



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

APR 16 1999

Mr. Walt Pettit
Executive Director
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 94912-0100

Dear Mr. Pettit:

Thank you for submitting the amendments to the Water Quality Control Plan for the Santa Ana River Basin containing total maximum daily loads (TMDLs) and associated implementation provisions which address sediments, total nitrogen, and total phosphorus for Newport Bay and San Diego Creek. The submission to EPA is dated March 17, 1999. The TMDLs and implementation provisions were adopted by the State through the following Regional Board and State Board resolutions: Santa Ana Regional Board Resolutions 98-09, 98-69, 98-100 and 98-101; and State Water Resources Control Board Resolutions 98-37, 98-38, 98-117, and 98-118. We have completed our review of these TMDLs and hereby approve them in accordance with Clean Water Act Section 303(d)(1) and federal regulations at 40 CFR 130.7(d). With this approval decision, the State-adopted TMDLs for sediments and nutrients for Newport Bay and San Diego Creek supersede the TMDLs for these pollutants and waters established by U.S. EPA on April 15, 1998. The TMDLs adopted by the State are in agreement with the TMDLs established by EPA.

Based on our review, we have concluded that the State-adopted TMDLs adequately address the pollutants of concern and, upon implementation, will result in attainment of water quality standards. These TMDLs include wasteload allocations and load allocations, take into consideration seasonal variations and critical conditions, and provide an adequate margin of safety. The State has provided adequate opportunities for public review and comment on the TMDLs, and has demonstrated how public comments were considered in the final decisions.

We also hereby approve the inclusion of the TMDLs and associated implementation measures in the Basin Plan pursuant to Clean Water Act Section 303(e) and 40 CFR 130.6(c) and (e). The TMDLs and associated implementation measures are included in the Basin Plan, and the amendments to the Basin Plan are consistent with all other parts of the Basin Plan.

The implementation plan is consistent with EPA's national policy concerning implementation of nonpoint source load allocations ("New Policies for Establishing and Implementing Total Maximum Daily Loads (TMDLs)" memorandum from Robert Perciasepe to Regional Administrators and Regional Water Division Directors, August 8, 1997). The implementation plan described in the submittal provides reasonable assurance that the TMDLs will be implemented and that the allocations will be achieved.

The attached review discusses the basis for this approval decision in greater detail. If you have questions concerning this approval, please call David Smith at (415) 744-2012 concerning the sediment TMDLs or Joe Karkoski at (916)654-3049 concerning the nutrient TMDLs.

Sincerely,



Alexis Strauss
Acting Director
Water Division

enclosure

**Staff Report Supporting Approval of TMDLs:
San Diego Creek/Newport Bay Sediment, Total Nitrogen, and Total Phosphorus
April 14, 1999**

Background

Pursuant to the requirements of a consent decree (*Defend the Bay, Inc. v. Marcus*, N.D. Cal. No. C 97-3997 MMC), U.S. EPA established TMDLs for sediment, total nitrogen, and total phosphorus for Newport Bay and San Diego Creek, CA on April 15, 1998. These TMDLs were based on work done by staff at the Santa Ana Regional Water Quality Control Board (SARWQCB), with some assistance by U.S. EPA staff. The SARWQCB adopted TMDLs and associated implementation provisions for sediment and nutrients as amendments to the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) on April 17, 1998, and the State Water Resources Control Board (SWRCB) adopted the TMDLs on May 13, 1998.

In California, the State Office of Administrative Law (OAL) is required to review Basin Plan amendments for compliance with State administrative and procedural requirements. In response to comments from OAL, the SARWQCB and SWRCB approved minor clarifying amendments to the Basin Plan language describing implementation provisions for the TMDLs. OAL approved the revised Basin Plan amendments on February 2, 1999 (for sediment) and February 10, 1999 (for nutrients), and the State submitted Basin Plan amendments containing final TMDLs and implementation provisions for U.S. EPA approval in a letter dated March 17, 1998. In response to a request from EPA staff, SWRCB staff provided additional supporting documentation in a submittal dated March 18, 1999.

The TMDLs adopted by the State are essentially identical to the TMDLs established by U.S. EPA. This review references the EPA TMDLs adopted April 15, 1998 because those TMDL documents adequately describe the analysis supporting the conclusion that the TMDLs meet the requirements of Clean Water Act Section 303(d) and applicable federal regulations at 40 CFR 130.2 and 130.7. In addition, this review of the State TMDL submission references the locations in the State submission where required TMDL elements are provided. With one exception, no new information was available to or considered by the State in its TMDL adoption process in addition to the information considered by EPA in establishing the EPA TMDLs. The exception is that the State had information necessary to set specific total nitrogen wasteload allocations and load allocations for individual NPDES permittees and for nurseries. Specific wasteload and load allocations for these individual sources were not included in the EPA TMDLs because the information necessary to do so was not available to EPA at the time EPA established the TMDLs. Table 1 in the nitrogen and phosphorus TMDL checklist below shows that the individual wasteload and load allocations in the State TMDL sum to the grouped allocations in the EPA TMDL. The minor modifications to the Basin Plan amendments in response to comments from OAL addressed the implementation provisions and not the TMDLs themselves. Therefore, it is reasonable for EPA to document the locations of required TMDL elements and reference the earlier EPA TMDLs to support findings that the State-submitted TMDLs meet federal requirements. Separate checklists are provided for the sediment TMDLs, on one hand, and the nutrient TMDLs, on the other, because the State provided separate submittals of these TMDLs.

