Attachment IV
TMDL Requirements

Attachment IVa identifies TMDLs adopted by the Regional Water Boards and approved by USEPA for which the Department has been assigned a Waste Load Allocation (WLA), where roads in general have been assigned a WLA or Load Allocation (LA), or which identifies the Department as a responsible party in the implementation plan. Attachment IVb identifies the TMDLs established by USEPA. These TMDLs are established without implementation plans or compliance schedules. This summary is compiled for the convenience of the Department only[1]. The Department is obligated to consult each TMDL to comply with all applicable allocations and other provisions, whether included in the table or not. Compliance with all TMDLs must be demonstrated to the satisfaction of the applicable Regional Water Board.

Column 1 identifies applicable Regional Water Board Basin Plan Amendments, orders and resolutions which contain the implementation requirements.

Column 2 contains a list of WLAs, LAs, deliverables and action items contained in the Basin Plan Amendments, orders and resolutions, and from required submittals by the Department to the Regional Water Boards that have previously been approved by the Executive Officers. WLAs are listed in Attachment 4 where the relevant TMDL assigns a specific numeric load to the Department.

Column 3 contains the associated due dates, compliance dates, and deadlines. All TMDL-related requirements with due dates, compliance dates, and deadlines prior to the effective date of this Order are enforceable through this Order as though the date or deadline is the same as the effective date of this Order. Dates beyond the term of this Order are included for reference, but will become enforceable through this Order in the event that this Order is administratively extended.

[1] This Attachment IV contains new specific permit requirements derived from San Francisco Bay Regional Water Board TMDLs for San Francisco Bay PCBs, San Francisco Bay Mercury, Sonoma Creek Sediment, and Napa River Sediment. Unlike the remainder of Attachment IV, these requirements are directly enforceable through this Order.

Attachment IVa – Regional Water Board Approved TMDLs

R1- North Coast Regional Water Board

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
Garcia River *Sediment* Effective Date: March 7, 2002 BPA: September 21, 2000 Action Plan for the Garcia River Watershed Sediment TMDL Resolution No.	***WLA*** None Specified ***Other*** **Sediment Load Allocation:** Zero controllable discharges. Comply with sediment waste discharge prohibitions, comply with an approved Erosion Control Plan and an approved Site-Specific Management Plan, or comply with an approved Erosion Control Plan and the Garcia River Management Plan	None Specified March 7, 2002 March 7, 2002
Klamath River *Temperature, Dissolved Oxygen, Nutrient, and Microcystin* Effective Date: Klamath River - December 28, 2010 BPA: Action Plan for Klamath River TMDLs Addressing Temperature, Dissolved Oxygen, Nutrient, and Microcystin Impairments in the Klamath River in California Plan. Resolution No. R-2010-0026	***WLA*** **Temperature:** None Specified **Dissolved Oxygen:** None Specified **Nutrient:** None Specified **Microcystin:** None Specified ***Other*** **Nutrient and Organic Matter:** Daily total phosphorus load allocations, daily total nitrogen load allocations, and daily carbonaceous biochemical oxygen demand allocations are expressed by source area in Table 4-16 of the Water Quality Control Plan for the North Coast Region. **Dissolved Inorganic Nitrogen:** Reach 1: 0.1 metric tons/yr or 0.3 average kg/day. Reach 2: 0.2 metric tons/yr or 0.5 average kg/day. Reach 3: 0.2 metric tons/yr or 0.5 average kg/day **Sediment:** Inventory, prioritize, schedule, implement, monitor and adapt steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region. Assessment of fish migration barriers and potential barriers. Develop priority ranking and time schedule for modifying barriers.	None Specified None Specified None Specified None Specified December 28, 2010 December 28, 2010 Annual Report Annual Report
Scott River *Sediment and Temperature* Effective Date: August 11, 2006 BPA: Action Plan for the Scott River Sediment and Temperature Total Maximum Daily Loads	***WLA*** **Sediment:** None specified **Temperature:** None specified ***Other*** **Sediment Load Allocations:** Load allocations for road surface erosion, road-related stream crossing failures, road-related gullies, road-related cut/fill failures, and road-related landslides are expressed as averages over the entire Scott River watershed and are to be evaluated on a ten-year, rolling-average basis as listed in Table 4-8 of the *Water Quality Control Plan for the North Coast Region*. **Temperature Load Allocations:** Adjusted potential effective shade conditions as	None specified None specified September 8, 2006 September 8, 2006

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
	expressed in Figure 4-5 of the *Water Quality Control Plan for the North Coast Region*.	
Resolution Nos. R1-2005-0013	Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	Annual Report
Shasta River Watershed *Dissolved Oxygen & Temperature* Effective Date: January 26, 2007 BPA: Action Plan for the Shasta River Watershed Temperature and Dissolved Oxygen – June 28, 2006 Resolution No. R1-2006-0052	***WLA*** **Temperature:** There are no point source heat loads in the Shasta River Watershed, therefore no WLAs apply.	None
	Dissolved Oxygen: There are no known point sources of oxygen-demanding constituents to the Shasta River and tributaries.	None Specified
	Other: **Temperature Load Allocation:** Landowners and operators in the mainstream Shasta River below Dwinnell Dam are allocated loads equal to potential solar radiation transmittance, as tabulated in Table 4-11 and Figure 4-6 of the *Water Quality Control Plan for the North Coast Region*. Landowners and operators on the Shasta River above Dwinnell Dam and on tributaries are allocated loads equal to adjusted potential effective shade, which is equal to 90% of site potential shade.	January 26, 2007
	Dissolve Oxygen Load Allocation: As assigned to landowners whose operations contribute to water quality conditions within the specified reaches of the Shasta River, the load allocations are assigned to reaches of the Shasta River as identified in Table 4-13 of the *Water Quality Control Plan for the North Coast Region*.	January 26, 2007
	Complete Lake Shastina Special Study: Develop plan for addressing factors affecting water quality conditions.	January 26, 2009
	Implement the requirement of the Department Storm Water Program.	January 26, 2009
	Implement Lake Shastina Special Study Plan.	January 26, 2012

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
San Francisco Bay *PCBs* Effective Date: March 29, 2010 BPA Exhibit A – TMDL & Implementation Plan for PCBs Resolution Nos. R1-2008-0012 **San Francisco Bay** *Mercury* Effective Date: February 12, 2008 BPA – Chapter 7, SF Bay Mercury TMDL Resolution No. R2-2006-0052	***WLA*** **San Francisco Bay *PCBs* TMDL Waste load Allocation** None Specified **San Francisco Bay *Mercury* TMDL Wasteload Allocation** None Specified ***Monitoring*** Independently or in cooperation with urban runoff management agencies develop and implement a monitoring program to quantify PCBs and mercury loads and loads reduced through source control, treatment and other management measures. Report on the methods used to assess progress toward meeting WLAs including description of the measurement and estimation methodology and rationale used for the approaches. Report results of the chosen monitoring approach concerning loads assessment and estimation of loads reduced. **Pilot Projects to Investigate and Abate Locations with Elevated PCBs and Mercury Concentrations, Including Public Rights-of-Way and Stormwater Conveyances with Accumulated Sediments with Elevated PCBs and Mercury Concentrations** Investigate and abate PCBs and mercury sources in or to storm drain systems in conjunction with the Water Board and other appropriate regulatory agencies. Identify at least two drainage areas that contain high levels of PCBs and conduct pilot projects to investigate and abate these high PCBs/mercury concentrations. Conduct reconnaissance in the pilot project drainage areas, test sediments in storm drains and conveyances, and characterize the extent and magnitude of PCBs/mercury concentrations. Evaluate data and determine if a PCBs/mercury abatement program would reduce PCBs/mercury loading significantly. Report on the identified suspect drainage areas. Report on sampling and chemical analysis results at pilot project locations. Report on proposed abatement opportunities/activities, responsible parties, funding agency oversight, and schedules. Report results of the abatement program's effectiveness and provide estimates of loads of PCBs and mercury reduced, and submit a plan and schedule for possible expanded implementation in subsequent permit terms. **Conduct Pilot Projects to Evaluate and Enhance PCBs/Mercury Sediment Removal and Management Practices** Evaluate in at least two drainages pilot projects to enhance PCBs/mercury load reduction benefits of enhanced operation and maintenance activities that remove or manage sediment (e.g., street sweeping, inlet cleaning, catch basin cleaning, storm water conveyance system maintenance, and pump station cleaning). Include consideration of street flushing and capture, collection, or routing to the sanitary sewer (in coordination and consultation with local sanitary sewer agencies) as a potential enhanced management. Reducing loads of PCBs is the main site selection factor, and reducing loads of mercury is a secondary criterion. Quantify and report on the amount of PCBs/mercury loads removed or avoided from implementation of selected measures and document this knowledge and experience	To be Determined To be Determined See Below See Below Year 2 Annual Report Year 4 Annual Report See Below See Below Year 1 Annual Report Year 2 Annual Report Year 3 Annual Report Year 4 Annual Report See Below See Below

