

From: James Smith
To: Nancy Richard
Date: 8/29/03 2:59PM
Subject: Re: 303d GIS files and electronic files

Hi Nancy,

I have finished my initial review of the SWRCB version of the 303(d) shape files for R9. Most of it looks fine. However, I am disappointed to see that a few of the changes we had previously requested to be corrected have not been. I point out the outstanding issues below:

1. - The stretch of Pacific Ocean Shoreline, at Bermuda Avenue should not be listed. The following was emailed to Adam Morrill on 5 Nov 02: For the listing "Pacific Ocean Shoreline, San Diego HU" the extent of listing should include only Part 1 of 2 and not the more southern stretch identified as Part 2 of 2. If you have not yet digitized the maps, please exclude this southern extent of impairment. The total linear distance should only be 0.5 miles. Please let me know if you are able to do this.

2. - Green Valley Creek is improperly represented. The correct shapefiles were emailed to you guys on 6 May 03 by Mettja Hong (former intern). Please update.

3. - Chollas Creek. Can we add about 0.5 miles of impairment to the Southern Fork? This fork joins the currently listed portion NW of the I5 / I15 interchange.

4. - Mission Bay should have just the shoreline listed for Bacterial Impairments and just the areas near the mouths of Rose and Tecolote Creek listed for eutrophic and lead. I understand that this may not be possible due to the constraints of 'one area represented for one waterbody' in the system.

X 5. - The San Diego River should be a continuous line from Carlton Hills Blvd Bridge all the way down to the Pacific Ocean. The line currently is missing the upper portion and contains 4 other missing segments.

6. - The Tijuana River should also be a continuous line, but it has 2 missing segments.

7. - "pName" issues: Kit Carson Creek is improperly named San Bernardo Valley, the upper portion of the Santa Margarita River (u/s of Rainbow Creek) is improperly named Temecula Creek and the upper most portion of the impaired segment of the San Diego River is improperly named Forrester Creek.

Of all these issues, items #1 and #2 are the most critical. These corrections should be made asap. Items 3 - 7 are much less of a concern.

Thank you.
-jimmy

J. Smith
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Please take the time to fill out our electronic customer service survey located at <http://www.arb.ca.gov/calepa/cepacsur.htm>.

CC: Art Coe; Craig J. Wilson; David Barker; Deborah Jayne; John Robertus; Tim Stevens

From: James Smith
To: Yates, Randal
Date: 4/26/2006 11:48:55 AM
Subject: Re: Fwd: Chollas map

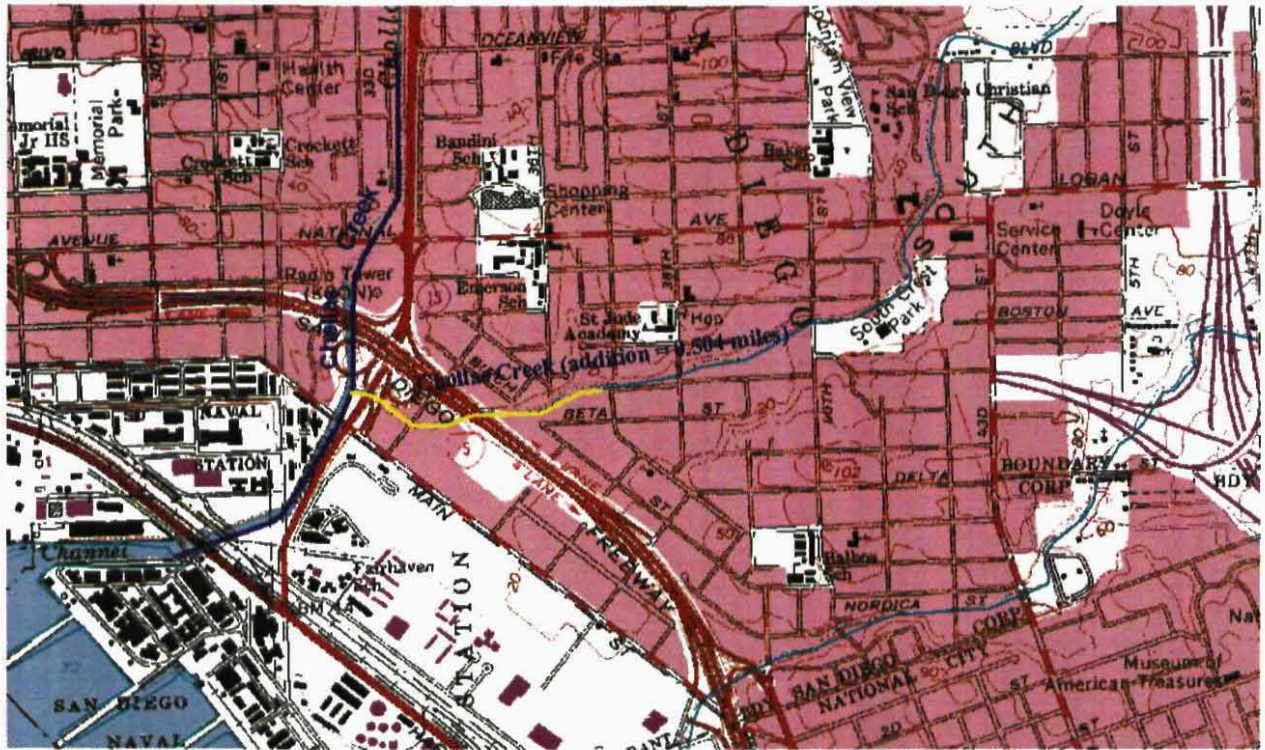
Hi Randy,

I found a email from me to Nancy Richard dated 9 Aug 2003 that originally requested the change to the Chollas Creek map. I am sure that the request was associated with the 2002 303(d) list update. Why are we revisiting this issue now that the list has been approved? This request was most likely made based upon data from the CHollas Creek Diazinon TMDL that showed station DPR(2) to have concentrations of diazinon that warranted listing.

I hope this helps,
-jimmy

J. Smith
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Please take the time to fill out our electronic customer service survey located at <http://www.arb.ca.gov/calepa/cepacsur.htm> .





THE CITY OF SAN DIEGO

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January 31, 2006

Email: commentletters@waterboards.ca.gov

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



Ms Potter:

SUBJECT: Comments Regarding the Revision to Federal Clean Water Act Section 303(d) List of Water Quality Limited Segments for California

The City of San Diego appreciates your extension of the comment period for the Revision to Federal Clean Water Act Section 303(d) List of Water Quality Limited Segments for California. The Metropolitan Wastewater Department / Storm Water Pollution Prevention Division and the Water Department have reviewed the proposed 303(d) list and offer the following comments and recommendations.

