

State of California
California Regional Water Quality Control Board, Los Angeles Region

RESOLUTION NO. R4-2008-009
September 11, 2008

**Amendment to the Water Quality Control Plan for the Los Angeles Region through
revision of the Waste Load Allocations for the Calleguas Creek Watershed
Nitrogen Compounds and Related Effects Total Maximum Daily Load**

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:

1. The Federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) to establish water quality standards for each water body within its region. Water quality standards include beneficial uses, water quality objectives that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. Water bodies that do not meet water quality standards are considered impaired.
2. CWA section 303(d)(1) requires each state to identify the waters within its boundaries that do not meet water quality standards. Those waters are placed on the state's "303(d) List" or "Impaired Waters List". For each listed water, the state is required to establish the Total Maximum Daily Load (TMDL) of each pollutant impairing the water quality standards in that waterbody. Both the identification of impaired waters and TMDLs established for those water must be submitted to the United States Environmental Protection Agency (U.S. EPA) for approval pursuant to CWA section 303(d)(2). For all waters that are not identified as impaired, the states are nevertheless required to create TMDLs pursuant to CWA section 303(d)(3), however TMDLs pursuant to subdivision (d)(3) do not require U.S. EPA approval.
3. The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and section 303(d) of the CWA, as well as in U.S. EPA guidance documents (e.g., U.S. EPA, 1991). A TMDL is defined as "the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2). Regulations further stipulate that TMDLs must be set at "levels necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality" (40 CFR 130.7(c)(1)). The regulations in 40 CFR 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters.

4. Upon establishment of TMDLs by the State or U.S. EPA, the State is required to incorporate the TMDLs along with appropriate implementation measures into the State Water Quality Management Plan (40 CFR 130.6(c)(1), 130.7). The Basin Plan and applicable statewide plans serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Board.
5. A consent decree between U.S. EPA, Heal the Bay, Inc. and BayKeeper, Inc. was approved on March 22, 1999, which resolved litigation between those parties relating to the pace of TMDL development. The court order directs the U.S. EPA to ensure that TMDLs for all 1998-listed impaired waters be established within 13 years of the consent decree. The consent decree combined water body pollutant combinations in the Los Angeles Region into 92 TMDL analytical units. Waterbodies impaired by eutrophia, algae, ammonia, and odor in Calleguas Creek watershed were scheduled in the Consent Decree as analytical unit 1. The TMDL for eutrophia, algae, ammonia and odor, Resolution No. 02-017, was adopted by the Regional Board on October 24, 2002.
6. The Calleguas Creek Watershed is located in southeast Ventura County, California, and in a small portion of western Los Angeles County, and drains an area of approximately 343 square miles from the Santa Susana Pass in the east, to Mugu Lagoon in the southwest. Current land use is approximately 26 percent agriculture, 24 percent urban, and 50 percent open space.
7. The Regional Board's goal in establishing the above-mentioned TMDL was to maintain the warm water fish and wildlife habitat (WARM, WILD) and groundwater recharge (GWR) beneficial uses of Calleguas Creek as established in the Basin Plan. Nitrogen compounds at high concentration may stimulate the production of excessive algae mats which have been observed in certain reaches of Calleguas Creek and can result in eutrophic conditions characterized by low dissolved oxygen concentrations which is harmful to aquatic life. Additionally, ammonia is known to cause toxicity to aquatic organisms.
8. At a public meeting on October 24, 2002, the Regional Board adopted an amendment to the Basin Plan to include a TMDL for Nitrogen Compounds and Related Effects in the Calleguas Creek watershed. The Calleguas Creek ~~Nutrient~~ Nitrogen Compounds and Related Effects TMDL included concentration based maximum daily effluent limits (MDEL), average monthly effluent limits (AMEL), and mass based daily waste load allocations (WLAs) for ammonia for publicly owned treatment works (POTWs) including Hill Canyon Wastewater Treatment Plant (WTP), Simi Valley Water Quality Control Facility (WQCF), Moorpark Wastewater Treatment Plant (WTP), Camarillo Water Reclamation Plant (WRP), and Camrosa Water Reclamation Facility (WRF).
9. The Regional Board considered the entire record, including the California Environmental Quality Act (CEQA) documentation, written and oral comments received from the public, and the Regional Board staff's response to the written

comments. The Basin Plan amendment to incorporate the TMDL for ~~Nutrient~~ Nitrogen Compounds and Related Effects for Calleguas Creek, Resolution 02-017, was adopted by Regional Board on October 24, 2002. Resolution 02-017 assigned waste load allocations (WLAs) to major publicly owned treatment works (POTWs).

