California Regional Water Quality Control Board

San Diego Region

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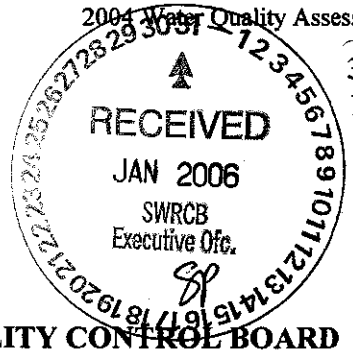
In reply refer to:
WQS:77-0118.02:jchan
2004 Water Quality Assessment



303 (d) Deadline:
1/31/06

FROM: John H. Robertus
Executive Officer
SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

DATE: January 31, 2006

SUBJECT: **COMMENTS ON PROPOSED CHANGES TO THE CLEAN WATER ACT SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS**

Thank you for the opportunity to submit comments on the proposed 2004 Clean Water Act Section 303(d) List of Water Quality Limited Segments (List). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) appreciates the efforts of the State Water Resources Control Board (State Water Board) to establish a comprehensive list of impaired waters. A comprehensive and consistent list is an important step in achieving our common goal of improving water quality throughout the San Diego Region and the State. Please consider the following comments in your final analysis.

1. Separate dry weather and storm weather listings for indicator bacteria

The 2004 List should include separate listings and delistings for indicator bacteria for storm weather conditions and dry weather conditions. Most of the beach segments in the Miramar Reservoir Hydrologic Area, Scripps Hydrologic Area, and in Mission Bay proposed for delisting are meeting water quality objectives during dry weather conditions because low-flow diversion structures are in place to prevent dry weather flows from reaching the beaches. However, these controls are not adequate to prevent storm flows from reaching and impairing the beach segments. Delisting these beach segments for all weather conditions before responsible stormwater agencies have addressed storm flow bacteria loads is not protective of water quality, and will hamper the San Diego Water Board's efforts to compel dischargers to address the storm flow problem. Delisting the proposed beach segments for dry weather conditions will appropriately recognize the attainment of water quality objectives during periods of low flow.

Listing the beach segments for storm conditions will recognize the ongoing impairment of beach water quality due to storm water loads.

The hydrology of dry weather urban runoff is significantly different than the hydrology of stormwater runoff in the San Diego Region. These different conditions require different types of structural controls to address bacteria loads. Dry weather runoff in urban areas is caused principally by over irrigation of lawns, and car and sidewalk washing, which result in low, but fairly steady flows into storm drains. In contrast, storm flow is much higher in volume, exponentially higher in bacteria loads, and shorter in duration than dry weather flow. In the San Diego Region, we receive only about 10 inches of precipitation annually, so storm events are not frequent. However, storms do cause predictable exceedances of bacteria objectives that require different controls than those used to address low flow, dry weather conditions.

Unfortunately, the overwhelming amount of dry weather monitoring data compared to storm data ensured that listed beach segments protected by low flow control structures would "pass" the binomial delisting protocol in the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Policy). To demonstrate this phenomenon, we analyzed the Mission Bay bacteria data from 1999 through 2003 (see enclosed data CD) by correlating the sampling dates to the nearest rain gage to determine if the sample was taken during dry weather or during storm weather. We included data from 1999 through 2001 in this analysis because sampling data during rainfall events were sparse. Including these years increased the size of the data set. A rainfall event was defined as a storm of 0.2 inches of precipitation and the 72 hours following the rainfall event. Then, we analyzed the storm weather data pursuant to the delisting protocol. The tables in Attachment 1 show that, in Mission Bay, storm weather samples frequently exceed the listing standard and did not meet the delisting standard.

Mission Bay is surrounded by a low flow collector system that prevents most urban runoff from discharging to the Bay. Further, the two tributaries to Mission Bay (Rose and Tecolote Creeks) have low flow diversion structures at their mouths preventing dry weather flows from entering Mission Bay through the creeks. These structural controls have been effective in protecting water quality in Mission Bay during dry weather periods. However, when stormwater runoff overwhelms these low flow controls, exceedances of single sample bacteria water quality objectives is significant as shown in Attachment 1.