Comments and Recommendations by the Storm Water Pollution Prevention Division

The Storm Water Division would like to take this time to thank the State Board for the Water Quality Control Policy for Developing California's Clean Water Act (CWA) Section 303(d) List. We believe that a policy that is consistently applied across the state will help improve water quality. We recommend that all impaired waterbody segment listings be for particular pollutants and not for conditions. We would like to provide comments regarding a few issues to your attention.

REGION 9 - LISTING PROPOSALS

Los Penasquitos Creek: Phosphate and Total Dissolved Solids

These two proposed listings are based upon 2 and 4 samples. These listings do not meet the minimum sample size (5) for conventional pollutants as outlined in State Board Policy,



Storm Water Pollution Prevention Program

1970 B Street, MS 27A • San Diego, CA 92102
Hotline (619) 235-1000 Fax (619) 525-8641



Table 3.2: *Minimum Number of Measured Exceedances Needed to Place a Water Segment on the Section 303(D) List for Conventional or Other Pollutants.*

San Diego Bay: America's Cup Harbor, Harbor Island East and West, and Marriott Marina

- Recommend that the State Board identify either total or dissolved copper as the pollutant.

REGION 9 - DELISTING PROPOSALS

The City of San Diego supports most of the beach delisting recommendations; however, PB Point is the northern portion of the Tourmaline Surf Park in the Scripps HA, does not meet the criteria for delisting and should not be delisted. Currently, the City of San Diego is conducting a special study, where future management actions can be determined to address bacteria impairments. This study is scheduled to be completed in 2006.

REGION 9 - REQUESTED AREA CHANGES

Chollas Creek: extend area 0.5 miles up the south fork

San Diego River: extend area an additional six miles upstream

We understand that the requested area changes are based upon re-evaluation of existing data. The rationale for the change was not included for review. We would appreciate the opportunity to review this rationale.

It is our understanding that the "Tributary Rule" applies to all upstream tributaries of any 303(d) impaired waterbody segment. If this application of the rule is correct, then how would an upstream expansion of a segment affect the practices of a discharger such as the City of San Diego?

Mission Bay Shoreline

Please provide an explanation of the requested change. The City of San Diego also requests time to review said evidence and be able to provide comments to the State Board regarding this issue.

REGION 9 - 303(D) TMDL SCHEDULE

The City of San Diego recommends updating the project completion dates. Currently there are four TMDLs within our boundaries that have 2005 deadlines identified and they are not completed at this time.

CEQA

Lastly, will the State Board be preparing a CEQA document for public review and comment regarding this proposed 303(d) listing? The City of San Diego requests time to review and comment on the CEQA analysis for this process.

If you have any questions regarding the Storm Water Division's comments or recommendations, please contact Ruth Kolb, Storm Water Specialist, at 619.525.8636 or at rkolb@sandiego.org.

Comments and Recommendations by the San Diego Water Department

The San Diego Water Department [SDWD] has reviewed the Revisions to Clean Water Act Section 303(d) List of Water Quality Impaired Segments for California and has the following comments and recommendations.

In this section we are commenting only on the proposed listing of the San Diego Water Department's source water reservoirs. Specifically, our review and comments are limited to the proposed listings of these water bodies: Barrett, El Capitan, Hodges, Miramar, Morena, Murray, Otay, San Vicente, and Sutherland Reservoirs

Background

The SDWD supplies treated drinking water to 1.3 million people in the City of San Diego and neighboring communities. The SDWD operates nine drinking source water reservoirs in San Diego County. These reservoirs impound local runoff from 926 square miles of watershed lands in San Diego County. They also store water imported into the region. The reservoirs are critical components of the regional water supply system.

The SDWD is concerned about the discharge of pollutants from upstream areas that might degrade water quality in its reservoirs. Clearly, the SDWD, the State Water Resources Control Board, and the San Diego Regional Water Quality Control Board are allies in protecting drinking source waters. We see the Clean Water Act Section 303(d) process as an important tool for protecting drinking water sources. Nonetheless, we believe many of the currently proposed listings of the SDWD reservoirs do not help to protect water quality and do not sustain any beneficial use - and therefore should not be adopted.

It is important to note that for each of the above water bodies all of the monitoring data that led to the existing or proposed listings were collected by the SDWD and supplied to the San Diego Regional Water Quality Control Board. Because we collected the samples, performed the field and laboratory analyses, assessed the results, and maintain the data archive, we are very familiar with these data.

General Comments

The SDWD has five general comments on the existing and proposed 303(d) list for reservoirs and their tributary streams.

1] The proposed listings of the reservoirs are based on only a small portion of the available data. The SDWD has been extensively monitoring its reservoirs for sixteen years. This has resulted in tens of thousands of data points, all of which are available to the State Board and the Regional Board. Only a fraction of these data were considered by State

Board staff - had the full set of data been used there would probably be different outcomes. The SDWD has identified cases where a reservoir has been proposed for listing based on a limit data set, but where consideration of all available data leads to the conclusion that the water body-pollutant combination should not be listed. Examples are detailed in comments #7 and #8, below.

We urge the State Board to consider all available data prior to deciding on the proposed revisions of the 303(d) list.

2] The SDWD believes that listing reservoirs which store imported water as not meeting the water quality standards for Total Dissolved Solids [TDS] and for individual salt constituents does not help to protect water quality and does not sustain any beneficial use. We recommend against listing any reservoir that stores imported water for TDS or individual salt constituents. Details on this matter are in comment #6, below.

3] Many of the proposed listings of the SDWD's reservoirs are for water quality constituents where the exceedances are the result of naturally occurring sources or are the result of a natural process within the reservoir. In these cases the exceedances are not the result of a discharge of a pollutant. The scientific weight-of-evidence approach shows that these exceedances are due to natural causes and, therefore, these water body-pollutant combinations should be dropped from the proposed list. Examples are the proposed listing of reservoirs for color, pH, manganese, and iron, which are detailed in comments #7, #9, and #10, below.

4] To further address our concerns in comments #2 and #3, the SDWD recommends that the State Board's "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" be revised to acknowledge that reservoirs with the beneficial use designation "MUN" (or potentially for other beneficial uses) that store imported water, or are effected by natural processes in their watersheds or in the reservoirs, should not be listed as impaired when a scientific weight-of-evidence approach indicates that the exceedance of Basin Plan standards is not caused by discharges in the watershed. Further, we recommend that this approach should be used to reevaluate the proposed 2006 listings before they are adopted.

5] Even though most of the suggested "impairments" of the reservoirs in no way effect the suitability of the reservoirs as sources of drinking water, the SDWD is concerned that these listings of the drinking water sources might alarm the public. It is our understanding that the inclusion of a SDWD reservoir on the 303(d) list does not impose any sort of statutory limitation on the use of the reservoir as a source of supply to our system, and we are confident that suggested "impairments" pose no health risk or operational constraint for these drinking water sources. We recommend that the State Board and San Diego Regional Board explicitly state this in all documents relating to the 303(d) list.

