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

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August 25, 2004

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

SUBJECT: Comments regarding the "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" (July 22, 2004)

Dear Chairman Baggett and Members:

The California Association of Sanitation Agencies (CASA) and Tri-TAC appreciate the opportunity to provide comments regarding the July 22, 2004 draft of the "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" (the "Draft Listing Policy"). 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.

CASA and Tri-TAC provided comments on the prior draft of the Listing Policy. Though we identified specific concerns and recommended improvements to the December 2003 draft, our organizations generally supported the Policy and urged its adoption. CASA and Tri-TAC continue to support the binomial distribution using the null hypothesis approach. We believe this statistical approach is the best available method of providing much-needed objectivity to the listing (and delisting) process. Unfortunately, while we greatly appreciate the time and effort that SWRCB staff have devoted to developing the Policy, we are unable to support adoption of the July 2004 Draft Listing Policy as currently drafted. In our view, the cumulative effect of the numerous revisions will be to seriously undermine the consistency, transparency and scientific rigor of the listing process. Many of the proposed revisions abandon the prior emphasis on establishing clear, objective, technically sound criteria for listing decisions and inject

elements of broad discretion and subjectivity.

Any one of these revisions, taken alone, might be acceptable. For example, CASA and Tri-TAC reluctantly went along with the section of the prior draft Policy that allowed for "alternative data evaluation," despite concerns about the manner in which it might be applied, on the basis that it was important to have a mechanism to ensure that all waters requiring TMDLs were included on the list. Our objection to the July 2004 Draft Policy is that virtually every provision of the policy has been made "looser" and that the effect of the revisions as a whole will be to perpetuate the flaws in historical section 303(d) listing practices that led to the need for an adopted policy in the first place. The purpose of the Listing Policy is to provide clear direction to the Regional Boards and the public with regard to how listing decisions are to be made throughout California. The July 2004 Draft Listing Policy falls well short of that goal.

Attached are our detailed comments and recommendations regarding needed revisions to the Draft Listing Policy. We urge the Board to carefully consider these changes to the Policy, which will restore some measure of consistency, predictability and technical merit. Without these revisions, we are unable to conclude with any confidence that the Listing Policy will result in improved decision-making and ensure that the state's limited resources are directed to developing TMDLs for those waters where water quality standards are not attained due to the discharge of pollutants from identifiable and quantifiable sources.

Sincerely,

Roberta L. Larson
CASA

Sharon N. Green, Chair
Tri-TAC

RLL/SNG/jlp

Attachment

cc: Craig J. Wilson, State Water Resources Control Board (w/attachment)
Craig S.J. Johns, Chair, PAG Regulated Caucus (w/attachment)
CASA Executive Board (w/attachment)

Attachment 1
Comments
of the California Association of Sanitation Agencies and Tri-TAC
regarding the draft

***"Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List"* (July 22, 2004)**

1. *Description of Weight-of-Evidence Approach*. (§§1, 3)

Issue: The December 2003 draft Policy's description of the weight-of-evidence approach addressed only the information gathering and evaluation process. There was no real definition or mention of what a weight-of-evidence approach means. Typically, the weight-of-evidence infers the highest quality data with highest endpoints provide the strongest link and gets the most weight, where other endpoints play an ancillary or supporting role.[1]

Previous drafts of the Policy established factors whereby any listing based on numeric data typically required one line of evidence. Further, these previous drafts established that listings based on more subjective information required at least two lines of evidence. The State Board received significant comments from the environmental advocacy community that the previous drafts did not use a weight-of-evidence approach, as required by law. The July 2004 Draft has added this term within the listing and delisting factors and has added a brief discussion of the weight-of-evidence approach to the Introduction to the Policy. In addition, the July 2004 draft contains a definition section, although the term "weight-of-evidence" is not defined. (A-1 to A-2, A-11, A-19 to A-20, A-29, A-32)

Comments: Although the July 2004 Draft Policy includes a partial description of this process, it is not very clear how it is to be applied when using qualitative assessments. Having a clear definition of the term "weight-of-evidence," and an explanation of how the weight-of-evidence approach is to be applied would provide consistency and a greater understanding of the weight-of-evidence approach and how it is to be used in the listing/delisting process. The FED at page 53 contains the paragraph below. Language could be extracted from this paragraph and put into the definitions section or within the Section 4.11 on pages A-19 to A-20.

> "The expression "weight of evidence" describes whether the evidence in favor or against some hypothesis is more or less strong (Good, 1985). In general, components of the weight-of-evidence consist of the strength or persuasiveness of each measurement endpoint and the concurrence among various endpoints. Confidence in the measurement endpoints can vary depending on the type of quality of the data and information available

[1] *See,* www.epa.gov/osp/features/EcoSedMtg/day%20two/frameworks/Holder%20EPA%20Presentation%206-4-02%20rev.pdf

or the manner in which the data and information is used to determine impairment."

