



COUNTY OF ORANGE

RESOURCES & DEVELOPMENT MANAGEMENT DEPARTMENT

Bryan Speegle, Director

Environmental Resources
1750 S. Douglass Road
Anaheim, CA 92806

Telephone: (714) 567-6363
Fax: (714) 567-6220

January 17, 2006

Selica Potter, Acting Clerk to the Board
State Water Resources Control Board
Executive Office
1001 I Street, 24th Floor
Sacramento, California 95814



303 (d) Deadline:
1/31/06

RE: 2006 Proposed Revisions to the Clean Water Act (CWA) Section 303(d) List

Dear Ms. Potter:

The County of Orange, Resources and Development Management Department is pleased to submit comments on the 2006 Proposed Revisions to the CWA Section 303(d) list. The comments in this letter focus on all Orange county waterbodies except those in the Newport Bay/San Diego Creek watershed. A separate letter will be sent on the specific Newport Bay/San Diego Creek watershed listings. Our comments incorporate and expand on our oral testimony provided at the January 5, 2006 SWRCB Workshop held in Pasadena, California.

We would like to commend the State Board for the improvement in this year's listing process through the implementation of the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List. The new policy has resulted in a more transparent process to develop a 303(d) list based on a clearly defined review of data of defined quality and quantity and the application of identified water quality standards and evaluation levels. In a number of instances, however, we have identified misapplications of the policy. Outlined below are our general policy and listing-specific technical issues, and recommendations for changes to the proposed 2006 303(d) list.

General Policy Issues:

1. **Limited Data:** Several listings in South Orange County are based on a very limited number samples taken from only one sampling location. The Listing Policy states that "Samples should be representative of the water body segment. To the extent possible, samples should represent statistically or in a consistent targeted manner the segment of the water body." Samples taken from only one sampling location are not generally representative of the water body segment and should not be the sole basis for placement on the 303(d) list. In such cases, we recommend re-evaluating the water body for listing in future cycles after additional data has been collected. (Comment applies to listings for Anaheim

Bay (PCBs); Peters Canyon Channel (DDT, Toxaphene); Santa Ana Delhi Channel (Toxaphene); Seal Beach (PCBs); English Canyon (benzo[b]fluoranthene, dieldrin, sediment bioassays – chronic toxicity – freshwater); Laguna Canyon Channel (Chronic toxicity); San Juan Creek (DDE).

2. **Misapplication of Basin Plan Beneficial Uses:** In several instances water bodies that are not listed in the Basin Plan or beneficial uses not included in the Basin Plan are included in proposed listings:

- a. Santa Ana Delhi Channel is not currently listed in the Basin Plan, and therefore does not have any assigned beneficial uses. During the 2002 listing cycle, the State Board staff stated in the response to comments, "Since no beneficial uses or water quality standards have been adopted for the Channel, and since there is no information in the record to suggest an existing REC-1 beneficial use, it is recommended that the water body not be placed on the 303(d) list" (Response to Comment 8.15.1, 2003). In this listing cycle, Santa Ana Delhi Channel is listed with the Commercial and Sport Fishing beneficial use. The channel is proposed for addition to the Basin Plan in the Region 8 Triennial Review workplan for REC-1, REC-2, WILD and WARM beneficial uses, not Commercial and Sport Fishing. This indicates that there is no information in the record to suggest an existing Commercial and Sport Fishing beneficial use. In accordance with previous State Board decisions, Santa Ana Delhi Channel should not be listed on the 303(d) list.
- b. The following listings include beneficial uses not designated in the Basin Plan:
 1. Anaheim Bay PCB listing Region 8, page 5: Commercial and Sport Fishing
 2. Huntington Harbour Chlordane listing, Numeric Line of Evidence Toxicity, Region 8, page 24: Estuarine Habitat
 3. Huntington Harbour Lead listing, Numeric Line of Evidence Toxicity, Region 8, page 27: Estuarine Habitat
 4. Huntington Harbour Toxicity listing, Numeric Line of Evidence Toxicity, Region 8, page 29: Estuarine Habitat
 5. Newport Bay, Lower, Chlorpyrifos Listing, Region 8, page 31: Estuarine Habitat
 6. Newport Bay, Lower, Copper Listing, Numeric Line of Evidence Pollutant-Sediment, Region 8, page 33: Estuarine Habitat
 7. Newport Bay, Lower, Copper Listing, Numeric Line of Evidence Pollutant-Water, Region 8, page 33: Estuarine Habitat
 8. Newport Bay, Lower, DDT Listing, Numeric Line of Evidence Population/Community Degradation, Region 8, page 38: Estuarine Habitat
 9. Newport Bay, Lower, Diazinon Listing, Region 8, page 39: Estuarine Habitat
 10. Newport Bay, Lower, Nutrients Listing, Region 8, page 41: Warm Freshwater Habitat