Specific comments

The SDWD has the following specific comments on the proposed 303(d) list for reservoirs and tributary streams.

6] Listing reservoirs which store imported water as not meeting the water quality standard for Total Dissolved Solids [TDS] and for individual salt constituents does not help to protect water quality and does not sustain any beneficial use.

Water imported into the San Diego region by the Metropolitan Water District of Southern California and the San Diego County Water Authority has TDS close to or greater than the water quality objective set in the Water Quality Control Plan for the San Diego Basin (9) (San Diego Basin Plan). Imported water generally has TDS of about 500 mg/l.

Evaporative concentration slightly increases the TDS of stored water. As a result, any reservoir that stores imported water will have TDS of 500 mg/l or greater. The Basin Plan's water quality objective for TDS for the SDWD's reservoirs is 300 mg/l [El Capitan and San Vicente Reservoirs] or 500 mg/l [Miramar and Murray Reservoirs]. Thus, it is essentially impossible for these reservoirs to meet the water quality objective for TDS. The exceedances of TDS at the reservoirs are not the result of the discharge of a pollutant to the reservoirs; rather, the TDS concentrations are an inherent quality of the imported water stored in the reservoirs.

Similar to TDS, the SDWD believes that listing reservoirs for the major salt constituents, specifically chloride and sulfate, does not help to protect of water quality or sustain beneficial uses. Imported water usually carries these salts in concentrations that are greater than the Basin Plan's water quality objectives.

We believe this matter needs to be addressed and remedied in the next Triennial Review of the San Diego Basin Pan; i.e., the Basin Plan should be changed such that it recognizes the inherent characteristics of imported water and sets appropriate water quality standards for reservoirs that store imported water. In the meantime, we recommend that no SDWD reservoirs be listed for TDS, chloride, or sulfate. Specifically, we recommend that the following water body – pollutant combinations be dropped from the proposed 303(d) list:

- El Capitan Lake [Reservoir] - Total Dissolved Solids [Staff Report, Volume 1, p. 28 and Fact Sheets, Region 9, p.60]
- Miramar Reservoir - Sulfates [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.124]
- Miramar Reservoir - Total Dissolved Solids [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.126]
- Murray Reservoir - Total Dissolved Solids [Staff Report, Volume 1, p. 229 and Fact Sheets, Region 9, p.134]
- San Vicente Reservoir - Chloride [Staff Report, Volume 1, p. 30 and Fact Sheets, Region 9, p.232]
- San Vicente Reservoir - Sulfates [Staff Report, Volume 1, p. 30 and Fact Sheets, Region 9, p.241]

- San Vicente Reservoir - Total Dissolved Solids [Staff Report, Volume 1, p. 30 and Fact Sheets, Region 9, p.243]

7] The listing of SDWD reservoirs for the pollutant “color” is not protective of any beneficial use of the reservoirs. The San Diego Basin Plan establishes a numerical water quality objective for color for inland surface waters at 20 color units. It is our understanding that this numerical objective for color was derived from state and federal drinking water standards. In this context, color is an optical property of water affecting the aesthetic palpability of treated drinking water, and has meaning only when treated drinking water is dispensed into a container and viewed by a person. In the reservoirs, the numerical measurement of color at the low levels set by the San Diego Basin Plan has no significance as an indicator of water quality - color is not toxic to aquatic organisms; color is not harmful to recreational users; color does not affect the aesthetic quality of raw water in a reservoir.

None of the other basin plans in California establish a numerical standard for color. Rather, each of the other basin plans has a only narrative objective for color, for example “Waste discharges shall not result in coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses” [Water Quality Control Plan, Santa Ana River Basin (8), p. 4-3].

In short, the numerical objective for color in the San Diego Basin Plan, and the proposed listing of reservoirs for color, does nothing to sustain beneficial uses or protect water quality.

The SDWD believes that the numerical standard for color in the San Diego Basin Plan should be eliminated or modified. This should be addressed and remedied in the next Triennial Review of the San Diego Basin Pan. In the meantime, we recommend that no SDWD reservoirs be listed for color. Specifically, we recommend that the following water body – pollutant combinations be dropped from the proposed 303(d) list:

- Barrett Lake [Reservoir] - color [Staff Report, Volume 1, p. 27 and Fact Sheets, Region 9, p.14]
- El Captian Lake [Reservoir] - color [Staff Report, Volume 1, p.28 and Fact Sheets, Region 9, p.52]
- Morena Reservoir - color [Staff Report, Volume 1, p. 29and Fact Sheets, Region 9, p.128]
- Otay Reservoir, Lower - color Staff Report, Volume 1, p.29 and [Fact Sheets, Region 9, p.163]
- San Vicente Reservoir - color [Staff Report, Volume 1, p.30 and Fact Sheets, Region 9, p.234]

8] El Capitan Reservoir is proposed for listing for Antimony and Beryllium [Staff Report, Volume 1, p. 28 and Fact Sheets, Region 9, p. 48 and p. 50, respectively]. We recommend that these two proposed listings be dropped because of errors in assessing the data and

because assessment of all of the available data clearly shows that these constituents do not rise to the level needed to list.

The SD Basin Plan water quality objective [WQO] for Antimony in the El Capitan HA is 0.006 mg/l [SD Basin Plan, Table 3-4, p. 3-9]. The Fact Sheets states that two of ten samples collected between 1996 and 2000 exceeded the WQO. The SDWD's data archive does not support this assessment. In the SDWD's data archives, of 87 samples from El Capitan Reservoir, collected from April 12, 1995 to November 9, 2005, only one exceeded the WQO of 0.006 mg/l. From Table 3.1 of the Listing Policy, for a sample size of 87, the minimum number of exceedances needed to place the water segment – pollutant combination on the 303(d) list is eight. Thus, the water segment – pollutant combination should not be listed.

The SD Basin Plan water quality objective [WQO] for Beryllium in the El Capitan HA is 0.004 mg/l [SD Basin Plan, Table 3-4, p. 3-9]. The Fact Sheets states that two of two samples collected between 1999 and 2000 exceeded the WQO. The SDWD's data archive does not support this assessment. In the SDWD's data archives, of 84 samples from El Capitan Reservoir, collected from April 12, 1995 to November 9, 2005, one exceeded the WQO of 0.004 mg/l. From Table 3.1 of the Listing Policy, for a sample size of 84, the minimum number of exceedances needed to place the water segment – pollutant combination on the 303(d) list is eight. Thus, the water segment – pollutant combination should not be listed.