10. The TMDL for ~~Nutrient~~ Nitrogen Compounds and Related Effects for Calleguas Creek, Resolution No. 02-017 was approved by the State Water Resources Control Board (State Board) on March 19, 2003, the Office of Administrative Law (OAL) on June 5, 2003, and the U.S. EPA on June 20, 2003. The TMDL for ~~Nutrient~~ Nitrogen Compounds and Related Effects for Calleguas Creek, Resolution No. 02-017 is effective on July 16, 2003.
11. The National Pollutant Discharge Elimination System (NPDES) permits for the Hill Canyon WTP, Simi Valley WQCF, Moorpark WTP, Camarillo WRP, and Camrosa WRF will be under consideration in the near future for renewal by the Regional Board. The Calleguas Creek Nitrogen Compounds and Related Effects TMDL waste load allocations will be incorporated into the permits in conformance with the Clean Water Act and related federal regulations.
12. In preparing the NPDES permit renewals, Regional Board identified a typographical error in the mass based daily WLAs for ammonia in the Calleguas Creek Nitrogen Compounds and Related Effects TMDL. Translating a concentration-based limit into a mass based daily limit requires multiplying the concentration-based limit by the flow rate. The mass based daily WLAs for ammonia, however, were incorrectly calculated as the product of the daily flow rate and the average monthly effluent limits (AMEL), rather than the daily flow rate and the maximum daily effluent limits (MDEL).
13. When the original TMDL was adopted (2002) the practice at that time was to calculate the flow rate of a POTW and include it in the basin plan a static factor. Current practice, however, recognizes that POTW flow rates are dynamic. As a result, current mass-based limits that are incorporated into the basin plan will often be expressed as an equation that includes Q , or the flow rate, as one of its factors. The use of the POTW effluent flow rate to calculate mass based WLAs is consistent with other TMDLs recently approved by U.S. EPA.
14. This Basin Plan Amendment corrects the mass based daily WLAs for ammonia to be based upon the MDEL, and updates the WLAs to be consistent with the current practice of recognizing that flow is variable. The mass based WLAs for ammonia are corrected to be based on the maximum daily effluent limit, MDEL and the actual POTW effluent flow rate at the time the monitoring is conducted.
15. The mass based WLAs for ammonia in the Calleguas Creek Nitrogen Compounds and Related Effects TMDL include a 10% explicit margin of safety to account for uncertainty concerning the relationships between WLAs and attainment of the

water quality standards addressing algae and other listed stressors associated with nutrient loads.

16. The amendment is consistent with the State Antidegradation Policy (State Board Resolution No. 68-16), in that the revisions of the WLAs for the Calleguas ~~Creek~~ ~~Nutrient~~ Nitrogen Compounds and Related Effects TMDL do not include revisions to WQOs, and provide mass reduction to meet water quality objectives. Likewise, the amendment is consistent with the federal Antidegradation Policy (40 CFR 131.12).
17. The proposed amendment results does not alter the environmental analysis that was previously completed for the Calleguas Creek Nitrogen Compounds and Related Effects TMDL because correction of the mass based WLAs for ammonia will not result in different implementation actions than those previously analyzed for the Calleguas Creek Nitrogen Compounds and Related Effects TMDL, or different effects upon the environment. The environmentally significant WLA remains the MDEL, which is the technically derived ceiling to the amount of ammonia that can and should be authorized. Correcting the mass-based daily limit to be consistent with the MDEL, as originally intended, has no potential to result in a change in the physical environment. As such, this amendment is both consistent with the prior CEQA documentation, and is itself not a "project" within the meaning of CEQA.
18. The public has had a reasonable opportunity to participate in the review of the revision to the Waste Load Allocations of the Basin Plan amendment, Resolution 02-017. A draft of the TMDL revisions was released for public comment on July 1, 2008; a Notice of Hearing was published and circulated 45 days preceding Board action; Regional Board staff responded to oral and written comments received from the public; and the Regional Board held a public hearing on September 11, 2008 to consider adoption of the revision to the Waste Load Allocations of the Basin Plan Amendment, Resolution 02-017. The revised WLAs are proposed in Attachment A to this resolution.
19. The regulatory action meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).
20. The Basin Plan amendment incorporating a revision for the Waste Load Allocation section in the Calleguas Creek ~~Nutrient~~ Nitrogen Compounds and Related Effects TMDL must be submitted for review and approval by the State Board, the OAL, and the U.S. EPA. The Basin Plan amendment will become effective upon approval by OAL and U.S. EPA. A Notice of Decision will be filed following these approvals.

