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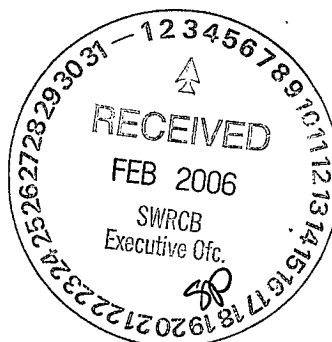
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January 31, 2006

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State Water Resources Control Board  
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**Re: Comments on September 2005 Draft "Revision of California's Clean Water Act Section 303(d) List of Water Quality Limited Segments"**

Dear Mr. Wilson:

Heal the Bay, the Natural Resources Defense Council, and Santa Monica Baykeeper hereby submit the following comments regarding the State Water Resources Control Board's ("State Board's" or "Board's") proposed update to the CWA §303(d) list of impaired waters (the "2006 List" or "303(d) List") as presented in the Draft Staff Report Supporting the Recommended Revisions to the Clean Water Act Section 303(d) List ("Draft Revisions").

**I. INTRODUCTION**

Overall, we support the State Board's efforts in developing a more standardized and uniform approach for listing impaired waters in the State of California under CWA section 303(d). However, this approach must be fully consistent with the CWA and provide full protection of beneficial uses. In this regard, we have several technical and legal concerns with the State Board staff's proposed interpretation and application of the State Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List ("Listing Policy" or "Policy") in developing this standardized approach for the 2006 List. These include numerous inconsistencies in the application of the Listing Policy, the failure to evaluate all readily available data and information, the improper reevaluation of prior listings for which TMDLs have already been adopted, an extremely narrow construction and use of the situation specific weight-of-the-evidence factors for listing and de-listing, and inadequate consideration of narrative standards. All of these concerns arise from an improper use or interpretation of the Listing Policy. As this is the State's first attempt at using and interpreting the new Listing Policy, these overall concerns can and should be resolved by the Board in issuing the final 2006 List.

With regard to Region 4 specifically, we support the proposed addition of 93 waterbody-pollutant segments in the Los Angeles Region (Region 4) to the 2006 List. However, we have numerous specific concerns regarding many of the 92 proposed de-listings in this region. Specifically, we are strongly opposed to an approach that allows de-listing waterbodies previously listed by the Los Angeles Regional Water Quality Control Board ("LA Regional Board") based on the rationale that (1) nuisances are not pollutants; (2)

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proposals cannot be justified under basic administrative law principles. In the process of developing the TMDLs for these waters, the Regional Boards will have conducted a comprehensive re-evaluation of the water segments and the impairing pollutants and conditions in order to confirm the impairments and conduct source evaluations and pollutant targets. This re-evaluation would encompass all available information, including all new data and evidence regarding the waterbody. Indeed, during the TMDL development process, where the Regional Boards found a lack of data supporting an impairment caused by certain pollutants, they did not develop TMDLs for those pollutants in the waterbody. Given the comprehensive re-evaluation and analysis done during the TMDL process, it is not appropriate for the State Board to propose to de-list these same segments after performing only a summary re-evaluation of the original listing data as compared to the new factors. As described, the latter was a much less rigorous process. To the contrary, in order to reverse the administrative decision made by the Regional Board and approved by the State Board and USEPA, the State Board would have to meet a high burden of proof to show that the earlier decision was incorrect. The State Board has not done this here.

Staff is also proposing to de-list waterbodies if there are no approved guidelines under the new Listing Policy to evaluate the original data set, the original data was lost or anecdotal, or if the original data set does not meet all of the requirements of Sections 4.1 to 4.10 of the new Listing Policy. Again, the State Board must make a substantial showing in order to overcome the presumption of correctness that applies to the original regional board decision. Notably, staff has made certain express assumptions to avoid this recognized burden altogether. *See Draft Revisions, Vol. I., Staff Report (hereinafter "Staff Report")* at 11-12. This is a clear violation of the law. The State Board is required to provide substantial evidence in all cases to overturn prior agency decisions. Moreover, in most cases, the regional boards had sufficient evidence to place these water bodies on the 303(d) List when the original administrative decision was made. The regional boards are much more knowledgeable about their local waterbodies and local conditions than the State Board is or can be, particularly in the current process where State Board staff has been tasked with reviewing a huge amount of information for the entire state. Thus, it is not appropriate, or legal, for the State Board to propose to overturn these prior administrative decisions without providing substantial evidence to show that the earlier decision was not correct. This is a high burden, and in most cases, the State Board has not met it in the Draft Revisions.

Notably, during the process of adopting the Listing Policy, the State Board itself recognized this presumption of correctness and the regional boards' expertise in making prior listing decisions. Indeed, in adopting the Policy, the Board voiced its intent that *an affirmative showing of current attainment is required* before waters may be de-listed. SWRCB Hearing Transcript, Sept. 30, 2004. Specifically, Board Member Sutley clarified that it is not enough to simply state that the listing was made by mistake – the boards must affirmatively demonstrate a lack of **current** impairment. *Id.* ("If it's on the list...then you have to have some information that says that they [fish] are not dying now and that the waterbody is not currently impaired..."); *see also* discussion *infra* at section II.B. Again, this directive was not followed by staff in the proposed Draft Revisions.

the same reasons set forth above. In addition, de-listing based on applying the new Policy retroactively provides a perverse incentive to **avoid** monitoring or collecting further data on currently listed segments where there is limited numerical data. California must provide incentives for additional monitoring, not dissuade it, if we are to fully characterize the condition of our waterways.

#### 4. Conclusion.

Given all of the above, the Board should do the following:

- (1) state that as a rule previous listings for which TMDLs have already been adopted should not be re-evaluated and overturned during the listing process and that this issue is more properly addressed as part of TMDL implementation;
- (2) make clear that the Listing Policy should not be used retroactively to overturn prior listing decisions unless one of the three situations specified in the Policy exists and there is substantial evidence to demonstrate with a high degree of persuasion that the earlier decision was not correct (including an affirmative demonstration that the water is currently in attainment); and
- (3) direct State Board staff to forego re-evaluating previous listings in this round and leave that task to the individual regional boards, who are more knowledgeable about their own local waterbodies and listing decisions, to implement during the next round of listing in 2008 in accordance with the above clarifications.

#### **B. A Precautionary Approach Should Be Followed.**

As an overarching premise, the Section 303(d) listing process should err on the side of protecting water quality and beneficial uses. The Precautionary Principle was endorsed at the United Nations Conference on Environment and Development in 1992 as an appropriate guideline in environmental decision-making.<sup>2</sup> This Principle encourages environmental managers to err on the side of caution, in order to ensure that neither human nor environmental health is compromised. *Id.* In implementing this approach, uncertainty should not be a valid rationale for inaction. *Id.*

In the 303(d) Program, the implications of a false negative (failing to list an impaired waterbody) are much worse than a false positive (listing a non-impaired waterbody), as the latter can be corrected early on in the TMDL development process, as indeed it has in many of the TMDLs completed to date. In contrast, a failure to list an impaired waterbody has potential impacts on human health and aquatic life. Where uncertainty exists, decisions should be made in favor of protecting water quality, as well as human health and the environment. Indeed, federal regulations and the Listing Policy itself favor listing of threatened waterbodies (those for which water quality is declining and for which water quality standards may not be maintained). 40 C.F.R. § 130.2(j); Listing

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<sup>2</sup> United Nations, Rio Declaration on Environment and Development, June 14, 1992, 31 ILM 874.

the use of BPJ is permitted under Sections 3.11 and 4.11 of the Listing Policy. There must be some affirmative proof that the waterbody is not impaired before de-listing on any of these bases.