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
	gained.	
	Report selected sites, operation and maintenance activities to be evaluated and pilot project implementation schedule.	Year 1 Annual Report
	Report status of the pilot projects.	Year 2 and 3 Annual Reports
	Report on the effectiveness of enhanced implementation practices, estimates of loads reduced, and submit a plan and schedule for possible expanded implementation in subsequent permit terms.	Year 4 Annual Report
	Conduct Pilot Projects to Evaluate On-Site Stormwater Treatment via Retrofit	
	Evaluate and quantify the removal of PCBs and mercury by on-site treatment systems via retrofit into existing storm drain systems at a minimum of three locations. Reducing loads of PCBs is the main site selection factor, and reducing loads of mercury is a secondary criterion.	See Below
	Quantify and report on the amount of PCBs/mercury loads removed or avoided from implementation of selected measures and document this knowledge and experience gained.	See Below
	Report selected sites, operation and maintenance activities to be evaluated and pilot project implementation schedule.	Year 2 Annual Report
	Report status of the pilot projects.	Year 3 Annual Report
	Report on the effectiveness of enhanced implementation practices, estimates of loads reduced, and submit a plan and schedule for possible expanded implementation in subsequent permit terms.	Year 4 Annual Report
	Conduct Pilot Project to evaluate Diversion of Dry Weather and First Flush Flows to POTWs	
	Evaluate the reduced loads of PCBs/mercury from diversion of dry weather and first flush storm water flows to sanitary sewers via implementing one pilot project. Reducing loads of PCBs is the main site selection factor, and reducing loads of mercury is a secondary criterion.	See Below
	Quantify and report the amount of PCBs/mercury loads removed or avoided and document this knowledge and experience gained.	See Below
	Report location of diversion project and schedule for implementation.	Year 2 Annual Report
	Report status of the pilot project.	Year 3 Annual Report
	Report on the pilot project effectiveness and PCBs and mercury loads reduced, and submit a plan and schedule for possible expanded implementation in subsequent permit terms.	Year 4 Annual Report
	Specific Provision for San Francisco Bay Mercury TMDL – Develop Wasteload Allocation Sharing Scheme	
	Develop equitable mercury WLA sharing scheme in consultation with SF Bay Area urban runoff management agencies to address roadway and non-roadway facilities' contribution of mercury loadings within the jurisdiction of each agency and report the details to the Regional Water Board. Alternatively, implement mercury load reduction actions on a watershed or region-wide basis in lieu of sharing a portion of an urban runoff management agencies' mercury WLA.	See Below

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date Due Date</th></tr>
<tr><td></td><td>Report status of efforts to develop WLA sharing scheme.

Report the manner in which the mercury WLA will be shared with urban runoff management agencies or submit request for a separate mercury WLA.</td><td>Year 1 and 2 Annual Reports

Year 3 Annual Report</td></tr>
<tr><td>Sonoma Creek
Sediment

Effective Date: September 8, 2010

BPA: Exhibit A. Sediment & Implementation Plan – December 12, 2008

Resolution No. R2-2008-0103 and Resolution No. 2010-0016

Napa River
Sediment

Effective Date: January 20, 2011

BPA: Chapter 7, Water Quality Attainment Strategies including TMDLs

Resolution No. R2-2009-0064</td><td>Sonoma Creek WLA

Sonoma Creek Sediment Wasteload Allocation
<table>
<tr><th rowspan="2">Current (2005) Load[b]</th><th rowspan="2">Estimated Reductions Needed (Percentage)</th><th colspan="2">Waste Load Allocation</th></tr>
<tr><th>Tons/year[a]</th><th>Percent Natural Background</th></tr>
<tr><td>100</td><td>0</td><td>100</td><td>0.2</td></tr>
</table>
[a] Sediment loads and allocations are rounded to the nearest hundred.
[b] Total current (2005) estimated sediment load = 117,400 tons/yr

Other
<table>
<tr><th>Performance Standards</th><th>Actions</th></tr>
<tr><td>Roads: Design, construct, and maintain rural roads to minimize road- related sediment delivery to stream channels ; and

Gullies and/or shallow landslides: Promote natural recovery and minimize human-caused increases in sediment delivery from unstable areas.</td><td>Submit a Report of Waste Discharge[2] to the Regional Water Board that provides, at a minimum, the following: description of the road network and/or segments; identification of erosion and sediment control measures to achieve performance standard(s) specified in this table; and a schedule for implementation of identified and sediment control actions that could primarily focus on road crossings to meet the performance standard.

Adopt and implement BMPs for maintenance of unimproved (dirt/gravel) roads, and conduct a survey of stream-crossings associate with paved public roadways, and develop a prioritized implementation plan for repair and/or replacement of high priority crossings/culverts to reduce road-related erosion and protect stream-riparian habitat conditions.</td></tr>
</table>

Napa River Watershed WLA

Napa River Sediment TMDL Wasteload Allocation
<table>
<tr><th colspan="2">Current Load</th><th rowspan="2">Reductions Needed (Percentage)</th><th colspan="2">Waste Load Allocation</th></tr>
<tr><th>Metric Tons/year</th><th>Percentage of Natural Background</th><th>Metric tons/year</th><th>Percentage of Natural Background</th></tr>
<tr><td>600</td><td>0.4</td><td>0</td><td>600</td><td>0.4</td></tr>
</table></td><td>June 2014

June 2014</td></tr>
</table>

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date Due Date</th></tr>
<tr><td></td><td>Other

<table><tr><th>Performance Standards</th><th>Actions</th></tr><tr><td>Roads: Road related sediment delivery to channels ≤ 500 cubic yards per mile per 20-year period[2a]

Gullies and/or shallow landslides: Accelerate natural recovery and prevent human-caused increases in sediment delivery from unstable areas.</td><td>Submit a Report of Waste Discharge[2] to the Regional Water Board that provides, at a minimum, the following: description of the road network and/or segments; identification of erosion and sediment control measures to achieve performance standard(s) specified in this table; and a schedule for implementation of identified and sediment control actions that could primarily focus on road crossings to meet the performance standard.

Adopt and implement BMPs for maintenance of unimproved (dirt/gravel) roads, and conduct a survey of stream-crossings associated with paved public roadways, and develop a prioritized implementation plan for repair and/or replacement of high priority crossings/culverts to reduce road-related erosion and protect stream-riparian habitat conditions.</td></tr></table></td><td>October 2014</td></tr>
<tr><td>Urban Creek
Diazinon & Pesticide Toxicity

Effective Date: May 16, 2007

BPA: BPA – Chapter 3, Toxicity

Resolution No. R2-2005-0063</td><td>WLA
Diazinon: 100 ng/l (acute and chronic diazinon-related toxicity).

Toxicity: 1.0 TUa (acute toxicity units) and 1.0 TUc (chronic toxicity units).

Other
Implement a Pesticide-Related Toxicity Control Program.