THEREFORE, be it resolved that pursuant to Section 13240 and 13242 of the Water Code, the Regional Board hereby amends the Basin Plan as follows:

1. Pursuant to sections 13240 and 13242 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendment to Chapter 7 of the Water Quality Control Plan for the Los Angeles Region to incorporate the revisions of the Waste Load Allocation in the Calleguas Creek Watershed Nitrogen Compounds and Related Effects TMDL, Table 7-7.1 Calleguas Creek Nitrogen Compounds and Related Effects TMDL: Elements, and the corresponding reference to Chapter 5, as set forth in Attachment A hereto.
2. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Board in accordance with the requirements of section 13245 of the California Water Code.
3. The Regional Board requests that the State Board approves the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to the OAL and the U.S. EPA.
4. If during its approval process Regional Board staff, State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity, or for consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.
5. The Executive Officer is authorized to request a "No Effect Determination" from the Department of Fish and Game, or transmit a payment of applicable as maybe required to the Department of Fish and Game.

I, Tracy J. Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 11, 2008.

Original signed by _____
Tracy J. Egoscue
Executive Officer

09/25/08

Date

Attachment A to Resolution No. R4-2008-009

Revision of the Waste Load Allocation of the

Calleguas Creek Watershed Nitrogen Compounds and Related Effects TMDL

Adopted by the California Regional Water Quality Control Board, Los Angeles Region on September 11, 2008.

Amendments

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7-7.2. Calleguas Creek Nitrogen Compounds and Related Effects TMDL:
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Chapter 7. Total Maximum Daily Loads (TMDLs)

Calleguas Creek Nitrogen Compounds and Related Effects TMDL

This TMDL was adopted by: The Regional Water Quality Control Board on October 24, 2002.

This TMDL was approved by: The State Water Resources Control Board on March 19, 2003.

This TMDL was approved by: The Office of Administrative Law on June 5, 2003.

This TMDL was approved by: The U.S. Environmental Protection Agency on June 20, 2003.

This TMDL was revised and adopted by: The Regional Water Quality Control Board on
September 11, 2008.

This TMDL was re-approved by: The State Water Resources Control Board on [Insert date].

This TMDL was re-approved by: The Office of Administrative Law on [Insert date].

This TMDL was re-approved by: The U.S. Environmental Protection Agency on [Insert date].

This TMDL is effective on July 16, 2003

The elements of the TMDL are presented in Table 7-7.1 and the Implementation Plan in
Table 7-7.2

Table 7-7.1. Calleguas Creek Nitrogen Compounds and Related Effects TMDL: Elements