With regard to the proposed listing of El Capitan Reservoir for Antimony and Beryllium, it is important to note that in more than 80 samples analyzed for each pollutant only one sample measured greater than the WQO, and for both pollutants the exceedance was from the same sample, collected on September 8, 1999. For both exceedances, the measured value was more than one hundred times greater than the next highest measured value in the entire data set. This is an extraordinarily unlikely coincidence, and argues that these results are not representative of the water in El Capitan Reservoir. The high measured values are almost certainly the results of either a) a contaminated sample container, or b) a sample of reservoir water that, by chance, contained suspended mineral particles rich in Antimony and Beryllium; i.e., a non-representative sample.

A report of the SDWD's entire data set for Antimony and Beryllium at El Capitan Reservoir from 1995 to 2005 is in Attachment A.

9] The proposed listing of SDWD reservoirs for the pollutant "pH (high)" is not appropriate because elevated pH results from natural processes in the reservoirs and is not the result of the discharge of a pollutant. Additionally, the proposed listing of the reservoirs for pH (high) is based on only a small portion of the available data. Consideration of the full data sets would likely lead to conclusions not to list.

In the SDWD's reservoirs [and other reservoirs in southern California] pH in surface waters is directly influenced by photosynthesis in the reservoir. Photosynthetic activity of,

naturally occurring planktonic algae consumes dissolved carbon dioxide from the water; the depletion of dissolved carbon dioxide shifts the carbonate – bicarbonate equilibrium, which drives pH towards higher values. Because photosynthesis requires abundant sunlight, this process is limited to the well-lit surface waters, and elevated pH values are found only in surface waters. Furthermore, the phenomenon has both a seasonal and a diurnal component. Elevated pH occurs in late-spring through early-fall because there is sufficient sunlight to drive photosynthesis during these seasons. Because photosynthesis requires light it is limited to daylight hours, and at night photosynthesis ceases and respiration dominates; this results in a shift of pH toward lower values. The SDWD's monitoring of its reservoirs is done in the daytime - as a result, our data set captures the elevated pH values but misses the lowered pH values.

The important point of the above discussion is that the elevated pH values we've measured in the reservoirs results from a natural process [photosynthesis] – it is not the result of the discharge of any pollutant.

In assessing pH at the reservoirs the State Board staff only used data from samples collected at the surface of the reservoirs. As described above, measurements of pH at the surface are commonly not representative of pH through the entire depth of a reservoir. The SDWD measures pH in profile at its reservoirs, collecting data at one meter intervals through the water column. These profiles have been done weekly since 1989. This yields a huge data set for measured pH at each reservoir. Our preliminary review shows that, when all data are considered, the number of pH values exceeding the water quality objective does not rise to the level needed to list. We request additional time to complete the assessment of our data sets and forward that assessment to the State Board.

For these reasons, the SDWD recommends that the proposed listing of reservoirs for pH (high) be dropped. Specifically, we recommend that the following water body – pollutant combinations be dropped from the proposed 303(d) list:

- Barrett Lake [Reservoir] - pH (high) [Staff Report, Volume 1, p. 27 and Fact Sheets, Region 9, p.18]
- El Captian Lake [Reservoir] - pH (high) [Staff Report, Volume 1, p. 28 and Fact Sheets, Region 9, p.62]
- Hodges, Lake [Reservoir] - pH (high)) [Staff Report, Volume 1, p. 28 and Fact Sheets, Region 9, p.101]
- Morena Reservoir - pH (high) [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.132]
- Murray Reservoir - pH (high)) [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.140]
- Otay Reservoir, Lower - pH (high) [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.171]
- San Vicente Reservoir - pH (high) [Staff Report, Volume 1, p. 30and Fact Sheets, Region 9, p.243]
-

- Sutherland Reservoir - pH (high)) [Staff Report, Volume 1, p. 30 and Fact Sheets, Region 9, p.260]

10] The proposed listing of SDWD reservoirs for manganese and iron is not appropriate because the elevated levels of iron and manganese result from natural processes occurring within the reservoir, and are not the result of the discharge of a pollutant.

Like other reservoirs in southern California, the SDWD reservoirs have an annual cycle of temperature and density stratification. Beginning in spring, the annual cycle is this:

- surface water, warmed by sunlight energy, becomes less dense and “floats” atop the deep water;
- a distinct thermocline develops separating the surface water from the deep water;
- the surface water is well mixed by wind energy and, from contact with the atmosphere, remains well aerated;
- the deep water is isolated from the atmosphere and becomes “stagnant;”
- these conditions persist through summer and fall;
- by mid-winter the surface water cools to the point that its temperature and density is similar to the deep water; and
- wind energy mixes the entire reservoir from top to bottom.

As a result of seasonal stratification, in the late summer and fall deep water in the reservoir becomes anoxic; i.e., depleted of oxygen. Under anoxic conditions at the sediment / water interface some compounds, including manganese and iron, become soluble and are released from the sediment into the water. Concentrations of the soluble compounds become higher in the deep water. In winter stratification breaks down, the reservoirs mix from top to bottom, and the entire water volume is well oxygenated. Under these conditions the compounds become insoluble and are returned to the sediment as precipitates. Thus, there is an annual cycling of manganese and iron within the reservoir, mediated by natural seasonal stratification. Elevated concentrations of manganese and iron are found only in deep water and peak in summer and fall. As an example of this condition, Attachment B shows average monthly values for manganese at San Vicente Reservoir for 1995 to 2005. These data are typical for other SDWD reservoirs.

The above discussion demonstrates that seasonal concentrations of manganese and iron are the result of natural processes in the reservoirs. They are not the result of the discharge of a pollutant. For these reasons, the SDWD recommends that the proposed listing of reservoirs for manganese and iron be dropped. Specifically, we recommend that the following water body – pollutant combinations be dropped from the proposed 303(d) list:

- Barrett Lake [Reservoir] - Manganese [Staff Report, Volume 1, p. 27 and Fact Sheets, Region 9, p.16]
- El Captian Lake [Reservoir] - Manganese [Staff Report, Volume 1, p. 28 and Fact Sheets, Region 9, p.58]
- Hodges, Lake [Reservoir] - Manganese [Staff Report, Volume 1, p. 28 and Fact

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- Sheets, Region 9, p.97]
- Morena Reservoir - pH (high) [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.130]
 - Otay Reservoir, Lower - Manganese [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.167]
 - San Vicente Reservoir - Manganese [Staff Report, Volume 1, p. 30 and Fact Sheets, Region 9, p.249]
 - Sutherland Reservoir - Manganese [Staff Report, Volume 1, p. 30 and Fact Sheets, Region 9, p.258]
 - Otay Reservoir, Lower - Iron [Staff Report, Volume 1, p. 29 and Fact Sheets, Region 9, p.165]

If you have any questions regarding the San Diego Water Department's comments or recommendations, please contact Jeffery Pasek, Senior Biologist, at [619]527-7405 or jpasek@sandiego.gov.