Further, the Policy needs to be clear that the "hypothesis" is the waterbody meets standards , if the waterbody is not listed, and the waterbody is impaired, if listed.

Recommendations:

(1) The following definition of "weight-of-evidence approach" should be added to the Definitions section of the Policy:

> "The weight-of-evidence approach is a process by which multiple lines of evidence are assembled and evaluated from one or more sets of data. The lines of evidence are evaluated based on the strength or persuasiveness of each measurement endpoint, and concurrence, or lack thereof, among various endpoints. Confidence in the measurement endpoints is assessed and factored into the evaluation of the available lines of evidence. Lines of evidence can be chemical measures, toxicity data, biological measurements, and concentrations of chemicals in aquatic life tissue." (Note: this definition was developed based on the text contained in Issue 3 of the FED describing a weight-of-evidence approach.)

(2) The following text should be added to the end of Section 1 on page A-2 of the draft Policy to more fully reflect the discussion in Alternative 1 of the FED (Issue 3, Weight of Evidence for Listing and Delisting):

> "In addition to other information that must be provided in fact sheets in accordance with Section 6.1.2, the RWQCBs must document their application of the weight-of-evidence approach where multiple lines of evidence are utilized in listing decisions by:
>
> i. Providing any data or information supporting the listing;
> ii. Identifying the pollutant(s) being listed;
> iii. Describing how the data or information affords a substantial basis in fact from which listing can reasonably be inferred;
> iv. Demonstrating that the weight of evidence of the data and information indicate that the water quality standard is not attained; and
> v. Demonstrating that the approach used is scientifically defensible and reproducible."

2. ***Listings for Pollutants vs. Pollution.*** **(§2.1; §§3.1.4, 3.1.7 – 3.1.9)**

Issue: The Draft Policy states that waters shall be placed on the "water quality limited segments" category of the section 303(d) list if is determined that the water quality standard is not attained; the standards nonattainment is due to toxicity, a pollutant, or pollutants; and remediation of the standards attainment problem requires one or more TMDLs. However, many of the listing factors included in Section 3 can be related to pollution. It is not clear whether the resulting listings would be for the condition of the water identified under those listing factors, or strictly for any pollutants identified as causing the condition. (A-3, A-6, A-7, A-8)

Comments: CASA and Tri-TAC concur with the stated intent of the draft Policy in Section 2 to focus the 303(d) List on instances where standard non-attainment is due to a pollutant or pollutants[2]. However, the inclusion of listing factors in Section 3.1 of the draft Policy such as nuisance, health advisories, adverse biological response and degradation of biological populations and communities without clearly stating that those conditions will not themselves be listed is problematic. For example, adverse biological response may be due to physical habitat modification, over-fishing, or other factors not related to pollutants, and are therefore not appropriate for listing. The Draft Policy attempts to address this by requiring that impacts be "associated with" water, sediment, or tissue concentrations of pollutants. (*See, e.g.*, Sections 3.1.4, 3.1.8 and 3.1.9.) We believe that, in applying a weight-of-evidence approach, the Policy should clearly state that the water, tissue, or sediment concentrations of pollutants are the primary line of evidence, and factors such as health advisories, adverse biological response or degradation of biological populations and communities may be considered as secondary or supporting lines of evidence, but that it is not appropriate to identify or rely primarily on these conditions as or for 303(d) listings.

Recommendations: The Draft Policy should clarify in Sections 3.1.4, 3.1.7, 3.1.8, and 3.1.9 that data and information that may be considered as ancillary lines of evidence under these listing factors will be considered through the weight of evidence approach, but that only the pollutants identified as being "associated with" such conditions or impacts will be included on the 303(d) list.

3. ***Placement and Removal of Segment/Pollutant Combinations.*** **(§2.2)**

Issue: The content of the "Water Quality Segments Being Addressed" category in the July 2004 Draft Policy is unclear. In the Draft Policy, a water

[2] We continue to disagree that waters should be listed for toxicity, which is an effect rather than a pollutant, as discussed below.

segment with an approved TMDL implementation plan will still be listed in the Water Quality Limited Segments category until all TMDLs for the water segment are completed. (A-3)

Comments: It is not completely clear how segments at various stages of the TMDL process will be handled, or if waters that have met WQS due to a TMDL or other program will have to go through the delisting process. Water segment-pollutant combinations should be listed in the appropriate category, regardless of the status of the other pollutants listed in that segment.

Recommendations: The Draft Policy should be revised to clarify how a water segment/pollutant combination is removed once WQS are attained due to a TMDL, or it should be clarified that delisting can happen from either category of the list. In addition, the Draft Policy should include a methodology whereby a water segment can be removed from the 303(d) list during the TMDL process, if it is demonstrated during the course of the TMDL that water quality standards are in fact being attained, in accordance with the delisting provisions of section 4 of the Policy.