Element	Calleguas Creek Nitrogen Compound and Related Effects																																																												
Problem Statement	Elevated nitrogen concentrations (ammonia, nitrite and nitrate) are causing impairments of the warm water fish and wildlife habitat, and groundwater recharge beneficial uses of Calleguas Creek. Nitrite and nitrate contribute to eutrophic effects such as low dissolved oxygen and algae growth. Ammonia contributes to toxicity.																																																												
Numeric Target (Interpretation of the numeric water quality objective, used to calculate the load allocations)	<p>Numeric targets for this TMDL are listed as follows:</p> <p>1. Total Ammonia as Nitrogen (NH₃-N)</p> <table border="1" data-bbox="430 672 1372 1323"> <thead> <tr> <th data-bbox="430 672 941 787"><i>Reach</i></th> <th colspan="2" data-bbox="941 672 1372 787"><i>NH₃-N concentration (mg/L)</i></th> </tr> <tr> <th data-bbox="430 787 941 798"></th> <th data-bbox="941 787 1104 798"><i>One-hour average</i></th> <th data-bbox="1104 787 1372 798"><i>Thirty-day average</i></th> </tr> </thead> <tbody> <tr><td data-bbox="430 798 941 829">* Mugu Lagoon</td><td data-bbox="941 798 1104 829">8.1</td><td data-bbox="1104 798 1372 829">2.9</td></tr> <tr><td data-bbox="430 829 941 861">* Calleguas Creek, South</td><td data-bbox="941 829 1104 861">5.5</td><td data-bbox="1104 829 1372 861">2.4</td></tr> <tr><td data-bbox="430 861 941 892">* Calleguas Creek, North</td><td data-bbox="941 861 1104 892">8.4</td><td data-bbox="1104 861 1372 892">3.0</td></tr> <tr><td data-bbox="430 892 941 924">* Revlon Slough</td><td data-bbox="941 892 1104 924">5.7</td><td data-bbox="1104 892 1372 924">2.9</td></tr> <tr><td data-bbox="430 924 941 955">* Beardsley Channel</td><td data-bbox="941 924 1104 955">5.7</td><td data-bbox="1104 924 1372 955">2.9</td></tr> <tr><td data-bbox="430 955 941 987">* Arroyo Las Posas</td><td data-bbox="941 955 1104 987">8.1</td><td data-bbox="1104 955 1372 987">2.6</td></tr> <tr><td data-bbox="430 987 941 1018">* Arroyo Simi</td><td data-bbox="941 987 1104 1018">4.7</td><td data-bbox="1104 987 1372 1018">2.4</td></tr> <tr><td data-bbox="430 1018 941 1050">* Tapo Canyon</td><td data-bbox="941 1018 1104 1050">3.9</td><td data-bbox="1104 1018 1372 1050">1.9</td></tr> <tr><td data-bbox="430 1050 941 1123">* Conejo Creek (Confluence with Calleguas Creek to Santa Rosa Rd.)</td><td data-bbox="941 1050 1104 1123">9.5</td><td data-bbox="1104 1050 1372 1123">3.5</td></tr> <tr><td data-bbox="430 1123 941 1186">* Conejo Creek (Santa Rosa Road to Thousand Oaks City Limit)</td><td data-bbox="941 1123 1104 1186">8.4</td><td data-bbox="1104 1123 1372 1186">3.4</td></tr> <tr><td data-bbox="430 1186 941 1218">* Conejo Creek, Hill Canyon Reach</td><td data-bbox="941 1186 1104 1218">8.4</td><td data-bbox="1104 1186 1372 1218">3.1</td></tr> <tr><td data-bbox="430 1218 941 1249">* Conejo Creek, North Fork</td><td data-bbox="941 1218 1104 1249">3.2</td><td data-bbox="1104 1218 1372 1249">1.7</td></tr> <tr><td data-bbox="430 1249 941 1281">* Arroyo Conejo (South Fork Conejo Creek)</td><td data-bbox="941 1249 1104 1281">5.1</td><td data-bbox="1104 1249 1372 1281">3.4</td></tr> <tr><td data-bbox="430 1281 941 1312">* Arroyo Santa Rosa</td><td data-bbox="941 1281 1104 1312">5.7</td><td data-bbox="1104 1281 1372 1312">2.4</td></tr> </tbody> </table> <p>2. Nitrate and nitrite as nitrogen (NO₃-N and NO₂-N)</p> <table border="1" data-bbox="430 1365 1372 1543"> <thead> <tr> <th data-bbox="430 1365 941 1438"><i>Constituent</i></th> <th colspan="2" data-bbox="941 1365 1372 1438"><i>Concentration (mg/L)</i></th> </tr> </thead> <tbody> <tr><td data-bbox="430 1438 941 1470">* NO₃-N</td><td colspan="2" data-bbox="941 1438 1372 1470">10</td></tr> <tr><td data-bbox="430 1470 941 1501">* NO₂-N</td><td colspan="2" data-bbox="941 1470 1372 1501">1</td></tr> <tr><td data-bbox="430 1501 941 1543">* NO₃-N + NO₂-N</td><td colspan="2" data-bbox="941 1501 1372 1543">10</td></tr> </tbody> </table> <p>Numeric targets to address narrative objectives required to protect warm freshwater and wildlife habitat are intended to implement the narrative objectives and may be revised based on the results of monitoring and special studies conducted pursuant to the implementation plan.