored to site-specific conditions. A good example of the considerable length of time necessary to go through the full Basin Plan amendment process was the copper site-specific objective developed for South San Francisco Bay using a WER, which required several years to conclude even after all the scientific and technical studies were complete.

Tri-TAC and CASA suggest that staff include in the SIP amendment clarification of what is meant by a "discharge-specific" WER (as used on p. 16 of the Scoping Document), and provide guidance as to when WERs should be established through permit amendments or other means versus through site-specific objectives. As for the scope of alternatives to be analyzed in the Functional Equivalent Document for this issue, we recommend that the SWRCB consider approval of additional methods as part of the FED analysis, including use of the Biotic Ligand Model (BLM) as a method for developing site-specific criteria to modify freshwater aquatic life criteria for copper, and use of the "Streamlined Procedure" for determining site-specific values for a WER. More information on these methods can be found on U.S. EPA's website at <http://www.epa.gov/waterscience/criteria/copper/index.htm>.

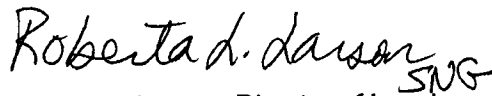
Issue 2: Revisions to Section 1.3 Determination of Priority Pollutants Requiring Water Quality-Based Effluent Limitations

Tri-TAC and CASA support elimination of the ambient background-only trigger for reasonable potential. We believe that this step in the existing reasonable potential analysis can result in unnecessary effluent limits in NPDES permits that do not provide additional water quality protection. Requiring periodic monitoring when ambient background concentrations are greater than the water quality criterion or objective yet the pollutant is not detected in the effluent is an adequate method for ensuring that water quality is adequately protected. However, the FED should recognize that the frequency of this monitoring may have a cost impact to dischargers and should allow for flexibility

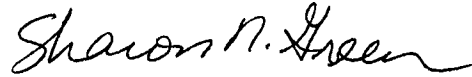
or make it optional, depending on site-specific circumstances (i.e. considering the nature of the pollutant and of the discharge).

Thank you for the opportunity to provide our comments regarding the scope and content of the FED being prepared for these issues. We look forward to the opportunity to work with the SWRCB on additional amendments to the SIP in the future to address high priority issues such as whole effluent toxicity and the need for modifications to the compliance schedule provisions to address newly applied effluent limits and other such situations.

Sincerely,

Handwritten signature of Roberta L. Larson in cursive, with the initials 'SNG' written below it.

Roberta L. Larson, Director of Legal
& Regulatory Affairs, CASA

Handwritten signature of Sharon N. Green in cursive.

Sharon N. Green, Chair
Tri-TAC

cc: Ben Horenstein, Tri-TAC Water Committee Co-Chair
Terrie Mitchell, Tri-TAC Water Committee Co-Chair
Jim Kelly, CASA Water Issues Forum Chair

Attachment 2

Revisions to Section 1.2 Data Requirements and Adjustments

The RWQCB may adjust the criteria/objectives for metals with ~~discharger-specific~~ site-specific Water Effect Ratios established in accordance with USEPA guidance – Interim Guidance on Determination and Use of Water Effect Ratios for Metals (EPA-823-B-94-001); ~~if appropriate.~~¹

It is the discharger's responsibility to provide all data and other information requested by the RWQCB before the issuance, reissuance, or modification of a permit to the extent feasible. When implementing the provisions of this Policy, the RWQCB shall use all available, valid, relevant, representative data and information, as determined by the RWQCB. The RWQCB shall have discretion to consider if any data are inappropriate or insufficient for use in implementing this Policy. Instances where such consideration is warranted include, but are not limited to, the following: evidence that a sample has been erroneously reported or is not representative of effluent or ambient receiving water quality; questionable quality control/quality assurance practices; and varying seasonal conditions. The lack of a site-specific objective for a priority pollutant shall not be considered insufficient data.

When implementing the provisions of this Policy, the RWQCB shall ensure that criteria/objectives are properly adjusted for WERs, hardness or pH, if applicable, using the WERs, hardness or pH values for the receiving water, and that translators are appropriately applied (in accordance with section 1.4.1), if applicable. The RWQCB shall also ensure that pollutant and flow data are expressed in the appropriate forms and units for purposes of comparability and calculations.