Submit Pesticide-Related Toxicity Control Program plan.</td><td>May 16, 2008

May 16, 2008

None Specified

Year 2 Annual Report</td></tr>
</table>

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
San Lorenzo River (includes Carbonera Lompico, and **Shingle Mill Creeks)** *Sediment* Effective Date: February 19, 2004 BPA: Attachment TMDL & Implementation Plan for Sediment Resolution No. R3-2002-0063	***WLA*** None Specified. ***Other*** Create a public road database to inventory and prioritize sediment problems. Improve public roads spoils management disposal site(s) in or near the San Lorenzo River Watershed. Submit progress report.	None Specified None Specified None Specified Every third year during implementation phase (i.e., beginning 2007)
Morro Bay (includes Chorro Creek, Los Osos Creek, and **the Morro Bay Estuary)** *Sediment* Effective Date: January 20, 2004 BPA: BPA – Attachment A, R3-2003-0061 on May 16, 2003 Resolution No. R3-2003-0062	***WLA*** None Specified. ***Other*** Increase the use of sediment management measures for road maintenance and construction. Track implementation of best management practices for sediment control on roads. Water Board receives Implementation Tracking Report from implementing parties.	None Specified On-going On-going End of 2007 and Every third year thereafter during implementation phase
Santa Maria River Watershed *Pesticides* Effective Date: Pending BPA: Pending Resolution No. Pending	***WLA*** None Specified. ***Other*** Develop Pesticide Wasteload Allocation Attainment and Monitoring Program. Implement Pesticide Wasteload Allocation Attainment and Monitoring Program.	None Specified Six months following TMDL approval One-year following TMDL approval

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date
Due Date</th></tr>
<tr><td>Ballona Creek
Trash

Effective Date: August 1, 2002 & February 8, 2005

BPA: Attachment A, Chapter 7-3.

Resolution No. 2004-0023</td><td>
WLA

<u>Ballona Creek Trash TMDL [implementation Schedule (Default WLAs expressed as cubic feet of uncompressed trash and % reduction)</u>
<table>
<tr><th rowspan="2">Year</th><th colspan="4">WLAs</th><th colspan="4">Compliance Points</th></tr>
<tr><th>% Baseline</th><th>Cubic Ft</th><th>Gals</th><th>Lbs.</th><th>% Baseline</th><th>Cubic Ft</th><th>Gals</th><th>Lbs</th></tr>
<tr><td>Initial WLA</td><td>100%</td><td>1,634</td><td>12,222</td><td>13,368</td><td>100%</td><td>1,634</td><td>12,222</td><td>13,688</td></tr>
<tr><td>7</td><td>50%</td><td>818</td><td>6,119</td><td>6,844</td><td>60%</td><td>981</td><td>7,338</td><td>8,213</td></tr>
<tr><td>8</td><td>40%</td><td>654</td><td>4,892</td><td>5.4752</td><td>50%</td><td>818</td><td>6,119</td><td>6,844,</td></tr>
<tr><td>9</td><td>30%</td><td>491</td><td>3,673</td><td>4106.4</td><td>40%</td><td>654</td><td>4,892</td><td>5,475</td></tr>
<tr><td>10</td><td>20%</td><td>327</td><td>2,446</td><td>2,737.6</td><td>30%</td><td>491</td><td>3,673</td><td>4,106</td></tr>
<tr><td>11</td><td>10%</td><td>164</td><td>1,227</td><td>1,368.8</td><td>20%</td><td>327</td><td>24,46</td><td>2,736,</td></tr>
<tr><td>12</td><td>0</td><td>0</td><td>0</td><td>0</td><td>10%</td><td>164</td><td>1,227</td><td>1,568</td></tr>
<tr><td>13</td><td>0</td><td>0</td><td>0</td><td>0</td><td>3.3%</td><td>54</td><td>404</td><td>452</td></tr>
<tr><td>14</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0%</td><td>0</td><td>0</td><td>0</td></tr>
</table>
Other
Clean out and measurement of trash retained after rain event.

Clean out and measurement of trash retained during dry weather.
</td><td>September 30, 2008
September 30, 2009
September 30, 2010
September 30, 2011
September 30, 2012
September 30, 2013
September 30, 2014
September 30, 2015

72 hours after each rain event.

Every 3 months</td></tr>
<tr><td>Revolon Slough and Beardsley Wash
Trash

Effective Date: February 27, 2008

BPA: Attachment A Chapter 7-24

Resolution No. R4-2007-007</td><td>
WLA
Revolon Slough and Beardsley Wash Trash WLAs
<table>
<tr><th>% WLA</th><th>gal/mi2/yr</th></tr>
<tr><td>Initial WLA</td><td>6,674</td></tr>
<tr><td>80%</td><td>5,340</td></tr>
<tr><td>60%</td><td>4,005</td></tr>
<tr><td>40%</td><td>2,670</td></tr>
<tr><td>20%</td><td>1,335</td></tr>
<tr><td>0%</td><td>0</td></tr>
</table>
Other
Trash Monitoring and Reporting Plan (TMRP).

Implement Trash Monitoring Reporting Plan.

Submit results of TMRP, recommend trash baseline WLA, and propose prioritization of Full Capture System installation or implementation of other trash reduction measures.
</td><td>March 6, 2008
February 27, 2012
February 27, 2013
February 27, 2014
February 27, 2015
February 27, 2016

August 27, 2008

July 28, 2009

January 28, 2011 and annually thereafter</td></tr>
<tr><td>Ventura River Estuary
Trash

Effective Date:</td><td>
WLA
<table>
<tr><th>%WLA</th><th>gal/mi2/yr</th></tr>
<tr><td>Initial WLA</td><td>6,674</td></tr>
<tr><td>80%</td><td>5,340</td></tr>
</table>
</td><td>March 6, 2008
February 27, 2012</td></tr>
</table>

February 27, 2008 BPA: Attachment A Chapter 7-25 Resolution No. R4-2007-008	60% 4,005 40% 2,670 20% 1,335 0% 0 ***Other*** Trash Monitoring and Reporting Plan (TMRP). Implement Trash Monitoring Reporting Plan. Submit results of TMRP, recommend trash baseline WLA, and propose prioritization of Full Capture System installation or implementation of other trash reduction measures.	February 27, 2013 February 27, 2014 February 27, 2015 February 27, 2016 August 27, 2008 July 28, 2008 January 28, 2011 and annually thereafter
Machado Lake *Trash* Effective Date: February 27, 2008 BPA: Attachment A Chapter 7-26 Resolution No. R4-2007-06	***WLA*** **%WLA** **gal/mi2/yr** Initial WLA 6,674 80% 5,340 60% 4,005 40% 2,670 20% 1,335 0% 0 ***Other*** Trash Monitoring and Reporting Plan (TMRP). Implement Trash Monitoring Reporting Plan. Submit results of TMRP, recommend trash baseline WLA, and propose prioritization of Full Capture System installation or implementation of other trash reduction measures.	March 6, 2008 February 27, 2012 February 27, 2013 February 27, 2014 February 27, 2015 February 27, 2016 August 27, 2008 July 28, 2009 January 28, 2011 and annually thereafter
Legg Lake *Trash* Effective Date: February 27, 2008 BPA: Attachment A Chapter 7-27 Resolution No. R4-2007-10	***WLA*** **%WLA** **gal/mi2/yr** Initial WLA 6,674 80% 5,340 60% 4,005 40% 2,670 20% 1,335 0% 0 ***Other*** Trash Monitoring and Reporting Plan (TMRP). Implement Trash Monitoring Reporting Plan. Results of TMRP, recommend trash baseline WLA, and propose prioritization of Full Capture System installation or implementation of other trash reduction measures.	March 6, 2008 February 27, 2012 February 27, 2013 February 27, 2014 February 27, 2015 February 27, 2016 August 27, 2008 July 28, 2009 January 28, 2011 and annually thereafter
Malibu Creek Watershed *Trash* Effective Date: June 26, 2009 BPA: Attachment A	***WLA*** **% WLA** **gal/yr** Initial WLA 2,136 80 % 1,709 60 % 1,282 40 % 854 20 % 427	July 7, 2009 July 7, 2013 July 7, 2014 July 7, 2015 July 7, 2016

<table>
<tr>
<td>Chapter 7-31

Resolution No. R4-2008-007</td>
<td>
<table>
<tr><td>0 %</td><td>0</td></tr>
</table>

Other
Trash Monitoring and Reporting Plan (TMRP).