11. Newport Bay, Lower, Sedimentation/Siltation Listing, Region 8, page 46: Warm Freshwater Habitat
12. Newport Bay, Upper (Ecological Reserve), DDT Listing, Numeric Line of Evidence Pollutant-Tissue 1, Region 8, page 54: Hydroelectric Power Generation, Warm Freshwater Habitat
13. Newport Bay, Upper (Ecological Reserve), DDT Listing, Numeric Line of Evidence Pollutant-Tissue 2, Region 8, page 54: Hydroelectric Power Generation, Warm Freshwater Habitat
14. Peters Canyon Channel, DDT Listing, Region 8, page 65: Commercial and Sport Fishing
15. Peters Canyon Channel, Toxaphene Listing, Region 8, page 66: Commercial and Sport Fishing
16. Rhine Channel, Copper Listing, All lines of Evidence, pages 70-73: Estuarine Habitat
17. Rhine Channel, Lead Listing, All lines of Evidence, pages 74-76: Estuarine Habitat
18. Rhine Channel, Mercury Listing, All lines of Evidence, pages 77-80: Estuarine Habitat
19. English Canyon, Benzo[b]fluoranthene Listing, Region 9, page 66: Commercial and Sport Fishing
20. San Juan Creek, DDE Listing, Region 9, page 213: Commercial and Sport Fishing

3. **Fish Tissue Data:** The application of fish tissue data in the 303(d) listing process has several areas of concern:

- a. We question the appropriateness of the use of the OEHHA screening values from the 1999 paper "Prevalence of Selected Target Chemical Contaminants in Sport Fish from Two California Lakes: Public Health Designed Screening Study" by Brodberg and Pollock. The paper states: "The SVs (Screening Values) are not intended as levels at which consumption advisories should be issued but are useful as a guide to identify fish species and chemicals from a limited data set, such as this one, for which more intensive sampling, analysis or health evaluation are to be recommended." (Brodberg, 4) Additionally, the screening values were calculated specifically for the California Lakes Study and were not intended to be used to determine beneficial use impairment in the lakes or other water bodies throughout the state. (Comment applies to listings for Anaheim Bay (PCBs), Balboa Beach (Dieldrin, PCBs), Huntington Beach State Park (PCBs), Seal Beach (PCBs) and Upper Newport Bay (PCBs)).
- b. We also question the application of the National Academy of Science (NAS) Guideline as an evaluation guideline for protection of aquatic life from bioaccumulation of toxic substances. The NAS guidelines were published in 1973 and are based on information and data collected in the 1960s. Comparing the NAS guidelines to more recent evaluations of concentrations of chemicals in aquatic organism tissue and their apparent effects on aquatic life by the US Army Corps of Engineers and the US

Environmental Protection Agency, show wide discrepancies between the NAS values and more recent information. We do not feel that the NAS guidelines are reliable values for evaluating the potential impacts of chemicals on aquatic life. We recommend the SWRCB evaluate the USACOE Environmental Residue-Effects Database and the paper "Linkage of effects to Tissue Residue: Development of a Comprehensive Database for Aquatic Organisms Exposed to Inorganic and Organic Chemicals" by Jarvinen and Ankley, 1999. These sources provide more recent data collection and analysis efforts to develop guidelines for the protection of aquatic life from bioaccumulation of toxic substances. (Comment applies to Peters Canyon Channel (DDT and Toxaphene), Santa Ana Delhi Channel (Toxaphene)).

- c. Lastly, we feel that fish tissue data alone should not be used for listing without corresponding water column and/or sediment data confirming the presence of the contaminant. Due to the migratory nature of most fish, particularly sport fish, the presence of contaminants in fish tissue caught at a particular location does not necessarily indicate that the exposure to the contaminant occurred at that location. In such cases, we recommend re-evaluating the water body for listing in future cycles after additional data has been collected. (Comment applies to: Anaheim Bay (PCBs), Balboa Beach (DDT, Dieldrin, PCBs), Huntington Beach State Park (PCBs), Lower Newport Bay (DDT, PCBs), Upper Newport Bay (PCBs), Peters Canyon Channel (DDT, Toxaphene), Santa Ana Delhi Channel (Toxaphene), and Seal Beach (PCBs)).