</p>	<i>Reach</i>	<i>NH₃-N concentration (mg/L)</i>			<i>One-hour average</i>	<i>Thirty-day average</i>	* Mugu Lagoon	8.1	2.9	* Calleguas Creek, South	5.5	2.4	* Calleguas Creek, North	8.4	3.0	* Revlon Slough	5.7	2.9	* Beardsley Channel	5.7	2.9	* Arroyo Las Posas	8.1	2.6	* Arroyo Simi	4.7	2.4	* Tapo Canyon	3.9	1.9	* Conejo Creek (Confluence with Calleguas Creek to Santa Rosa Rd.)	9.5	3.5	* Conejo Creek (Santa Rosa Road to Thousand Oaks City Limit)	8.4	3.4	* Conejo Creek, Hill Canyon Reach	8.4	3.1	* Conejo Creek, North Fork	3.2	1.7	* Arroyo Conejo (South Fork Conejo Creek)	5.1	3.4	* Arroyo Santa Rosa	5.7	2.4	<i>Constituent</i>	<i>Concentration (mg/L)</i>		* NO ₃ -N	10		* NO ₂ -N	1		* NO ₃ -N + NO ₂ -N	10	
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Source Analysis	The principal sources of nitrogen into Calleguas Creek are discharges from the POTWs in the watershed and runoff from agricultural activities in the watershed.																																													
Linkage Analysis	Linkage between nitrogen sources and the in-stream water quality was established through a mass continuity model based on an evaluation of recent hydrodynamic and water quality data.																																													
Waste Load Allocations (for point sources)	<p>The waste load allocations (WLAs) are as follows:</p> <table border="1" data-bbox="411 558 1401 793"> <thead> <tr> <th rowspan="2">POTWs</th> <th colspan="3">NH₃-N</th> <th rowspan="2">NO₃-N (mg/L)</th> <th rowspan="2">NO₂-N (mg/L)</th> <th rowspan="2">NO₃-N + NO₂-N (mg/L)</th> </tr> <tr> <th>MDEL¹ (mg/L)</th> <th>AMEL² (mg/L)</th> <th>Daily WLA³ (lbs/day)</th> </tr> </thead> <tbody> <tr> <td>Hill Canyon WTP⁴</td> <td>5.6</td> <td>3.1</td> <td>5.1xQ</td> <td>9.0</td> <td>0.9</td> <td>9.0</td> </tr> <tr> <td>Simi Valley WQCF⁵</td> <td>3.3</td> <td>2.4</td> <td>2.9xQ</td> <td>9.0</td> <td>0.9</td> <td>9.0</td> </tr> <tr> <td>Moorpark WTP</td> <td>6.4</td> <td>2.6</td> <td>5.7xQ</td> <td>9.0</td> <td>0.9</td> <td>9.0</td> </tr> <tr> <td>Camarillo WRP⁶</td> <td>7.8</td> <td>3.5</td> <td>7.0xQ</td> <td>9.0</td> <td>0.9</td> <td>9.0</td> </tr> <tr> <td>Camrosa WRF⁷</td> <td>7.2</td> <td>3.0</td> <td>6.5xQ</td> <td>9.0</td> <td>0.9</td> <td>9.0</td> </tr> </tbody> </table>	POTWs	NH ₃ -N			NO ₃ -N (mg/L)	NO ₂ -N (mg/L)	NO ₃ -N + NO ₂ -N (mg/L)	MDEL ¹ (mg/L)	AMEL ² (mg/L)	Daily WLA ³ (lbs/day)	Hill Canyon WTP ⁴	5.6	3.1	5.1xQ	9.0	0.9	9.0	Simi Valley WQCF ⁵	3.3	2.4	2.9xQ	9.0	0.9	9.0	Moorpark WTP	6.4	2.6	5.7xQ	9.0	0.9	9.0	Camarillo WRP ⁶	7.8	3.5	7.0xQ	9.0	0.9	9.0	Camrosa WRF ⁷	7.2	3.0	6.5xQ	9.0	0.9	9.0
POTWs	NH ₃ -N			NO ₃ -N (mg/L)	NO ₂ -N (mg/L)				NO ₃ -N + NO ₂ -N (mg/L)																																					
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Load Allocation (for non point sources)	<p>The source analysis indicates that agricultural discharge is the major non-point source of oxidized nitrogen to Calleguas Creek and its tributaries. This source is particularly significant in Revolon Slough and other agricultural drains in the lower Calleguas watershed where there are no point sources of ammonia and oxidized nitrogen. Load allocations for non-point sources are:</p> <table border="1" data-bbox="411 1010 1401 1171"> <thead> <tr> <th>Nonpoint Source</th> <th>NO₃-N + NO₂-N (mg/L)</th> </tr> </thead> <tbody> <tr> <td>Agriculture</td> <td>9.0</td> </tr> <tr> <td>Other Nonpoint Source</td> <td>9.0</td> </tr> </tbody> </table>	Nonpoint Source	NO ₃ -N + NO ₂ -N (mg/L)	Agriculture	9.0	Other Nonpoint Source	9.0																																							
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Implementation	<ol style="list-style-type: none"> 1. Refer to Table 7-7.2 2. Several of the POTWs in the Calleguas Creek watershed will require additional time to meet the nitrogen (NO₃-N, NO₂-N, and NO₃-N + NO₂-N) waste load allocations. To allow time to meet the nitrogen waste load allocations, interim limits will be allowed for a period of four years from the effective date of the TMDL during which the POTWs will be required to meet the effluent limit for NO₃-N + NO₂-N only. Effluent limits for the individual compounds NO₃-N and NO₂-N are not required during the interim period. 																																													

