



# County of San Diego

## DEPARTMENT OF PUBLIC WORKS

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Cynthia Gorham-Test  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
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SAN DIEGO REGIONAL  
WATER QUALITY  
CONTROL BOARD

Dear Ms. Gorham-Test,

Thank you for the opportunity to comment on the Draft Section 305(b) and 303(d) Integrated Report for the San Diego region. This report is of critical importance to the County, not only because it sets the stage for future development of total maximum daily loads (TMDLs), but also because it influences how the County implements many elements of its Jurisdictional and Watershed Urban Runoff Management Programs (JURMPs). The following are mostly technical comments related to: 1) the quality of data used to determine listing decisions, or 2) conformance with the State Water Resources Control Board's *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* ("Policy").

### GENERAL COMMENTS

1. Information about individual sample controls was not included in the on-line SWAMP database. For example, percent minimum significant difference (pMSD) bounds cannot be calculated because the replicate control results have not been made available in the online SWAMP database. These data are important for verifying the quality of individual test results.
2. Section 6.1.4 of the Policy states: "Data supported by a Quality Assurance Project Plan (QAPP) pursuant to the requirements of 40 CFR 31.45 are acceptable for use in developing the section 303(d) list." Many of the individual sample results included in the listing assessment contained the following note: "Estimated; non-compliant with associated QAPP." These data should be

removed from the listing assessments because the validity of the sample results may be in question. Water body segments to which this comment applies are detailed in the specific comments below.

3. In many of the proposed toxicity listings, sediment and water toxicity samples were combined to determine final exceedance counts and listing determinations. The toxicants found in water and sediment are likely to be different. Additionally, the species used to test toxicity are different for water and sediment. The Policy states: "A water segment shall be placed on the section 303(d) list if the water segment exhibits statistically significant water or sediment toxicity using the binomial distribution..." The Policy does not state that water and sediment toxicity results may be used together to list a water body segment.

#### **SPECIFIC COMMENTS**

#### **4. Santa Margarita River (lower)**

Two lines of evidence were presented in support of a new toxicity listing in the Santa Margarita River (lower): sediment and water toxicity. The fact sheet states that three of six samples exceeded the water quality objective. This is based on combining: 1) sediment and water toxicity results, and 2) different toxic test endpoints and species (*Selenastrum* and *Ceriodaphnia dubia*). Section 3.6 of the Policy states that water segments may be listed for statistically significant water or sediment toxicity. The section does not state that water and sediment toxicity results may be used together to list a water body. The sensitivity of test organisms to pollutants may be quite different in these two matrices; therefore, sediment and water toxicity results should not be combined.

- LOE ID 7501: Four bioassay water samples were collected at one station during four sampling events. The samples were tested for toxicity using *Selenastrum* and *Ceriodaphnia dubia*. The fact sheet states that *Hyaella azteca* were also used as toxicity test species in the water samples, but data from the SWAMP website indicate that no *Hyaella* were used during testing.
  - *Selenastrum*: The fact sheet states that three of four water samples were toxic for *Selenastrum*. Examination of the data reveals that only one sample showed toxicity to *Selenastrum* (collected 5/13/03). However, this sample was noted as "Estimated; non-compliant with associated QAPP." The validity of this single sample result is questionable and should be removed from the analysis. The other two samples reported as toxic in the fact sheet (collected 1/14/03 and 9/9/03) were not toxic upon further examination. Significantly greater growth of *Selenastrum* in the sample than in the control was

misinterpreted as indicative of toxicity. Therefore, none of the valid samples were found to be toxic to *Selenastrum*.

- The fact sheet states that four samples were collected and analyzed for toxicity to *Ceriodaphnia dubia* reproduction and survival. One sample was received with temperature out of acceptable limits and not included for analysis, resulting in a total of three samples for *Ceriodaphnia*. Another sample collected on 9/9/2003 was toxic for both reproduction and survival. However, each of the ten replicates in the survival test died and there was no reproduction for any replicate. Site conditions may have affected these test results, as stream conditions on the sample date indicate the stream was not flowing at the sampling location. Additionally, even though test protocols may not require re-analysis of the sample, 100% mortality of all replicates may indicate an issue with sample handling or other cross-interference. This is especially true because the survival was 100% or nearly 100% for all other samples collected at the station. The two remaining samples collected on 1/14/03 and 5/13/03 were noted as "Estimated; non-compliant with associated QAPP." Therefore, there are no valid sample results for toxicity to *Ceriodaphnia*.
- LOE ID 30287: Two sediment samples were collected and tested for toxicity using *Hyalella azteca*, and no toxicity was found. This line of evidence does not support listing according to the Policy.