2. Revise the delisting recommendation for Mission Bay

Individual shoreline segments in Mission Bay should be listed or delisted based on sampling results from those areas rather than lumping all the data together and considering the Bay as a whole. Because tidal flushing is different throughout the Bay, some shoreline segments consistently meet water quality objectives, while other areas are routinely in violation of water quality objectives. This is true for both dry and storm weather conditions at some sites. We analyzed the Mission Bay bacteria data from 2001 through 2003 for each sampling location (Attachment 1) and have the following recommendations for listing and delisting Mission Bay

shoreline segments. The extent of impairment for each of these segments is 400 yards in both directions from the monitoring point. Attachment 2 shows location maps of the sampling points and the recommended extent of impairment for dry weather and storm weather.

Table 1. Recommendations for Listing and Delisting Mission Bay Shoreline Segments

Location	Dry Weather Recommendation	Storm Event Recommendation
Bahia Point MB-160	Delist REC-1, SHELL	Do not delist
Balboa Court MB-225	Delist REC-1, SHELL	Do not delist; not enough samples
Boat launch MB-193	Do not delist; not enough samples	Do not delist; not enough samples
Bonita Cove MB-170	Do not delist	Do not delist
Campland MB-080	Do not delist	Do not delist
Crown Point, s.d. MB-100	Do not delist	Do not delist
Crown Point, watercraft area MB-101	Do not delist	Do not delist; not enough samples
DeAnza Cove, storm drain MB-070	Do not delist	Do not delist
DeAnza Cove, swim area MB-071	Do not delist	Do no delist; not enough samples
Fanuel Park MB-120	Do not delist	Do not delist
Fiesta Island bridge MB-010	Delist REC-1, SHELL	Do not delist
Hidden Anchorage MB-020	Delist REC-1, SHELL	Do not delist
La Cima, beach MB-111	Delist REC-1, SHELL	Do not delist
La Cima, storm drain MB-110	Delist REC-1, SHELL	Do not delist
Leisure Lagoon MB-050	Delist REC-1, SHELL	Do not delist
Leisure Lagoon, s.a. MB-051	Delist REC-1, SHELL	Do not delist; not enough samples
North Pacific Passage MB-042	Delist REC-1, SHELL	Do not delist; not enough samples
Perez Cove MB-190	Delist REC-1, SHELL	Do not delist
Quivera Basin MB-180	Delist REC-1, SHELL	Do not delist
Sail Bay MB-130	Delist REC-1, SHELL	Do not delist
San Juan Cove MB-140	Delist REC-1, SHELL	Do not delist
Santa Barbara, near storm drain MB-150	Delist REC-1, SHELL	Do not delist
Santa Clara Cove MB-132	Delist REC-1, SHELL	Do not delist; not enough samples
Santa Clara Place MB-131	Do not delist	Do not delist; not enough samples
Seaworld Marina, west outfall MB-191	Do not delist	Do not delist
South Pacific Passage, east outfall MB-192	Delist REC-1, SHELL	Do not delist
Tecolote Creek outlet MB-030	Do not delist	Do not delist
Tecolote playground MB-031	Delist REC-1, SHELL	Do not delist; not enough samples
Tecolote shores MB-041	Delist REC-1, SHELL	Do not delist; not enough samples
Tecolote shores, near storm drain MB-040	Delist REC-1, SHELL	Do not delist
Vacation Isle MB-200	Delist REC-1, SHELL	Delist REC-1

Location	Dry Weather Recommendation	Storm Event Recommendation
Ventura Cove MB-223	Delist REC-1, SHELL	Do not delist; not enough samples
Visitor's Center, near storm drain MB-060	Do not delist	Do not delist
Wildlife Refuge MB-090	Do not delist	Do not delist

3. List La Jolla Children's Pool for indicator bacteria

The site specific data collected at the La Jolla Children's Pool in the Scripps Hydrologic Area show indicates that this distinct beach segment should be listed due to its high number of exceedances of bacteria water quality objectives. The La Jolla Children's Pool is the only beach along the Scripps Hydrologic Area shoreline not meeting water quality standards for dry weather conditions. During the data collection period, of 1999 to 2003, 99 of 344 analyses exceeded the water quality objective objectivesfor all three indicator bacteria. The exceedances were mostly due to total coliform and fecal coliform, which likely result from the large marine mammal population at this site.