¹ Maximum daily effluent limitation

² Average monthly effluent limitation

³ Q represents the POTW effluent flow at the time the water quality measurement is collected and a conversion factor to lb/day based on the units of measurement for the effluent flow.

⁴ Wastewater Treatment Plant

⁵ Water Quality Control Facility

⁶ Water Reclamation Plant

⁷ Water Reclamation Facility

<i>Interim Limits* for NO₃-N + NO₂-N</i>									
<i>POTWs</i>	<i>Monthly Average (mg/L) Daily Maximum (mg/L)</i>								
<ul style="list-style-type: none"> • Hill Canyon WTP • Simi Valley WQCF • Moorpark WTP • Camarillo WRP 	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-top: 1px solid black;">36.03</td> <td style="width: 50%; border-top: 1px solid black;">38.32</td> </tr> <tr> <td>31.60</td> <td>32.17</td> </tr> <tr> <td>31.5</td> <td>32.01</td> </tr> <tr> <td style="border-bottom: 1px solid black;">36.23</td> <td style="border-bottom: 1px solid black;">37.75</td> </tr> </table>	36.03	38.32	31.60	32.17	31.5	32.01	36.23	37.75
36.03	38.32								
31.60	32.17								
31.5	32.01								
36.23	37.75								
<p>*The monthly average and daily maximum interim limits are based on the 95th and 99th percentiles of effluent performance data reported in the Calleguas Creek Characterization Study</p>									
<p>3. The waste load allocations for ammonia will be applicable on the effective date of the TMDL. Interim limits for ammonia will be applicable for no more than 2 years starting from October 24, 2002 for POTWs that are not able to achieve immediate compliance with the assigned waste load allocations. The interim limits for ammonia may be established at the discretion of the Regional Board when a POTW's NPDES permit is reissued.</p>									
<i>Margin of Safety</i>	<p>An implicit margin of safety is incorporated through conservative model assumptions and statistical analysis. In addition, an explicit margin of safety is incorporated by reserving 10% of the load, calculated on a concentration basis, from allocation to POTW effluent sources.</p>								
<i>Seasonal Variations and Critical Conditions</i>	<p>A low flow critical condition is identified for this TMDL based on a review of flow data for the past twenty years. This flow condition was identified because less assimilative capacity is available to dilute effluent discharge.</p>								