4. ***State Board Certification for Addressing Impaired Waters.*** **(§2.2.2)**

Issue: Section 2.2.2 allows a Regional Board to place a water segment in the "Water Quality Limited Segments Being Addressed" category if the Regional Board certifies that the provisions of the *"Water Quality Control Policy for Addressing Impaired Waters"* (presumably) will address the impairing conditions of the water segment. (A-3)

Comments: First, the second condition for allowing Regional Board certification is not provided; that is, the language provided in Section 2.2.2 does not specify what the Regional Board must certify. Second, the language should be modified to allow placement in this category if the State Board makes a similar certification in those instances where the State Board is making the decision.

5. ***Natural Background Conditions and Physical Alterations.*** **(§3.1)**

Issue: Previous drafts of the Policy prohibited listing waters that were impaired solely due to natural background conditions, such as highly saline waters or high pathogen levels due to wildlife or sediment/soil contributions, or physical alterations, such as hydrologic modifications, that could not be controlled. The July 2004 Draft Policy specifically removed this prohibition and therefore would allow listings of water segments regardless of natural background conditions or physical alterations that cannot be controlled.

Comments: The Draft Policy is silent on what mechanism would be used to address these types of "impairments". The 303(d) list is designed to identify waters that require a TMDL. TMDLs are not the appropriate mechanism for addressing waters that are impaired due to natural background conditions or physical alterations that cannot be controlled. Although it is possible that the State Board will propose, in its draft "Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options" that the solution for these types of waters is to change the applicable water quality standard, that document has not been approved. www.swrcb.ca.gov/tmdl/docs/impaired_waters_policy.pdf). Moreover, neither the State nor Regional Boards have committed to address these water quality standards situations in a comprehensive and expedited fashion, and it is inappropriate to allow such listings to occur irrespective of the circumstances, since an effective TMDL cannot be developed. (A-5, A-35)

Recommendations: The Draft Policy should be amended to add the following statement in Section 3.1: "If standards exceedances are associated with physical alteration of the water body that cannot be controlled or by natural background conditions, the water segment shall not be placed on the section 303(d) list. Instead, the Regional Board shall conduct an expedited use attainability investigation, and make any appropriate standards changes before the next listing cycle. If it is determined that the standards are appropriate and the water segment is not attaining standards according to the listing factors, then that segment shall be listed as expeditiously as possible."

6. ***Use of Data Collected During Spill or Other Violation.*** **(§3.1)**

Issue: Prior drafts of the Policy excluded data collected during a known spill or violation. The Draft Policy now allows data collected during a known spill or violation of an effluent limit in a permit or WDR to be used in conjunction with other data to demonstrate there is an exceedance of a water quality standard.

Comments: CASA and Tri-TAC object to the use of data collected during a known spill or violation of an effluent limit to be used in the listing process, because these conditions are generally anomalous, episodic events that are not representative of typical conditions in the water segment. Furthermore, the purpose of the 303(d) list is to identify impaired waters that cannot be brought into compliance with water quality standards by other measures. Other measures are available to address exceedances related to spills or other violations, such as permit provisions and enforcement orders. Therefore listings based on this data are inappropriate. (A-5)

Further, the language in Section 3.1 is ambiguous as it relates to spills in that it does not define how much "non-spill" related data is necessary. As written, for a toxic constituent, Regional Boards could use two positive samples taken during a spill or know violation and one positive sample taken at another

time to list a water segment. This would not necessarily reflect the condition of the water segment and its appropriateness to develop a TMDL.

Recommendations: CASA and Tri-TAC strongly advocate that language removed from the previous draft of the policy be re-instated, so that data and information collected from a known spill is not used in the assessment process (i.e., the revised section 3.1 should read "Data and information collected during a known spill or violation of an effluent limit in a permit or waste discharge requirement (WDR) shall not be used in the assessment of objectives and beneficial use attainment as required by this Policy."). Alternatively, the Final Policy should be clarified to provide that, "Data and information collected during a known spill or violation of an effluent limit in a permit or waste discharge requirement (WDR) may be used ~~in conjunction with other data~~ as ancillary lines of evidence to demonstrate there is an exceedance."

7. ***Use of the binomial distribution using the null hypothesis.*** **(§§3.1, 3.2, 4.1 through 4.9, Tables 3.1 and 3.2 and 4.1 and 4.2)**

Issue: Previous Drafts of the Listing Policy relied on statistical evaluation to determine if listing was warranted. This was based on a minimum of 10% of the samples exceeding the objective with a confidence level of 80%. The hypothesis was that a water segment was clean unless shown otherwise. There were significant comments from the environmental advocacy community that this methodology was biased in favor of not listing a water segment that was actually impaired. (A so-called "Type 2 error.") They also strongly advocated that the starting hypothesis should be that waters are impaired unless otherwise shown.

For listing purposes, the July 2004 Draft Policy continues to use the hypothesis that waters are not impaired unless otherwise shown. The Draft Policy has changed the statistical approach to list and delist water segments. The Draft Policy contains a new type of approach called the "Acceptance Sampling by Attributes Approach." This approach balances Type I (listing a water that is not impaired) and Type II (not listing a water that is impaired) errors. (A-12 thru A-23)

Comments: CASA and Tri-TAC continue to support the binomial distribution using the null hypothesis approach. We believe this statistical approach is the best available method of providing much-needed objectivity to the listing (and delisting) process.