4. Aliso Creek listings

The San Diego Water Board recommends that the Aliso Creek bbacteria and other listings be extended to include the tributaries of Aliso Creek. Aliso The Creek's tributaries were inadvertently omitted from the 2002 list, even though the 2002 data indicated that the tributaries were impaired. The available data for this listing cycle confirms that these tributaries are impaired and should be included on the 2004 list. Please refer to Attachment 3 for the Aliso Creek data analysis.

5. Additional Beach delistings in San Diego and Orange Counties

The San Diego Water Board supports the proposed delisting of several additional beach segments in the San Diego Region, but only for dry weather conditions. This recommendation is based on application of the Policy to monitoring data for 6 watersheds: 5 in Orange County and 1 in San Diego County. For Orange County, the data were submitted by the City of Laguna Beach and span the period January 1999 through December 2004 (Attachment 4). For San Diego County, the data were submitted by the City of Carlsbad and span the period April 1999 through October 2004 (Attachment 5). These data sets were not included in the State Water Board's data set for Region 9.

Specifically, beach segments listed in Table 2 should be delisted for dry weather conditions. The rationale for these recommendations is presented in the fact sheets in Attachment 6. The San Diego Water Board supports the delisting of these areas for dry weather, but maintains that these areas should remain listed for storm events as discussed in our first comment.

Attachment 6 contains 18 fact sheets with specifics about the data, number of exceedances, and recommendation to delist or not to delist. Two fact sheets in the Aliso Beach area in Orange

County recommend that these areas not be delisted, however, they are included here for completeness since these stations were included in the original data sets.

Table 2. Additional Beach Segments to Delist for Dry Weather Conditions

Watershed	Waterbody	Beach Segment
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12)	Pacific Ocean Shoreline	at Heisler Park – North
Laguna Beach HSA (901.12)	Pacific Ocean Shoreline	at Main Laguna Beach
		Laguna Beach at Ocean Avenue
		Laguna Beach at Laguna Avenue
		Arch Cove at Bluebird Canyon Road
Aliso HSA (901.13)	Pacific Ocean Shoreline	Laguna Beach at Lagunita Place/Blue Lagoon Place
Dana Point HSA (901.14)	Pacific Ocean Shoreline	Aliso Beach at Table Rock Drive
		1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave)
Buena Vista Creek HA (904.21)	Pacific Ocean Shoreline	Tamarack Avenue
		Pine Avenue
		Carlsbad Village Drive
		Buena Vista Lagoon Outlet

Additionally, the San Diego Water Board supports delisting the following beach segments in Orange County for dry weather conditions:[1]

- Laguna Beach at Cleo Street
- Laguna Beach at Dumond Drive
- Laguna Beach at Ocean Avenue
- Aliso Beach at West Street

[1] Fact sheets for these proposed beach delistings were not prepared.

Although these locations do not have monitoring stations associated with them, the City of Laguna Beach has submitted other evidence that indicates that these sites are not impaired (Attachment 7). The San Diego Water Board recommends applying the weight of evidence approach and delisting Cleo Street, Dumond Drive, and West Street beach segments based on the evidence in Attachment 7. The San Diego Water Board recommends delisting Laguna Beach at Ocean Avenue because there is no storm drain outlet at this location, and no water quality data for this location both now and when it was listed in 2002. Additionally, this location is within 100 feet of the monitoring station at Main Laguna Beach, where monitoring has shown that water quality objectives are being met and the data meet the criteria for delisting as shown in Attachment 4.

6. Tidelands Park in San Diego Bay

The fact sheet for Tidelands Park in San Diego Bay recommends "Do Not List" for indicator bacteria on the proposed 2004 list. However, Tidelands Park was previously placed on the 2002 list for indicator bacteria. Therefore, the only possible actions on this waterbody are "Do Nothing" or "Delist." Please check the data to see if an error was made in preparing a "Do Not List" fact sheet instead of a "Delist" or "Do Nothing" fact sheet for Tidelands Park.

7. San Diego Bay listing for PCBs in fish tissue

The San Diego Water Board does not agree with the proposed listing of San Diego Bay for PCBs in fish tissue. The proposed listing is inappropriate because it addresses receptors rather than sources of PCBs in the Bay, is based on out-of-date fish tissue data, and uses an inappropriate screening value as an indicator of impairment of the "fishable" beneficial use.

