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# Calleguas TMDLs Annual Progress Report

*submitted to*

LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

*prepared by*

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## Introduction

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This report is intended to summarize the progress of total maximum daily load (TMDL) associated implementation activities of the six TMDLs currently in place in the Calleguas Creek watershed (CCW). These TMDLs include nutrients, toxicity, organochlorine pesticides and PCBs, metals, trash and salts. Although not required by the TMDLs, this report is intended to summarize the status of all implementation activities in the watershed to provide a record of the activities that have been conducted. This is the first annual report of its kind and will be followed by an annual report each subsequent year detailing implementation activities.

**Table 1. TMDLs in the Calleguas Creek Watershed**

Constituent	RB Resolution	TMDL Effective Date
Nitrogen Compounds and Related Effects (Nutrient)	2002-017	July 16, 2003
Toxicity, Chlorpyrifos, and Diazinon (Toxicity)	2005-009	March 24, 2006
Organochlorine Pesticides, Polychlorinated Biphenyls and Siltation (OC Pesticides and PCBs)	2005-010	March 24, 2006
Metals and Selenium	2006-012	March 26, 2007
Trash	2007-007	March 6, 2008
Boron, Chloride, Sulfate and TDS (Salts)	2007-016	December 2, 2008

The majority of the TMDLs include requirements for monitoring, conducting special studies, and implementing actions to reduce discharges of pollutants covered by the TMDL. This report summarizes workplan and study submittal dates, dates of responses to comments received by the RWQCB, and actions that have been taken to reduce pollutant discharges to the waterbodies. Additionally, the report provides a mechanism for providing the RWQCB with required progress reports for some of the TMDLs.

Currently, the implementation requirements in many of the TMDLs are primarily associated with initiating compliance and/or required monitoring. These monitoring requirements are being addressed by the Calleguas Creek Watershed TMDL Monitoring Program (CCWTMP), which began in August 2008. The CCWTMP Annual Monitoring Report will detail all requirements associated with all sampling efforts surrounding the listed TMDLs.

## Nutrients

The Los Angeles Regional Water Quality Control Board adopted Resolution No. R4-2002-017 to incorporate the TMDL for Calleguas Creek Nitrogen Compounds and Related Effects. The TMDL is effective as of July 16, 2003.

**Table 2. Items submitted for the Nutrients TMDL**

TMDL Task #	Stakeholder Action	Due	Submitted	RWQCB Board Action	RWQCB Approval
4	Submit NPS Monitoring Workplan	7/16/04	7/16/04		
5	Watershed Monitoring Workplan	7/16/04	7/16/04		
6	Special Studies Workplan for minor sources, greenhouses, and groundwater loadings and algae study	7/16/04	7/16/04	Verbal comments - 7/07 Comments and extension of deadline - 2/5/08	
	• Revised workplan		6/1/08		
11	Results of Algae Special Study	7/16/08	7/16/08		
8	Ammonia WER Study	7/16/06	N/A	Agreed that this study will not be completed	
<b>Upcoming</b>					
7	Special studies for minor sources, greenhouses, and groundwater loadings	7/16/06	7/1/09 <sup>[1]</sup>		
	Results of NPS Monitoring		7/1/09 <sup>[1]</sup>		
9		7/16/09	N/A	TMDL Reconsideration	

<sup>1</sup> Expected date per revised due date in RWQCB comment letter dated 2/5/08.

The required studies for the Nitrogen Compounds TMDL will be complete as of July 1, 2009 after the results of the special studies for minor sources, greenhouses, and groundwater loadings and the NPS monitoring are submitted to the RWQCB.

### IMPLEMENTATION ACTIONS

The Simi Valley Water Quality Control Plant (SVWQCP), Hill Canyon Wastewater Treatment Plant (WWTP), Camarillo Sanitary District Water Reclamation Plant (WRP), Camrosa WRP, and Moorpark WRP have installed nitrification and denitrification processes to comply with the TMDL wasteload allocations (WLAs). All wastewater treatment plants achieved compliance with the TMDL WLAs by the due dates specified in the TMDL.

Agricultural dischargers in the CCW are due to come into compliance with the TMDL load allocations (LAs) by July 16, 2010. Best Management Practices (BMPs) are currently being implemented to meet the requirements of the TMDL in accordance with an Agricultural Water Quality Management Plan (AWQMP) approved by the RWQCB on February 3, 2009.