Recommendations: CASA and Tri-TAC urge the State Board to adopt the proposed statistical approach as currently included in the July 2004 Draft Policy.

8. ***Use of Guidelines v. Legally Adopted WQOs.*** **(§§3.1.3 – 3.1.10)**

Issue: The Draft Policy continues to allow use of guidelines instead of

adopted WQS as a basis for listing a water segment. This is typically done to provide a specific basis to interpret narrative objectives. Such listings can fall under health advisories, bioaccumulation in aquatic life tissue, water/sediment toxicity, nuisance, adverse biological response, degradation of biological communities, trends in water quality, and situation-specific weight-of-evidence, as well as others. (A-6 through A-10)

Comments: The problem with this approach is that guidelines are not legally adopted water quality objectives and therefore have not undergone the public review and comment and determination if they are appropriate based on Water Code §13241 and 13242 factors which balance the proposed standards with other factors such as economics and the need for recycled water. In addition, guidelines can and have been used in lieu of legally adopted standards. (A-6 through A-11) The State Board has attempted to address this concern by including a statement to the effect that, "The guidelines are not water quality objectives and shall only be used for the purpose of developing the section 303(d) list." (p. A-30) However, there is no assurance that the same informal guidelines will not be used during the TMDL development process to set targets based on interpretation of narrative objectives, establish wasteload and load allocations, and subsequently, permit requirements.

Recommendations: CASA and Tri-TAC recommend that the Draft Policy state that evaluation guidelines *cannot* be used to interpret narrative objectives in the development and implementation of TMDLs, unless they have been properly considered by the Regional Board through the adoption of a Basin Plan amendment (i.e. in accordance with the legally-required process described above.) If, however, the SWRCB chooses to allow these non-regulatory guidelines to be used for listing, the Regional Board should be required to articulate and disclose its rationale for use of the particular guideline, subject to public comment. We recommend the following revisions to 6.1.3, Evaluation Guideline Selection Process:

(1) Restore the deleted bullet that requires demonstration that the evaluation guideline is "previously used or specifically developed to assess water quality conditions of similar hydrographic units." (Page A-31).
(2) The final sentence of the section should be revised as follows: "justification for the alternate evaluation guidelines shall be ~~referenced~~ explained in the water body fact sheet and made available for public review and comment. (Page A-31).

9. *Listing for Toxicity Alone*. (§3.1.6)

Issue: The Draft Policy allows waters to be placed on the section 303(d) list for toxicity alone, even if the pollutant causing or contributing to the toxicity is not identified. Studies identifying the pollutant associated with the toxic effect

are no longer required prior to development of a TMDL. (A-7)

Comments: The Clean Water Act is very clear that Section 303(d) is to address pollutants, not pollution. It is further clear, by any standard, that "toxicity" is not and absolutely cannot be a "pollutant" as contemplated in the Clean Water Act. Yet, although toxicity is not a pollutant, it is still considered a listing factor under the Draft Policy. The current draft now states that if the cause of the toxicity is identified, the water segment should be listed for the cause during the next listing cycle; however language requiring the completion of studies identifying the pollutant prior to development of the TMDL has been removed.

CASA and Tri-TAC have consistently objected to listings based on "toxicity" alone, without identifying the impairing pollutant specifically. Until the cause of the toxicity is known, it will be impossible to develop an effective TMDL and implementation plan.

Recommendations: The SWRCB should restore language in the Policy that requires studies to identify the pollutant causing or contributing to the toxicity prior to the development of the TMDL. CASA and Tri-TAC strongly believe that the Draft Policy should focus on the identification of pollutants for which a TMDL can be developed and implemented. In addition, the language in the July 2004 Draft Policy seems to indicate that the segment would be listed for both toxicity and the pollutant, once the pollutant is identified. The Draft Policy should be modified to clearly state that the listing shall be for the actual pollutant. Rather than waiting until the next formal listing cycle, the State Board should consider allowing an "administrative" modification to the initial toxicity listing, once the specific pollutant is identified. (A-7)

10. *Conventional versus Toxic Pollutants*. (§§3.1.1 – 3.1.10)

Issue: The Draft Policy identifies DO, pH and temperature as the conventional pollutants. All other pollutants are essentially treated as toxics in the Draft Policy. The label, "toxic pollutants" in the Draft Policy appears to encompass priority pollutants, metals, chlorine, nutrients, odor, trash, etc. "Toxicants" are defined in the policy as including "priority pollutants, metals, chlorine and nutrients" (A-10), whereas "Conventional Pollutants" are confined to include "dissolved oxygen, pH, and temperature." (A-5 through A-11; A-39 through A-40)