#### Recommendation

There are no valid sample results for toxicity in the water column. Moreover, the total number of sediment toxicity exceedances is zero; therefore, the Santa Margarita River (lower) should not be listed for toxicity on the 2008 section 303(d) list.

#### 5. Moosa Canyon Creek

One line of evidence was used to list 18 miles of Moosa Creek for toxicity.

- LOE ID 26213: Water samples were tested for toxicity using *Selenastrum* and *Ceriodaphnia dubia*. There was no toxicity to *Ceriodaphnia*, but two of four samples were toxic to *Selenastrum*. One of the two samples found to be toxic (collected 5/18/04) was noted as "Estimated; non-compliant with associated QAPP." Therefore, the sample does not meet the requirements of Section 6.1.4 of the Policy which states, "Data supported by a Quality Assurance Project Plan....are acceptable for use in developing the section 303(d) list"

and should be removed from the analysis. Therefore, only one of three samples were toxic to Selenastrum.

### Recommendation

The revised total number of exceedances of Selenastrum is one of three, which is less than the required number to list the water body according to Table 3-1 of the Policy. It is recommended that Moosa Canyon Creek be removed from the list as the listing criteria of Table 3-1 are not met.

## **6. Escondido Creek**

Five lines of evidence were used to list 26 miles of Escondido Creek for toxicity. Two lines of evidence were based on biodiversity impacts, which may be caused by physical habitat or other factors, and not necessarily toxicity. Of the remaining three lines of evidence, one was based on storm water data, one on ambient water, and another on sediment. Sediment, ambient water, and storm water monitoring data were combined to determine that six of 31 samples exceeded the toxicity water quality objective.

- LOE ID 7486: Fifteen storm water samples were used to test for toxicity to Selenastrum, *Hyalella azteca*, and *Ceriodaphnia dubia*. Zero samples were toxic to Selenastrum, zero samples were toxic to *Hyalella*, and two samples were toxic to *Ceriodaphnia*. *Ceriodaphnia* toxicity in the samples collected on 11/29/2001 and 2/17/2002 were shown to be caused by Diazinon (San Diego County Municipal Copermittees 2001-2002 Urban Runoff Monitoring Final Report, January 2003). Because Diazinon has been removed from the marketplace, it is no longer an issue in this water body. Therefore, the two *Ceriodaphnia dubia* toxicity results should not be included in the listing assessment as recent toxicity data support this. (San Diego County Municipal Copermittees 2001-2002 Urban Runoff Monitoring Final Report, January 2009).
- LOE ID 26480: Eight sediment samples were collected at two monitoring locations (four samples at each location) and tested for toxicity to *Hyalella azteca*. As stated in the fact sheet, three of the eight samples exhibited toxicity. However, all three of the exceeding samples were noted as "Estimated; non-compliant with the associated QAPP." Therefore, the results should be removed from the analysis per the listing policy. Therefore, no valid sediment samples exhibited toxicity to *Hyalella azteca* and zero out of 5 sediment samples tested for toxicity.

- LOE ID 25804: Eight ambient water samples were collected at two monitoring locations (four samples at each location) and used to test for toxicity to *Selenastrum capricornutum* and *Ceriodaphnia dubia*. One of the eight samples was toxic to *Ceriodaphnia* survival.

#### Recommendation

The revised total number of exceedances is zero of 13 for wet weather (two wet weather samples from 11/29/2001 and 2/17/2002 were subtracted from 15), zero of five for sediment, and one of eight for ambient weather. The number of exceedances necessary to list the water body for toxicity is two according to Table 3.1 of the Listing Policy; therefore, this water body does not meet the requirements for listing for toxicity.

### **7. Los Peñasquitos Creek**

Two lines of evidence were used to list Total Nitrogen in Los Peñasquitos Creek. One line of evidence was biodiversity impacts, which may be caused by physical habitat or other factors, and not necessarily total nitrogen concentrations. The other line of evidence was ambient total nitrogen data.

- LOE ID 8813: The fact sheet indicates that 16 of the 19 samples collected exceeded the water quality objective. However, only one of four samples collected exceeded the water quality objective according to results in the SWAMP Urban Runoff Monitoring Report, January 2007. Samples were collected on March 13, April 24, June 5, and September 18, 2002.

#### Recommendation

According to Table 3.1 of the Policy, a minimum of two samples must exceed the threshold concentration. Because only one of the four samples collected exceeded the water quality objective for total nitrogen, the criteria for listing according to Table 3.1 are not met, and the total nitrogen listing should be removed from the list.

### **8. Sweetwater River**

Four lines of evidence were used to list 50 miles of the Sweetwater River for toxicity. One line of evidence was biodiversity impacts, which may be caused by physical habitat or other factors, and not necessarily toxicity. Of the remaining three lines of evidence, one was for storm water toxicity, one was for ambient water toxicity, and another was for sediment toxicity.