Implement Trash Monitoring Reporting Plan.

Submit results of TMRP, recommend trash baseline WLA, and propose prioritization of Full Capture System installation or implementation of other trash reduction measures.
</td>
<td>July 7, 2017

April 30, 2010

Six months from receipt of letter of approval from Regional Board Executive Officer

One year from receipt of Regional Board letter of approval for TMRP and annually thereafter</td>
</tr>
<tr>
<td>Los Angeles River
Trash

Effective Date: July 24, 2008

BPA: Attachment A, Chapter 7-2

Resolution No. R4-2007-012</td>
<td>
WLA
TMDL requires phased reductions over a period of 9 years, from the existing baseline loads to zero (0).
<table>
<tr><th rowspan="2">Year</th><th colspan="3">WLAs</th><th colspan="3">Compliance Point</th></tr>
<tr><th>% Baseline</th><th>gals.</th><th>lbs</th><th>% Baseline</th><th>gals.</th><th>lbs</th></tr>
<tr><td>Initial WLA</td><td>100 %</td><td>59,421</td><td>66,566</td><td>100%</td><td>59,421</td><td>66,566</td></tr>
<tr><td>1</td><td>60 %</td><td>35,563</td><td>39,940</td><td>60%</td><td>35,653</td><td>39,940</td></tr>
<tr><td>2</td><td>50 %</td><td>29,711</td><td>33,283</td><td>55 %</td><td>32,682</td><td>36,611</td></tr>
<tr><td>3</td><td>40 %</td><td>23,768</td><td>26,626</td><td>50 %</td><td>29,711</td><td>33,283</td></tr>
<tr><td>4</td><td>30 %</td><td>17,826</td><td>19,970</td><td>40 %</td><td>23,768</td><td>26,626</td></tr>
<tr><td>5</td><td>20 %</td><td>11,884</td><td>13,313</td><td>30 %</td><td>17,826</td><td>19,970</td></tr>
<tr><td>6</td><td>10 %</td><td>5,942</td><td>6,657</td><td>20 %</td><td>11,884</td><td>13,313</td></tr>
<tr><td>7</td><td>0 %</td><td>0</td><td>0</td><td>10 %</td><td>5,942</td><td>6,657</td></tr>
<tr><td>8</td><td>0 %</td><td>0</td><td>0</td><td>3.3%</td><td>1,961</td><td>2,197</td></tr>
<tr><td>9</td><td>0 %</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
</table>

Other
Implementation report, outlining how the Department intends to comply with the TMDL.
</td>
<td>September 30, 2008

September 30, 2009

September 30, 2010

September 30, 2011

September 30, 2012

September 30, 2013

September 30, 2014

September 30, 2015

September 30, 2016

January 24, 2008</td>
</tr>
<tr>
<td>Ballona Creek, Ballona Estuary, and Sepulveda Channel
Bacteria

Effective Date: March 26, 2007

BPA: Attachment A, Chapter 7-21</td>
<td>
WLA
WLAs for Ballona Creek, Ballona Estuary and Sepulveda Channel
<table>
<tr><th>Time Period</th><th>Ballona Estuary, Ballona Creek Reach 2, and Sepulveda</th><th>Ballona Creek Reach 1**</th></tr>
<tr><td>Summer Dry-Weather (April 1 to October 31)</td><td>Zero (0) exceedance days based on the applicable Single Sample Bacteria Water Quality Objective.

Zero (0) Exceedance days on the Rolling 30-Day Geometric Mean Bacteria Water Quality</td><td>No more than 10% of the Single Sample Bacteria Water Quality Objectives.

Zero (0) Exceedance days based on the Rolling 30-Day Geometric Mean Bacteria Water Quality Objectives.</td></tr>
</table>
</td>
<td>March 26, 2017</td>
</tr>
</table>

Resolution No. R4-2006-011

	Objectives.	
Winter-Dry Weather (November 1 – March 31)	Three (3) Exceedance days based on the applicable Single Sample Bacteria Water Quality Objectives.	No more than 10% of the Single Sample Water Quality Objectives. Zero (0) Exceedance days based on the Rolling 30-Day Geometric Mean Bacteria Water Quality Objectives.
Wet-Weather (days with ≥ 0.1 inch of rain + 3 days following the rain event).	17*** Exceedance days based on the applicable Single Sample Bacteria Water Quality Objectives. Zero (0) Exceedance days based on the Rolling 30-Day Geometric Mean Bacteria Water Quality Objectives.	No more than 10% of the Single Sample Water Quality Objectives. Zero (0) exceedance days based on the Rolling 30-Day Geometric Mean Bacteria Water Quality Objectives.

* Exceedance days fro Ballona Estuary based on REC-1 marine water numeric targets; for Ballona Creek Reach 2 based on LREC-1 Freshwater numeric targets; and for Sepulveda Channel, based on fresh water REC-1 numeric targets

***** Exceedance frequency for Ballona Creek Reach 1 based on the freshwater REC-2 numeric targets***

****** In Reach 2, the greater of the allowable exceedance days under the reference system approach of high flow suspension shall apply.***

WLAs for Tributaries to the Impaired Reaches of Ballona Creek

Tributary	Point of Application	WQOs	WLAs (no. of Exceedance days)
Ballona Creek Reach 1	At confluence with Reach 2	LREC-1 Freshwater	For single sample objectives (0) summer dry weather (3) Winter dry weather (17*) winter wet weather For geometric mean objectives: (0) for all periods
Benedict Canyon Channel	At confluence with Reach 2	LREC-1	For single sample objectives (0) summer dry weather (3) Winter dry weather (17*) winter wet weather For geometric mean objectives: (0) for all periods
Ballona Creek Reach 2	At the confluence with Ballona Estuary	REC-1 Marine water	For single sample objectives (0) summer dry weather (3) Winter dry weather (17) winter wet weather For geometric mean objectives: (0) for all periods
Centinella Creek	At the confluence of Ballona Estuary	REC-1 Marine water	For single sample objectives (0) summer dry weather (3) Winter dry weather (17) winter wet weather For geometric mean objectives: (0) for all periods
Del Rey Lagoon	At the confluence with Ballona Estuary	REC-1 Marine water	For single sample objectives (0) summer dry weather (3) winter dry weather

March 26, 2017

				(17) winter wet weather For geometric mean objectives: (0) for all periods	

** At the confluence with Reach 2, the greater the allowable Exceedance days under the system approach or high flow suspension shall apply.*

Other

Final Implementation Plan outlining approach for compliance with WLAs.

Three months after receipt of Regional Board comments on Draft Implementation Plan.

Marina del Rey, Harbor Back Basins, Mother's Beach
Bacteria

Effective Date: March 18, 2004

BPA: Attachment A, Chapter 7-5

Resolution No. 2003-012

WLA

Compliance Deadline		**Effective Date of this Order[1]**		**Effective Date of This Order07[1]**		**3/18/14[2]**	
		Summer Dry Weather[3]		**Winter Dry Weather [3, 4]**		**Wet Weather [3, 4]**	
		April 1 – Oct 31		**Nov 1 - Mar 31**		**Nov 1 - Oct 31**	
Station ID 3	Location Name	Daily sampling (No. days)	Weekly sampling (No. days)	Daily sampling (No. days)	Weekly sampling (No. days)	Daily Sampling (No. days)	Weekly sampling (No. Days)
HYP (S9)	Mothers' Beach, at Lifeguard Tower	0	0	3	1	17	3
DHS (109a)	Mothers' Beach, at Playground Area	0	0	3	1	17	3
DHS (109b)	Mothers' Beach, between Lifeguard Tower and Boat Dock	0	0	3	1	17	3
DHS (109c)	Los Angeles County Fire Dock - end of main channel	0	0	3	1	17	3
DHB (MDR-8)	Mothers' Beach, near first slips outside swim area	0	0	3	1	17	3

Summer Dry Weather: March 18, 2007

Winter Dry Weather: March 18, 2010

Wet Weather: March 18, 2014

DHB (MDR-18)	Mothers' Beach, 20 meters off of the wheel chair ramp	0	0	0	0	15	3
DHB (MDR-19)	Mothers' Beach, end of wheel chair ramp	0	0	3	1	17	3
DHB (MDR-9)	Basin F, innermost end	0	0	3	1	8	1
DHB (MDR-11)	End of Main Channel	0	0	3	1	17	3
DHB (MDR-10)	Basin E, near center of basin	0	0	3	1	17	3
DHB (MDR-20)	Basin E, in front of Tidegate from Oxford Basin	0	0	3	1	17	3

Notes:

[1] The number of allowable exceedances is based on the lesser of (1) the reference system or (2) existing levels of exceedance based on historical monitoring data. The allowable number of exceedance number days during winter dry-weather is calculated based on the 10th percentile storm year in terms of dry days at the LAX meteorological station. The allowable number of exceedance days during wet-weather is calculated based on the 90th percentile storm year in terms of wet days at the LAX meteorological station.