Comments: The current proposal for toxic and conventional pollutants is not consistent with programs, definitions or uses of standard terms used in the Code of Federal Regulations (CFR) and the Water Code. 40 CFR § 123.45 identifies Group 1 and Group 2 pollutants. (http://ecfr.gpoaccess.gov/cgi/t/text/textidx?c=ecfr&sid=0b620b61b8ce492aa672b698fc3cc753&rgn=div8&view=text&node=40:20.0.1.1.13.3.6.5&idno=40). EPA

uses Group 1 and Group 2 pollutants to monitor the seriousness of violations. Reference to these groupings is also found in Water Code §13385(h) regarding minimum mandatory penalties. Group 1 violations are considered less toxic and typically include more conventional type pollutants such as BOD and solids, whereas Group 2 are considered more toxic and includes constituents such as pesticides, organic chemicals and the more toxic metals. Based on the current draft, trash, sediment, and other constituents are considered toxic, which we believe is inappropriate based on the relative threat to the environment they pose.

Recommendations: The list of conventional pollutants should be revised. The list of conventional pollutants should be based on EPA's category of Group 1 pollutants and toxic pollutants be based on Group 2 pollutants, as identified in 40 CFR 123.45 Appendix A. Other pollutants that do not fall into these two categories (e.g. trash) should be dealt with explicitly. (A-5 through A-11 and A-39 to A-40)

11. *Minimum Number of Samples*. (§§3.1.1 – 3.1.3.1.6)

Issue: Section 6.2.5.5 of the December 2003 Draft Listing Policy, which contained minimum data requirements, has been removed from the July 2004 Draft. In the December 2003 Draft, a minimum of 10 to 20 temporally independent samples were required to place a water on the 303(d) list. Fewer samples could be used on a case-by-case basis if standards were exceeded frequently. Currently, a minimum of 3 samples exceeding WQOs are needed to list toxics and 5 samples exceeding WQOs are needed to list conventional pollutants, with no required minimum sample size. For delisting, the minimum number of samples required is 21 for conventional pollutants and 26 for toxic pollutants.

Comments: The issue of minimum number of samples becomes more acute with respect to so-called "historical listing." Historical listings based on little to no data should not be required to meet the higher delisting requirements. (A-5 to A-6, A-22 to A-23, A-34)

Recommendations: This section should be revised to acknowledge that review of "historical listings" do not require the number of samples - - that waters should be assessed as if they had never been listed before to determine whether this historical listing was appropriate.

12. *Bioaccumulation*. (§3.1.5)

Issue: In the December 2003 Draft of the Policy, the listing criteria for bioaccumulation in Aquatic Life Tissue were lower than those for numeric water quality criteria. Although the bar for listing is now equivalent to other constituents, listing can still occur based on a single line of evidence. (A-7)

Comments: The relationship between fish tissue levels and links to water or sediment levels is often unclear with aquatic life tissue samples, because of factors such as the mobility of fish, bioavailability, partitioning, etc. Listings based on tissue should require an established relationship between tissue levels and water column concentrations in that water segment and should be based on a multiple line of evidence approach, similar to the listing factor for health advisories.

Recommendations: This listing factor should be modified to require application of a weight-of-evidence approach.

13. ***Nuisance Listings and Delisting.*** **(§3.1.7)**

Issue: In the December 2003 Draft of the Policy, a water segment could be listed for nuisances such as odor, taste, excessive algae growth, foam, turbidity, oil, trash and color after a qualitative visual assessment or other semi-quantitative assessment showed that an evaluation guideline associated with numeric data was exceeded. The exceedance rate was subject to the binomial distribution; however for non-nutrient related guidelines, a segment could be placed on the list if "there is a significant nuisance compared to reference conditions." The current draft removes the "visual" requirement and the semi-quantitative language. Waters can be placed on the Section 303(d) list for both nutrient related and other types of nuisances when a "significant nuisance condition exists as compared to reference conditions, or when nutrient concentrations cause or contribute to excessive algae growth". (Section 3.1.7.1.)

Comments: There is no guidance contained in the July 2004 Draft Policy to assess what "significant" nuisance conditions are, or how it should be determined if nutrients are causing or contributing to the observed effect. The comparison of "significant" nuisance conditions and reference conditions may be highly subjective, especially absent numeric data and measurable requirements (*i.e.*, the binomial distribution) to show there is a real problem. All nuisance-related impairments should be tested against the binomial distribution method, including those where the nuisance is compared to background conditions. Absent this requirement, a water segment can be listed due to one time event if the water segment conditions differ from the chosen reference condition.

In addition, the Draft Policy provides no guidance regarding the methodology that should be employed to determine appropriate reference conditions for a particular water segment. The delisting criteria for nuisance requires that "The water segment no longer satisfies the conditions for a nuisance listing..." (Section 4.7), however since nuisance listings can be highly subjective, delisting based on these conditions will be problematic. How similar to a reference condition does the water segment need to be in order for it to be no longer considered impaired?