Water Body-Specific Technical Issues:

1. Anaheim Bay PCB Listing Region 8, page 5:

- a. The Commercial and Sportfishing beneficial use listed in the fact sheet is not included in the Basin Plan for this waterbody. In previous listing cycles, water bodies that are not assigned beneficial uses in the Basin Plan were not placed on the 303(d) List. The listing of water bodies without assigned beneficial uses is contrary to previous actions by the State Board to such draft listings.
- b. There is a typographical error in the "Data Used to Assess Water Quality" section of the fact sheet. The second sentence should read: All 4 samples were fillet composites...

Recommendation: Do not list based on the Commercial and Sportfishing beneficial use; make correction to the "Data Used to Assess Water Quality" text as noted.

2. Anaheim Bay Toxicity Listing Region 8, page 7:

- a. The number of exceedances and samples presented in the fact sheet were different than those calculated using the data provided from the Administrative Record. Specifically, the fact sheet indicated 23 exceedances out of 63 samples (36.5%). Review of the data provided

from the Administrative Record resulted in 19 exceedances out of 59 samples (32.2%).

- b. The "Spatial Representation" section of the fact sheet indicates that samples were collected at 35 stations in Anaheim Bay. Data were only available for 33 stations (no data were included for stations 22 and 26).

Recommendation: Make corrections to the Fact Sheet text as noted.

3. Huntington Harbour Chlordane Listing Region 8; page 23:

a. Numeric Line of Evidence Pollutant-Sediment

- i. The number of samples presented in the fact sheet were different than those calculated using the data provided. Specifically, the fact sheet indicated 7 exceedances out of 66 samples (10.6%). Review of the data provided from the Administrative Record resulted in 7 exceedances out of 60 samples (11.7%).
- ii. The data reference in the "Data Used to Assess Water Quality" section of the fact sheet is not accurate. The data associated with this fact sheet was provided by the Santa Ana Regional Water Quality Control Board (SARWQB), not Bay and Greenstein, 2003.
- iii. The "Spatial Representation" section of the fact sheet indicates that samples were collected at stations 36 through 72 in Huntington Harbour. Data were available for 32 stations (no data were included for stations 40, 45, 48, 61, and 67).

Recommendation: Make corrections to the Fact Sheet text as noted.

b. Numeric Line of Evidence Toxicity

- i. The number of exceedances and samples presented in the fact sheet were different than those calculated using the data provided in the Administrative Record. Specifically, the fact sheet indicated 63 exceedances out of 66 samples (95.5%). Review of the data provided from the Administrative Record resulted in 45 exceedances out of 60 samples (75.0%).
- ii. There are typographical errors in the "Data Used to Assess Water Quality" section of the fact sheet. Specifically, in the second sentence, the second sampling date indicated for dry weather should read "8/8/01." Additionally, the data reference is not accurate. The data associated with this fact sheet was provided by the SARWQCB, not Bay and Greenstein, 2003.
- iii. There was a typographical error in the "Environmental Conditions" section of the fact sheet. Specifically, the dates associated with the wet and dry seasons are reversed. This sentence should read, "Samples were collected during dry (8/7/01, 8/8/01) and wet season (2/24/03)."
- iv. The "Spatial Representation" section of the fact sheet indicates that samples were collected at stations 36 through 72 in Huntington Harbour. Data were available for 32 stations (no data were included for stations 40, 45, 48, 61, and 67).
- v. The Estuarine Habitat beneficial use listed in the fact sheet is not included in the Basin Plan for this waterbody. In previous listing

cycles, water bodies that are not assigned beneficial uses in the Basin Plan were not placed on the 303(d) List. The listing of water bodies without assigned beneficial uses is contrary to previous actions by the State Board to such draft listings.

Recommendation: Do not list based on the Estuarine beneficial use; make corrections to the Fact Sheet text as noted.