[2] If an Integrated Water Resources Approach is implemented, the compliance period must be the shortest time possible but not to exceed 18 years from the effective date of the Santa Monica Bay Beaches bacteria Wet-Weather TMDL

[3] A dry day is defined as a non-wet day. A wet day is defined as a day with a 0.1-inch or more of rain and the three days following the rain event.

[4] A revision of the TMDL is scheduled for four years after the effective date of the Santa Monica Beaches TMDLs in order to re-evaluate the allowable exceedance days during winter dry-weather and wet-weather based on additional monitoring data and the results of the study of relative loading from sources including but not limited to storm drains, boats, birds, and other nonpoint sources.

Santa Monica Bay Beaches during *Dry & Wet Weather* *Bacteria*

Effective Date: June 19, 2003

BPA: Attachment A, Chapter 7-4

Resolution No. 2002-004 and R02-022

WLA

WLA is held jointly with multiple dischargers.

The Department is responsible for achieving the WLAs identified below for all shoreline monitoring sites with the exception of those subject to Antidegradation Provisions.

Dry Weather

Summer Dry Weather Apr 1 - Oct 31		Winter Dry Weather Nov 1 - Mar 31	
Daily sampling (No. days)	**Weekly Sampling (No. days)**	**Daily sampling (No. days)**	**Weekly sampling (No. days)**
0	0	3	1

During the winter dry weather period, the Department is responsible for achieving the WLAs identified below for shoreline monitoring sites subject to Antidegradation provision.

Effective Date of this Order

Summer Dry Weather: June 19, 2006

Winter Dry Weather WLAs expressed as the Allowable Number of Exceedance Days for Shoreline Monitoring Sties subject to Antidegradation Provisions.

Station ID	Location Name	Winter Dry Weather Nov 1- Mar 31	
		Daily Sampling (No. Days)	Weekly Sampling (No. Days)
SMB 1-4	Trancas Beach	0	0
SMB 1-5	Westward Beach	0	0
SMB 2-13	Imperial Highway Storm Drain	2	1
SMB 3-8	Windward Ave Storm Drain	2	1
SMB 4-1	Nicholas Beach	0	0
SMB 5-2	40th Street, Manhattan State Beach	1	1
SMB 5-2	28th Street Storm Drain	0	0
SMB 5-3	Manhattan Beach Pier	1	1
SMB 5-5	Hermosa Beach Pier	2	1
SMB 6-6	Malaga Cove	1	1

Winter Dry Weather: June 19, 2009

The Department is responsible for achieving the rolling 30-day geometric mean objectives, which shall not be exceeded at any time.

Wet Weather

The Department is responsible for achieving the wet weather WLAs identified below for all shoreline monitoring sites, with the exception of those subject to Antidegadation Provisions.

Final Wet Weather WLAs (Allowable Number of Exceedance Days).

Wet Weather	
Daily Sampling (No. Days)	**Weekly Sampling (No. Days)**
17	3

The Department is responsible for achieving the wet weather WLAs identified below for shoreline monitoring sites subject to Antidegradation provisions.

Final Wet Weather WLAs (Allowable Number of Exceedance Days for Shoreline Monitoring Sites subject to Antidegradation Provisions)

Station ID	Location Name	Daily Sampling (No. Days)	Weekly Sampling (No. Days)
DHS 010a	Broad Beach	15	3
SMB 3-8	Windward Ave Storm Drain	13	2
SMB 4-1	Nicholas Beach	14	2
SMB 5-1	40th Street, Manhattan State Beach	4	1
SMB 5-3	Manhattan Beach Pier	5	1
SMB 5-4	26th Street, Hermosa Beach	12	2

Up to July 15, 2021 if an integrated water resources approach is used,; otherwise up to July 15, 2013 – Wet Weather

SMB 5-5	Hermosa Beach Pier	8	2
SMB 6-2	Redondo Municipal Pier	14	2
SMB 6-5	Avenue I Storm Drain, Redondo State Beach	6	1
SMB 6-6	Malaga Cove	3	1

The Department is responsible for achieving the rolling 30-day geometric mean targets, which shall not be exceeded at any time.

Malibu Creek and Lagoon
Bacteria

Effective Date: January 10, 2006

BPA: Attachment A, Chapter 7-10

Resolution No. 2004-019R

Wasteload Allocation
WLA is held jointly with multiple dischargers.

Dry Weather WLAs express as the Allowable Number of Exceedance Days

Summer Dry Weather Apr 1 – Oct 31		Winter Dry Weather Nov 1 – Mar 31	
Daily Sampling (No. Days)	**Weekly Sampling (No. Days)**	**Daily Sampling (No. Days)**	**Weekly Sampling (No. Days)**
0	0	3	1

Wet Weather WLAs expressed as the Allowable Number of Exceedance Days

Wet Weather	
Daily Sampling (No. Days)	**Weekly Sampling (No. Days)**
17	3

The Department is responsible for achieving the rolling 30-day geometric mean targets, which shall not be exceeded at any time.

Summer Dry Weather: April 1, 2009

Winter Dry Weather: January 10, 2012

January 10, 2016

Harbor Beaches of Ventura County (Kiddie Beach and **Hobie Beach)**
Bacteria

Effective Date: December 18, 2008

BPA: Attachment A Chapter 7-28

Resolution No. R2007-017

WLA

Interim WLAs for Single Sample and 30-day rolling geometric mean Exceedances:

Summer Dry-Weather

Location	Daily Sampling	Weekly Sampling
Kiddie Beach	54	8
Hobie Beach	40	6

December 18, 2008

Winter Dry-Weather

Location	Daily Sampling	Weekly Sampling
Kiddie Beach	23	4
Hobie Beach	25	4

December 18, 2008

Wet-Weather

Location	Daily Sampling	Weekly Sampling
Kiddie Beach	32	5
Hobie Beach	38	6

December 18, 2008

30-day Rolling Geometric Mean Exceedances (*Summer*):

Location	Daily Sampling	Weekly Sampling
Kiddie Beach	55	8
Hobie Beach	80	12

December 18, 2008

30-day Rolling Geometric Mean Exceedances (*Winter):*

Location	Daily Sampling	Weekly Sampling
Kiddie Beach	92	14
Hobie Beach	91	13

December 18, 2008

Final Allowable Exceedance Days:

Location	Summer–dry Weather		Winter-dry Weather	
	Daily Sampling (No. Days)	Weekly Sampling (No. Days)	Daily Sampling (No. Days)	Weekly Sampling (No. Days)
Kiddie Beach	0	0	3	1
Hobie Beach	0	0	3	1

December 18, 2008

Wet-Weather

Location	Daily Sampling (No. Days)	Weekly Sampling (No. Days)
Kiddie Beach	**17**	**3**
Hobie Beach	**17**	**3**

December 18, 2018

The WLA for the rolling 30-day geometric mean during any time period or monitoring site is zero (0) days of allowable exceedances.

December 18, 2013

Other

Monitoring Plan for approval by Executive Officer.

Prior to the modification of existing monitoring locations or frequencies.

Draft Dry-Weather Workplan to implement source control BMPs

June 18, 2010

Final Dry –Weather Workplan to implement source control and BMPs

June 18, 2012

Final Wet-Weather Workplan: to implement source control and BMPs.