Sincerely,



Chris Zirkle
Deputy Director
Metropolitan Wastewater Department
Storm Water Division



Mark Stone
Deputy Director
Water Department
Operations Division

Enclosures: 1. Attachment A: Antimony and Beryllium in El Capitan Reservoir, 1995-2005
2. Attachment B: Average Monthly Manganese in San Vicente Reservoir, 1995-2005

cc: John Robertus, San Diego Regional Water Quality Control Board
Craig Wilson, State Water Resources Control Board
Mic Stewart, Metropolitan Water District of Southern California
Marcia Torobin, Metropolitan Water District of Southern California
Tim Miller, Deputy City Attorney, City Attorney's Office
Dennis Bostad & Rick Alexander, Sweetwater Authority
Dave Bolland, Association of California Water Agencies
Mark Umphres, Helix Water District

State Water Resources Control Board

January 31, 2005

Attachement A

San Diego Water Department

Water Quality Laboratory

Antimony and Beryllium in El Capitan Reservoir, 1995 - 2005

Sample Date	Source*	Antimony, mg/l	Beryllium, mg/l
12-Apr-95	ECA-0	ND #	ND
21-Nov-95	ECA-0	0.000172	ND
3-Jan-96	ECA-0	ND	ND
5-Jun-96	ECA-0	0.0001	ND
11-Sep-96	ECA-0	0.000126	ND
6-Nov-96	ECA-0	ND	ND
4-Dec-96	ECA-0	ND	ND
5-Feb-97	ECA-0	0.00121	
5-Mar-97	ECA-0	0.000109	ND
7-May-97	ECA-0	ND	ND
4-Jun-97	ECA-0	ND	ND
3-Sep-97	ECA-0	0.000211	ND
3-Dec-97	ECA-0	0.000237	ND
4-Feb-98	ECA-0	0.000575	ND
4-Mar-98	ECA-0	ND	ND
3-Jun-98	ECA-0	0.000289	ND
2-Sep-98	ECA-0	ND	ND
7-Oct-98	ECA-0	ND	ND
2-Dec-98	ECA-0	ND	ND
3-Feb-99	ECA-0	ND	ND
3-Mar-99	ECA-0	ND	ND
2-Jun-99	ECA-0	ND	ND
7-Jul-99	ECA-0	ND	ND
4-Aug-99	ECA-0	ND	ND
8-Sep-99	ECA-0	0.0432	0.0255
8-Dec-99	ECA-0	ND	ND
9-Feb-00	ECA-0	ND	ND
8-Mar-00	ECA-0	ND	ND
3-May-00	ECA-0	ND	ND
7-Jun-00	ECA-0	ND	ND
5-Jul-00	ECA-0	ND	ND
9-Aug-00	ECA-0	ND	ND
6-Sep-00	ECA-0	ND	ND
4-Oct-00	ECA-0	ND	ND
8-Nov-00	ECA-0	ND	ND
6-Dec-00	ECA-0	ND	ND
3-Jan-01	ECA-0	ND	ND
7-Feb-01	ECA-0	ND	ND
7-Mar-01	ECA-0	ND	ND
2-Apr-01	ECA-0	ND	ND
7-May-01	ECA-0	ND	ND
6-Jun-01	ECA-0	ND	ND
2-Jul-01	ECA-0	ND	ND
1-Oct-01	ECA-0	ND	ND
5-Dec-01	ECA-0	ND	ND

WQO for Antimony in El Capitan HA	0.006 mg/l
total number of samples	87
samples >0.006 mg/l	1

WQO for Beryllium in El Capitan HA	0.004 mg/l
total number of samples	84
samples >0.004 mg/l	1

State Water Resources Control Board

January 31, 2005

Attachement A

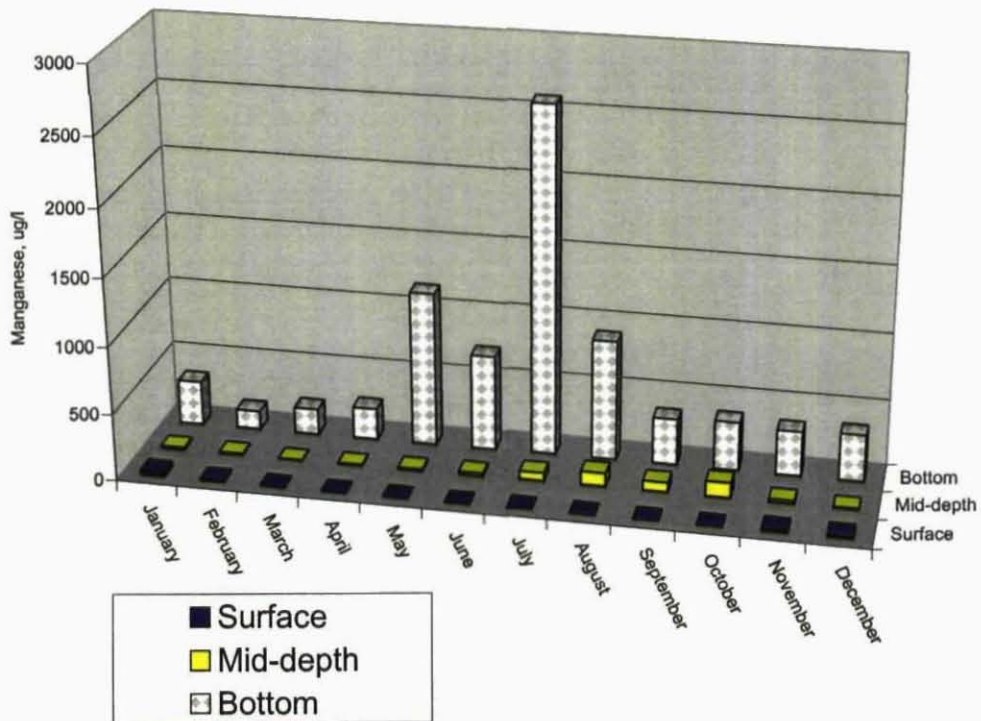
Sample Date	Source*	Antimony, mg/l	Beryllium, mg/l
9-Jan-02	ECA-0	ND	ND
6-Mar-02	ECA-0	ND	ND
10-Apr-02	ECA-0	ND	ND
5-Jun-02	ECA-0	0.00051	ND
10-Jul-02	ECA-0	ND	ND
9-Oct-02	ECA-0	ND	ND
6-Nov-02	ECA-0	ND	ND
11-Dec-02	ECA-0	ND	ND
8-Jan-03	ECA-0	ND	ND
5-Feb-03	ECA-0	ND	ND
9-Apr-03	ECA-0	ND	ND
7-May-03	ECA-0	ND	ND
4-Jun-03	ECA-0	ND	ND
14-Jul-03	ECA-0	ND	ND
4-Aug-03	ECA-0	ND	ND
10-Sep-03	ECA-0	ND	ND
8-Oct-03	ECA-0	ND	ND
3-Nov-03	ECA-0	ND	ND
3-Dec-03	ECA-0	ND	ND
31-Dec-03	ECA-0	ND	ND
7-Jan-04	ECA-0	ND	ND
4-Feb-04	ECA-0	ND	ND
3-Mar-04	ECA-0	ND	ND
7-Apr-04	ECA-0	ND	ND
5-May-04	ECA-0	ND	
9-Jun-04	ECA-0	ND	ND
7-Jul-04	ECA-0	ND	ND
4-Aug-04	ECA-0	ND	ND
9-Sep-04	ECA-0	ND	ND
6-Oct-04	ECA-0	ND	ND
3-Nov-04	ECA-0	ND	
8-Dec-04	ECA-0	ND	ND
5-Jan-05	ECA-0	ND	ND
9-Feb-05	ECA-0	ND	ND
2-Mar-05	ECA-0	ND	ND
6-Apr-05	ECA-0	ND	ND
4-May-05	ECA-0	ND	ND
8-Jun-05	ECA-0	ND	ND
5-Jul-05	ECA-0	ND	ND
3-Aug-05	ECA-0	ND	ND
14-Sep-05	ECA-0	ND	ND
9-Nov-05	ECA-0	ND	ND