Further, although there are no numeric standards or guidelines for some pollutants, narrative standards still apply. The State's Porter-Cologne Water Quality Control Act (Porter-Cologne") acknowledges both narrative and numeric water quality objectives. 40 C.F.R. § 131.3(b). Yet, in the majority of cases, staff has failed to present any data or information in the Draft Revisions to demonstrate that narrative standards are met in these water segments. The onus is on the State Board to demonstrate that these water segments are no longer impaired before removing them from the 303(d) List. Only where the State has affirmative and demonstrable knowledge that water quality standards are being attained and maintained should they remove a water segment from the list. The State Board must make this clear in reviewing the Draft Revisions and approving the 2006 List.

### **C. Failures in Public Process.**

After more than two years of stakeholder negotiation, the Listing Policy calibrated a relationship between the State Board and regional boards designed to enable these agencies collectively to manage the workload involved in preparing the Section 303(d) list for a state as large as California. Just as important, the Listing Policy took into account the need to provide adequate public participation opportunities.

The Policy resolved these issues by providing for the regional boards to play a central role in the Section 303(d) process by (1) preparing the lists in the first instance, including the implementation of the Situation-Specific Weight of Evidence Listing Factor (Listing Policy at § 3.11); (2) holding public hearings; and (3) submitting proposed regional lists to the State Board for final review and approval. FED at B-167. One of the chief functions of the regional boards is to allow for detailed factual review of local water quality conditions; by contrast, the State Board role is as a final "check" on the entire process as well as to consider matters of statewide interest or significance. *Id.* ("the SWRCB approval process is the last stage of review.") This central role of the regional boards is conveyed not only by these provisions but also by the more than one hundred references to the regional boards in the FED and in the Listing Policy itself.

Nevertheless, in its first implementation of the Listing Policy, the State Board has turned these procedures on their head by eliminating regional board formulation and public consideration of lists, as well as the other basic structural steps carefully set forth in the Listing Policy. It is not difficult to connect this failure to follow the Listing Policy to the State Board's related failure to consider all readily available information, given the scope of this task in a state as large as California. Moreover, the related failure to implement a weight of the evidence analysis, as required under Section 4.11 of the Listing Policy, whenever evidence suggests non-attainment of standards, appears connected to the attenuated role played by the regional boards in making listing decisions in the first instance.

Nevertheless, a review of the proposed List shows that the SWRCB has so far failed to implement these bedrock requirements. Board staff has admitted that perhaps as little as 25% of available data has, in fact, been reviewed. Moreover, staff circumscribed the set of data used to formulate the list by restricting it to a public solicitation that ended in June of 2004, eighteen months ago. *See* Staff Report at 4. The result of both of these actions is that the List may, or may not, actually set forth the full extent of impaired waters. Moreover, in many instances staff proposes to delist well-studied waters notwithstanding the availability of high quality data that contradicts staff's conclusions. Both of these results are at odds with applicable regulations, guidance, the Listing Policy—and the basic “safety net” policy rationale for Section 303(d).<sup>12</sup>

**E. The Listing Policy Is Not Being Applied as Intended.**

The State Board issued the Listing Policy in 2004 after a long public process. During the public process, almost every issue in the Listing Policy was subject to comment and debate by agencies, environmental groups and dischargers. Thus, the intent of the final Listing Policy was clear to all parties. Unfortunately, staff has not interpreted or applied certain aspects of the Listing Policy consistent with that intent. Notably, as most of these are concerns with regard to proposed de-listings, they can be resolved easily by the State Board declining to apply the Listing Policy retroactively.

**1. An Existing TMDL is Not A Valid Justification to De-list.**

Staff has used Section 2.2 of the Listing Policy improperly to de-list water quality segments where a TMDL has been adopted but compliance with water quality standards has not yet been established. Not only is this inconsistent with the CWA, which requires listing of all segments where water quality standards are not attained and does not contemplate de-listing waters at the time of TMDLs adoption, it was not the intent of Section 2.2. 33 U.S.C. § 1313(d); Listing Policy at § 2.2. Delisting must only occur when TMDL requirements are met and beneficial uses are attained.

Section 2.2 defines when a water quality segment should be moved from the Water Quality Limited Segments category to the Water Quality Limited Segments Being Addressed (“WQLSBA”) category of the 303(d) List. Listing Policy at 3; FED at B-73 – B-74. Nothing more. It was developed as an alternative to proposals either to de-list segments with a TMDL in place or to leave those segments on the main list until water quality standards are attained. As the CWA does not authorize the State to remove waters from the 303(d) List until water quality standards are attained,<sup>13</sup> the State chose to create a separate category on the list for these segments to distinguish them from segments still needing a TMDL. Listing Policy at 3. This is the sole purpose of Section

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<sup>12</sup> Houck, Oliver A., *The Clean Water Act TMDL Program* 49 (Env'tl. Law Inst. 1999).

<sup>13</sup> Section 303(d) of the CWA does not contemplate de-listing waters at the time that TMDLs are established. 33 U.S.C. § 1313(d). Rather, Section 303(d) focuses solely on requiring TMDLs to result in the attainment and maintenance of beneficial uses. *Id.*

2. Situation-Specific Weight of Evidence Listing/De-listing Factors Must Be Considered.

The Situation-Specific Weight-of-the-Evidence Approach set forth in Sections 3.11 and 4.11 of the Listing Policy was included to cure well-understood legal and technical inadequacies in the SWRCB's draft binomial-only listing policy. *See Environmental Caucus of the AB 982 Public Advisory Group Comments on SWRCB, "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" (2/18/04).* Board Members required that a weight of evidence approach complement the specified listing and delisting factors, acting as a "safety net" to ensure that all impaired waterbodies are included on the 303(d) List. Both of these sections require an evaluation of all available evidence under the situation-specific weight of the evidence process whenever there is any information that indicates non-attainment of standards. Together, these sections provide flexibility to allow the State to use its best professional judgment in listing and de-listing decisions so that it can meet Section 303(d) standards and submit impaired waters lists that EPA can approve. For instance, Section 3.11 states

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 evaluated to determine whether the weight of evidence demonstrates that a water quality standard is not attained. If the weight of evidence indicates non-attainment, the water segment shall be placed on the section 303(d) List.

Section 4.11 is, and was intended, to be a direct counterpart to Section 3.11. Thus, the Board inserted the exact same language in section 4.11 by simply substituting the terms de-listing and attainment for the terms listing and non-attainment.

When all other Delisting Factors do not result in the delisting of a water segment but information indicates attainment of standards, a water segment shall be evaluated to determine whether the weight of evidence demonstrates that a water quality standard is attained. If the weight of evidence indicates attainment, the water segment shall be removed from the section 303(d) List. If warranted, a listing may be maintained if the weight of evidence indicates a water quality standard is not attained.

Listing Policy at 8. Unfortunately, SWRCB staff apparently is misinterpreting this language when it appears in Section 4 of the Policy to mean that the weight of evidence approach does not have to be employed as a "check" when delisting appears appropriate under the specified delisting factors but would not be appropriate when all evidence is considered.

Staff's interpretation is flawed. First, if the Listing Policy is faithfully implemented, staff's interpretation amounts to a distinction without a difference. Proceeding in a step-wise fashion through the biannual Section 303(d) process

would be clearly arbitrary and capricious in view of the totality of the information. State and regional board staff thus need clear direction from the State Board that they are **required** to apply Sections 3.11 and 4.11 whenever there is any information indicating impairment regardless of the other factors, consistent with both the language of the Listing Policy and the intent of the State Board in including these sections.

The State Board therefore should direct its staff and the regional boards on the appropriate application of section 4.11 of the Listing Policy to situations where any evidence exists to support retaining a listing even if the precise requirements of Sections 4.1 to 4.10 are not met or all of the required data sets do not exist. This is the only interpretation consistent with the Listing Policy as a whole and the recognized equal burden of proof applicable to both listing and de-listing decisions.