December 18, 2012

Compliance Report for dry-weather, interim wet-weather allocations, and rolling 30-day geometric mean targets

December 18, 2014 and December 18, 2016

Final Compliance Report

December 18, 2018

Ballona Creek
Metals

Effective Date: December 22, 2005 and reaffirmed on October 29, 2008

BPA:

WLA

Dry-weather WLAs (grams total recoverable metals/day):

Metals	Ballona Creek	Sepulveda
Copper	11.2	5.1
Lead	6.0	2.7
Selenium	2.0	1
Zinc	143.1	64.7

Total Dry Weather Area:
50% by January 11, 2012

75% by January 11, 2014

100% by

Attachment A, Chapter 7-12

Resolution No. R2007-015

Wet-weather WLA (total recoverable metals) for all reaches and tributaries (grams/day):

Metal	WLA (grams/day)
Copper	2.37E-07 x Daily storm water volume (L)
Lead	7.78E-07 x Daily storm water volume (L)
Selenium	6.59E-08 x Daily storm water volume (L)
Zinc	1.57E-06 x Daily storm water volume (L)

January 11, 2016

Total Wet Weather Area:
25% by January 11, 2012

50% by January 11, 2016

100% by January 11, 2021

Calleguas Creek and Its Tributaries and **Mugu Lagoon** *Metals and Selenium*

Effective Date: March 26, 2007

BPA: Attachment A, Chapter 7-19

Resolution No. R4-2006-012

WLA

The Department and other responsible jurisdictions are jointly assigned WLAs.

***A.* Interim Limits**

Constituents	Calleguas and Conejo Creek			Revolon Slough		
	Dry CMC (µg/l)	Dry CCC (µg/l)	Wet CMC (µg/l)	Dry CMC (µg/l)	Dry CCC (µg/l)	Wet CMC (µg/l)
Copper	23	19	204	23	19	204
Nickel	15	13	(a)	15	13	(a)
Selenium	(b)	(b)	(b)	14	13	(a)

(a) The current loads do not exceed the TMDL under wet conditions; interim limits are not required.
(b) Selenium allocations have not been developed for this reach as it is not on the 303(d) list.
(c) Attainment of interim limits will be evaluated in consideration of background loading data, if available.

March 26, 2007

B. Final WLAs for Total Recoverable Copper, Nickel, and Selenium

Dry-Weather WLAs in Water Column

Flow Range	Calleguas and Conjeo Creek			Revolon Slough		
	Low Flow	Average Flow	Elevated Flow	Low Flow	Average Flow	Elevated Flow
Copper [1] (lbs/day)	0.04* WER 0.02	0.12* WER 0.02	0.18* WER 0.03	0.03* WER -0.01	0.06* WER -0.03	0.13* WER 0.02
Nickel (lbs/day)	0.100	0.120	0.440	0.050	0.069	0.116
Selenium (lbs/day)	(a)	(a)	(a)	0.004	0.003	0.004

[1] If site-specific WERs are approved by the Regional Board, TMDL WLAs shall be implemented in accordance with the approved WERs using the equations set forth above. Regardless of the final WERs, total copper loading shall not exceed current loading.
(a) Selenium allocations have not been developed for this reach as it is not on the 303(d) list.

Wet-Weather WLAs in Water Column

Constituent	Calleguas Creek	Revolon Slough
Copper[1] (lbs/day)	(0.0054*Q^2*0.032*Q – 0.17)*WER	(0.002*Q2+0.005*Q) *WER
Nickel[2] (lbs/day)	0.014*Q^2+0.82*Q	0.027*Q^2+0.47*Q

Percent reduction in the difference between current loads and final WLA:

25% by March 26, 2012

50% by March 26, 2017

100% by March 26, 2022

Percent reduction in the difference between current loads and final WLA:

25% by March 26, 2012

50% by

Selenium[2] (lbs/day)	(a)	0.027*Q^2+0.47*Q	March 26, 2017 100% by March 26, 2022

[1] If site-specific WERs are approved by the Regional Water Board, TMDL WLAs shall be implemented in accordance with the approved WERs using the equations set forth above. Regardless of the final WERs, total copper loading shall not exceed current loading.

[2] Current loads do not exceed loading capacity during wet weather. Sum of all loads cannot exceed loads presented in the table.

(a) Selenium allocation shave not been developed for this reach as it is not on the 303(d) list. Implementation actions include consideration of the watershed-wide selenium impacts.

Q: Daily Storm Volume.

Interim Limits and Final WLAs for Mercury in Suspended Sediment

Final WLAs are set at 80% reduction of HSPF load estimates. Interim limits for mercury in suspended sediment are set equal to the highest annual load within each flow category, based on HSPF output for the years 1993-2003.

Interim Limits for Mercury in Suspended Sediment

Range Flow	Calleguas Creek		Revolon Slough	
	Interim (lbs/yr)	Final (lbs/yr)	Interim (lbs/yr)	Final (lbs/yr)
0-15,000 MGY	3.3	0.4	1.7	0.1
15,000-25,000 MGY	10.5	1.6	4	0.7
Above 25, 000 MGY	64.6	9.3	10.2	1.8

MGY: million gallons per year.

March 26, 2022 – Final WLAs for Mercury in Suspended Sediment

Other

Implement Calleguas Creek Watershed Metals and Selenium Monitoring Program	April 30, 2009
Conduct a source control study, develop and submit an Urban Water Quality Management Program (UWQMP) for copper, mercury, nickel, and selenium.	March 26, 2009
Implement UWQMP	Within one year of approval of UWQMP by the Executive Officer
Evaluate results of the OC pesticides TMDL, Special Study – Calculation of sediment transport rates in the Calleguas Creek Watershed for applicability to the metals and selenium TMDL.	Within six months of completion of Study
Include monitoring for copper, mercury, nickel, and selenium in the OC pesticides TMDL, Special Study – Monitoring of sediment by source and land use type.	March 26, 2009
Submit results of Special Study #2; Identification of Selenium Contaminated Groundwater Sources	Within one year of approval of Workplan by Executive Officer
Submit workplan for Special Study #3 – Investigation of metals “Hot Spot” and Natural Soil	Within one year of the completion of Studies
Evaluate the effectiveness of BMPs implemented under the UWQMP	March 26, 2013
Evaluate the results of implementation actions Special Studies #2 and #3 and implement actions identified by studies.	Within one year of the completion of Studies

Los Angeles River *Metals*	***WLA*** **Dry-weather WLAs - total recoverable metals**	**Total Dry-weather**

Effective Date: December 22, 2005 and October 29, 2008

BPA: Attachment A, Chapter 7-13 and Attachment B.

Resolution No. R2007-014

Waterbodies	Copper (kg/day)	Lead (kg/day)	Zinc (kg/day)
LA River Reach 6	0.53	0.33	
LA River Reach 5	0.05	0.03	
LA River Reach 4	0.32	0.12	
LA River Reach 3	0.06	0.03	
LA River Reach 2	0.13	0.07	
LA River Reach 1	0.14	0.07	
Bell Creek	0.06	0.04	
Tujunga Wash	0.0001	0.0002	
Burbank Channel	0.15	0.07	
Verdugo Wash	0.18	0.10	
Arroyo Seco	0.01	0.01	
Rio Hondo Reach 1	0.01	0.006	0.16
Compton Creek	0.04	0.02	

Area meeting:

50% by January 12, 2012

75% by January 11, 2020

100% by January 2024

Wet-weather WLAs - total recoverable metals

Constituent	WLA (kg/day)
Cadmium	5.3 x 10^{-11} x daily volume (L) – 0.03
Copper	2.9 x 10^{-10} x daily volume (L) – 0.2
Lead	1.06 x 10^{-9} x daily volume (L) – 0.07
Zinc	2.7 x 10^{-9} x daily volume (L) – 1.6

Note: Water effects ratio (WER(s)) have a default value of 1.0 unless site-specific WER(s) are approved.