4. Huntington Harbor Lead Listing Region 8; page 26:

a. Numeric Line of Evidence Pollutant-Sediment

- i. The number of samples presented in the fact sheet were different than those calculated using the data provided. Specifically, the fact sheet indicated 7 exceedances out of 66 samples (10.6%). Review of the data provided from the Administrative Record resulted in 7 exceedances out of 60 samples (11.7%).
- ii. The data reference in the "Data Used to Assess Water Quality" section of the fact sheet is not accurate. The data associated with this fact sheet was provided by the SARWQCB, not Bay and Greenstein, 2003.
- iii. The "Spatial Representation" section of the fact sheet indicates that samples were collected at stations 36 through 72 in Huntington Harbour. Data were available for 32 stations (no data were included for stations 40, 45, 48, 61, and 67).

Recommendation: Make corrections to the Fact Sheet text as noted.

b. Numeric Line of Evidence Toxicity

- i. The number of exceedances and samples presented in the fact sheet were different than those calculated using the data provided in the Administrative Record. Specifically, the fact sheet indicated 63 exceedances out of 66 samples (95.5%). Review of the data provided from the Administrative Record resulted in 45 exceedances out of 60 samples (75.0%).
- ii. There were typographical errors in the "Data Used to Assess Water Quality" section of the fact sheet. Specifically, in the second sentence, the second sampling date indicated for dry weather should read "8/8/01." Additionally, the data reference is not accurate. The data associated with this fact sheet was provided by the SARWQCB, not Bay and Greenstein, 2003.
- iii. There was a typographical error in the "Environmental Conditions" section of the fact sheet. Specifically, the dates associated with the wet and dry seasons are reversed. This sentence should read, "Samples were collected during dry (8/7/01, 8/8/01) and wet season (2/24/03)."
- iv. The "Spatial Representation" section of the fact sheet indicates that samples were collected at stations 36 through 72 in Huntington Harbour. Data were available for 32 stations (no data were included for stations 40, 45, 48, 61, and 67).
- v. The Estuarine Habitat beneficial use listed in the fact sheet is not included in the Basin Plan for this waterbody. In previous listing

cycles, water bodies that are not assigned beneficial uses in the Basin Plan were not placed on the 303(d) List. The listing of water bodies without assigned beneficial uses is contrary to previous actions by the State Board to such draft listings.

Recommendation: Do not list based on the Estuarine beneficial use; make corrections to the Fact Sheet text as noted.

5. Huntington Harbour Toxicity Listing Region 8, page 29:

- a. The number of exceedances and samples presented in the fact sheet were different than those calculated using the data provided. Specifically, the fact sheet indicated 63 exceedances out of 66 samples (95.5%). Review of the data provided from the Administrative Record resulted in 45 exceedances out of 60 samples (75.0%).
- b. There were typographical errors in the "Data Used to Assess Water Quality" section of the fact sheet. Specifically, in the second sentence, the second sampling date indicated for dry weather should read "8/8/01." Additionally, the data reference is not accurate. The data associated with this fact sheet was provided by the SARWQCB, not Bay and Greenstein, 2003.
- c. There was a typographical error in the "Environmental Conditions" section of the fact sheet. Specifically, the dates associated with the wet and dry seasons are reversed. This sentence should read, "Samples were collected during dry (8/7/01, 8/8/01) and wet season (2/24/03)."
- d. The "Spatial Representation" section of the fact sheet indicates that samples were collected at stations 36 through 72 in Huntington Harbour. Data were available for 32 stations (no data were included for stations 40, 45, 48, 61, and 67).
- e. The Estuarine Habitat beneficial use listed in the fact sheet is not included in the Basin Plan for this waterbody. In previous listing cycles, water bodies that are not assigned beneficial uses in the Basin Plan were not placed on the 303(d) List. The listing of water bodies without assigned beneficial uses is contrary to previous actions by the State Board to such draft listings.

Recommendation: Do not list based on the Estuarine beneficial use; make corrections to the Fact Sheet text as noted.

6. English Canyon Benzo[b]fluoranthene Listing Region 9, page 66:

- a. The Commercial and Sportfishing beneficial use listed in the fact sheet is not included in the Basin Plan for this waterbody. In previous listing cycles, water bodies that are not assigned beneficial uses in the Basin Plan were not placed on the 303(d) List. The listing of water bodies without assigned beneficial uses is contrary to previous actions by the State Board to such draft listings.
- b. The reported concentrations for these PAHs range from below the laboratory reporting limit (0.01 to 0.0125 ug/L, depending on the date of the analyses) to 0.11 ug/L. The California Toxics Rule (CTR) has no freshwater criteria for PAHs for the protection of aquatic life. It does have criteria for the protection of human health that are based on

bioconcentration factors (BCFs). These BCFs are used to estimate the concentration of these compounds in water that would bioaccumulate in aquatic organisms to a level that would be harmful to humans if those organisms were consumed. English Canyon Creek is not listed for Commercial and Sportfishing in the Basin Plan and therefore the BCF criteria should not applied to this water body

