

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401-7906

RESOLUTION NO. R3-2002-0051
(REVISED FEBRUARY 7, 2003)
(REVISED MAY 16, 2003)
AMENDING THE WATER QUALITY CONTROL PLAN
FOR THE CENTRAL COAST BASIN
TO INCLUDE
MORRO BAY TOTAL MAXIMUM DAILY LOAD AND IMPLEMENTATION PLAN
FOR SEDIMENT INCLUDING
CHORRO CREEK, LOS OSOS CREEK AND THE MORRO BAY ESTUARY

The California Regional Water Quality Control Board, Central Coast Region hereby finds:

1. The California Regional Water Quality Control Board, Central Coast Region (Regional Board), adopted the Water Quality Control Plan for the Central Coastal Basin (Basin Plan), on March 14, 1975. The Basin Plan includes beneficial use designations, water quality objectives, implementation plans for point source and nonpoint source discharges, and statewide plans and policies.
2. The Regional Board periodically revises and amends the Basin Plan. The Regional Board has determined the Basin Plan requires further revision and amendment to incorporate a Total Maximum Daily Load (TMDL) and Implementation Plan for Sediment including Chorro Creek, Los Osos Creek and the Morro Bay Estuary.
3. The Regional Board proposes to amend the Basin Plan by inserting amendments into Chapter Four, Section IX Total Maximum Daily Loads.
4. Section 303(d) of the Clean Water Act requires States to identify and to prepare a list of water bodies that do not meet water quality objectives and then to establish load and waste load allocations, or a TMDL, for each water body, which will ensure attainment of water quality objectives, and then to incorporate those allocations into their Basin Plans.
5. Chorro Creek, Los Osos Creek, and the Morro Bay Estuary were identified as impaired by sediment on the 1998 Clean Water Act Section 303(d) list of impaired water bodies. Therefore, the Regional Board is required to adopt a TMDL for those water bodies and incorporate the TMDL and associated Implementation Plan into the Basin Plan (40 CFR 130.6(c)(1), 130.7, Water Code section 13242).
6. Chorro Creek, Los Osos Creek, and the Morro Bay Estuary are located entirely within San Luis Obispo County.
7. The TMDL contains a Problem Statement, Source Analysis, Numeric Targets, Total Maximum Load, Load Allocations, an Implementation Plan, and a Monitoring Plan.
8. The Problem identified in the TMDL is summarized as follows: Over time all estuaries eventually fill with sediment due to the natural processes of erosion and sedimentation. However, the concern with

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Morro Bay is that these natural processes have been accelerated due to anthropogenic watershed disturbances. Studies conducted by various authors over the past 25 years have concluded that the rate of sedimentation to Morro Bay has rapidly increased. These studies have also documented and quantified the loss of Morro Bay's acreage, volume, and tidal prism, as well as an increase in sedimentation in Chorro and Los Osos Creeks. These results imply that encroachment from the margins and aggradation of the shallowest areas within the Bay are the processes causing the decrease in volume. The narrative objective for sediment in the Basin Plan has been exceeded resulting in adverse impacts to several beneficial uses of these waterbodies including, Fish and Wildlife (RARE, MIGR, SPWN, WILD), Estuarine and Marine Habitat (EST, MAR, BIOL), Water Contact and Non-Contact Recreation, and Navigation (REC1, REC2, NAV).