TMDL Checklist

State: California

Waterbodies: San Diego Creek/Newport Bay

Pollutant(s): Sediment

Date of State Submission: March 17, 1999

Date Received By EPA: March 18, 1999

EPA Reviewer: David Smith

Review Criteria	Approved	Comments
1. Submittal Letter: State submittal letter indicates final TMDL(s) for specific water(s)/pollutant(s) were adopted by state and submitted to EPA for approval under 303(d).	X	Letter dated March 17, 1999
2. Water Quality Standards Attainment: TMDL and associated allocations are set at levels adequate to result in attainment of applicable water quality standards.	X	SARWQCB Resolution 98-69 explains that the TMDL provides reasonable assurance that water quality standards will be met.
3. Numeric Target(s): Submission describes applicable water quality standards, including beneficial uses, applicable numeric and/or narrative criteria. Numeric water quality target(s) for TMDL identified, and adequate basis for target(s) as interpretation of water quality standards is provided.	X	Attachment to SARWQCB Resolution 98-69 includes Basin Plan language describing TMDL. Numeric targets are explained on pp. A3-A5. See SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 and EPA TMDL (pp. 15-18) for discussion of relationship between targets and applicable water quality standards.
4. Source Analysis: Point, nonpoint, and background sources of pollutants of concern are described, including the magnitude and location of sources. Submittal demonstrates all significant sources have been considered.	X	See SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 and EPA TMDL (pp. 19-21).
5. Allocations: Submittal identifies appropriate wasteload allocations for point sources and load allocations for nonpoint sources. If no point sources are present, wasteload allocations are zero. If no nonpoint sources are present, load allocations are zero.	X	Attachment to SARWQCB Resolution 98-69 includes Basin Plan language describing the TMDLs and component wasteload and load allocations pp. A4-A5. See SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 and EPA TMDL (pp. 21-25) for discussion of basis for wasteload and load allocations.
6. Link Between Numeric Target(s) and Pollutant(s) of Concern: Submittal describes relationship between numeric target(s) and identified pollutant sources. For each pollutant, describes analytical basis for conclusion that sum of wasteload allocations, load allocations, and margin of safety does not exceed the loading capacity of the receiving water(s).	X	See SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 and EPA TMDL (pp. 22-23) for discussion of basis for linkage between numeric targets and pollutant sources.

<p>7. Margin of Safety: Submission describes explicit and/or implicit margin of safety for each pollutant.</p>	X	<p>See SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 and EPA TMDL (pp. 25-27) for discussion of margin of safety provided implicitly through conservative analytical assumptions.</p>
<p>8. Seasonal Variations and Critical Conditions: Submission describes method for accounting for seasonal variations and critical conditions in the TMDL(s).</p>	X	<p>See SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 and EPA TMDL (pp. 27-28) for discussion of consideration of seasonal variations and critical conditions.</p>
<p>9. Public Participation: Submission documents provision of public notice and public comment opportunity, and explains how public comments were considered in the final TMDL(s).</p>	X	<p>SARWQCB Resolution 98-69 summarizes public participation process, including public notice, opportunities for written comments, two public workshops on October 12, 1997 and December 5, 1997, and a public hearing on April 17, 1998. Responses to public comments and testimony are discussed in SARWQCB staff reports dated October 17, 1997 and April 17, 1998. On October 9, 1998, the SARWQCB held a hearing concerning the minor modifications to the Basin Plan amendment containing the TMDL in response to OAL comments. No public comments were received on these minor modifications.</p>
<p>10. Technical Analysis: Submission provides appropriate level of technical analysis supporting TMDL elements.</p>	X	<p>SARWQCB Staff Reports dated September 12, 1997, October 17, 1997, and April 17, 1998 and EPA TMDL provide adequate technical analysis in support of TMDL elements.</p>
<p>Note: The following criteria do not apply to all TMDLs, but must be applied in the situations noted.</p>		
<p>11. Monitoring Plan for TMDLs Under Phased Approach (where phased approach is used): TMDLs developed under phased approach identify implementation actions, monitoring plan and schedule for considering revisions to TMDL.</p>	X	<p>Attachment to SARWQCB Resolution 98-69 includes Basin Plan language describing the monitoring and review plan and schedule for these TMDLs (pp. A7-A8). Specific monitoring requirements, data submission schedules, and review schedules are described.</p>