Listing the Bay for fish tissue is not a productive strategy since it focuses on receptors, not sources. The San Diego Water Board has identified all of the major PCB impaired sediment sites in the Bay. All of these source sites are either cleaned up or on the 2002 List. Since the PCB source sites have been identified and listed, listing the Bay for PCBs in fish tissue is unnecessary because the action needed to reduce PCB levels in fish tissue is to cleanup the identified sediment source sites. Listing the Bay for fish tissue will not result in the identification of new sites or change our strategy of cleaning up the already listed contaminated sediment sites in the Bay.

In addition, the fish tissue data, collected in 1999, are out of date. The data set consists of 11 fish filet composite samples collected at four piers in San Diego Bay: at 5th Avenue Marina Pier, Coronado Pier, Shelter Island Pier, and J Street Pier (in Chula Vista). All 11 fish filet composite samples exceeded the 20 ng/g threshold level used by the State Water Board to indicate an impairment. Several Bay sediment/storm drain cleanup projects have been completed, or started since the samples were taken. Listing the entire Bay for PCBs in fish tissue is premature until confirmatory samples are taken to assess the effect of the completed cleanups on lowering fish tissue PCB levels. Table 3 shows the sediment and storm drain cleanups that have been

completed, are underway, or proposed for San Diego Bay. All of these sites contain PCBs along with other contaminants.

Table 3. San Diego Bay Sediment/Storm Drain Cleanups

Site	Regulatory Action	Year Action Taken	Remedial Actions	Status	Completion Year or Estimated Completion Year	Dredged or Capped PCB Marine Sediment Volume (Cubic Yards)
Teledyne Ryan (Convair Lagoon)	Issued CAO No. 86-92	1991	Sand cap	Completed	1998	112, 900
Teledyne Ryan (Convair Lagoon)	Issued CAO No. R9-2004-0258	2004	Storm drain cleanup	Site Investigation Currently Underway	2007 (Projected)	Not known at this time.
Campbell Industries	Issued CAO No. 95-21	1995	Sand cap	Construction Currently Underway	2007 (Projected)	135,000
San Diego Bay Shoreline, Between Sampson and 28th Streets	Issued Tentative CAO No. R9-2005-0126	2005	Dredging (proposed)	Regional Board proceedings to consider CAO Issuance in FY 2005-06 underway	2008 (Projected)	886,000 (proposed)
San Diego Bay Shoreline, Downtown Anchorage	Undertake TMDL Development Project	2003	TMDL and sediment cleanup (proposed)	Site Investigation Currently Underway	2008 (Projected)	Not known at this time
San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers.	Undertake TMDL Development Project	2003	TMDL and sediment cleanup (proposed)	Site Investigation Currently Underway	2008 (Projected)	Not known at this time
San Diego Bay Shoreline, Near Switzer Creek	Undertake TMDL Development Project	2003	TMDL and sediment cleanup (proposed)	Site Investigation Currently Underway	2008 (Projected)	Not known at this time
San Diego Bay Shoreline, Near Chollas Creek	Undertake TMDL Development Project	2000	TMDL and sediment cleanup (proposed)	Site Investigation Currently Underway	2007 (Projected)	Not known at this time
San Diego Bay Shoreline, Seventh Street Channel	Undertake TMDL Development Project	2000	TMDL and Sediment Cleanup (Proposed)	Site Investigation Currently Underway	2007 (Projected)	Not known at this time
San Diego Bay Shoreline, Near Sub Base	Undertake TMDL Development Project	2003	TMDL and sediment cleanup (proposed)	Site Investigation Currently Underway	2007 (Projected)	Not known at this time

Site	Regulatory Action	Year Action Taken	Remedial Actions	Status	Completion Year or Estimated Completion Year	Dredged or Capped PCB Marine Sediment Volume (Cubic Yards)
San Diego Bay Shoreline, 32nd Street Naval Station	Undertake TMDL Development Project	2007	TMDL and sediment cleanup (proposed)	Site Investigation Currently Underway	2009 (Projected)	Not known at this time
Solar Turbines	NA – DTSC Lead	NA	Strom drain cleanup	Remedial Investigation/Feasibility Study Underway		Not known at this time.
Goodrich Aerostructures	Issued CAO No. 98-08	1998	Storm drain mitigation & dredging of tidal marsh sediment	Completed	2004	531 tons from tidal marsh

Finally, we have concerns about using the 20 ng/g screening value from the Brodberg and Pollack study (1999)[2] as a threshold value for listing the Bay for non-attainment of the Clean Water Act section 101(a) fishable use. The 20 ng/g screening level is inappropriate to use as an indicator of impairment because the screening level is overly conservative and does not demonstrate the existence of a human health risk from fish consumption. Such a risk can only be determined through a more complete assessment.