9. The TMDL characterizes sources of sediment by land use categories, erosion categories, and subwatersheds. Contributing land uses include rangeland, brushland, woodland, cropland, and urban, due to grazing, row crop and land development activities (e.g., roads, homes). Erosion categories include sheet and rill, streambanks, roads, and gullies. Sheet and rill contribute the most sediment by erosion category. The Chorro and Los Osos Creeks subwatersheds deliver an average of approximately 70,000 tons per year of sediment into the estuary. The Chorro Creek watershed is estimated to contribute 86 percent of the total sediment produced in the Morro Bay watershed. These subwatersheds contain the vast majority of the upland areas of the Morro Bay watershed—areas of steepest slope and highest rainfall intensity and are the most significant source of sediment loading to Morro Bay. Virtually all sediment loading comes from non-point sources, although there is minor contribution from other land uses subject to regulation under NPDES stormwater permits, Waste Discharge Requirements, and clean up and abatement order.
10. The numeric targets and TMDL is summarized as follows: Because the sediment objectives in the Basin Plan are narrative, rather than numeric, this TMDL establishes numeric targets as indicators of water quality that are supportive of beneficial uses. The numeric targets serve to interpret the narrative water quality objectives and provide a measure with which to determine if the objectives and the TMDL are being met. This TMDL uses multiple numeric targets. For Chorro and Los Osos Creeks these targets are assigned to Residual Pool Volume, and Median Diameter of Sediment Particles in Spawning Gravels. In Morro Bay Estuary a numeric target is established for Tidal Prism Volume. The combination of these parameters is considered an effective approach in lieu of directly measuring sediment loading to Morro Bay from Chorro and Los Osos Creeks. Furthermore, direct measurement of loads would not characterize the *effect* of those loads on beneficial uses. The parameters selected do characterize effect by targeting specific habitat requirements for aquatic organisms. The selection of these targets does not preclude efforts to directly measure loading, however the natural variability inherent in annual sediment loads in this region is large enough to suggest that clear trends could not readily be identified from results of loading data collected in the near term.
11. The Regional Board Staff assigned sediment load allocations to subwatersheds of the Morro Bay Watershed, and achievement of these numeric targets will indicate when load allocations are met.
12. The Implementation Plan relies on the State Water Resource Control Board's Plan for California's Nonpoint Source Pollution Control Program, (Resolution 99-114, adopted December 14, 1999) and on existing or anticipated regulatory activities where responsible dischargers are identified. The Nonpoint Source Plan guides the Regional Board in its control of nonpoint source pollution by implementing the "Three-Tiered Approach." Self-determined actions will be relied on to achieve the water quality goals being established in this TMDL as long as proposed actions are implemented and interim targets set forth in this TMDL are being achieved. The specific self-determined projects for the first three years of TMDL implementation are set forth in detail in the list of Trackable Implementation Actions. At this time the Implementation Plan relies principally on the activities of the Morro Bay National Estuary Program and the Coastal San Luis Resource Conservation District and other public and private groups, that are not dischargers responsible for causing erosion, to implement the self-

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determined projects identified as items 1 through 11 in the list of Trackable Implementation Actions in the Amendment. This portion of the implementation program currently relies on voluntary compliance and so is not regulatory. If, in future years, evaluation of progress indicates regulatory mechanisms are needed to implement actions that will result in attainment of the numeric targets, this will be achieved on a case-by-case basis using existing authority or, if necessary, by amending the TMDL implementation program through a Basin Plan amendment.