<p>12. Reasonable Assurances (for waters affected by both point and nonpoint sources): Where point source(s) receive less stringent wasteload allocations because nonpoint source reductions are expected and reflected in load allocations, implementation plan provides reasonable assurances that nonpoint implementation actions are sufficient to result in attainment of load allocations in a reasonable period of time. Reasonable assurances may be provided through use of regulatory, non-regulatory, or incentive based implementation mechanisms as appropriate.</p>	X	<p>See EPA TMDL, p. 25 for discussion of basis for conclusion that there are reasonable assurances that load allocations will be implemented. The Attachment to SARWQCB Resolution 98-69 includes Basin Plan language describing implementation provisions in detail, including point and nonpoint source control actions, responsible parties, compliance dates, reporting requirements, monitoring requirements, and timeframes for review of the TMDLs and implementation provision. (pp. A3-A8). See also, SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 for additional discussion of implementation provisions and their relationship to the TMDL.</p>
<p>Implementation Plan Review Criteria Pursuant to 40 CFR 130.6 and 303(e)</p>		
<p>13. Clear Implementation Plan: Submittal describes planned implementation actions or, where appropriate, specific process and schedule for determining future implementation actions. Plan is sufficient to implement all wasteload and load allocations in reasonable period of time. TMDL(s) and implementation measures are incorporated into the water quality management plan. Water quality management plan revisions are consistent with other existing provisions of the water quality management plan.</p>	X	<p>The Attachment to SARWQCB Resolution 98-69 includes Basin Plan language describing implementation provisions in detail, including point and nonpoint source control actions, responsible parties, compliance dates, reporting requirements, monitoring requirements, and timeframes for review of the TMDLs and implementation provision (pp. A3-A8). See also, SARWQCB staff reports dated September 12, 1997, October 17, 1997, and April 17, 1998 for additional discussion of implementation provisions and their relationship to the TMDL. EPA's initial review of these implementation provisions and findings concerning their adequacy is included with the EPA TMDL, pp. 30-31. The minor modifications to the Basin Plan amendment in response to OAL's comments clarify but do not affect the content of these implementation provisions. The Basin Plan amendment is consistent with other elements of the Basin Plan. The amendment clearly indicates deletions of obsolete Basin Plan language and conforming language added to ensure the TMDLs and implementation provisions are consistent with the rest of the Basin Plan.</p>

TMDL Checklist

State: California

Pollutant(s): Total Nitrogen/Total Phosphorus

Date Received By EPA: March 18, 1999

Waterbodies: San Diego Creek/Newport Bay

Date of State Submission: March 17, 1999

EPA Reviewer: Joe Karkoski

Review Criteria	Approved	Comments
1. Submittal Letter: State submittal letter indicates final TMDL(s) for specific water(s)/pollutant(s) were adopted by state and submitted to EPA for approval under 303(d).	X	Letter dated March 17, 1999
2. Water Quality Standards Attainment: TMDL and associated allocations are set at levels adequate to result in attainment of applicable water quality standards.	X	SARWQCB Resolution 98-9 explains that the TMDL provides reasonable assurance that water quality standards will be met.
3. Numeric Target(s): Submission describes applicable water quality standards, including beneficial uses, applicable numeric and/or narrative criteria. Numeric water quality target(s) for TMDL identified, and adequate basis for target(s) as interpretation of water quality standards is provided.	X	Attachment to SARWQCB Resolution 98-9 includes Basin Plan language describing TMDL. Numeric targets are explained in table 5-9a. See SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL for discussion of relationship between targets and applicable water quality standards.
4. Source Analysis: Point, nonpoint, and background sources of pollutants of concern are described, including the magnitude and location of sources. Submittal demonstrates all significant sources have been considered.	X	See SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL.
5. Allocations: Submittal identifies appropriate wasteload allocations for point sources and load allocations for nonpoint sources. If no point sources are present, wasteload allocations are zero. If no nonpoint sources are present, load allocations are zero.	X	Attachment to SARWQCB Resolution 98-9 includes Basin Plan language describing the TMDLs and component wasteload and load allocations (tables 5-9b, 5-9c, 5-9d) See SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL for discussion of basis for wasteload and load allocations. SARWQCB allocations provide more detail, but are consistent with EPA allocations (see Table 1 below).
6. Link Between Numeric Target(s) and Pollutant(s) of Concern: Submittal describes relationship between numeric target(s) and identified pollutant sources. For each pollutant, describes analytical basis for conclusion that sum of wasteload allocations, load allocations, and margin of safety does not exceed the loading capacity of the receiving water(s).	X	See SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL for discussion of basis for linkage between numeric targets and pollutant sources.