Total Wet-weather Area meeting:

25% by January 11, 2012

50% by January 11, 2024

100% by January 11, 2028

Ballona Creek Estuary
Toxic Pollutants

Effective Date: December 22, 2005

BPA: Attachment A, Chapter 7-14

Resolution No. R4-2005-008

WLA

Metals WLAs for sediment in storm water

Constituent	WLA (kg/yr)
Cadmium	0.11
Copper	3.2
Lead	4.4
Silver	0.09
Zinc	14

Organics WLAs

Constituent	WLA (g/yr)
Chlordane	0.05
DDTs	0.15
Total PCBs	2
Total PAHs	400

Other

Coordinated Monitoring Plan

Draft report outlining approach for WLAs that includes implementation methods, implementation schedules, proposed milestones, and any revisions to TMDL effectiveness monitoring plan.

Final report outlining approach for WLAs compliance.

Total Drainage Area meeting Metals and Organics WLAs:

25% by December 22, 2012

50% by December 22, 2014

75% by December 22, 2016

100% by December 22, 2020

December 22, 2006

December 22, 2011

June 22, 2011

Marina del Rey

WLAs

If pursuing a TMDL

Harbor
Toxic Pollutants

Effective Date: March 16, 2006

BPA: Attachment A Chapter 7-18

Resolution No. R4-2005-012

Metals

Constituent	WLAs (Kg/yr)
Copper	0.022
Lead	0.03
Zinc	0.096

Organics

Constituent	WLAs (g/yr)
Chlordane	0.0003
Total PCBs	0.015

Other

Coordinated Monitoring Plan	March 16, 2007
Results of any Special Studies	March 16, 2011
Draft report outlining approach for compliance with WLAs that includes implementation methods, implementation schedule, proposed milestones, and any revisions to TMDL effectiveness.	March 16, 2011
Final report outlining approach for WLAs compliance with WLAs.	September 16, 2011

Specific Implementation Plan meet WLAs at:

50% by March 16, 2014

100% by March 16, 2016

If pursuing an Integrated Resources Approach per Regional Water Board Approval meet WLA at:
25% by March 16, 2013
50% by March 16, 2015

75% by March 16, 2017

100% by March 16, 2021

Calleguas Creek, Its Tributaries and **Mugu Lagoon**
Organochlorine Pesticides (OC), Polychlorinated Biphenyls (PCBs), and Siltation

Effective Date: March 14, 2006

BPA: Attachment A, Chapter 7- 17

Resolution No. R4-2005-010

WLA
WLAs are held jointly with multiple dischargers.

1. Interim and Final WLAs for Pollutants in Sediment
   a) Interim WLAs (ng/g)

Constituent	Subwatershed					
	Mugu Lagoon[1]	Calleguas Creek	Revolon Slough	Arroyo Las Posas	Arroyo Simi	Conjeo Creek
Chlordane	25.0	17.0	48.0	3.3	3.3	3.4
4,4,-DDD	69.0	66.	400.0	290.0	14.0	5.3
4,4-DDE	300.0	470.0	16,000	950.0	170.0	20.0
4,4,-DDT	39.0	110.0	690.0	670.0	25.0	2.0
Dieldrin	19.0	3.0	5.7	1.1	1.1	3.0
PCBs	180.0	3800.0	7600.0	25700.0	25700.0	3800.0
Toxaphene	22900.0	260.0	790.0	230.0	230.0	260.0

[1] The Mugu Lagoon subwatershed includes Duck Pond /Agricultural Drain/Mugu/Oxnard Drain #2

Compliance with sediment based WLA is measured as an instream annual average at the base of each watershed where discharges are located.

Interim WLAs:
March 14, 2006

b) Final WLAs (ng/g)

Final WLAs: March 14, 2026

Constituent	Subwatershed					
	Mugu Lagoon[1]	Calleguas Creek	Revolon Slough	Arroyo Las Posas	Arroyo Simi	Conjeo Creek
Chlordane	3.3	3.3	0.9	3.3	3.3	3.3
4,4,-DDD	2.0	2.0	2.0	2.0	2.0	2.0
4,4-DDE	2.2	1.4	1.4	1.4	1.4	1.4
4,4,-DDT	0.	0.3	0.3	0.3	0.3	0.3
Dieldrin	4.3	0.2	0.1	0.2	0.2	0.2
PCBs	180.0	120.0	130.0	120.0	120.0	120.0
Toxaphene	360.0	0.6	1.0	0.6	0.6	0.6

[1] The Mugu Lagoon subwatershed includes Duck Pond /Agricultural Drain/Mugu/Oxnard Drain #2

2. Siltation WLA for MS4
   MS4 dischargers will receive an allocation of 2,496-tons/year reduction in sediment yield to Mugu Lagoon. The baseline from which the load reduction will be evaluated will be determined by a special study of this TMDL. The load allocation will apply after the baseline is established as described in the implementation plan. — March 24, 2015

Other

Workplan for OC pesticides and PCBs or an Integrated Calleguas Creek Watershed OC pesticide and PCBs Monitoring Program. — September 14, 2006

Initiate OC pesticide, PCBs, and siltation Monitoring Program — August 10, 2008

Workplan to identify urban, industrial and domestic sources of OC pesticides, PCBs, control methods, and methods to implement collection and disposal. — March 14, 2007

Special Study #1 Workplan and convene a Science Advisory Panel — March 14, 2007

Special Study #2 study to identify land area with high OC pesticides and PCBs concentrations and workplan. — March 14, 2007

Implement a collection and disposal program for OC pesticides and PCBs. — March 14, 2011

Special Study #1 results, including recommendations for refining the siltation load and wasteload allocations. — March 14, 2014

Effective date of siltation load allocation and wasteload allocation — March 14, 2015

Special Study #3: evaluate natural attenuation rates, methods to accelerate attenuation, and examine WLA attainability. — March 14, 2016

Achieve Final WLAs — March 14, 2026

Los Angeles River
Nitrogen Compounds

Effective Date: March 18, 2004

BPA: Attachment A, Chapter 7-8

WLA

WLA is held jointly with multiple dischargers. — March 18, 2005

Constituent		Los Angeles River Above Los Angeles – Glendale WRP (LAG)	Los Angeles River below LAG	Los Angeles Tributaries
Ammonia	One-hour average (mg/L)	4.7	8.7	10.1
	Thirty –day			

Resolution No. 03-009 and Resolution No. 03-016

	average (mg/L)	1.6	2.4	2.3
NO_3-N	Thirty-day average (mg/L)	8.0	8.0	8.0
NO_2-N	Thirty –day average (mg/L)	1.0	1.0	1.0
NO_3 –N + NO_2-N	Thirty –day average (mg/L)	8.0	8.0	8.0

Other

Submit a Monitoring Workplan to estimate nitrogen loadings from storm drain system. — March 18, 2005

Machado Lake *Eutrophic, Algae, Ammonia, and Odors (Nutrient)*

Effective Date: March 11, 2009

BPA: Attachment A, Chapter 7-29

Resolution No. 008-006

WLAs

Interim WLAs

Years After Effective Date	Phosphorus WLAs (mg/L)	Nitrogen (TKN + $N0_3$-N + NO_2-N	
At Effective Date[1]	1.25	3.50	March 11, 2009
5[2]	1.25	2.45	March 11, 2014
9.5 (Final WLAs[3])	0.10	1.00	March 11, 2014

1 The compliance point for all effective date interim WLAs is measured in the Lake
2 The compliance point for all year 5 interim WLAs is measured as specified in Implementation Plan Section II of Table 7-29.1
3 The compliance point for all final WLAs is measured as specified in Implementation Plan Section II of Table 7-29-1.