13. The TMDL Implementation Plan calls for monitoring the four numeric targets specified in finding 10, above, as well as tracking progress in implementation of voluntary and required implementation actions. Responsibility for tracking and reporting status and effectiveness of voluntary implementation actions, and some monitoring of numeric targets, rests with the Morro Bay National Estuary Program. The Regional Board will consult with the MBNEP regarding monitoring numeric targets and progress on implementation actions. If voluntary implementation action projects are not implemented, or if numeric targets are not achieved, Regional Board staff may identify responsible dischargers and recommend regulatory mechanisms. Also, as more information is obtained concerning sources, locations and rates of sedimentation, TMDL numeric targets and implementation projects may be amended or modified.
14. The Regional Board Staff conducted TMDL outreach by coordinating with forums and events of the Morro Bay National Estuary Program and Farm Bureau, as well as direct outreach to an Estuary Program technical committee (Implementation Committee) and a TMDL steering committee of stakeholders for review and comment. Public review and comment were solicited after completion of the TMDL report and during the public meeting of this Regional Board on May 31, 2002.
15. The Morro Bay National Estuary Program's Comprehensive Conservation and Management Plan for Morro Bay Estuary advocates Total Maximum Daily Loads for siltation, as a means to protect Morro Bay Estuary.
16. The Regional Board submitted the TMDL and a corresponding proposed Basin Plan amendment to an external scientific review panel. On September 17, 2001, the review panel submitted its response to the Regional Board, which stated that in general, the TMDL and proposed Basin Plan amendment presented a sound and scientifically justifiable program for decreasing the rate of sediment filling Morro Bay and improving stream channel conditions as habitat for fish. In addition, the review panel identified several specific areas of concern. The Regional Board revised the proposed Basin Plan amendment in response to the comments submitted by the review panel.
17. Water Code section 13141 mandates that prior to implementation of any agricultural water quality control program, an estimate of the total cost of such a program, together with an identification of potential sources of financing, shall be indicated in any regional water quality control plan. The TMDL and Implementation Plan, in Chapter 8.7, contain an estimate of the cost of preventing erosion and sedimentation via implementation of Best Management Practices. The cost of implementing the Best Management Practices in the TMDL Implementation Plan will be incurred by the implementers and offset with grants, loans, in-kind donations, and matching funds as much as possible.
18. This Basin Plan amendment must be submitted for review and approval by the State Water Resources Control Board, the State Office of Administrative Law (OAL), and the USEPA. The Basin Plan amendment will become effective upon approval by the State Board OAL and USEPA.
19. This amendment meets the "Necessity" standard of the Administrative Procedure Act, Government Code §11353(b).
20. The Regional Board has determined that the TMDL for sediment for Chorro Creek, Los Osos Creek and Morro Bay Estuary, is set at levels necessary to attain and maintain the applicable narrative water

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quality objectives (there are no applicable numeric objectives) with seasonal variations and 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 TMDL also takes into account critical conditions for stream flow, loading and water quality parameters.

21. The basin planning process has been certified as functionally equivalent to the California Environmental Quality Act requirements for preparing environmental documents (Public Resources Code, Section 21000 et seq.) and as such, the required environmental documentation has been prepared. Drafts of the Notice of Filing, staff report, environmental checklist, and alternatives analysis proposed amendment have been prepared and distributed to interested persons and agencies for review and comment in accordance with Title 23 California Code of Regulations section 3777. All public comments were considered. No significant environmental impacts will result from approval of this Basin Plan amendment.
22. The proposed amendments to the Water Basin Plan were developed in accordance with California Water Code Section 13240 et seq.
23. Notice of public hearing was given by advertising in newspapers of general circulation within the Region and by mailing a copy of the notice to all persons requesting such notice and applicable government agencies.
24. The amendment to the Basin Plan will result in no potential adverse effect, either individually or cumulatively, on wildlife and so is exempt from fee payments to the Department of Fish and Game under the California Fish and Game Code.
25. On May 31, 2002 in San Luis Obispo, California, the Regional Board held a public hearing and heard and considered all public comments and evidence in the record and adopted Resolution R3-2002-0051.
26. In preparing to present this Basin Plan Amendment to the State Board, State Board technical and legal staff reviewed the resolution and identified several concerns that caused Regional Board Staff to propose revisions to the resolution.
27. On February 7, 2003, in San Luis Obispo, the Regional Board considered public comments on the revisions and re-adopted resolution no. R3-2002-0051.
28. On March 17, 2003, State Board returned the Administrative Record to the Regional Board with a memo stating that Regional Board adoption procedures did not comply with section 3777 of Title 23 California Code of Regulations, which requires consideration of reasonable alternatives to the proposed amendment that would achieve the stated goal.
29. On May 16, 2003, in Watsonville, California, the Regional Board held a public meeting and re-heard this item to correct the omission stated above. The Regional Board provided 45-days public notice of this meeting and filing of an environmental document. The Regional Board heard and considered all public comments and evidence in the record.