Brodberg and Pollack (1999) measured the levels of selected target chemicals in fish from two California Lakes to provide an initial database to determine whether additional sampling and health evaluation of the data were warranted in either lake. The report stated that:

> "The Screening Value (SV) approach is recommended by the USEPA (1995) to identify chemical contaminants in fish tissue at concentrations which may be of human health concern for frequent consumers of sport fish. The SVs 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."

Since the authors of the report did not recommend the screening levels be used to trigger consumption advisories, using the screening levels to place San Diego Bay on the 303(d) list for PCBs in fish tissue is premature. The fish tissue data from San Diego Bay indicate that more detailed studies are needed to determine if PCB levels in Bay fish present a significant human health risk.

[2] Brodberg, Robert K., and Gerald A. Pollock. 1999. Prevalence of selected target chemical contaminants in sport fish from two California lakes: Public Health Designed Screening Study. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment. 21 pp. plus Appendices.

Further, in its 2004 Report on Environmental Protection Indicators for California (EPIC)[3] the State Water Board did not report an EPIC Indicator for Fish Consumption Advisories. The stated reason in the report was that 2001 and 2002 data were not complete enough for the Office of Environmental Health Hazard Evaluation to conduct a full assessment. San Diego Bay should not be listed for PCB impairment in fish tissue until data are sufficient to conduct a full assessment, and a fish consumption advisory is issued.

This approach is consistent with the U.S. Environmental Protection Agency's (USEPA) recommendations[4] on the use of fish consumption advisories in determining attainment of water quality standards and listing impaired waterbodies under Clean Water Act section 303(d). For the purposes of determining whether a waterbody is impaired and should be included on the List, USEPA considers a fish consumption advisory, and the supporting data, to be existing and readily available data and information that demonstrates non-attainment of a Clean Water Act section 101(a) fishable use when:

1. the advisory is based on fish tissue data;
2. the data are collected from the specific waterbody in question; and
3. the risk assessment parameters of the advisory are cumulatively equal to or less protective than those in the State water quality standards.

The USEPA is silent on the use of a fish tissue screening values as indicators of impairment.

8. General Comments

Regarding water quality objectives for bacteria listings, the Ocean Plan and the Basin Plan should be cited as the source of the bacteria water quality objectives. . The draft currently cites Assembly Bill 411 as the source of the bacteria water quality objectives. Assembly Bill 411 was codified in the Health and Safety Code and is discussed in the Ocean Plan, but is not, in and of itself, a water quality objective in the Ocean Plan. The Health and Safety Code Beach Monitoring requirements are not part of the Region 9 Basin Plan and are not appropriate to site as water quality objectives for inland surface water, enclosed bays, and estuaries such as Mission Bay.

The San Diego Water Board agrees that chronic toxicity can affect aquatic life beneficial uses, but the rationale for applying it to RARE or WILD beneficial uses has not been described in adequate detail for the purposes of these listings. Without additional information, this is not sufficient to support the impairment to RARE or WILD beneficial uses.

[3] State Water Board. January 2004. 2003 Update of water-related EPIC indicator trends relevant to the work of the State Water Resources Control Board and Regional Water Quality Control Boards. 45 pp. plus appendices.
[4] USEPA. October 24, 2000. Letter from Geoffrey H. Grubbs and Robert H. Wayland III. USEPA Office of Water. WQSP-00-03.

Attachments:

1. Analysis of Mission Bay Bacteria Data for Dry Weather and Storm Weather
2. Location Maps of Mission Bay Sampling Points and Extent of Impairment for Dry Weather and Storm Weather
3. Aliso Creek Data Analysis
4. Bacteria Data and Analysis Submitted by the City of Laguna Beach
5. Bacteria Data and Analysis Submitted by the City of Carlsbad
6. 18 Fact Sheets Regarding New Proposed Beach Delistings for Orange and San Diego Counties
7. Additional Information of Support Beach Delistings Submitted by the City of Laguna Beach