### 3. Sediment Chemistry Data Should be Evaluated under Situation-Specific Weight of Evidence

Staff recommends *not* listing numerous water segment- pollutant combinations despite the fact that a "sufficient number of samples exceeded the sediment quality guidelines." For instance, although six of twenty-four sediment samples in Los Angeles Harbor – Cabrillo Marina exceed the copper sediment quality guideline ("SQG"), which satisfies the required frequency for listing under the binomial distribution table, staff asserts that no listing should occur because there was no observed toxicity. Draft Rev. Reg. 4 at 371. Section 3.6 of the Listing Policy is cited as the basis for this decision. This line of reasoning is inappropriate.

Section 3.6 of the Listing Policy provides listing factors for water and sediment toxicity, but **not** for pollutants in sediment. In fact, there are no specific listing factors provided in Section 3 of the Listing Policy for pollutants in sediment. Listing Policy at 5-6. An exceedance of a SQG, in and of itself, is an indicator that water quality standards are not being attained. For example, ERMs are set at a chemical concentration above which adverse biological effects are frequently observed. Long, E.R., MacDonald, D.D., Smith, S.L., and F.D. Calder, Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments, *Environmental Management* at 19(1): 81-97 (1995). Thus, it is unfounded to require sediment *and* observed toxicity data before listing is considered.

Sediment quality data are sufficient for listing decisions on their own merit. As there is no specific section addressing this, pollutants in sediment must be evaluated using a

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Angeles Harbor; (4) this contamination has resulted in a Superfund Site directly offshore; (5) a fish consumption advisory exists for Los Angeles/Long Beach Harbor due to elevated DDT and PCBs; (6) other DDT listings are (rightly) retained for areas of the Los Angeles Harbor along with several new proposed DDT listings in the Harbor; and (7) there is existing fish tissue data from the Harbor with high levels of DDT. It is entirely unfounded to propose de-listing the Dominguez Channel and Estuary for this pollutant on the sole basis that no one has sampled any fish inside the Creek itself for DDT. Yet staff has made the erroneous interpretation that Section 4.5 overrides Section 4.11 and so its hands are bound and it must de-list. This is in direct contravention of both the language of the Listing Policy and the intent of the State Board in including Section 4.11.

substantial deference must be given to the original listing. A high degree of persuasion is necessary to overturn this presumption of correctness.

The State Board should remove these additional assumptions from the process. They constitute revisions to the Listing Policy and thus must be undertaken as part of a separate process to revise the Policy. The State Board also should clarify that in the absence of any new data showing attainment of water quality standards, these listings should remain on the 2006 List. They may be reviewed again by the regional boards in the next round of listing using Section 4.11, the site-specific weight-of-the-evidence approach.

#### 5. Narrative Standards Must Be Evaluated.

Staff is proposing to de-list several nuisance conditions, including excess algal growth, odor, taste, and foam, which are all covered under various narrative standards in the Basin Plans,<sup>18</sup> on the basis that they are conditions, not pollutants. *See e.g.*, Draft Rev. Reg. 4 at 316. This is inconsistent with both the CWA and Porter-Cologne Act, as well as the express terms of the Listing Policy.

One of the main objectives of the CWA is to restore water quality so that all of the Nation's waterbodies are fishable and swimmable. 33 U.S.C. § 101(a). The narrative standards at issue are necessary to attain this important goal. Moreover, federal regulations explicitly state that narrative water quality standards should be assessed for the purpose of listing waters under Section 303(d). 40 CFR § 130.7(b)(3). The Porter-Cologne Act similarly acknowledges both narrative and numeric water quality objectives; the State and regional boards are charged with enforcing these objectives. Cal. Water Code § 13241. Accordingly, the FED sets forth guidelines for interpreting narrative water quality standards, and the Listing Policy provides for such listings in Section 3.7. FED at 75-78, B-120; Listing Policy at 6. Indeed, in response to a specific comment requesting that assessments based on narrative standards or other qualitative assessments be excluded from the Listing Policy, the State Board responded "Federal regulation requires that narrative water quality standards be evaluated and that waters be placed on the section 303(d) list if these waters exceed these narrative standards." FED at B-74. Plainly, nuisance conditions must be considered for listing on the 303(d) List.

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<sup>18</sup> The Los Angeles Basin Plan, like most Basin Plans, contains only narrative objectives for nuisances, including:

"Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses."

"Waters shall not contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses."

"Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses."

the very language of the Policy, the State Board should clarify that Sections 3.7 and 4.7 should not be interpreted as narrowly as staff has done in the proposed revisions.

Further, where there is no quantitative data, the State and regional boards must evaluate the nuisance condition under Sections 3.11 and 4.11 based on all available information. The State Board acknowledged in its Responses to Comments on the Listing Policy that even if a nuisance does not meet the quantitative requirements for listing, the Policy "was amended to include a situation-specific weight of evidence listing or de-listing process by which Regional Boards can list or de-list any water body-pollutant combination even if it does not meet the listing requirements of the Policy as long as the decision can be reasonably inferred from the data and information." FED at B.27. This situation-specific weight of the evidence process is provided for in Sections 3.11 and 4.11 of the Listing Policy and, as discussed in Section II.E.2., *supra*, must be used when the other factors fail whenever there is *any* evidence of non-attainment.

#### 6. Lack of Acceptable Evaluation Guidelines

Staff is proposing numerous de-listings based on the assertion that there is no existing and/or acceptable evaluation guideline under the provisions of the new Listing Policy.<sup>20</sup> This is improper for two reasons. First, this rationale is not included in the list of three situations in which de-listing may be considered. Listing Policy at 11. Second, this line of reasoning is inappropriate in the absence of any evidence indicating that the segment is in attainment with water quality standards. Once the water is listed, the substantial deference standard applies and a high burden of proof is required for de-listing. The assertion of this line of reasoning by the State Board also ignores the regional boards' own best professional judgment and the precautionary principle.

In short, it is evident that these proposed de-listings are based solely on a "guess" that there is no impairment, with no scientific evidence or data indicating that water quality standards, including beneficial uses, are being attained. Staff admittedly made no attempt to obtain additional information or more recent data that would reveal whether or not the water segments are indeed in attainment. Given the nature of some of the chemicals affected – like DDT, a highly toxic, persistent and bioaccumulative compound – this proposed approach is not justified. As stated in the Federal regulations, "[The] State must demonstrate good cause for not including a water or waters on the list. Good cause includes...more recent or accurate data..." 40 C.F.R. §130.7. The burden of proof is squarely on the State to provide such data. It has not met that burden here.

The CWA and its implementing regulations cast a wide net to assure that water quality standards are met. This is apparent throughout Section 303(d) and its regulations, which require TMDLs to be established and also require a margin of safety where uncertainty is

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<sup>20</sup> Evaluation guidelines do exist for several of the pollutants said to have no guideline. For example, currently there is a National Academy of Science ("NAS") guideline for aldrin and dieldrin, an OEHA guideline for chlordane, and an ERM guideline for DDT. It is unclear if these guidelines were used to re-evaluate the data.

may be revised and the listing may be reevaluated properly. However, absent any new guideline or standard, and absent affirmative information to show that the water segment is not, in fact, impaired or threatened, it is inappropriate in the context of Section 303(d) to de-list previously listed segments based on staff's proposed rationale.

### **III. LOS ANGELES REGION 4**

The following section describes in detail our concerns regarding the proposed de-listing of numerous waterbody-pollutant combinations in the Los Angeles Region (Region 4). For ease of reference, Table 1 provides a summary chart of the specific segments that should be retained on the list, along with the lines of evidence and the applicable sections of the Listing Policy.