THEREFORE, BE IT RESOLVED,

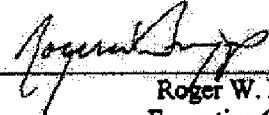
1. The Basin Plan is hereby amended by adding to Chapter Four, Section IX Total Maximum Daily Loads by reference the TMDL and Implementation Plan entitled Morro Bay Total Maximum Daily Load for Sediment (including Chorro Creek, Los Osos Creek and the Morro Bay Estuary), dated April 24, 2002. Because this document is approximately 100 pages long, it is too cumbersome to be

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reproduced in its entirety in the Basin Plan. While the entire document is incorporated by reference, key elements, as presented in Exhibit A to this resolution, will be reproduced in the Basin Plan.

2. The Regional Board requests that the State Water Resources Control Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code, and that upon approval, the State Board is requested to transmit the amendment to the California Office of Administrative Law and the U.S. Environmental Protection Agency for approval.
3. The environmental document prepared by Regional Board staff pursuant to Public Resource Code Section 21080.5 is hereby certified.
4. The Regional Board's Executive Officer is authorized to sign a Certificate of Fee Exemption, since no adverse effect on wildlife results from adoption of this Basin Plan amendment.
5. The Regional Board shall file a CEQA Notice of Decision with the Secretary for Resources, following approval of the revised Basin Plan by the State Board, California Office of Administrative Law, and the U.S. Environmental Protection Agency. A Certificate of Fee Exemption will be included with the Notice of Decision.
6. If during approval process the State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.

I, Roger W. Briggs, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of the resolution adopted by the California Regional Water Quality Control Board, Central Coastal Region, on May 16, 2003.



Roger W. Briggs
Executive Officer

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RESOLUTION NO. R3-2002-0051

ATTACHMENT—PROPOSED BASIN PLAN AMENDMENTS

Revise the September 8, 1994 Basin Plan, Chapter Four, as follows:

Add the following to chapter 4 under IX TOTAL MAXIMUM DAILY LOADS:

IX.A MORRO BAY TOTAL MAXIMUM DAILY LOAD FOR SEDIMENT (INCLUDING CHORRO CREEK, LOS OSOS CREEK AND THE MORRO BAY ESTUARY)

This TMDL was adopted by the Regional Water Quality Control Board on [insert date].

This TMDL was approved by:

The State Water Resources Control Board on [insert date].

The California Office of Administrative Law on [insert date] (effective date).

The U.S. Environmental Protection Agency on [insert date].

TMDL ELEMENTS

Element	
Problem Statement	Over time, all estuaries eventually fill with sediment due to the natural processes of erosion and sedimentation. In Morro Bay these natural processes have been accelerated due to anthropogenic watershed disturbances, resulting in impairment of Beneficial Uses, principally biological resources, but also recreational uses, including: RARE, MIGR, SPWN, WILD, EST, MAR, BIOL, REC1, REC2, NAV. This impairment indicates an exceedance of the Basin Plan narrative objective for sediment, which states that: "the suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses."

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Element		
Numeric Targets	Parameter	Numeric Target
	Residual Pool Volume ¹	V* (a ratio) = Mean values ≤ 0.21 (mean of at least 6 pools per sampling reach) Max values ≤ 0.45
	Median Diameter (D ₅₀) of Sediment Particles in Spawning Gravels	D ₅₀ = Mean values ≥ 69 mm Minimum values ≥ 37 mm
	Percent of Fine Fines (< 0.85 mm) in Spawning Gravels	Percent fine fines ≤ 21%
	Percent of Coarse Fines (all fines < 6.0 mm) in Spawning Gravels	Percent coarse fines ≤ 30%
	Tidal Prism Volume	4,200 acre-feet

Loading Allocations ² (TMDL expressed as annual load)	Watershed	Total (tons/year, rounded to nearest ton)
	Chorro Creek at Reservoir	6,541
	Dairy Creek	440
	Fennington Creek	966
	San Luisito Creek	7,315
	San Bernardo Creek	10,270
	Minor Tributaries	4,489
	Chorro Creek	30,021
	Los Osos Creek	3,052
	Warden Creek and Tributaries	1,812
	Los Osos Creek	4,864
	Morro Bay Watershed	34,885

¹ Residual Pool Volume refers to the portion of a pool in a stream that is available for fish to occupy. Pool habitat is the primary habitat for steelhead in summer. Overwintering habitat requirements include deeper pools, undercut banks, side channels, and especially large, unembedded rocks, which provide shelter for fish against the high flows of winter. V* gives a direct measurement of the impact of sediment on pool volume. It is the ratio of the amount of pool volume filled in with fine, mobile sediment, to total scour pool volume. Qualifying pools are those having a gradient less than 5%, a minimum depth twice the riffle-crest depth, a fairly even spacing between tributaries, and are located on streams fifth order or smaller.