State Water Resources Control Board
 January 31, 2005
 Attachment B

Water Quality Laboratory
Average Monthly Manganese in San Vicente Reservoir
1995 - 2005

These data are the average of all values for each month
 Units are ug/l

Month	SVA-O Station A Surface	SVA-MID Station A Mid-depth	SVA-BTM Station A Bottom
January	34.0	15.6	335
February	11.7	10.4	143
March	4.22	1.49	196
April	4.37	7.78	238
May	3.37	14.3	1154
June	2.29	22.5	718
July	1.98	60.1	2587
August	1.95	101	900
September	1.77	73.2	348
October	1.77	115	365
November	22.5	24.8	336
December	22.3	8.93	353



State Water Resources Control Board
 January 31, 2005
Attachement A

San Diego Water Department
 Water Quality Laboratory
 Antimony and Beryllium in El Capitan Reservoir, 1995 - 2005

Sample Date	Source*	Antimony, mg/l	Beryllium, mg/l
12-Apr-95	ECA-0	ND #	ND
21-Nov-95	ECA-0	0.000172	ND
3-Jan-96	ECA-0	ND	ND
5-Jun-96	ECA-0	0.0001	ND
11-Sep-96	ECA-0	0.000126	ND
6-Nov-96	ECA-0	ND	ND
4-Dec-96	ECA-0	ND	ND
5-Feb-97	ECA-0	0.00121	
5-Mar-97	ECA-0	0.000109	ND
7-May-97	ECA-0	ND	ND
4-Jun-97	ECA-0	ND	ND
3-Sep-97	ECA-0	0.000211	ND
3-Dec-97	ECA-0	0.000237	ND
4-Feb-98	ECA-0	0.000575	ND
4-Mar-98	ECA-0	ND	ND
3-Jun-98	ECA-0	0.000289	ND
2-Sep-98	ECA-0	ND	ND
7-Oct-98	ECA-0	ND	ND
2-Dec-98	ECA-0	ND	ND
3-Feb-99	ECA-0	ND	ND
3-Mar-99	ECA-0	ND	ND
2-Jun-99	ECA-0	ND	ND
7-Jul-99	ECA-0	ND	ND
4-Aug-99	ECA-0	ND	ND
8-Sep-99	ECA-0	0.0432	0.0255
8-Dec-99	ECA-0	ND	ND
9-Feb-00	ECA-0	ND	ND
8-Mar-00	ECA-0	ND	ND
3-May-00	ECA-0	ND	ND
7-Jun-00	ECA-0	ND	ND
5-Jul-00	ECA-0	ND	ND
9-Aug-00	ECA-0	ND	ND
6-Sep-00	ECA-0	ND	ND
4-Oct-00	ECA-0	ND	ND
8-Nov-00	ECA-0	ND	ND
6-Dec-00	ECA-0	ND	ND
3-Jan-01	ECA-0	ND	ND
7-Feb-01	ECA-0	ND	ND
7-Mar-01	ECA-0	ND	ND
2-Apr-01	ECA-0	ND	ND
7-May-01	ECA-0	ND	ND
6-Jun-01	ECA-0	ND	ND
2-Jul-01	ECA-0	ND	ND
1-Oct-01	ECA-0	ND	ND
5-Dec-01	ECA-0	ND	ND

WQO for Antimony in El Capitan HA	0.006 mg/l
total number of samples	87
samples >0.006 mg/l	1

WQO for Beryllium in El Capitan HA	0.004 mg/l
total number of samples	84
samples >0.004 mg/l	1

State Water Resources Control Board
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 Attachment A

Sample Date	Source*	Antimony, mg/l	Beryllium, mg/l
9-Jan-02	ECA-0	ND	ND
6-Mar-02	ECA-0	ND	ND
10-Apr-02	ECA-0	ND	ND
5-Jun-02	ECA-0	0.00051	ND
10-Jul-02	ECA-0	ND	ND
9-Oct-02	ECA-0	ND	ND
6-Nov-02	ECA-0	ND	ND
11-Dec-02	ECA-0	ND	ND
8-Jan-03	ECA-0	ND	ND
5-Feb-03	ECA-0	ND	ND
9-Apr-03	ECA-0	ND	ND
7-May-03	ECA-0	ND	ND
4-Jun-03	ECA-0	ND	ND
14-Jul-03	ECA-0	ND	ND
4-Aug-03	ECA-0	ND	ND
10-Sep-03	ECA-0	ND	ND
8-Oct-03	ECA-0	ND	ND
3-Nov-03	ECA-0	ND	ND
3-Dec-03	ECA-0	ND	ND
31-Dec-03	ECA-0	ND	ND
7-Jan-04	ECA-0	ND	ND
4-Feb-04	ECA-0	ND	ND
3-Mar-04	ECA-0	ND	ND
7-Apr-04	ECA-0	ND	ND
5-May-04	ECA-0	ND	
9-Jun-04	ECA-0	ND	ND
7-Jul-04	ECA-0	ND	ND
4-Aug-04	ECA-0	ND	ND
9-Sep-04	ECA-0	ND	ND
6-Oct-04	ECA-0	ND	ND
3-Nov-04	ECA-0	ND	
8-Dec-04	ECA-0	ND	ND
5-Jan-05	ECA-0	ND	ND
9-Feb-05	ECA-0	ND	ND
2-Mar-05	ECA-0	ND	ND
6-Apr-05	ECA-0	ND	ND
4-May-05	ECA-0	ND	ND
8-Jun-05	ECA-0	ND	ND
5-Jul-05	ECA-0	ND	ND
3-Aug-05	ECA-0	ND	ND
14-Sep-05	ECA-0	ND	ND
9-Nov-05	ECA-0	ND	ND