<p>7. Margin of Safety: Submission describes explicit and/or implicit margin of safety for each pollutant.</p>	X	<p>See SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL for discussion of margin of safety provided implicitly through conservative analytical assumptions.</p>
<p>8. Seasonal Variations and Critical Conditions: Submission describes method for accounting for seasonal variations and critical conditions in the TMDL(s)</p>	X	<p>See SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL for discussion of consideration of seasonal variations and critical conditions.</p>
<p>9. Public Participation: Submission documents provision of public notice and public comment opportunity; and explains how public comments were considered in the final TMDL(s).</p>	X	<p>SARWQCB Resolution 98-9 summarizes public participation process, including public notice, opportunities for written comments, two public workshops on September 12, 1997 and December 5, 1997, and a public hearing on April 17, 1998. Responses to public comments and testimony are discussed in SARWQCB staff reports dated January 23, 1998 and April 17, 1998. On October 9, 1998, the SARWQCB held a hearing concerning the minor modifications to the Basin Plan amendment containing the TMDL in response to OAL comments. No public comments were received on these minor modifications.</p>
<p>10. Technical Analysis: Submission provides appropriate level of technical analysis supporting TMDL elements.</p>	X	<p>SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL provide adequate technical analysis in support of TMDL elements.</p>
<p>Note: The following criteria do not apply to all TMDLs, but must be applied in the situations noted.</p>		
<p>11. Monitoring Plan for TMDLs Under Phased Approach (where phased approach is used): TMDLs developed under phased approach identify implementation actions, monitoring plan and schedule for considering revisions to TMDL.</p>	X	<p>Attachment to SARWQCB Resolution 98-9 includes Basin Plan language describing the monitoring and review plan and schedule for these TMDLs. Specific monitoring requirements, data submission schedules, and review schedules are described.</p>

<p>12. Reasonable Assurances (for waters affected by both point and nonpoint sources): Where point source(s) receive less stringent wasteload allocations because nonpoint source reductions are expected and reflected in load allocations, implementation plan provides reasonable assurances that nonpoint implementation actions are sufficient to result in attainment of load allocations in a reasonable period of time. Reasonable assurances may be provided through use of regulatory, non-regulatory, or incentive based implementation mechanisms as appropriate.</p>	X	<p>The Attachment to SARWQCB Resolution 98-9 includes Basin Plan language describing implementation provisions in detail, including point and nonpoint source control actions, responsible parties, compliance dates, reporting requirements, monitoring requirements, and timeframes for review of the TMDLs and implementation provision. See also SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 for additional discussion of implementation provisions and their relationship to the TMDL.</p>
<p>Implementation Plan Review Criteria Pursuant to 40 CFR 130.6 and 303(e)</p>		
<p>13. Clear Implementation Plan: Submittal describes planned implementation actions or, where appropriate, specific process and schedule for determining future implementation actions. Plan is sufficient to implement all wasteload and load allocations in reasonable period of time. TMDL(s) and implementation measures are incorporated into the water quality management plan. Water quality management plan revisions are consistent with other existing provisions of the water quality management plan.</p>	X	<p>The Attachment to SARWQCB Resolution 98-9 includes Basin Plan language describing implementation provisions in detail, including point and nonpoint source control actions, responsible parties, compliance dates, reporting requirements, monitoring requirements, and timeframes for review of the TMDLs and implementation provision. See also, SARWQCB staff reports dated August 29, 1997, January 23, 1998, and April 17, 1998 and EPA TMDL for additional discussion of implementation provisions and their relationship to the TMDL. The Basin Plan amendment is consistent with other elements of the Basin Plan. The amendment clearly indicates deletions of obsolete Basin Plan language and conforming language added to ensure the TMDLs and implementation provisions are consistent with the rest of the Basin Plan.</p>

Table 1: Review of Newport Bay Nutrient TMDLs

Comparison of EPA TMDL allocations (Table 1, EPA TMDL) and Regional Board TMDL allocations (Table 5-9b, SARWQCB Resolution 98-9) for Total Nitrogen

Category	EPA (April-September)	RB (April-September)	EPA (October-March)	RB (October-March)
Hines Nurseries		38,613		14,227
Bordiers Nursery		12,261		4,518
El Modeno Gardens		7,320		2,697
Unpermitted Nurseries		4,392		1,618
Nursery Total	62,586	62,586	23,060	23,060
IRWD. WWSP		0		4,181
Silverado ETC		25,671		9,459
Other NPDES Dischargers	25,671	25,671	13,640	13,640
Urban Runoff	16,628	16,628	55,442	55,442
Agricultural Sources	11,481	11,481	38,283	38,283
Undefined Sources	37,495	37,495	13,939	13,939
TMDL	153,861	153,861	144,364	144,364