**A. Proposed De-Listings for Beach Closures**

**1. All of the Proposed Beach De-Listings in Region IV Should Be Rejected**

- All Santa Monica Bay beaches should remain on the 303(d) List because they are covered under existing bacteria TMDLs.
- Readily available data indicate that the two Ventura County beaches proposed for de-listing should remain on the 303(d) List.

Staff proposes to de-list 31 Santa Monica Bay beaches that are currently listed for “beach closures.” All 31 of these beaches are covered by existing Santa Monica Bay Bacteria TMDLs adopted in 2003-04, and thus it is not proper to reevaluate these listings as part of the 303(d) listing process. The State Board’s proposal to de-list these beaches is not only inconsistent with the Listing Policy, it is just bad policy. Significantly, it adds unnecessary complexity to the TMDL implementation process, which is already addressing the issue of impairment and compliance for these beaches.

The Santa Monica Bay Beaches Bacteria TMDLs (“SMB TMDLs”) explicitly address the issue of bacteria levels at each of the beaches proposed for de-listing, including provisions for monitoring of bacteria levels at these beaches and measuring compliance (*i.e.* attainment of water quality standards). Attainment of water quality standards therefore should be determined under the TMDL, which sets forth a procedure to accomplish this – not through the listing process. In addition, the first year of monitoring data under the TMDL has been compiled and does not indicate attainment. **The proper action in this case is to retain these beaches on the 2006 List until compliance is determined under the already adopted TMDLs.**

Notably, of these 31 beaches, only five are also listed for bacteria in addition to “beach closures;” the remaining 26 beaches would no longer be listed *at all* if staff’s proposed changes are adopted. As all of these beaches are addressed in the SMB TMDLs, it is inappropriate to de-list them for this impairment. If the State Board is not comfortable with the term “Beach Closures” for these listings, it should simply replace this term with the term “Bacteria Indicators” on the List for the 26 beaches so affected. All 31 beaches then should be placed in the WQLSBA category as provided for in Section 2.2 of the Listing Policy.

Further, even though the 31 Santa Monica Bay beaches should not even be considered for de-listing in this process, as discussed above, readily available data exist to support retaining them under a bacteria listing in all cases except those few that are not currently monitored at all. Specifically, this data, summarized in detail in Appendix 1, Tables 1 and 2, show that bacteria standards are being exceeded pursuant to the requirements set forth in Table 4.3 of the Listing Policy. This is not new data, it is public data from 2000-2005. Thus, this is yet another line of evidence to retain these beaches on the 2006 List.

**b. Uncertainty in the Original Data or a Lack of Monitoring Data are not Viable Reasons for De-listing a Water Segment for Beach Closures.**

While the 31 Santa Monica Bay beaches clearly should remain on the 2006 List for the reasons set forth above, we have additional concerns about the evaluation conducted by staff. For several beaches (again not consistently applied), staff maintains that, "[i]t is unknown if the beach closure information is backed by coliform data." Draft Rev. Reg. 4 at 203. This implies that the data or information that was originally used to support these listings is unknown or cannot be found. This should not be used as a basis for de-listing either.

Moreover, for the 31 beaches expressly covered by the SMB TMDLs, the LA Regional Board has already addressed this precise issue in developing the SMB TMDLs in 2002-03. For instance, the SMB TMDL Staff Report acknowledges that beach closures may result "from oil spills, vessel spills and in a few cases persistent elevated bacteria densities." LA Regional Board, *Total Maximum Daily Load to Reduce Bacterial Indicator Densities during Dry Weather at Santa Monica Bay Beaches* (2002) at 3. Further, the SMB TMDLs address monitoring and compliance measurement for these beaches. In contrast, the Staff Report provides no data to indicate the beaches are not impaired by bacteria, although beach bacteria data are readily available from numerous sources. Again, the de-listing process for segments covered by existing TMDLs should be done through the process set forth in the TMDL itself. This is consistent with the Listing Policy, the TMDLs, the CWA and the Precautionary Principle.

Another problem with this type of approach in general is that many beaches throughout the State are not monitored for bacteria in wet weather. Rainfall as a cause of high bacteria densities at beaches is well understood. In fact, AB411 even includes a wet weather health warning provision. However, instead of spending funds on monitoring, some county Health Departments simply post warnings at the beaches whenever there is rainfall above a certain amount. Thus, the use (water contact recreation) is impaired as the County is warning people to stay out of the water, but no bacteria data is being collected.<sup>21</sup> Given this, it may not always be possible to support the previous listings with quantitative bacteria data even though there is an impairment of uses. It is evident that the State Board either must place dry **and** wet weather monitoring information and programs at a much higher priority for funding if it is to adequately protect the health of the waters on which we all depend, or revise the Listing Policy guidelines for bacteria listings to take this into account.

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<sup>21</sup> Under CWA, water quality standards consist of the designated uses of the navigable waters, the water quality criteria for such waters based upon such uses and an anti-degradation policy. 33 U.S.C. §1313(C); 40 C.F.R. Part 131; LA Basin Plan at 3-1. Therefore, an "impairment of a designated use" equates to the non-attainment of water quality standards.

**a. Controlling Nitrogen May Not Adequately Address Excess Algal Growth**

Staff bases its proposed de-listings for excess algal growth in whole or in part on the erroneous assumption that future and existing nitrogen TMDLs will adequately address excess algal growth. This is incorrect for two reasons.