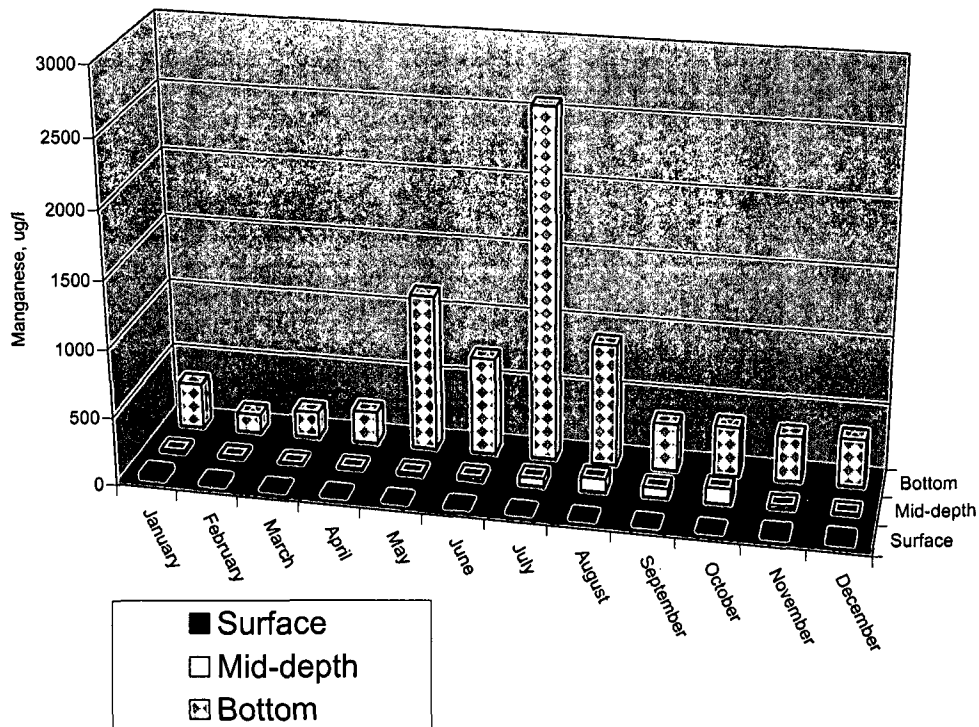
State Water Resources Control Board
 January 31, 2005
 Attachment B

Water Quality Laboratory

**Average Monthly Manganese in San Vicente Reservoir
 1995 - 2005**

These data are the average of all values for each month
 Units are ug/l

Month	SVA-O Station A Surface	SVA-MID Station A Mid-depth	SVA-BTM Station A Bottom
January	34.0	15.6	335
February	11.7	10.4	143
March	4.22	1.49	196
April	4.37	7.78	238
May	3.37	14.3	1154
June	2.29	22.5	718
July	1.98	60.1	2587
August	1.95	101	900
September	1.77	73.2	348
October	1.77	115	365
November	22.5	24.8	336
December	22.3	8.93	353



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Waterbody List

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Factsheet Details

Waterbody ID: CAL9073100020011025093211
 Waterbody Name: El Capitan Lake
 Pollutant Name: Beryllium
 Source Name: -N/A
 Designated Beneficial Uses : MU - Municipal & Domestic
 Factsheet ID: 1791
 LOE ID: 2127

Numeric Line of Evidence

Save Numeric LOE

Assign References

Assign Datasets

LOE Subgroup:

Fraction:

Matrix:

Number of Samples: (numeric)

Number of Exceedances: (numeric)

Standard/Criteria/Objective: From the Basin Plan: For all waters with a municipal beneficial use, the WQO for Beryllium is 0:004 mg/L.

(2000 characters max)

Evaluation Guideline:

(2000 characters max)

Data Used to Assess Water Quality: Data were collected by the City of San Diego Water Dept. from 1999 to 2000. Two of 2 samples were in exceedance.

(4000 characters max)

3/87

Spatial Representation: Samples were collected at El Capitan Reservoir station ECA-0.

(2000 characters max)

Temporal Representation: Samples were collected once each in 09/1999 and 05/2000.

(2000 characters max)

Environmental Conditions:

(2000 characters max)

B.P.
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Waterbody List Factsheet List Decisions Reports Help Logout

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Factsheet Details

Waterbody ID: CAL9073100020011025093211
 Waterbody Name: El Capitan Lake
 Pollutant Name: Antimony
 Source Name: -N/A
 Designated Beneficial Uses : MU - Municipal & Domestic
 Factsheet ID: 1788
 LOE ID: 2124

Numeric Line of Evidence

Save Numeric LOE Assign References Assign Datasets

LOE Subgroup:	Pollutant-Water
Fraction:	Total
Matrix:	Water
Number of Samples:	(numeric)
Number of Exceedances:	(numeric)
Standard/Criteria/Objective:	From the Basin Plan: For all waters with a municipal beneficial use, the WQO for Antimony is 0.006 mg/L.
(2000 characters max)	
Evaluation Guideline:	
(2000 characters max)	
Data Used to Assess Water Quality:	Data were collected by the City of San Diego Water Dept. from 1996 to 2000. Two of 10 samples were in exceedance.
(4000 characters max)	
Spatial Representation:	Samples were collected at El Capitan Reservoir station ECA-0.
(2000 characters max)	
Temporal Representation:	Samples were collected 4-4 times per year from 06/1996 to 05/2000.
(2000 characters max)	<i>Several</i>
Environmental Conditions:	
(2000 characters max)	

Quality Assurance Assessment

Quality Assurance: ?

Unknown ▾

QAPP Information:

(2000 characters max) ?

Empty text input field with up and down arrow icons on the right side.

QA/QC Equivalent:

(2000 characters max) ?

Data used in 2002 assessment.

Text input field containing "Data used in 2002 assessment." with up and down arrow icons on the right side.

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09, 2006

Versio

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Factsheet Details

Waterbody ID: CAL9072100020011025093029
Waterbody Name: San Vicente Reservoir
Pollutant Name: Manganese
Source Name: -N/A
Designated Beneficial Uses : MU - Municipal & Domestic
Factsheet ID: 1393
LOE ID: 1604

Numeric Line of Evidence

[Save Numeric LOE](#)[Assign References](#)[Assign Datasets](#)LOE Subgroup: 

Pollutant-Water

Fraction: 

Total

Matrix: 

Water


Number of Samples: 

(numeric)

Number of Exceedances: 


(numeric)

Standard/Criteria/Objective:


(2000 characters max) 

The water quality objective for manganese in San Vicente Reservoir is 0.05 milligrams/liter (mg/l) according to Basin Plan, Table 3-2 entitled, Water Quality Objectives. This concentration is not be exceeded more than 10% of the time during any one year period.