Revisions to Section 1.3 Determination of Priority Pollutants Requiring Water Quality Based Effluent Limitations

Step 1: Identify applicable water quality criteria and objectives for priority pollutants as described in section 1.1. Determine the lowest (most stringent) water quality criterion or objective for the pollutant applicable to the receiving water (C). Adjust the criterion or objective for WERs, hardness and/or pH, if applicable, as described in section 1.2.

Step 4: Adjust the MEC from *Step 3* for WERs, hardness and/or pH, if applicable, as described in section 1.2. Compare the MEC from *Step 3* or the adjusted MEC to the C from *Step 1*. If the MEC is greater than or equal to the C, an effluent limitation is required and the analysis for the subject pollutant is complete. If the MEC is less than the C, proceed with *Step 5*.

Step 6: Adjust the B from *Step 5* for WERs, hardness and/or pH, if applicable, as described in section 1.2. Compare the B from *Step 5* or the adjusted B to the C from *Step 1*. ~~If the B is greater than the C and the pollutant is detected in the effluent, an effluent limitation is required and the analysis for the subject pollutant is complete.~~ If B is greater than the C ~~and the pollutant was not detected in any of the effluent samples,~~ effluent monitoring is required as described in *Step 8*. If the B is less than or equal to the C, proceed with *Step 7*.

¹ Consistent with federal regulations (40 CFR Section 131.38), site-specific Water Effect Ratios may be approved through the permitting process for the following compounds: arsenic, cadmium, chromium(III), chromium(VI), copper, lead, nickel, silver and zinc. A Water Effect Ratio may also be used to develop a site-specific metal objective for constituents other than metals, as described in Section 5.2.

Revisions to Section 1.4 Calculation of Effluent Limits

Step 2: For each water quality criterion/objective, calculate the effluent concentration allowance (*ECA*) using the following steady-state mass balance equation:

$$\begin{aligned} ECA &= C + D(C - B) && \text{when } C > B, \text{ and} \\ ECA &= C && \text{when } C \leq B, \end{aligned}$$

where C = the priority pollutant criterion/objective, adjusted (as described in section 1.2), if necessary, for WERs hardness, pH, and translators (as described in section 1.4.1);
 D = the dilution credit (as determined in section 1.4.2); and
 B = the ambient background concentration. The ambient background concentration shall be the observed maximum as determined in accordance with section 1.4.3.1 with the exception that an *ECA* calculated from a priority pollutant criterion/objective that is intended to protect human health from carcinogenic effects shall use the ambient background concentration as an arithmetic mean determined in accordance with section 1.4.3.2.

The concentration units for C and B must be identical. Both C and B shall be expressed as total recoverable, unless inappropriate. The dilution credit is unitless.

5.2 Site-Specific Objectives

If a priority pollutant criterion or objective is inappropriate for a particular water body (i.e., it does not protect the beneficial uses or, based on site-specific conditions, a less stringent standard may be warranted), a water quality objective that differs from the applicable criterion or objective may be developed for the site. A RWQCB may develop site-specific objectives whenever it determines, in the exercise of its professional judgment, that it is appropriate to do so. Where a priority pollutant criterion or objective is not being attained in the water body, under certain circumstances, it may be more appropriate to pursue other approaches to achieve the applicable criterion or objective rather than develop a site-specific objective. These approaches include, but are not limited to, watershed management and development of TMDLs (see Appendix 5 and Appendix 6). In 40 CFR Section 131.38, EPA authorizes the modification of freshwater criteria for arsenic, cadmium, chromium(III), chromium(VI), copper, lead, nickel, silver and zinc using site-specific Water Effects Ratios (WERs) set forth using EPA's guidance or by another scientifically defensible method that has been adopted by the state and approved by EPA. The RWQCB may for these compounds adopt and adjust criteria using these WERs through the NPDES permit adoption process rather than through a Basin Plan amendment solely aimed at adopting a site-specific objective. The RWQCB may investigate, facilitate, or implement such approaches as appropriate. For compounds not pre-authorized by EPA for adjustment using WERs, WERs may still be an acceptable methodology for developing an SSO, but such SSOs must be approved through a Basin Plan amendment.