Recommendations: Due to the highly subjective manner in which these types of listings are to be made under the July 2004 Draft of the Policy, CASA and Tri-TAC recommend that the SWRCB remove this listing factor from the Policy. As mentioned earlier, as the Policy is currently written, it is not clear whether water segments evaluated by this factor would then be listed for the factor itself (*i.e.,* the water segment would be listed for "nuisance"), which would be considered "pollution" and not a "pollutant", or whether the water segment could only be listed for the nutrient or other pollutant causing the nuisance. CASA and Tri-TAC concur with the stated intent of the Draft Policy in Section 2 to focus the 303(d) List on instances where standard non-attainment is due to a pollutant or pollutants, and in order to maintain that focus, we recommend that this listing factor be eliminated.

14. ***Bioassessment Data for Listing Multiple Segments Under Degradation of Biological Populations and Communities.*** **(§3.1.9)**

Issue: Section 3.1.9 of the July 2004 Draft Policy provides that bioassessment analysis "should rely on measurements from at least two stations", but also that "For bioassessment, measurements at one stream reach may be sufficient to warrant listing provided that the impairment is associated with a pollutant(s) as described in this section." (A-10)

Comments: It is unclear from the language contained in Section 3.1.9 regarding bioassessment would allow multiple segments, or an entire water body, to be listed based on measurements taken from a single stream reach.

Recommendations: This provision in Section 3.1.9 should be clarified. Measurements from one section of stream should not be used to list an entire water segment, since the reach in question may not be representative of conditions present along the entire length of the segment. A single reach may spatially represent a very small water segment, however most segments will probably contain some variation in physical habitat which could account for differences in the biological community.

15. ***Trends in Water Quality.*** **(§3.1.10)**

Issue: In previous drafts of the Policy, there was no timeframe as to when a WQO needed to be exceeded in order to list the water segment. A water segment could be listed regardless if it would be 2 years or 200 years before a WQO was exceeded. EPA guidance requires listing of waters that will exceed standards before the next listing cycle. (A-10)

Comments: Although the Regional Boards are now directed to assess whether the decline is expected to result in not meeting WQS before the next listing cycle, this step is not included in the decision factors. This section

remains ambiguous and subjective.

Recommendations: The last sentence in Section 3.1.10 on Page A-10 should be amended to state: "Waters shall be placed on the section 303(d) list if the declining trend in water quality is substantiated (steps 1 through 4 above), ~~and~~ the impacts are observed (step 5), and the trend is expected not to meet water quality standards by the next listing cycle (step 6)." The sentence in Section 4.10 on page A-19 should be similarly edited. (A-10)

16. *Situation-Specific Weight of Evidence*. (§3.1.11)

Issue: Section 3.1.11 of the Draft Policy states that "When all other Listing Factors do not result in the listing of a water segment but information indicates non-attainment of standards, a water segment shall be placed on the section 303(d) list if the weight of evidence demonstrates that a water quality standard is not attained." (pg. A-11) This approach is extremely subjective, and without additional definition, provides a listing methodology that circumvents other, more defined provisions of the Draft Policy and potentially undermines the scientific rigor and statewide consistency goals underlying development of this Listing Policy.

Comments: CASA and Tri-TAC believe that this section is too subjective to result in valid listing decisions, without further definition of terms used. Without further description of the weight of evidence approach, and how it is to be implemented, and definition of the meaning of terms such as "substantial basis in fact", and "reasonably inferred", it is difficult to evaluate the validity of this listing factor. In addition, if all other listing factors do not result in the listing of a water segment, it is unclear how other information would indicate non-attainment of standards.

Further, the situation–specific weight of evidence procedure is a delisting concern as well. The concern is that it is harder to prove a positive under this scenario, rather than a negative. For example, a water can be listed using the situation-specific weight of evidence factor even when multiple lines of evidence show that the water is not impaired (*i.e.* "When all other Listing Factors do not result in the listing of a water segment...") It is simple to say that one line of evidence "may" point to impairment, and therefore the water should be listed in this instance. However, the corollary, "when all other delisting factors do not result in the delisting of a water segment...", is much more difficult to prove. In such a situation, the burden of proof is to show that the listing data are faulty, rather than determining that the water body "may" be clean.

Recommendations: This section should be removed entirely from the Policy as it undermines the scientific rigor the Policy otherwise achieves. Section 3.1.11 should be deleted and the Alternative Data Evaluation provision from the December 2003 draft of the policy should be restored. If, however, this provision

is to be retained, the Policy should make clear that a Regional Board may not use this factor in the first instance; rather, the Regional board must first evaluate the water body segment using the other factors. This is critical to ensure that the exception provided by this listing factor does not become the rule. To accomplish this, the following bullet should be added to the required justification that must be provided to support listing based on this factor: "Demonstrating that the Regional Board has considered the other listing factors and determined that they have not been satisfied." (Page A-11).