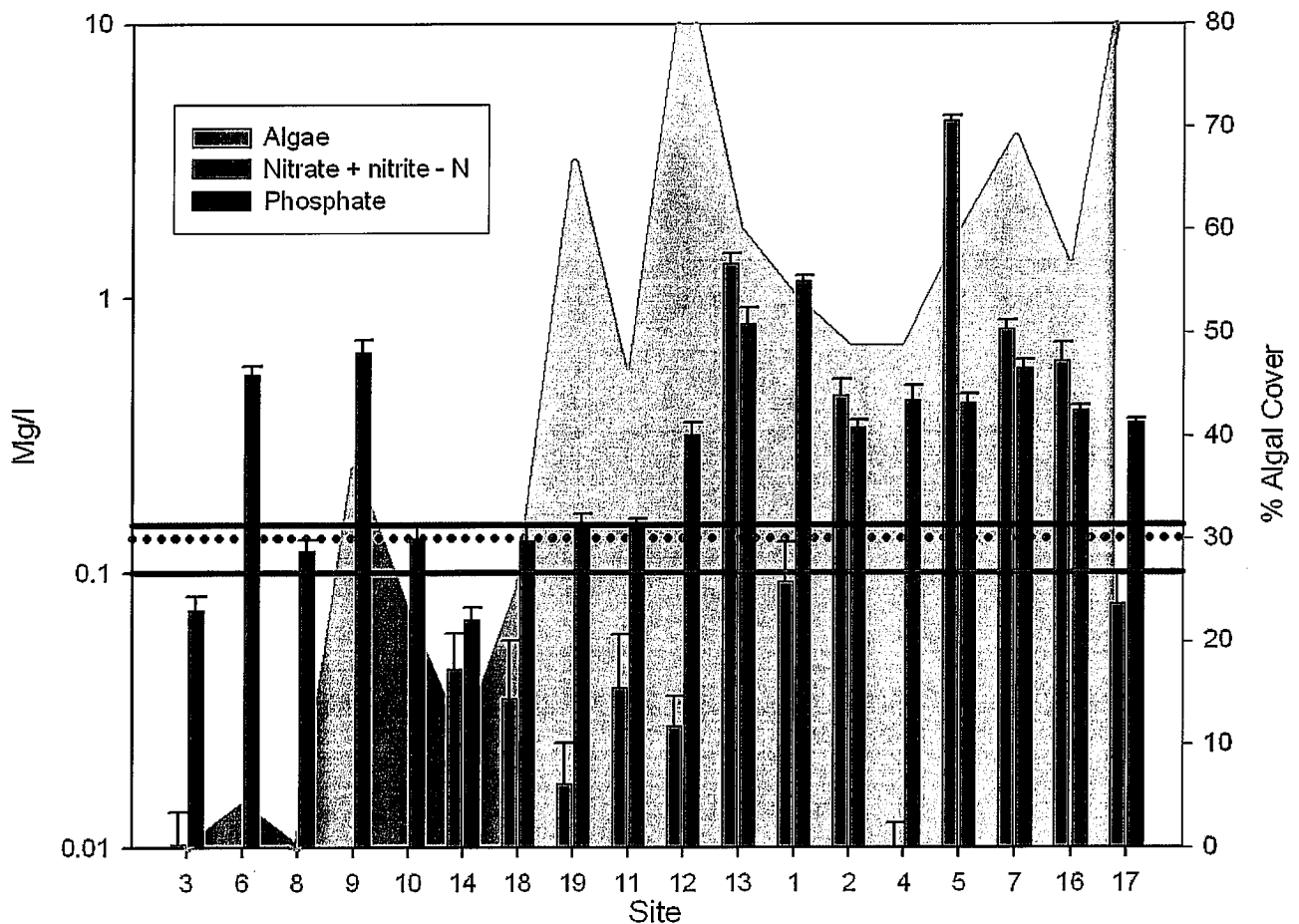
First, it is well established in the scientific literature that nitrogen is not the only factor contributing to algal growth. "Growth of algae in individual streams, or even reaches of streams, may be limited by N alone, P alone, N and P together, or some combination of other physical and chemical factors...." Busse, L., Cooper, S., Kamer, K., and Stein, E., Southern California Coastal Water Research Project, *A Survey of Algae and Nutrients in the Malibu Creek Watershed* (2003) at 412. In fact, the Technical Support Document prepared for the Calleguas Creek Nitrogen TMDL evaluates nitrogen and phosphorus data and concludes that "initial N:P calculations based on the CCCS data indicate phosphorus would be limiting over nitrogen in most of the watershed, if nutrients were the limiting factor." LA Regional Board, *Calleguas Creek Nutrient TMDLs* (2001). The Report also notes that "nutrients may not be the limiting factor in much of the watershed." *Id.* In short, the impacts of nutrients such as nitrogen and phosphorus on algal growth are complex and involve numerous factors, and often are waterbody or even reach specific.

This was demonstrated in Region 4 in a recent UCLA study which found that "the relationships between nutrients and algal or diatom cover differed in sunny versus shady sites. In shaded sites, algal cover was not significantly related to nutrient concentrations (*i.e.*, light appeared to be the limiting factor for algal growth), while diatom cover was positively associated with total phosphorus and negatively associated with total nitrogen. In contrast, in unshaded sites algal cover was significantly related to nutrient concentrations (positively with nitrogen, negatively with phosphorus), while diatoms were negatively associated with nitrogen only. Other variables associated with the abundance of algae or diatoms include nitrogen, temperature, pH, and conductivity." Ambrose, R.F., Lee, S.F., and S.P. Bergquist, *Environmental Monitoring and Bioassessment of Coastal Watersheds in Ventura and Los Angeles Counties* (2003).

Similarly, data collected in the Malibu Creek Watershed by Heal the Bay's Stream Team show that elevated phosphate concentrations contribute to excess algal growth. Stream Team data collected between the period of November 1998 and November 2004 are represented in Figures 1 and 2. As seen in Figure 1, algal cover in Malibu Creek consistently exceeds 30% when nitrate is <0.05 mg/l and phosphate is above 0.15 mg/l. While nitrate is the limiting nutrient in this case, it would be nearly impossible to get the nitrate level any lower. Thus, decreasing phosphate concentrations would be a more effective means to reduce algal cover. Graphical representation of Site 12 in Figure 1 illustrates a situation where elevated phosphate levels and low nitrate levels lead to excess algal growth in over 80% of the samples. In addition, as shown in Table 2, data collected at the Agoura Hills Reference Site and Las Virgenes Creek Reference Site show that conditions with low nitrates and higher phosphates produce excess algae. Given the complexity of the nutrient issue, it is more prudent to list a segment for excess algae than for nitrates or nitrates and phosphates. This will ensure that all potential factors are

protection of aquatic life also are significantly lower. For instance, USEPA established CWA section 304(a) nutrient criteria specific to the Los Angeles Region (Ecoregion III) of 0.38 mg/l total nitrogen and 0.022 mg/l total phosphorus for protection of aquatic life and recreation uses. USEPA, *Ambient Water Quality Criteria Recommendations: Rivers and Streams in Nutrient Ecoregion III* (2000) (EPA 822-B-00-016).

Clearly staff is not justified in relying on the existence of these Nitrogen TMDLs to address excess algal growth. The State Board should make a finding that this approach is not scientifically sound.



**Figure 1: Malibu Creek dry weather nutrients and percentage of algae exceedances >30% coverage (11/98 – 11/04)**

	Solstice Creek ( HtB - 14)				
	5/17/2003	6/1/2003	1/11/2004	8/7/2005	10/16/2005
NO <sub>3</sub> +NO <sub>2</sub> +NH <sub>3</sub> (mg/l)	0.045	0.06	0.01	0.96	0.71
PO <sub>4</sub> (mg/l)	0.06	0.07	0.05	0.09	0.1
algal coverage (%)	35	35	32	46	42

**Table 3: Data collected by Heal the Bay at the Solstice Creek monitoring location in the Solstice Creek Watershed.**

2. Excess Algae is a Pollutant that Impairs Beneficial Uses.

Staff also contends that excess algal growth is not a pollutant, thus it should not be listed. As discussed in Section II.E.5, this assessment is incorrect. Narrative standards must also be met through the 303(d) process.

CWA Section 502(6) expressly defines “pollutant” to include “biological materials.” 33 U.S.C. §1362(6). Courts also have held that biological materials, such as algae, can be considered a pollutant if they impair beneficial uses. See *Northwest Environmental Advocates v. U.S. EPA*, 2005 WL 756614 (N.D. Cal. 2005), see also *U.S. PIRG v. Atlantic Salmon of Maine* (D.Me., Aug. 2001) (citing *United States v. Hamel*, 551 F.2d 107 (6<sup>th</sup> Cir. 1977)) (“Courts have interpreted the definition of ‘pollutant’ expansively, stating that it ‘encompasses[es] substances not specifically enumerated but subsumed under the broad generic terms’ listed in Section 502(6).”). *U.S. PIRG v. Heritage Salmon Inc.*, Civil No. 00-150-B-C (D.Me. Aug. 28, 2001). Indeed, the definition of pollutant is ‘meant to leave out very little.’ ” *Sierra Club, Lone Star Chapter v. Cedar Point Oil Co.*, 73 F.3d 546, 566-568 (5<sup>th</sup> Cir. 1996), *cert. denied*, 519 U.S. 811 (1996).

While algae is an important component of the aquatic ecosystem, in excess amounts, algae can cause problems ranging from low oxygen levels to serious human health concerns. For instance, “excess periphyton growth can lead to low dissolved oxygen levels and increased turbidity in the water column, which are harmful to fish and other aquatic life.” S. Luce and M. Abramson, *Heal the Bay, Periphyton and Nutrients in Malibu Creek* (2004). In addition, “benthic macroinvertebrates may be affected when periphyton grows on stream substrates and covers important habitat.” *Id.* Excess algae can also block sunlight, which in turn affects aquatic organisms. In addition, excess algae impairs other beneficial uses such as fishing, wading, boating, and aesthetic appreciation. Busse, L., Cooper, S., Kamer, K., and Stein, E., SCCWRP, *A Survey of Algae and Nutrients in the Malibu Creek Watershed* (2003) at 412. In some instances, outbreaks of toxic blue-green algae have even caused serious human health impacts. State Water Resources Control Board, *California Water News: Federal, Tribal and State Authorities Advise Caution on Dangerous Klamath River Algae* (retrieved Dec. 1, 2005 from World Wide Web: [http://www.waterboards.ca.gov/press/docs/2005/05\\_019.pdf](http://www.waterboards.ca.gov/press/docs/2005/05_019.pdf)).