² These loading allocations are 50% of the estimated current sediment loading to Morro bay.

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<p>Implementation</p>	<p>The sediment load to Morro Bay, Los Osos Creek and Chorro Creek derives from nonpoint sources (NPS) and point sources. As such, implementation will rely on the State's Plan for NPS pollution control (CWC §13369) and continued implementation of existing regulatory controls as appropriate for point sources, including storm water pursuant to NPDES surface water discharge regulations and Waste Discharge Requirements (Porter Cologne).</p> <p>At this time, implementation emphasizes the activities of the Morro Bay National Estuary Program, Coastal San Luis Resources Conservation District, and other public and private groups that are not currently identified as dischargers responsible for sediment loading, to implement self-determined activities (see Table: Trackable Implementation Actions). Other actions, currently required because of another program, will be evaluated to make sure progress is taking place (see Table: Trackable Implementation Actions identifying Responsible Dischargers). Regional Board Staff will meet annually with the implementing parties identified in the list of Trackable Implementation Actions to provide technical assistance and to evaluate and track progress (see Implementation Schedule for details). If at the end of year three, implementing parties fail to complete these self-determined activities or resulting management practices fail to reduce sediment loads, then Regional Board staff may conduct inspections and investigations to identify individual responsible dischargers (e.g., landowners or public agencies). Regional Board staff may rely on Section 13267 of the California Water Code or other appropriate authorities for investigation and identification of individual responsible dischargers. Regional Board staff will also rely on Section 13267 of the California Water Code to require reporting and/or monitoring to determine the level of implementation of identified activities to reduce erosion and sediment. If necessary, the Regional Board may rely on enforcement authority, pursuant to California Water Code Section 13304, to require dischargers to clean-up and abate sediment discharges and/or prevent the threat of discharges on a case-by case basis. Additionally, Implementation Actions (in the Table of Implementation Actions) may be required as conditions of compliance with storm water permits and Waste Discharge Requirements.</p> <p>If at the end of the third year, self-determined actions have not been completed, staff will develop a regulatory approach (rather than a self-determined approach) and present a revised implementation plan to the Regional Board as a Basin Plan Amendment.</p> <p>Direct measurement of sediment loading is not proposed for this TMDL. Numeric Targets, which characterize the effect of loading are to be measured in lieu of loadings. The 50-year schedule for achieving the TMDL acknowledges that implementation actions taken in the near term are expected to take years to produce a response as measured through Numeric Target monitoring. Allocations will achieve the targets because over the long term, these allocated sediment loads are expected to result in changes in sediment distributions in the channel and the estuary that meet water quality objectives.</p> <p>Numeric targets and other parameters will be monitored to ensure that numeric targets are met. The Regional Board will rely on existing or planned efforts for this monitoring (e.g., Morro Bay National Estuary Program, Central Coast Ambient Monitoring Program).</p>
<p>Margin of Safety</p>	<p>An implicit margin of safety has been incorporated into this TMDL through the use of conservative assumptions throughout the source analysis and characterization of beneficial use impacts. The margin of safety is required due to uncertainty in calculations of sediment loading and of the effects of this loading on beneficial uses of the Morro Bay Estuary, Chorro Creek and Los Osos Creek.</p>