17. ***Water Quality Standards Being Addressed***. **(§3.2)**

Issue: In prior drafts of the Listing Policy, this section was called the "TMDLs Completed Category" and "Enforceable Programs Category." In the July 2004 Draft Policy, one of the conditions to be listed in this category refers to a draft document, "*Water Quality Control Policy for Addressing Impaired Waters.*" (A-15) This draft document contains several basic statements on how to handle impaired waters, including:

- If the water body is neither impaired nor threatened, the appropriate regulatory response is to delist the water body.
- If the failure to attain standards is due to the fact that the applicable standards are not appropriate to natural conditions, an appropriate regulatory response is to correct the standards.
- The State Board and Regional Boards are responsible for the quality of all waters of the state, irrespective of the cause of the impairment. In addition, a TMDL must be calculated for impairments caused by certain EPA designated pollutants.
- Whether or not a TMDL calculation is required as described above, impaired waters will be corrected (and implementation plans crafted) using existing regulatory tools.

This document was out for public review in early 2004. Comments of the first draft have been received. A copy of that draft policy can be found at: www.swrcb.ca.gov/tmdl/docs/impaired_waters_policy.pdf. It is unknown when this document will be finalized. The final version of this document could have a significant impact on what waters are included in this category.

Comments: CASA and Tri-TAC cannot provide more detailed comments about this issue until we know what will be recommended (and ultimately adopted) in that draft policy.

18. ***TMDL Scheduling***. **(§5)**

Issue: Section 5 of the Draft Listing policy is inconsistent regarding the requirements for TMDL scheduling. (A-24)

Comments: Section 5 of the Draft Policy states that "A schedule shall be established by the RWQCBs and SWRCB for waters on the section 303(d) list that identifies the TMDLs that will be established within the current listing cycle and the number of TMDLs scheduled to be developed thereafter." The last sentence of Section 5 however contradicts this by specifying that "All water body-pollutant combinations on the section 303(d) list shall be assigned a TMDL schedule date." It is unclear in the policy whether or not all listings require a TMDL completion date.

Recommendations: Section 5 of the Draft Policy should be revised to be consistent with the SWRCB's intent regarding establishment of the TMDL schedule. CASA and Tri-TAC recommends that the schedule include only the TMDLs that will be established within the current listing cycle, due to the need for administrative flexibility to make adjustments in the schedule as circumstances and resources change.

19. *Requirement That All Data Be Used and Modification of Quality Assurance Requirements*. (§6.1.4)

Issue: In previous drafts of the Policy, the Regional and State Boards were able to exclude data that was older, or did not meet the quality assurance requirements established by the Listing Policy. The July 2004 Draft Policy provides in section 6.1.4 that, "Even though all data and information must be used...". (A-31) Use of the word "used" implies that Regional Boards must include all information in their listing/delisting decisions. In addition, Section 6.1.4 of the current draft Policy specifies that "[a]ll data of whatever quality can be used as part of a weight of evidence determination (sections 3.1.11 or 4.11)."

Comments: CASA and Tri-TAC object to the requirement that all data and information be used to make determinations of water quality standards attainment. CASA and Tri-TAC agree that any existing and readily available data and information should be evaluated and screened by the Regional and State Boards; however only high quality data should be retained for the purposes of the listing/de-listing process. At a minimum, the Listing Policy must include criteria to ensure that the data and information used are accurate and verifiable, as required by the 2001 Budget Act Supplemental Report. (*See,* FED at p. 53.)

The December 2003 Draft Policy provided that, "If the data collection and analysis is not supported by a QAPP (or equivalent) or if it is not possible to tell if the data collection and analysis was supported by a QAPP (or equivalent), then the data and information *cannot* be used by itself to support listing or delisting of a water segment." (*See,* p. A-32.) The current version, however, provides, "the data and information *should not* be used by itself to support listing or delisting...". This change appears to indicate that under certain circumstances, data of

questionable quality has the potential to be used for listing/delisting purposes. In addition, the current Draft Policy notes that quality assurance assessments are only required for numeric data (*See,* Section 6.1.2.2 at p. A-29.) There are no requirements for non-numeric data to meet any quality assurance minimums. Data and information without accompanying quality assurance information should not be used for listing purposes.

Recommendations: CASA and Tri-TAC recommend that the Listing Policy establish that all data and information be evaluated and screened to ensure that only high quality data that are accurate and verifiable be used to make listing/de-listing determinations. Data of sub-standard quality should not be used to develop the 303(d) list. CASA and Tri-TAC also believe that quality assurance should be an overriding principle in the Policy, as it ensures a level of scientific rigor necessary for the listing process. Therefore, a data quality assessment should accompany all listing decisions, and should be presented in the fact sheets for the water segment.