# Toxicity

The Los Angeles Regional Water Quality Control Board adopted Resolution No. R4-2005-009 to incorporate the Chlorpyrifos and Diazinon (Toxicity) TMDL in Calleguas Creek, its Tributaries, and Mugu Lagoon. The TMDL is effective as of March 24, 2006.

**Table 3. Items submitted for the Toxicity TMDL**

TMDL Task #	Stakeholder Action	Due	Submitted	RWQCB Action	RWQCB Approval
5	Special Study #1- Alternative pesticide investigation	3/24/08	3/24/08		
3	Toxicity and OC QAPP • Revised QAPP	9/24/06	9/22/06 8/15/07	Comments provided - 4/24/07 Approved - 10/15/07	✓ ✓
8, 9	TMDL AWQMP • Revised AWQMP	3/24/09	9/8/08 12/15/08	Comments provided - 10/10/08 Approved - 2/3/09	 ✓
7	Collection program for pesticides.	3/24/09	3/24/09 <sup>[1]</sup>		

1. Summary letter submitted to RWQCB; details provided in this report.

## IMPLEMENTATION ACTIONS

The TMDL AWQMP is being implemented in the watershed to control toxicity and constituents potentially causing toxicity from agricultural areas.

The Cities and wastewater agencies in the watershed have taken actions to educate residents about the ban of diazinon and chlorpyrifos for most urban uses. As diazinon and chlorpyrifos were identified as the primary toxicants in the TMDL, the ban is expected to reduce or eliminate the observed toxicity from urban areas in the watershed. Additionally, the agencies have conducted pesticide collection and disposal programs to reduce the discharge of potential toxicants to the watershed. More detailed information on the pesticide collection and disposal programs is included under the OC Pesticides and PCBs TMDL section.

## OC Pesticides and PCBs

The Los Angeles Regional Water Quality Control Board adopted Resolution No. R4-2005-010 to incorporate the OC Pesticides and PCBs TMDL in Calleguas Creek, its Tributaries, and Mugu Lagoon. The TMDL is effective as of March 24, 2006.

**Table 4. Items submitted for the OC Pesticides and PCBs TMDL**

TMDL Task #	Stakeholder Action	Due	Submitted	RWQCB Action	RWQCB Approval
5	Urban OC Source ID workplan	3/24/07	3/24/07	Comments provided - 8/22/07	
	• Revised workplan		3/25/09		
6	Ag OC Source ID workplan	3/24/07	3/24/07	Comments provided - 8/22/07	
	• Revised workplan		1/15/09		
7	OC Special Study #1- Sediment Transport workplan	3/24/07	3/24/07	Comments provided - 8/22/07	
	• Revised workplan <sup>2</sup>				
8	OC Special Study #2- OC HCA workplan	3/24/07	3/24/07	Comments provided - 8/22/07	
	• Revised workplan		1/15/09		
3	Toxicity and OC QAPP	9/24/06	9/22/06	Comments provided - 4/24/07	✓
	• Revised QAPP		8/15/07	Approved - 10/15/07	✓
9	TMDL AWQMP	3/24/09	9/8/08	Comments provided - 10/10/08	
	• Revised AWQMP		12/15/08	Approved - 2/3/09	✓
10	Collection Program for Pesticides	3/24/11	3/24/09 <sup>[1]</sup>		
11	Collection program for Ag Users	3/24/11	3/24/09 <sup>[2]</sup>		

1. Summary letter submitted to RWQCB; details provided in this report.

2. Additional information is required to revise the Workplan. CCW stakeholders are actively working to gather the information necessary to revise the Workplan per the RWQCB comments. The actions being taken will provide information necessary to complete the special study.

### IMPLEMENTATION ACTIONS

The TMDL AWQMP is being implemented in the watershed to reduce discharges of organochlorine pesticides from agricultural areas.

## Pesticide Collection and Disposal Programs

The Cities of Camarillo, Moorpark, Simi Valley, Thousand Oaks, and Oxnard and the County of Ventura have existing collection programs that include the collection and disposal of OP and OC pesticides and PCBs at least once per month (**Table 5**).

Most of these programs also accept hazardous waste from Conditionally Exempt Small Quantity Generators (CESQGs).

The stakeholders listed above use various outreach methods to educate their residents about pesticide use and to advertise their collection programs. These include newspaper, bus shelter, radio, and television advertisements, utility bill inserts, and newsletters.