Excess algal growth must be addressed as it may result in low dissolved oxygen levels as well as block sunlight, thereby affecting aquatic life uses. A recent study found extremely low night-time DO concentrations in areas of Malibu Creek with excess algae:

This guideline can be applied directly to the Los Angeles Region. A recent survey conducted in Malibu Creek is an example of how algae impairment has been quantified. Heal the Bay's Stream Team conducted a survey between November 2001 and June 2002 found that a total of 6.7 miles of the 9.79 miles mapped in Malibu Creek had 30% coverage or greater at least 10% of the time. Heal the Bay, *Watershed Assessment of Malibu Creek: Final Report* (2005) at 29. Figures 1 and 2 illustrate the extent of algal coverage in Malibu Creek. As seen in Figure 2, approximately half of the monitored sites have 50% or greater algal coverage over 50% of the time. Heal the Bay, *Stream Team Chemistry Data* (retrieved Dec. 9, 2005 from the World Wide Web: <http://www.healthebay.org/streamteam/data/chem/>.) Calleguas Creek and Los Angeles River water segments need similar quantification and therefore should not be de-listed until the Biggs guideline is met. Is the State suggesting, by failing to recognize any quantitative guideline such as the Biggs guideline, that reaches exceeding 90% algal coverage should not be acknowledged as impaired? Qualitative information can be assessed using the Biggs quantitative guidelines. This should be recognized in listing and de-listing decisions under the Listing Policy.

In sum, from both a legal and a scientific perspective, none of the proposed justifications for de-listing excess algal growth hold up to scrutiny. The State Board should acknowledge excess algal growth as a pollutant and maintain these listings on the 303(d) List.

4. Quantitative Data Show That Calleguas Creek Reaches 9B, 10 and 13 Should Remain Listed and Reaches 7 and 12 Should Be Added to the List for Excess Algal Growth

Although these reaches should remain listed for all the reasons discussed above, quantitative data also exist for some of these segments which were not evaluated by the State Board. For instance, the Draft Revision proposes to de-list Calleguas Creek Reaches 4, 5, 9B, 10, 11 and 13 for excess algal growth. Yet available evidence plainly shows an algal impairment. First, the staff report for the Nitrogen TMDL for Calleguas Creek specifically identifies algae as a "related effect" that also impairs these segments: "Beneficial uses that algae are most likely to affect in this watershed are aquatic life habitat (WARM) and recreational use (REC-1 and REC-2). Negative effects on aquatic life would result from low dissolved oxygen levels caused by excessive algal blooms, which would also be an aesthetic impairment to recreational use." Los Angeles Regional Board, *Total Maximum Daily Loads for Nitrogen Compounds and Related Effects: Calleguas Creek, Tributaries, and Mugu Lagoon Staff Report* (October 2002). This TMDL thus confirmed that excess algae is present and causing impairments. De-listing these reaches would not only be inconsistent with the TMDL, it would undermine the intent of the TMDL. These segments should not be de-listed until water quality standards are attained and maintained. Instead, they should be placed on the WQLSBA portion of the 303(d) List.

Second, data exist which show that reaches of Calleguas Creek and its tributaries are impaired by algal growth. In 2003, Ambrose et al. submitted a coastal watersheds monitoring study to the Los Angeles Regional Board. As seen in Table 4, data collected through this effort show algal coverage in several reaches of Calleguas Creek at levels

5. San Gabriel River, Coyote Creek and San Jose Creek should Remain Listed for Excess Algal Growth.

The State Board proposes to de-list San Gabriel River Reach 1, San Jose Creek Reaches 1 and 2 and Coyote Creek for excess algal growth. This is inappropriate given the EPA/Tetra-Tech study currently underway. The Heal the Bay – EPA negotiated Consent Decree required completion of a TMDL addressing algal impairment in the San Gabriel River by 2005. Amended Consent Decree, *Heal the Bay et al. v. Browner* (1997). However, at the urging of EPA and the Los Angeles Regional Board, the parties extended this deadline to 2008. The purpose of the delay was to allow EPA additional time to conduct a study on the San Gabriel River and its tributaries looking at, among other things, the extent and magnitude of the algal impairment and the relationship between beneficial uses and algae. The study includes collecting data from monitoring sites on the San Gabriel River, San Jose Creek and Coyote Creek. It is therefore premature and improper to de-list San Gabriel River before this study is completed. Once the study is finalized in December 2006, the LA Regional Board will be in a better position to evaluate the listings, consistent with the study and the TMDL Consent Decree.

C. Ballona Creek

1. Uncertainty in the Original Data or Lost Data Is Not A Valid Justification for De-listing Without a Showing of Attainment of Uses

Staff proposes de-listing Ballona Creek for PCBs, cadmium, silver, Chema, chlordane, DDT, dieldrin, and sediment bioassays for estuarine and marine water based on the statement that “it is *likely* that data from Ballona Creek Estuary were applied inappropriately to Ballona Creek.” Draft Rev. Reg. 4 at 206-229 (emphasis added). Although the State believes a data mix-up was “likely,” there is no solid evidence provided to support this assertion. Thus, the possibility remains that sediment samples were collected in the Creek itself. For instance, sediment monitoring has been conducted in sediment basins and other locations within Ballona Creek in past monitoring efforts, such as a 2003 study conducted by the Army Corps of Engineers. U.S. Army Corps of Engineers, Los Angeles District, *Marina del Rey and Ballona Creek Feasibility Study: Ballona Creek Sediment Control Management Plan* (2003). Through this effort, sediment samples were collected from twenty-four monitoring locations throughout Ballona Creek (see map in Appendix 4). Therefore, the State Board’s unsupported assumption that because the data in question are sediment data they must be data from “soft-bottomed” estuary is not necessarily valid.

As the listings were made at the time the data were available, it should be presumed to be valid in the absence of any evidence to the contrary. No justification, legal or technical, has been provided for doing otherwise. In addition, the State Board intended that there also be a showing of current attainment before any waterbody-pollutant combination is removed from the list. This too was not done here.

**3. Data Show that Cadmium and Silver Should Remain on the 303(d) List for Ballona Creek.**

Finally, as outlined above, due to the data *uncertainties*, Ballona Creek should also be listed as impaired by these pollutants until data is available to show that there is no impairment. Moreover, there are data known to be from the Creek sediments that show an impairment. The Army Corps of Engineers conducted sediment sampling in 1999 and 2001 in Ballona Creek in an effort to pinpoint sources of contaminants. Their results are summarized in the report, *Marina del Rey and Ballona Creek Feasibility Study: Ballona Creek Sediment Control Management Plan* (2003). As seen in Table 5 and Appendix 4, cadmium samples exceeded the ERM evaluation guideline once in a sample size of 26, and silver samples exceeded the guideline three times in a sample size of 26. Thus, in accordance with Section 4.6 of the Listing Policy, these pollutants should remain on the 303(d) List because only one exceedance is necessary for a sample size of 26 or below for the listing to remain.