20. *Removal of Data Age Restriction*. (§6.1.5)

Issue: Previous drafts of the Policy limited the evaluation to data collected within the previous 10 years, except on a case-by-case basis. In the July 2004 Draft, this section has been removed. The current Draft would allow older data to be used in a listing decision without having some more recent data available to confirm the status of the water segment. (A-33 and A-34)

Comments: The Policy should require that older data be supplemented with newer data for listing purposes. With the removal of requirements regarding the age of data, the Policy potentially allows listings to be made based on data that is likely not reflective of current conditions. Although the current draft allows older data (no age specified) to be discarded from the evaluation if new facilities and management practices have been implemented that resulted in a change in the water segment (*See,* Section 6.1.5.3), absent specific information regarding facilities and management actions, it is assumed that water body conditions have not changed. In addition, some older data may be of lower quality as compared to more recent data, due to improvements in field and analytical methods. It also may be very difficult to show that a management practice was effective. For example, three lead samples taken in a water body in 1975 could be used to list the water if they were above the WQO, absent more recent data. Lead removal from gasoline is a management practice to reduce lead in the atmosphere and soils, and therefore in runoff. However, without current data, it is impossible to tell whether the water is still impaired.

Recommendations: CASA and Tri-TAC recommend that the SWRCB include the age of data requirement that was removed from the December 2003 Draft Policy (former Section 6.2.5.2). Data and information less than 10 years old should be more heavily weighted in determining water quality standards

attainment. In addition, we recommend the following sentence be inserted as the second-to-last sentence in Section 6.1.5.3: "If the result of the management practice is not known, more recent data must augment the data collected prior to establishing the management practice."

21. ***Temporal Representation***. **(§6.1.5.3)**

Issue: Originally, the draft Policy provided that, "Samples shall be collected to be representative of temporal characteristics of the water body." In the July 2004 Draft of the Policy, the language of this section was changed. The Draft Policy now reads, "Samples should be representative of the critical timing that the pollutant is expected to impact the water body". It is unclear what the SWRCB means by this statement. (A-34)

Comments: Changes made to the draft Policy regarding temporal representation (Section 6.1.5.3) are unclear and need clarification. It appears, by the language changes, that the Draft Policy seeks to emphasize the timing of sample collection should be geared towards critical conditions. This would, however, seemingly contradict the subsequent statement that, "Samples used in the assessment must be temporally independent." If samples are taken to be representative of the water segment for conditions throughout the year, collecting samples to be representative of the critical condition would bias the data set towards an extreme condition that, by definition, represents a worst-case scenario of pollutant impact. However, if samples are collected in a manner that is truly temporally representative, it is reasonable to expect that critical conditions would be adequately captured.

Recommendations: CASA and Tri-TAC strongly recommend that this section be modified. The first sentence of section 6.1.5.3 should revert back to wording contained in the December 2003 Draft. This section already included language that requires that critical conditions be appropriately represented in the data set with the statement, "Timing of the sampling should include the critical season for the pollutant and applicable water quality standard." (A-34) CASA and Tri-TAC also strongly recommend that the policy include specific language in this section regarding the application of water quality objectives as appropriate for seasonal conditions. Chronic water quality criteria should not be used to determine water quality standards attainment during conditions where chronic exposure is not experienced (*i.e.*, during storms and floods).

22. ***List Approval***. **(§§6.2, 6.3)**

Issue: The Draft Listing Policy is inconsistent regarding the approval of listing/delisting decisions. (A-38)

Comments: New language has been added to Section 1 of the Listing Policy regarding approval of decisions to list or delist a water segment. (*See*,

Step No. 3 on p. A-2). The Draft Policy provides that "RWQCBs shall approve all decisions to list or delist a water segment (section 6.2)." However Sections 6.2 and 6.3 (p. A-38) indicate that the Regional Board's listing decisions are *recommendations only*, and that all final listing decisions are subject to SWRCB approval, prior to submission to USEPA for final approval.

Recommendations: The sentence on page A-2 regarding Regional Board approval should be removed or altered to reflect that approval of the 303(d) list is to be performed by the SWRCB. (A-2, A-38)

23. ***Public Input on State Board Initiated Changes to the Proposed List.*** **(§6.3)**

Issue: The July 2004 Draft Policy restricts input at the State Board level to issues brought up to the Regional Boards. However, the State Board, on its own motion, can change a listing decision. There currently is no avenue for comment on these changes unless they have been addressed at the Regional Board level. (A-38)

Comments: Public comment should be allowed at the State Board level when the State Board decides, on its own motion, to change a listing decision. By the terms of such a procedure, if the State Board takes up such a listing decision on its own motion, the public will not have had an opportunity to provide comments. Additionally, commenters should be able to raise issues or provide information that was not available at the time the Regional Board considered the listing decision, if the issue or information is germane to the listing decision and could not have been made or provided to the Regional Board.

Recommendations: The Draft Policy should be revised to allow public comments (both written and at any public hearing before the State Board) on proposed listing or delisting decisions where the State Board takes up its own motion in either case. Further the Draft Policy should be revised to allow comments that might not have been provided at the Regional Board hearing on a proposed listing or delisting decision where such comments raise issues or provide information that was not reasonably available at the time the Regional Board considered the listing or delisting decision.

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