In addition to these efforts, VCAILG will host a pesticide collection and disposal event in July 2009 for its members to dispose of banned pesticides. The collection will be performed by Clean Harbors at 880 Verdulera Street in the City of Camarillo. The grower disposal fee is \$1.75/pound. VCAILG also conducts outreach about banned pesticides through its education meetings and as part of the implementation of the Water Quality Management Plan (WQMP).

**Table 5. Existing Collection and Disposal Programs for Stored Urban OC Pesticides**

Agency	Description	Frequency of Collection	Cost to Residents
<b>City of Camarillo</b>	Contract with Clean Harbors 880 W Verdulera Street, Camarillo	2 <sup>nd</sup> Friday and Saturday of each month	\$0.28/month via refuse bill
<b>City of Moorpark</b>	Temporary Collection Site (hosted in Simi Valley)	Monthly collection, by appointment. 3 <sup>rd</sup> Saturday of the month, except for December	Free for residents
	Permanent Site (hosted in Camarillo)	Monthly collection by appointment. 2 <sup>nd</sup> Friday and Saturday of every month	Free for residents
<b>City of Oxnard</b>	Contract with Clean Harbors	Second Thursday of the Month	Free for residents
	MRF/ABOP RHHW Program: Drop-off only service	Drop-off only service hours: Monday – Saturday 7am to 4pm	Free for residential and business customers
<b>City of Simi Valley</b>	Contract with Violea Environmental Services	Monthly collection	Free for residents
<b>Camrosa Water District</b>	Handled by City of Camarillo		
<b>Ventura County Integrated Waste Management Division (IWMD)</b>	HHW contracts with Cities of Camarillo and Thousand Oaks		
<b>City of Thousand Oaks</b>	Contract with Philip Services, Corp.		

The amounts of pesticides that have been collected by the programs run by the stakeholders are listed in **Table 6**. It was not possible to report the amounts for specific constituents due to the nature of reports generated by these programs.

**Table 6. Pesticides and PCBs collected by Stakeholders**

	Clean Harbors <sup>[1]</sup>			Simi Valley <sup>[2]</sup>			Thousand Oaks <sup>[2]</sup>	
	2006	2007	2008	2006	2007	2008	FY 06-07	FY 07-08
Polychlorinated Biphenyls	40	852	643	-	-	-	-	-
Chlordane, Pyrethrins (Liquids)	4,759	9,193	29,412	-	-	-	-	-
Diazinon, Disulfoton (Solids)	1,878	4,432	5,897	-	-	-	-	-
PCB-containing Paint	-	-	-	0	0	0	208	0
Other PCB Waste	-	-	-	0	0	0	1,339	2,042
Aerosols	-	-	-	10,635	9,685	6,765	8,761	9,064

1 Estimated from Waste Manifests provided by Clean Harbors for all stakeholders mentioned above

2 Estimated from form 303 submitted by the Cities to the California Integrated Waste Management Board.

## PROPOSAL TO MOVE FORWARD WITH REQUIRED STUDIES

As shown in Table 4, the OC Pesticide and PCB TMDL includes a number of required special studies for which workplans have been developed, RWQCB comments have been received, and revised workplans have been prepared. To date, the stakeholders have been waiting for RWQCB Executive Officer approval to begin work on the studies. However, to facilitate moving forward with TMDL implementation, the responsible parties to the TMDL propose to move forward with studies for which RWQCB comments have been received even though approval has not yet been obtained. Unless otherwise noted by the Regional Board, work will proceed under the revised workplans and approval of the workplans will be assumed after the submittal of this report for the following studies:

- Urban OC Source ID workplan
- Ag OC Source ID workplan
- OC Special Study #1-Sediment Transport workplan
- OC Special Study #2-OC HCA workplan

## Metals and Selenium

The Los Angeles Regional Water Quality Control Board adopted Resolution No. R4-2006-012 to incorporate the Metals and Selenium TMDL in Calleguas Creek, its Tributaries, and Mugu Lagoon. The TMDL is effective as of March 26, 2007.