- The distance between the Sweetwater River 3 and Sweetwater River 8 sampling sites appears to be approximately 27 miles, but the water segment listing is for 50 miles. Section 6.1.5.4 of the Policy states: "data shall be aggregated by water body segments as defined in the Basin Plans." The Policy also states that, at a minimum, the RWQCBs should identify stream reaches that may have different pollutant levels based on differences in land use, tributary inflow, or discharge input. Therefore, two separate reaches of the waterbody should be considered for listing, not 50 miles.
- LOE ID 25673: Eight samples from two locations within the Sweetwater River were collected and used to test for toxicity to *Selenastrum*, *Ceriodaphnia*, and *Hyaella*. As noted above, the distance between the two sample locations is approximately 27 miles; therefore, the sample results are evaluated separately here. At the upstream location (Sweetwater River 3) one of four sample results was toxic to *Ceriodaphnia* for reproduction. *Selenastrum* and *Ceriodaphnia* percent survival were not affected (zero of four samples). Three of four samples at Sweetwater River 8 were toxic to *Selenastrum*, but not for *Ceriodaphnia* survival or reproduction, or *Hyaella* survival.
- LOE ID 30291: The fact sheet states that five samples were collected at stations Sweetwater River 3 and 8 and assessed for toxicity to *Hyaella azteca*. However, the data included in the SWAMP online database included only one sample at each location. Sweetwater River 3 toxicity results show no toxicity to *Hyaella* for either survival or growth. There is one exceedance for *Hyaella* growth at Sweetwater River 8.

#### Recommendation

It is recommended that the water segment be changed to reflect data assessment results at the two monitoring stations. Section 6.1.5.4 of the Water Quality Policy states that, "data shall be aggregated by water body segments as defined in the Basin Plans." Sweetwater River 8 is in hydrological sub area (HSA) 909.12. Sweetwater River 3 is in HSA 909.31. In addition, one of four ambient samples and zero of one sediment samples exceeded toxicity criteria at Sweetwater River 3. This is below the number required to list the water segment for toxicity. Therefore, the listing location should be changed to the reach located at Sweetwater River 8, where 3 of 4 samples were toxic to *Selenastrum* and one of one samples were toxic for *Hyaella* growth in sediment.

**9. Jamul Creek**

Three lines of evidence were used to list Jamul Creek for toxicity. One line of evidence was biodiversity impacts, which may be caused by physical habitat or other factors, and not necessarily toxicity. Of the remaining two lines of evidence, one was ambient water toxicity, and the other was sediment toxicity.

- LOE ID 26511: The fact sheet states that two of three sediment samples were toxic in the LOE summary. However, the detailed data description and the SWAMP data show that zero of two samples caused toxicity to Hyalella growth or survival at one sample location.
- LOE ID 26150: Evaluation of the SWAMP online dataset verified the findings summarized on the fact sheet, which was two of three ambient water samples were toxic.

**Recommendation**

It is recommended that Jamul Creek not be listed for sediment toxicity, as zero of two samples were found to be toxic.

**10. Santa Ysabel Creek**

The extent of the listing for toxicity in Santa Ysabel Creek is 37 miles. The extent is based on the distance between the upstream station at SYC#4 and the downstream station (below an impoundment) at SYC#7. Section 6.1.5.4 of the Policy states that, "data shall be aggregated by water body segments as defined in the Basin Plans." The Policy also states that, at a minimum, the RWQCBs should identify stream reaches that may have different pollutant levels based on differences in land use, tributary inflow, or discharge input. Therefore, two separate reaches of the waterbody should be listed, not 37 miles.

**Recommendation**

It is recommended that the water segment be changed to reflect the data assessment results at the two monitoring stations for toxicity. Section 6.1.5.4 of the Water Quality Policy states that, "data shall be aggregated by water body segments as defined in the Basin Plans."

**11. Agua Hedionda Lagoon**


The County supports the recommendation to de-list Agua Hedionda Lagoon for indicator bacteria, as the water body meets the water quality standard

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established for this pollutant. Seven lines of evidence were considered in the assessment of this pollutant-water body combination and the data demonstrate that applicable water quality standards are being achieved. The County also supports the recommendation to de-list Agua Hedionda Lagoon for sedimentation/siltation based upon the weight of evidence presented in the fact sheet.

Please contact Todd Snyder, Watershed Protection Program Planning Manager, at (858) 694-3482, or e-mail at [todd.snyder@sdcounty.ca.gov](mailto:todd.snyder@sdcounty.ca.gov), with any questions about these comments.

Sincerely,



Cid Tesoro, LUEG Program Manager  
Department of Public Works

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