Evaluation Guideline:


(2000 characters max) 

Data Used to Assess Water Quality:

(4000 characters max) 


Data were collected by the City of San Diego Water Dept. from 1996 to 2000. Seven of 55 samples were in exceedance. Three of the 5 years had exceedances more than 10% of the time.

Spatial Representation:

(2000 characters max) 

Samples were collected at San Vicente Reservoir site SVA-0.

Temporal Representation:



(2000 characters max) 



Samples were collected on a monthly basis from 01/02/1996 to 09/06/2000.



Environmental Conditions:



(2000 characters max) 



Quality Assurance Assessment

Quality Assurance:  Unknown 

QAPP Information: 
(2000 characters max) 

QA/QC Equivalent: 
(2000 characters max) 

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Factsheet Details


Waterbody ID: CAR9061000020011025112826
Waterbody Name: Los Penasquitos Creek
Pollutant Name: *Phosphate*
Source Name: Source Unknown
Designated Beneficial Uses : WA - Warm Freshwater Habitat
Factsheet ID: 3278
LOE ID: 3865


Numeric Line of Evidence


[Save Numeric LOE](#)
[Assign References](#)
[Assign Datasets](#)


LOE Subgroup: 
Fraction: 
Matrix: 
Number of Samples: (numeric) 
Number of Exceedances: (numeric) 


Standard/Criteria/Objective: 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. Water Quality Control Plan for the San Diego Basin Goal of 0.1 mg/l in stream and flowing waters 

Evaluation Guideline: 

Data Used to Assess Water Quality: Four water samples, two samples exceeding. (SWAMP, 2004). 

Spatial Representation: One station at Los Penasquitos Creek: 32.90588 -117.22703. 

Temporal Representation: Four samples collected from March through September of 2002. 

Environmental Conditions: Los Penasquitos Creek, 906.10. 

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Monday, Apr 24, 2006
Versio

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Factsheet Details

Waterbody ID: CAR9061000020011025112826
 Waterbody Name: Los Penasquitos Creek
 Pollutant Name: Total Dissolved Solids
 Source Name: Highway/Road/Bridge Runoff
 Designated Beneficial Uses : AG - Agricultural Supply
 Factsheet ID: 930
 LOE ID: 751

Numeric Line of Evidence

Save Numeric LOE Assign References Assign Datasets

LOE Subgroup: Pollutant-Water
 Fraction: Total Dissolved
 Matrix: Water
 Number of Samples: (numeric)
 Number of Exceedances: (numeric)

Standard/Criteria/Objective: From the Basin Plan, Table 3-2: For inland surface waters with all Beneficial Uses, the WQO for Total Dissolved Solids is 500mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period. (2000 characters max)

Evaluation Guideline: (2000 characters max)


Data Used to Assess Water Quality: Data is from samples collected by the RWQCB on 6/3/1998 in Los Penasquitos Creek. Samples were collected at two sites; upstream of Black Mountain Rd and at Cobblestone Creek Rd. Two of the 2 samples are in exceedance. (4000 characters max)
(SDRWQCB 1998b)


Spatial Representation: Samples were collected at two locations in Los Penasquitos Creek: upstream of Black Mountain Rd. and at Cobblestone Creek Rd. (2000 characters max)


Temporal Representation: Samples were collected on 6/3/1998 (2000 characters max)

Environmental Conditions: (2000 characters max)

Quality Assurance Assessment

Quality Assurance:  Unknown

QAPP Information: 
(2000 characters max)

QA/QC Equivalent: 
(2000 characters max)

Data used in 2002 Assessment.

LOS PENASQUITOS CREEK

TDS —

- 6 samples collected bet. 11/29/01 and 2/11/03
- 6 of 6 samples exceeded

* Combine this data w F.S. data:

- 8 of 8 exceeded

- One Station ~~3~~ Locations (from FS) + Monitoring Station 4.

- 6/3/1998 - 2/11/2003

- ADD References

- SDRWQCB, ~~2002~~ 1998b

- County of San Diego

Region 9

Water Segment: Pacific Ocean Shoreline, Scripps HA

Pollutant: Bacteria Indicators

Decision: Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.

Nine individual lines of evidence are available in the administrative record to assess this pollutant. An insufficient number of samples exceed the bacteriological standards to warrant keeping this location on the section 303(d) list.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for the removal of this water segment-pollutant combination from the section 303(d) list.

This conclusion is based on the staff findings that:

1. The data used may satisfy the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. There were 214 out of 3,770 samples that exceeded the total coliform, fecal coliform and enterococcus standards and these do not exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should be removed from the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation, R2 - Non-Contact Recreation

<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Bacteria Objective (AB411, 1997): Enterococcus: 35"per 100 ml for 30-day average", single sample: 104 per 100 ml. Fecal coliform: 30-day average- 200 colonies/100 mL. Single sample- 400 colonies/100mL. Total coliform: 30-day average: 1,000 colonies/100 mL, single sample: If FC/TC ratio is < 0.1, 10,000 colonies/100 mL, if FC/TC ratio is > 0.1, 1,000 colonies/100mL.
<i>Data Used to Assess Water Quality:</i>	A total of 412 analyses were performed from 1999 through 2003. Of these, there were seven exceedances of the bacterial standards for all 3 indicators: 2 exceedances of the fecal coliform standard and one exceedance of the enterococcus standard (City of San Diego, 2004).
<i>Spatial Representation:</i>	Tourmaline Surf Park. This site is located in Pacific Beach near the end of Turquoise Street. Eight stations were monitored at Tourmaline Surf Park during this time: one at the sampling point, five to the left, and two to the right of the site.
<i>Temporal Representation:</i>	Data were available for this assessment from 04/1999 through 05/2003. Samples were collected during the wet and dry seasons, but only limited data were available from 2002 and 2003.
<i>Environmental Conditions:</i>	There were no sewage spills that impacted the Tourmaline Surf Park site from 1999 through 2003. Southern California has three distinct weather/hydrological conditions: summer dry weather, winter dry weather, and storm events. The data set used in this analysis includes summer and winter season data. Whether or not storm event samples are included in the data set are not known. For future water quality assessments, the RWQCB may classify bacteria samples as summer dry, winter dry, or storm event samples to ensure adequate representation of all three weather/hydrological conditions.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Bacterial Objective (AB411, 1997): Enterococcus: 35"per 100 ml for 30-day average", single sample: 104 per 100 ml. Fecal coliform: 30-day average- 200 colonies/100 mL. Single sample- 400 colonies/100mL. Total coliform: 30-day average: 1,000 colonies/100 mL, single sample: If FC/TC ratio is < 0.1, 10,000 colonies/100 mL, if FC/TC ratio is > 0.1, 1,000 colonies/100mL.
<i>Data Used to Assess Water</i>	A total of 381 analyses were performed from 1999 through 2003. Of these, there were only 9 exceedances of the bacterial standards for all 3