**Table 7. Items submitted for the Metals and Selenium TMDL**

TMDL Task #	Title	Due	Submitted	RWQCB Action	RWQCB Approval
3a	Metals QAPP	6/26/07	6/26/07		✓
	• Revised QAPP		8/14/08	Approved - 1/30/09	✓
4abc	Metals UWQMP	3/26/09	3/26/09		
6	Metals AWQMP	3/26/09	9/8/08	Comments provided - 10/10/08	
	• Revised AWQMP		12/15/08	Approved - 2/3/09	✓
14a	Special Study #2-Se in GW workplan	3/26/08	3/26/08		
15a	Special Study #3-Metals HCA workplan	3/24/07	9/22/06		
21		3/26/08		Consideration of nickel SSO	
26		3/26/09		Information item on metals TMDL	
<b>Upcoming</b>					
9	Progress Report on Salinity Management Plan <sup>[1]</sup>	3/26/10			
13a	Optional Special Study #1-Natural Sources Exclusion Workplan <sup>[2]</sup>	N/A			

1 First phase provided in this report

2 As per conversation with the RWQCB, the stakeholders have agreed to move this action to a later date.

### IMPLEMENTATION ACTIONS

The TMDL AWQMP is being implemented in the watershed to discharges of metals and selenium from agricultural areas.

Urban stormwater dischargers have actively participated in the California Brake Pad Partnership (BPP). The BPP has successfully worked to develop legislation to address concentrations of metals in brake pads and other automotive sources. The legislation is currently progressing through the California Senate.

### Progress Report on Salinity Management Plan

For the Camarillo WRP and Hill Canyon WWTP, compliance with the metals and selenium TMDL was assumed to occur through the implementation of the Salts TMDL requirements. To ensure that the Salts TMDL implementation program is progressing such that compliance with

the metals and selenium TMDL also occurs, a progress report on the Salinity Management Plan is required in the Metals and Selenium TMDL. To avoid duplicative reporting, an initial summary of progress towards implementing the Salinity Management Plan is included in this report to meet the TMDL requirements. In the 2010 Annual Progress Report, an update of progress on the implementation of the plan will be provided.

The following actions have been taken or are currently planned to implement the Salinity Management Plan:

- The Camarillo WRP is progressing with design of plans necessary to cease effluent discharge to the stream. Although actions towards ceasing the discharge are progressing, it is expected to take some time to take the effluent out of the stream.
- The Hill Canyon WWTP is still in the process of evaluating the steps necessary to come into compliance with both the metals and selenium and salts TMDLs. Cessation of effluent discharge to the waterbody is still under consideration, however, it is not a likely scenario at this point. Given that most of the effluent is removed at the Conejo Creek Diversion and minimum flows are required to bypass the diversion, reduction of effluent discharges is not expected to be necessary to comply with the metals and selenium TMDL requirements designed to address water quality impairments in downstream reaches.
- The Salinity Management Pipeline construction has slowed down, but the anticipated date for it to be available to accept discharges (July 2011) will be sufficient to meet the requirements for implementing the first phase of the Salinity Management Plan.

Progress on the Salinity Management Plan has occurred and it is anticipated that actions necessary to meet the requirements of the metals and selenium TMDL will be conducted in a timely manner.

## **NICKEL SSO**

The Stakeholders would like to request that RWQCB staff prepare the necessary documents for consideration of the nickel SSO as soon as possible. As shown in Table 7, the due date for the RWQCB to consider the nickel SSO has passed.

## **PROPOSAL TO MOVE FORWARD WITH REQUIRED STUDIES**

The special studies required under the metals and selenium TMDL include one study that requires coordination with a study being conducted to implement the OC Pesticide and PCB TMDL. The first phase of Metals Special Study #3-HCA Study includes sample collection during OC Special Study #2-OC HCA Study to minimize sample collection costs. Although comments have not been received from the RWQCB on this study, the responsible parties propose to move forward with the first phase of Metals Special Study #3 when the OC HCA study begins. Future phases of the Metals Special Study #3 will continue if comments from the RWQCB staff are received or coordination with OC Special Study #2 continues to be beneficial.

## Trash

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The Los Angeles Regional Water Quality Control Board adopted Resolution No. R4-2007-007 to incorporate the Trash TMDL in Revolon Slough and Beardsley Wash. The TMDL is effective as of March 6, 2008.

**Table 8. Items submitted for the Trash TMDL**

<b>TMDL Task #</b>	<b>Title</b>	<b>Due</b>	<b>Submitted</b>	<b>RWQCB Action</b>	<b>RWQCB Approval</b>
NP2	NOI for Conditional Waiver, MFAC/BMP	9/6/08	9/6/08		
P1	Trash TMRP • Revised TMRP <sup>[1]</sup>	9/6/08	9/6/08 4/28/09	Conditionally approved - 1/28/09	✓

<sup>1</sup> The Revised TMRP also includes the submittal of the Health and Safety Plan prior to starting monitoring activities

Trash monitoring is expected to begin by July 28, 2009.