			Station ID						
	Units	ERM	54	503	Sedimentation Basin - Downstream End	Ballona @ Madison	Total Exceedances	Total Sample Size	Exceedances to <b>not</b> be de- listed
<b>Cd</b>	mg/kg	9.6	ND	2.877	23.4	ND	1	26	1
<b>Ag</b>	mg/kg	3.7	5	3.7(69)	ND	9.42	3	26	1

ND = not detected

**Table 5: Sediment data from the ACOE report, *Marina del Rey and Ballona Creek Feasibility Study: Ballona Creek sediment Control Management Plan* (ACOE, 2004). (See Appendix 4 for full data set).**

**D. Dominguez Channel, Los Angeles/ Long Beach Harbor and Los Angeles River**

**1. The Dominguez Channel, Dominguez Channel Estuary, and Los Angeles River Estuary (Queensway Bay) Should Remain Listed for DDT in sediments and Dominguez Channel and Estuary Should Remain Listed for DDT in Tissue.**

Staff maintains that there is no acceptable sediment quality guideline for DDT and thus proposes to de-list Dominguez Channel, Dominguez Channel Estuary and Los Angeles River Estuary (Queensway Bay) which are currently listed as impaired by DDT in sediments. This assertion is incorrect. A scientifically sound effects range-median (ERM) sediment quality guideline exists for DDT. Long, E.R., MacDonald, D.D., Smith, S.L., and F.D. Calder. (1995). Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments, *Environmental Management* at 19(1): 81-97. ERMs represent a concentration level above which toxic effects are often observed. These guidelines were derived from data collected from nearly 350 publications. *Id.* Subsequent to the initial study, the authors conducted an analysis of the predictive ability of the guidelines by evaluating a new set of data and

Environmental Protection Agency, *Cleaning up the Palos Verdes Shelf*, retrieved November 9, 2005 from: <http://www.epa.gov/region09/features/pvshelf/>. Since the Montrose site is located in the Dominguez Watershed, the Dominguez Channel has acted as a conduit for much of the contamination and therefore, itself, has been greatly impacted. The Los Angeles River Estuary also received Montrose DDT runoff. Although DDT was banned in 1972, residual DDT remains in the environment and continues to impact organisms. DDT is a highly persistent compound in the environment that bioaccumulates in organisms and fish tissue. Birds become exposed through predation on contaminated fish. Eggshell thinning and embryo deaths have been attributed to this exposure. Humans may also become exposed to DDT by eating contaminated fish. Based on the historical contamination that has not been remediated to date and the persistent nature of DDT, it is inappropriate to remove the DDT listing for the Dominguez Channel without strong evidence of no impairment. This evidence does not currently exist.

This is a glaring example of the need for the situation specific weight of evidence approach set forth in sections 3.11 and 4.11 of the Listing Policy. Montrose Chemical Corporation, the largest producer of DDT in the world, contaminated the soil and nearby waterbodies. The contamination is so significant that the Palos Verdes shelf is now a Superfund site. The Dominguez Channel was a main conduit for much of the pollution reaching Consolidated Slip, and the Bay and most of San Pedro Bay are listed as impaired for DDT. Therefore, the weight of evidence strongly points towards maintaining the listings for DDT in the Dominguez Channel, Dominguez Channel Estuary and LA River Estuary.

2. Los Angeles/Long Beach Outer Harbor should remain listed for PCBs.

Staff proposes to de-list PCBs in Los Angeles/Long Beach Outer Harbor. This action is inappropriate given the fact that there is a fish consumption advisory due in part to PCB contamination. Interestingly, staff contradicts itself in this regard because other proposed listings are based solely on an advisory being in place. For example, staff proposes listing the Los Angeles Harbor – Cabrillo Marina for DDT stating, "An OEHHHA fish consumption advisory has been established in this water body segment. Under section 3.4 of the Listing Policy any water body segment where a health advisory against consumption of edible resident organisms has been issued shall be placed on the section 303(d) list." Draft Rev. Reg. 4 at 94. The State Board should apply this reasoning consistently.

In addition, historical information supports this listing under the weight of evidence approach in Sections 3.11 and 4.11. Between the late 1950's and early 1970's, industries in the area discharged PCBs to sewers which discharged to the Palos Verdes shelf. Consequently, the Palos Verdes shelf is now a Superfund site for PCB and DDT contamination. The Palos Verdes shelf extends to Point Fermin, adjacent to the Los Angeles/ Long Beach Harbor. The Los Angeles River and Dominguez Channel were also a source of PCBs to San Pedro Bay. Since no clean-up has occurred to date, contamination still exists and the marine environment remains severely impacted.

**Region 4: ADD TO 303(D) LIST**

<b>Water Segment</b>	<b>Pollutant</b>	<b>Line(s) of Evidence</b>	<b>Listing Policy Section(s)</b>
Ballona Creek Estuary	Cadmium (sediment)	Data Mix-up	
Ballona Creek Estuary	Silver (sediment)	Data Mix-up	
Ballona Creek Estuary	Dieldrin (tissue)	Data Mix-up	
Ballona Creek	Zinc (sediment)	Readily Available Data	3.11; 6.1.1
Ballona Creek	Copper (sediment)	Readily Available Data	3.11; 6.1.1
Ballona Creek	Benzo(a)anthracene (sediment)	Readily Available Data	3.11; 6.1.1
Ballona Creek	Dibenzo-a,h-anthracene (sediment)	Readily Available Data	3.11; 6.1.1
Calleguas Creek - Reach 7	Excess Algal Growth	Photographic Evidence	3.11
Calleguas Creek - Reach 12	Excess Algal Growth	Readily Available Data	3.7; 6.1.1
Compton Creek	Trash	1)Readily Available Data; 2)Photographic Evidence	3.11; 6.1.1
Dominguez Channel	Sediment Toxicity	Readily Available Data	3.6; 6.1.1
LA Harbor Consolidated Slip	Dieldrin (sediment)	Data Mix-up	3.6
Piru Creek, Unknown Creek, Revolon Slough, Unnamed Creek, Cattle Creek, Boulder Creek, Arroyo Conejo Creek, NF Arroyo Conejo Creek, Arroyo Simi Creek, Bouquet Canyon Creek, Beardsley Wash, Conejo Creek, Castaic Creek, Calleguas Creek, Santa Clara River, San Gabriel River, San Francisquito Creek, Simi Las Posas Creek, Tapo Canyon Tributary, Coyote Creek, San Jose Creek, Walnut Channel, Arroyo Seco, Compton Creek, Zone 1 Ditch, Los Angeles River, Ballona Creek, Medea Creek, Cold Creek, Dominguez Channel, Ventura River, Matilija Creek, Las Virgenes Creek, Malibu Creek, Triunfo Creek	Biological Communities Impairment	Readily Available Data	3.9; 3.11; 6.1.1
Malibu Creek, Cold Creek, Las Virgenes Creek, LV Tributary, Stokes Creek, Liberty Canyon Creek, Triunfo Creek Reach 1, Triunfo Creek Reach 2, Medea Creek Reach 1, Medea Creek Reach 2, Lindero Creek Reach 1, Lindero Creek Reach 2, Malibu Lake, Lake Sherwood, Lake Enchanto, Century Lake (Century Reservoir), Westlake, Lake Lindero, Malibu Country Club Golf Course Ponds, Trancas Creek, Topanga Creek	Exotic Species	Readily Available Data	3.10
Long Beach City Beach, Alamitos Bay Beach, Colorado Lagoon Beach, Westward Beach, Latigo Canyon Beach, Corral State Beach, Solstice Canyon Beach	Bacteria	Readily Available Data	3.3; 6.1.1

**Table 6: Water-segment/pollutant combinations that should be added to the 303(d) List based upon the weight of evidence.**