Table 7-7.2. Implementation Schedule

IMPLEMENTATION TASKS, MILESTONES AND PROVISIONS*		COMPLETION DATE
1.	WLA for ammonia apply to POTWs.	Effective Date of TMDL
2.	Interim Limits for NO ₃ -N + NO ₂ -N apply to POTWs.	
3.	Formation of Nonpoint Source BMP Evaluation Committee.	
4.	Submittal of Non point Source Monitoring Workplan by Calleguas Creek Watershed Management Plan – Water Resources/Water Quality (CCWMP) Subcommittee. This monitoring is to evaluate nutrient loadings associated with agricultural drainage and other nonpoint sources. The monitoring program will include both dry and wet weather discharges from agricultural, urban and open space sources. In addition, groundwater discharge to Calleguas Creek will also be analyzed for nutrients to determine the magnitude of these loading and the need for load allocations. A key objective of these special studies will be to determine the effectiveness of agricultural BMPs in reducing nutrient loadings. Consequently, flow and analytical data for nutrients will be required to estimate loadings from nonpoint sources.	1 year after Effective Date of TMDL
5.	Submittal of Watershed Monitoring Workplan by CCWMP Subcommittee. In addition to the analytical parameters and flow data requirements, the watershed monitoring program will establish sampling locations from which representative samples can be obtained, including all listed tributaries. Monitoring results will be compared to the numeric instream targets identified in this TMDL to determine the effectiveness of the TMDL. Data on the extent and distribution of algal mats, scum and odors will be included in the	

* The CCWMP Subcommittee has offered to complete tasks 4 through 9 and 11. In the event the CCWMP Subcommittee fails to timely complete these tasks, the Regional Board will consider whether to amend this Implementation Plan to assign tasks to responsible dischargers in the regulatory approach. The Regional Board also reserves its right to take any other appropriate actions including, but not limited to, exercising its authorities under Water Code section 13267.

IMPLEMENTATION TASKS, MILESTONES AND PROVISIONS	COMPLETION DATE
<p>6. watershed monitoring program. The data will be used to provide further verification of the model and refine the TMDL to address nutrient effects as appropriate.</p> <p>Submittal of Special Studies Workplan by CCWMP Subcommittee.</p> <p>These special studies include:</p> <p>Monitoring of minor point sources for nutrients to confirm assumptions that the loadings from these sources are minor;</p> <p>Monitoring of greenhouse discharges and runoff to assess loadings from these sources;</p> <p>Monitoring of groundwater extraction and discharges in the Arroyo Santa Rosa subwatershed and other areas that may add significant nutrient loadings to Calleguas Creek; and</p> <p>Additional studies of the type and extent of algae impairment in Calleguas Creek and Mugu Lagoon.</p>	
<p>7. Complete Special Studies for minor sources, greenhouses, and groundwater loadings.</p> <p>8. Completion of ammonia Water Effect Ratio (WER) studies.</p> <p>9. Complete planning and preparation for construction of TMDL remedies to reduce non-point source nitrogen loads.</p>	3 years after Effective Date of TMDL
<p>10. Interim Limits for NO₃-N + NO₂-N expire and WLAs for NO₃-N, NO₂-N, NO₃-N + NO₂-N apply to POTWs.</p>	4 years after Effective Date of TMDL
<p>11. Complete Special Studies for algae impairments of Calleguas Creek, its tributaries and Mugu Lagoon.</p>	5 years after Effective Date of TMDL
<p>12. Regional Board consideration of revised water quality objectives for nitrogen compounds based on monitoring data, special studies, and ammonia WER, if appropriate.</p>	6 years after Effective Date of TMDL
<p>13. Final achievement of ammonia and oxidized nitrogen standards.</p>	7 years after Effective Date of TMDL