Regardless of an action taken by the RWQCB as described above, the RWQCB shall, at a public meeting, consider initiating the development of a site-specific objective under the following conditions:

- (1) A written request for a site-specific study, accompanied by a preliminary commitment to fund the study, subject to development of a workplan², is filed with the RWQCB; and
- (2) Either:
 - (a) a priority pollutant criterion or objective is not achieved in the receiving water; or
 - (b) a holder of an NPDES permit demonstrates that they do not, or may not in the future, meet an existing or potential effluent limitation based on the priority pollutant criterion or objective; and
- (3) A demonstration that the discharger cannot be assured of achieving the criterion or objective and/or effluent limitation through reasonable treatment, source control, and *pollution prevention measures. This demonstration may include, but is not limited to, as determined by the RWQCB:
 - (a) an analysis of compliance and consistency with all relevant federal and State plans, policies, laws, and regulations;
 - (b) a thorough review of historical limits and compliance with those limits;
 - (c) a thorough review of current technology and technology-based limits; and
 - (d) an economic analysis of compliance with the priority pollutant criterion or objective of concern.

During the period when site-specific objectives studies are being conducted, the RWQCB shall place effluent limitations based upon the applicable priority pollutant criteria or objectives into permits only in conjunction with an appropriate compliance schedule and interim requirements, as described in sections 2.1 and 2.2.

A discharger subject to a schedule for compliance with a CTR criterion or CTR criterion-based effluent limitations, as described in section 2.1, may choose to, concurrently with the actions necessary to achieve compliance, conduct the studies necessary to support the development and adoption of a site-specific objective.³

Following adoption of a site-specific objective by the RWQCB, existing effluent limitations shall be replaced with effluent limitations (calculated as described in section 1.4) based on the adopted site-specific objective if the analysis in section 1.3 indicates that a limitation for the pollutant is required. In the event that, for reasons beyond the control of the discharger, a decision whether or not to adopt site-specific objectives has not been made by the RWQCB before the end of the compliance schedule, the compliance schedule shall be extended for an additional period to allow time for a decision whether or not to adopt the objective. However, in no event may a compliance schedule exceed the maximum time period allowed for compliance with the CTR criteria (as described in section 2.1) or priority pollutant objectives (as described in the basin plan, if applicable), unless an exception has been granted (in accordance with section 5.3).

Development of Site-Specific Objectives

² The elements presented under the "Special Studies Process" in Appendix 5 should be considered in developing the site-specific objectives workplan.

³ A RWQCB may include a compliance schedule in a water quality standard based on a site-specific objective. Such a compliance schedule is separate and distinct from the compliance schedules established by this Policy.

Water quality objectives shall be developed in a manner consistent with State and federal law and regulations. In accordance with the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code), objectives must provide for the reasonable protection of beneficial uses based on consideration of the factors listed in Water Code Section 13241. In accordance with federal law (CWA) and regulations (40 CFR 131.11, revised as of July 1, 1997), the objectives must be based on sound scientific rationale and protect the designated beneficial uses of the receiving water.

The RWQCB shall use scientifically defensible methods appropriate to the situation to derive the objectives. Such methods may include U.S. EPA-approved methods (e.g., Water Effects Ratio [WER] procedure, recalculation procedure, a combination of recalculation and WER procedures, Resident Species Procedure), and/or other methods specified in the workplan.

A site-specific objective adopted by the RWQCB may include a compliance schedule. However, if attainment of the potential objective(s) developed under the study is anticipated to be infeasible (as defined in 40 CFR 131.10(g), revised as of July 1, 1997), or if the RWQCB otherwise determines it is appropriate, a *use attainability analysis (UAA) may be conducted. The RWQCB shall conduct, with the participation of interested persons, as appropriate, the UAA in accordance with 40 CFR 131.10(j) (revised as of July 1, 1997). If the UAA shows that attainment of the designated beneficial use(s) is not feasible (pursuant to 40 CFR 131.10(g) (revised as of July 1, 1997)), the RWQCB shall designate an alternative beneficial use or subcategory of use, and develop appropriate water quality objectives to protect the new use(s). Both the use(s) and the objective(s) established to protect it would be reevaluated during the triennial reviews of the State's water quality standards.