- c. This listing is based upon samples taken from only one sampling location which is not representative of the water body segment and should not be the sole basis for placement on the 303(d) list. The Listing Policy states that "Samples should be representative of the water body segment. To the extent possible, samples should represent statistically or in a consistent targeted manner the segment of the water body."
- d. There were typographical errors in the "Weight of Evidence" and "Evaluation Guideline" sections of the fact sheet. In each section, the evaluation guideline is presented in units of mg/L. The actual units are micrograms per liter (0.0044 ug/L).

Recommendation: Do not list based on the Commercial and Sportfishing beneficial use; do not list based on data taken from one sampling location which is not representative of the water body as a whole; make correction to the Fact Sheet text as noted.

7. English Canyon Dieldrin Listing Region 9, page 68:

- a. There are typographical errors in the "Weight of Evidence" section of the fact sheet. In this section, the evaluation guideline is presented in units of mg/L. The actual units are micrograms per liter.
- b. This listing is based upon samples taken from only one sampling location which is not representative of the water body segment and should not be the sole basis for placement on the 303(d) list. The Listing Policy states that "Samples should be representative of the water body segment. To the extent possible, samples should represent statistically or in a consistent targeted manner the segment of the water body."

Recommendation: Do not list based on data taken from one sampling location which is not representative of the water body as a whole; make correction to the Fact Sheet text as noted.

8. Oso Creek Total Dissolved Solids Listing Region 9, page 161:

- a. The "Water Quality Objective/Water Quality Criterion" section of the fact sheet indicates that the WQO for TDS in HAS 901.21 is 750 mg/L. The Basin Plan indicates that the WQO for TDS for this HAS is actually 500 mg/L.
- b. Using the correct WQO for HAS 901.21 (Oso Creek), the number of exceedances presented in the fact sheet was different than that calculated using the data provided. Specifically, 13 out of 13 samples exceeded the 500 mg/L TDS evaluation guideline (100%), rather than 12 out of 13 (92.3%), as described in the fact sheet.
- c. The "Evaluation Guideline" section of the fact sheet contains a typographical error. It refers to objectives within the Santa Margarita River watershed. Oso Creek is in the San Juan Creek watershed.

- d. This listing is based upon samples taken from only one sampling location which is not representative of the water body segment and should not be the sole basis for placement on the 303(d) list. The Listing Policy states that "Samples should be representative of the water body segment. To the extent possible, samples should represent statistically or in a consistent targeted manner the segment of the water body."

Recommendation: Do not list based on data taken from one sampling location which is not representative of the water body as a whole; make corrections to the Fact Sheet text as noted.

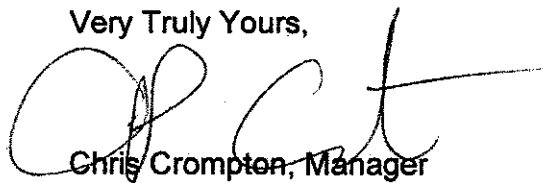
9. San Juan Creek DDE Listing Region 9, page 213:

- a. There are typographical errors in the "Weight of Evidence" and "Water Quality Objective/Water Quality Criterion" sections of the fact sheet. In each section, the evaluation guideline is presented in units of mg/L. The actual units are micrograms per liter.
- b. This listing is based upon samples taken from only one sampling location which is not representative of the water body segment and should not be the sole basis for placement on the 303(d) list. The Listing Policy states that "Samples should be representative of the water body segment. To the extent possible, samples should represent statistically or in a consistent targeted manner the segment of the water body."

Recommendation: Do not list based on data taken from one sampling location which is not representative of the water body as a whole; make correction to the Fact Sheet text as noted.

Thank you for the opportunity to provide comments on the 2006 proposed revisions to the California Clean Water Act Section 303(d) List. We look forward to working with the SWRCB in resolving these issues and producing an accurate and comprehensive list of impaired water bodies in the state of California. Please contact Amanda Carr at (714) 567-6367 if you have any questions regarding these comments.

Very Truly Yours,



Chris Crompton, Manager
Environmental Resources