Trackable Implementation Actions

PROJECT NAME		ACTION	SCHEDULE	IMPLEMENTING PARTY
1	Hollister Ranch Acquisition	Design and construct floodplain restoration project	January 2002-May 2005	CSLRCD and MBNEP
2	Los Osos Creek Wetland Restoration Project	Design and construct Los Osos Creek wetland restoration project	Fall 2000-Spring 2004	CSLRCD and MBNEP
3	Watershed Crew Curriculum	Develop a curriculum that will provide training for a year-round crew of Civilian Conservation Corps	Winter 2001-Fall 2001	OCC
4	Catalogue of Erosion Control Projects	Develop a list of areas in need of erosion control projects	Spring 2001-Fall 2001; on-going	MBNEP
5	Project Clearwater	Provide technical assistance and cost sharing to install BMPs	2001-June 2004; on-going	CSLRCD
6	Agricultural Water Quality Program	Develop and implement a voluntary, cost-effective, and landowner/manager-directed program	2001-2002; on-going	Farm Bureau
7	Land Acquisitions and Conservation Easements	Acquire or otherwise protect lands in cooperation with willing land owners	2000-2010; on-going	MBNEP
8	Fire Management Plan	Develop and implement a Fire Management Plan	2001-2006; on-going	CDF
9	Maintenance of Sediment Basins Above Chorro Reservoir	Continue maintenance of the sediment basins above Chorro Reservoir	on-going	California Army National Guard
10	Road Maintenance	Increase the use of management measures for road maintenance and construction	2001-2006; on-going	County of San Luis Obispo, Public and Private Landowners; California Department of Transportation
11	Sediment Traps	Install sediment traps	2000-2007; on-going	CSLRCD; Natural Resource Conservation Service; DFG; Public and Private Land Owners
PROJECT NAME		ACTION	SCHEDULE	RESPONSIBLE DISCHARGERS
12	Primera Mine Rehabilitation and Erosion Control	Remediation of Primera Mine	2003	California Army National Guard
13	Stormwater Sediment Control on Roads	Include specific road sediment control measures in County stormwater management plan prior to enrollment in Stormwater Permit; track implementation of BMPs	Prior to March 2003; on-going	County of San Luis Obispo
14		Track implementation of BMPs in Stormwater Permit	On-going	Caltrans
15	Water Quality Management Plans on Chorro Creek Ranches	Implement Waste Discharge Requirements to address Chorro Creek Ranches	Fall 2002-Fall 2003	California Polytechnic State University

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Implementation Schedule		IMPLEMENTATION MILESTONE		MONITORING ACTIVITY	
At End of Implementation Year:	Chorro Creek	Los Osos Creek	Morro Bay	Chorro Creek	Los Osos Creek
1		RB and MBNEP Staff meet to review progress. RB and County Staff meet to review inclusion of road erosion control measures in Stormwater Management Plan.		Baseline Streambed Parameters ¹ , Turbidity	Morro Bay
2		As above			
4		RB and MBNEP Staff meet to review progress; RB requests implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions		Baseline Streambed Parameters, Turbidity	
5		RB and MBNEP Staff meet to review progress	RB Staff calculate: 5-year changes to Bay area and volume	Baseline Streambed Parameters, Turbidity	Bathymetry survey
6		RB and MBNEP Staff meet to review progress; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions		Baseline Streambed Parameters, Turbidity	
7		RB and MBNEP Staff meet to review progress		Baseline Streambed Parameters, Turbidity	
8		As above			
9		RB and MBNEP Staff meet to review progress; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions			
10		RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data	RB Staff calculate: 5-year changes to Bay area and volume		Bathymetry survey
11		RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data			

¹ Streambed Parameters, which are the Numeric Targets, include Residual Pool Volume, Median Diameter of Sediment Particles, Percent Fine Sediment, and Percent Coarse Sediment.

At End of Implementation Year:	IMPLEMENTATION MILESTONE	MONITORING ACTIVITY
12	RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions	Streambed Parameters, Turbidity
13	RB and MBNEP Staff meet to review progress; RB Staff calculates 10-year rolling average of Streambed Sediment data	Streambed Parameters, Turbidity
14	<i>As above</i>	
15	RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions	Streambed Parameters, Turbidity
16-19	Repeat as above with 3-, 5-, and 10-year milestones. Numeric targets achieved; load reduction achieved	Bathymetry survey