## Salts

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The Los Angeles Regional Water Quality Control Board adopted Resolution No. R4-2007-016 to incorporate the Boron, Chloride, Sulfate, TDS (Salts) TMDL in the Calleguas Creek Watershed. The TMDL is effective as of December 2, 2008.

**Table 9. Items submitted for the Salts TMDL**

<b>TMDL Task #</b>	<b>Title</b>	<b>Due</b>	<b>Submitted</b>	<b>RWQCB Action</b>	<b>RWQCB Approval</b>
3	Salts Monitoring Approach	6/2/09	6/2/09		

A discussion of the progress towards implementing actions to meet the TMDL requirements is included under the Metals and Selenium TMDL.

## Monitoring

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All required compliance monitoring associated with the TMDLs in the CCW falls under the management of the CCWTMP. The CCWTMP was created to better facilitate a coordinated monitoring effort where multiple TMDL monitoring requirements could be addressed via a single program that would carry out and manage all aspects of the monitoring activities. This monitoring program has been developed to easily integrate new TMDL monitoring efforts as TMDLs are adopted and/or special study monitoring efforts are required.

Monitoring for the Effective TMDLs (excluding the Trash and Salts TMDLs) in the CCW was initiated in August 2008. The Salts TMDL monitoring approach is currently under review by Regional Board staff. Upon approval from the Regional Board, the Salts monitoring will be incorporated into the existing QAPP. Monitoring activities associated with the Trash TMDL for the Revolon Slough/Beardsley Wash are expected, as required, to begin in July 2009.

All sampling has followed the Standard Operating Procedures outlined in the Executive Officer approved *Calleguas Creek Watershed Management Plan Quality Assurance Project Plan (QAPP)*. **Table 10** details the date of completion for each monitoring event as of May 2009:

**Table 10. Dates of Completion of each monitoring event as of June 2009.**

Event #	Date	Description	Constituents
Event 1	August 2008	1st Monitoring Event	Water Quality, Sediment, and Tissue samples collected at freshwater and lagoon sites
Event 2	November 2008	1st Quarterly Event	Water Quality at freshwater and lagoon sites
Event 3	December 2008	1st Wet Event	Water Quality at freshwater sites
Event 4	February 2009	2nd Quarterly Event	Water Quality at freshwater and lagoon sites
Event 5	February 2009	2nd Wet Event	Water Quality at freshwater sites
Event 6	May 2009	3rd Quarterly Event	Water Quality at freshwater and lagoon sites
Event 7	June 2009	1st Metals Only Event	Water Quality at freshwater metals sites

Currently all samples have been collected and delivered to the contract laboratories, quality assurance/quality control (QA/QC) performed by the monitoring subcontractor, and returned to the CCWTMP managing subcontractor. The data is currently being compiled for analysis that will be included in the Annual Monitoring Report.

## Conclusion

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This Annual Progress Report summarizes the TMDL implementation actions that have been implemented so far for the CCW TMDLs. In addition, it also outlines future actions for these TMDLs. Following is a summary of the highlights of this report.

- Upon approval from the Regional Board, the Salts monitoring will be incorporated into the existing QAPP.
- Monitoring activities associated with the Trash TMDL for the Revolon Slough/Beardsley Wash will be initiated in July 2009.
- The results of the special studies for minor sources, greenhouses, and groundwater loadings and the NPS monitoring will be submitted to the RWQCB on July 1, 2009. Following this action, the special studies required by the Nutrient TMDL will have been completed.
- Nitrification and denitrification processes have been installed at all wastewater treatment plants in the watershed, resulting in compliance with the TMDL WLAs.
- Pesticide collection and disposal programs have been initiated by the stakeholders and a summary of their actions has been presented to meet the special study requirements in the Toxicity and OC Pesticide and PCB TMDLs.
- The stakeholders will proceed with the following studies, required for the OC Pesticides and PCBs TMDL:
  - Urban OC Source ID workplan
  - Ag OC Source ID workplan
  - OC Special Study #1-Sediment Transport workplan
  - OC Special Study #2-OC HCA Workplan
  - Metals Special Study #3-Metals HCA Workplan
- The Stakeholders request the RWQCB consider the nickel SSO as soon as possible.
- An update has been provided on the Salinity Management Plan to meet the requirement in the Metals and Selenium TMDL. Additional information will be provided in the next Annual Progress Report.

The next Calleguas Creek Watershed TMDLs Annual Progress Report will be submitted to the Regional Board in mid-2010 or in coordination with the Annual Monitoring Report, as appropriate.