Parameters	ERM	648	494	54	Higuera	B. Canyon Ch.	RDD 208	2901	Sepulveda Blvd.	503	51
Zinc	410	1830	1280	483.4	185.673	467.1%	1247.423	495.868	642.857	887.692	1840.136
Copper	270	614	310.264	76.24	29.386	213.9	600	230.579	283.673	253.846	242.857
Benzo(a) anthracene	1600	ND	2245	ND	ND	ND	ND	ND	ND	ND	4422
Dibenzo-a,h-anthracene	260	1429	ND	470	292	ND	ND	ND	ND	368	680

**Table 7: Sediment data from Marina del Rey and Ballona Creek Feasibility Study: Ballona Creek Sediment Control Mgmt Plan (ACOE, 2004). Exceedances are in red.**

### C. Dominguez Channel

Dominguez Channel should be placed on the 303(d) List for sediment toxicity based on readily available data. Data collected by the Shell Los Angeles Refinery under their NPDES Permit No. CA003778 and submitted to the Regional Board indicate sediment toxicity in Dominguez Channel. As shown by the highlighted values in Table 8, sediment toxicity is apparent in the Channel. Since control results are unavailable, a conservative approach was taken in interpreting the data by assuming 90% survival for controls and classifying samples with <70% survival as a failed test. Section 3.6 of the Listing Policy states that "waters may also be placed on the section 303(d) list for toxicity alone." Listing Policy at 5. Thus, the State Board should place Dominguez Channel on the 303(d) List for a sediment toxicity impairment.

#### Sediment Toxicity (Amphipod) Dominguez Channel NPDES Monitoring Stations

Location <sup>1</sup>	Aug-00	Feb-01	Aug-01	Feb-02	May-02	Jan-03	May-03	Feb-04	Apr-04
R1	72	97.5	NS	NS	NS	NS	NS	NS	NS
R2	NS	NS	NS	NS	NS	NS	NS	NS	NS
R3	NS	NS	NS	NS	NS	NS	NS	9	NS
R4	NS	NS	NS	0	56	NS	NS	NS	NS
R5	NS	NS	10	0	0	4	48	0	NS
R6	NS	NS	4	0	9	26	74	1	68
R7	88	76.3	74	0	0	49	82	0	82

**Table 8: Dominguez Channel Sediment Toxicity Data. Source of Data: Retec Group, Inc., Report of NPDES Sediment Sampling Results for Shell Los Angeles Refinery, NPDES Permit No. CA003778 (2005).**

<sup>1</sup> Sampling locations were established mid-channel at the intersection of the Dominguez Channel and Anaheim Street (R1), Pacific Coast Highway (R2), Sepulveda Boulevard (R3), Alameda Street (R4), 223<sup>rd</sup> Street/Wilmington Avenue (R5), Avalon Boulevard (R6), and Main Street (R7). (see Appendix 5 for site map).

NS – Not sampled due to insufficient sediment at the sampling location.

Highlighted values are <70% survival. Control results not available; however, basic QA/QC standards require at least a 90% survival for controls. Assuming a 90% control, any test showing less than 70% would be considered a failed test.

State Board to accept this data and list these reaches for invasive species because it was not until 2005, when the Northern District ruled on this issue, that the State Board indicated that it must consider listing exotic invasive species under Section 303(d). This is clearly a problem for many reaches in Region 4, which contain populations of sensitive and federally endangered species such as the California red-legged frog that are particularly sensitive to the addition of invasive species into the ecosystems. See Appendix 6.

**F. Index of Biotic Integrity (IBI) Scores Should be Considered in the Listing/de-listing Process.**

The diversity and sensitivity of the various species within a stream environment are important indicators of stream health. For instance, healthy communities tend to have a diverse set of invertebrate species, while degraded communities often have fewer sensitive species and a higher proportion of hardy species. Based on these principles, an index of biological integrity focuses on specific metrics to provide a comprehensive measure of stream health.

The California Department of Fish and Game ("CDFG") developed the Index of Biological Integrity ("IBI") in 2002 for the San Diego Region and adapted the methodology to all of southern California in 2005. Ode, P.R., A.C. Rehn and J.T. May., *A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams, Environmental Management*. 35:493-504 (2005). The IBI provides a quantitative means of evaluating the biotic conditions of a waterbody by analyzing seven metrics, including the number of different species present from the mayfly (*Ephemeroptera*), stonefly (*Plecoptera*) and caddisfly (*Trichoptera*) families and the number of different beetle species present. *Id.* The metrics are evaluated at a specific site and then converted to a score between 0 and 100 (zero being the worst case scenario). The study's authors chose two standard deviations below the mean reference site score to develop the impairment threshold. An IBI score of 39 is established as the boundary between "fair" and "poor" biological conditions, and a score of 20 is the division between "poor" and "very poor" biological conditions. *Id.*

This is relevant because readily available IBI score data indicate biological community impairment in numerous stream reaches located in Region 4. IBI scores compiled in the CDFG study show that 22 monitored reaches in Region 4 have IBI scores within the poor and very poor ranges, indicating biological impairment (*see* Appendix 7, Table 1). *Id.* In addition, Los Angeles County and the Ventura County Watershed Protection District have calculated IBI scores for various water segments in Region 4. Ventura County Watershed Protection District, *Ventura River Watershed 2004 Bioassessment Monitoring Report*, (2005); Los Angeles County, *Los Angeles County 1994-2005 Integrated Receiving Water Impacts Report* (2005). These scores are shown in Appendix 7, Tables 2 and 3. As seen in the highlighted sections, there are sixteen sites with scores at or below 39. In addition, monitoring efforts by Heal the Bay in the Malibu Creek Watershed indicate seven sites with low IBI scores. Several of the water segments monitored by the four entities overlap. Heal the Bay, *Watershed Assessment of Malibu*

evidence indicates non-attainment [of water quality standards], the water segment shall be placed on the section 303(d) list.” Listing Policy at 8. The IBI scores should be weighed heavily in conducting such an analysis. Water quality standards and beneficial uses are not being attained in waterbodies with an IBI score less than 39.

In sum, IBI data compiled by CDFG, Los Angeles County, Ventura County and Heal the Bay are readily available and qualify as applicable listing factors in Sections 3.9 and 3.11 of the Listing Policy. Moreover, the State Board should support the IBI methodology developed by its sister agency, CDFG, and include these quantitative data in the listing analysis.

Given all of the above, the water segments highlighted in Appendix 7, Tables 1-4 should be included on the 303(d) List as impaired for biological communities. At the very minimum, the IBI scores should be used as another line of evidence in listing/de-listing decisions. On this latter basis Calleguas Creek reaches 4, 5 and 13 should remain on the 303(d) List for excess algal growth or algae. Finally, while we focused on Region 4, we believe the State Board should evaluate IBI data available for other areas of the State as well.

## **V. CONCLUSION**

For all of the reasons set forth above, we urge the State Board to reject the proposed de-listings for the waterbody-pollutant combinations set forth in Table 1 and to add listings for the waterbody-pollutant combinations set forth in Table 6.

In addition, we strongly urge the State Board to:

- (1) ensure that all readily available information is evaluated;
- (2) state that as a rule previous listings for which TMDLs have already been adopted should not be re-evaluated and overturned during the listing process and that this issue is more properly addressed as part of TMDL implementation;
- (3) make clear that the Listing Policy should not be used retroactively to overturn prior listing decisions unless one of the three situations set forth in Section 4 of the Listing Policy exists and there is substantial evidence to demonstrate with a high degree of persuasion that the previous decision was not correct (including an affirmative demonstration of a lack of current impairment);
- (4) direct State Board staff to forego re-evaluating previous listings in this round and leave that task to the individual regional boards, who are more knowledgeable about their own local waterbodies and listing decisions, to implement during the next round of listing in 2008 in accordance with the above clarifications;
- (5) clarify that the situation specific weight-of the evidence approach was intended to act as a “safety net,” and thus Section 3.11 and 4.11 require an