Final WLAs

Total Phosphorus (mg/L)	Total Nitrogen (TLN + $N0_3$-N + NO_2-N (mg/L)	
0.1	1.0	September 11, 2018

Other

Submit Monitoring and Reporting Program (MRP) Plan	March 11, 2010
Begin monitoring the approved MRP Plan	Sixty days from date of MRP Plan approval.
TMDL Implementation Plan (including BMPs to address discharges from storm drains)	March 11, 2011
Begin Implementation of BMPs to address discharges from storm drains, as set forth in TMDL Implementation Plan.	Sixty days from of Implementation Plan approval.
Submit Annual Monitoring Reports	Annually -from date of MRP Plan approval
Alternative mass-based WLA option: MRP and TMDL Implementation Plans	September 11, 2011
Alternative mass-based WLA option: Begin Monitoring and Implementation Plan	Sixty days from MRP/Implementation Plan approval.
Alternative Mass-based WLAs Annual Monitoring Reports	Annually from date

<table>
<tr><td></td><td></td><td>of MRP/Implementation Plan approval</td></tr>
<tr><td>Upper Santa Clara River
Chloride

Effective Date: April 6, 2010

BPA: Attachment B,

Chapter 7-6

Resolution No. R4-2008-012</td><td>WLA

Chloride = 100 mg/l

Other</td><td>April 6, 2010</td></tr>
<tr><td>Santa Clara River
Nitrogen Compounds

Effective Date: March 18, 2004

BPA: Attachment B, Chapter 7-9

Resolution No. 03-011</td><td>WLA
Concentration-based WLAs
<table><tr><th>Watershed Stream Reach</th><th>1-Hour (mg/L)

NH_3 - N</th><th>30-day (mg/L)

NH_3 - N</th><th>30-day Average (mg/L)

NO_3 – N + NO_2 - N</th></tr><tr><td>3</td><td>4.2</td><td>2.0</td><td>8.1</td></tr><tr><td>7</td><td>5.2</td><td>1.75</td><td>6.8</td></tr></table>Other
Workplan to estimate ammonia and nitrogen loadings.

Annual Progress Reports on the Implementation Plan</td><td>March 18, 2004

March 18, 2005

March 18, 2005 and annually thereafter</td></tr>
<tr><td>Calleguas Creek, its Tributaries and Mugu Lagoon
Toxicity, Chlorpyrifos, Diazinon

Effective Date: March 14, 2006

BPA: Attachment A, Chapter 7-16

Resolution No. R4-2005-009</td><td>WLA

Toxicity: 1.0 TU_c

Chloryprifos
Interim WLA (4 day) - 0.45 µg/L
Final WLA (4 day) - 0.014 µg/L

Diazinon
Interim WLA (Acute, 1-hour): 1.73 µg/L
Interim WLA (Chronic, 4 day): 0.556 µg/L
Final WLA (Acute and Chronic): 0.10 µg/L

Other

Submit workplan for integrated Calleguas Creek Monitoring Program for approval by EO.

Initiate monitoring program

Investigate the pesticides that will replace Diazinon and Chlorpyrifos in the urban environment, their impact on receiving waters, and potential control measures.

Special Study #2 - Consider results of monitoring of sediment concentrations by</td><td>Interim WLAs: March 14, 2006

Final WLAs: March 14, 2008

September 14, 2006

March 14, 2006

March 14, 2008

6 months after</td></tr>
</table>

	source/land use type through special study required in the OC Pesticide, PCB, and siltation TMDL Implementation Plan. If the special study is not completed through the OC Pesticides, PCBs and Siltation TMDL no consideration is necessary.	completion of CCW OC pesticides, PCBs and Siltation TMDL sediment concentrations special study.
	Develop and implement collection program for Diazinon and Clorpyrifos and an educational program.	March 14, 2009
	Special Study #3 - Calculation of sediment transport rates in CCW, Consider findings of transport rates developed through the OC Pesticide, PCB, and siltation TMDL.	6 months after completion of CCW OC Pesticides , PCBs and Siltation TMDL

Region 5 – Central Valley Regional Water Board

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
Cache Creek, Bear Creek, Sulphur Creek, and Harley Gulch *Mercury* Effective Date: February 7, 2007 BPA: Attachment I – Amending Basin Plan for Sacramento & San Joaquin River Basin Resolution No. R5-2005-0146	***WLA*** None Specified ***Other*** Develop and implement a plan to describe the management practices that will be implemented to control erosion. Implement best management practices to control erosion in mercury-enriched areas; conduct pre-project water quality and sediment assessments to identify areas with enriched mercury; and describe additional management practices that will be implemented in these areas.	None Specified February 7, 2009 On-going
Clear Lake *Nutrients* Effective Date: September 21, 2007 BPA: Attachment I Resolution No. R5-2006-0060	***WLA*** WLA for phosphorus - 100 kg/yr ***Other*** Conduct surveillance monitoring to estimate nutrient loadings from activities in the watershed using either water quality monitoring or computer or a combination of the two. Develop and implement a plan to: 1) collect the information needed to determine what factors are important to controlling nuisance blooms and to 2) recommend what control strategy should be implemented.	June 2018 On-going June 19, 2008
Sacramento-San Joaquin Delta *Methyl mercury* Effective Date: Pending Resolution No. R5-2010-0043	***WLA*** WLA is held jointly with multiple dischargers.	2030

Region 6 – Lahontan Regional Water Board

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date Due Date</th></tr>
<tr><td>Truckee River
Sediment

Effective Date: September 16, 2009

BPA: WQ Amendment May 2008

Resolution No. 2009-0028</td><td>WLA
4,936 tons/year of sediment (combined WLA for three MS4 permittees – Caltrans, Placer County, and Town of Truckee)

Other
Track and report road abrasives and de-icing agents used and recovered in accordance with Attachment V (Part 4) Lahontan Region, #8 and #12 of this Order.

Identify and prioritize legacy site restoration and BMP implementation

Coordinate with Truckee and Placer County to develop and implement a municipal monitoring program that addresses its discharges to surface waters.</td><td>September 16, 2029

January 15, each year as part of the Annual Lahontan Region Report

January 15, each year as part of the Annual Lahontan Region Report

Per direction of the Executive Officer</td></tr>
<tr><td>Lake Tahoe
Sediment and Nutrients

Effective Date: Pending

BPA: WQ Amendment May 2008

Resolution No. 2009-0028</td><td>WLA
Pollutant Load Allocations – Expressed as a Percent Reduction from the Lake Tahoe TMDL Baseline Condition
<table>
<tr><th>Baseline Load</th><th colspan="13">Milestone Load Reductions</th><th>Standard Attainment</th></tr>
<tr><td colspan="15">Fine Sediment Particles (less than 16 micrometers)</td></tr>
<tr><td>Basin Wide Fine Sediment Particle Load (# of particles</td><td>% of Basin Wide Load</td><td>5 yrs</td><td>10 yrs</td><td>15 yrs</td><td>20 yrs</td><td>25 yrs</td><td>30 yrs</td><td>35 yrs</td><td>40 yrs</td><td>45 yrs</td><td>50 yrs</td><td>55 yrs</td><td>60 yrs</td><td>65 yes</td></tr>
<tr><td>3.5E+20</td><td>72%</td><td>10 %</td><td>21 %</td><td>34 %</td><td>38 %</td><td>41 %</td><td>45 %</td><td>48 %</td><td>52 %</td><td>55 %</td><td>59 %</td><td>62 %</td><td>66 %</td><td>71 %</td></tr>
<tr><td colspan="15">Nitrogen</td></tr>
<tr><td>Basin Wide Nitrogen Load (MT/yr)</td><td>% of Basin Wide Load</td><td>5 yrs</td><td>10 yrs</td><td>15 yrs</td><td>20 yrs</td><td>25 yrs</td><td>30 yrs</td><td>35 yrs</td><td>40 yrs</td><td>45 yrs</td><td>50 yrs</td><td>55 yrs</td><td>60 yrs</td><td>65 yes</td></tr>
<tr><td>63</td><td>19%</td><td>8 %</td><td>14 %</td><td>19 %</td><td>22 %</td><td>25 %</td><td>28 %</td><td>31 %</td><td>34 %</td><td>37 %</td><td>40 %</td><td>43 %</td><td>46 %</td><td>50 %</td></tr>
<tr><td colspan="15">Phosphorus</td></tr>
<tr><td>Basin Wide phosphorus Load (MT/yr)</td><td>% of Basin Wide Load</td><td>5 yrs</td><td>10 yrs</td><td>15 yrs</td><td>20 yrs</td><td>25 yrs</td><td>30 yrs</td><td>35 yrs</td><td>40 yrs</td><td>45 yrs</td><td>50 yrs</td><td>55 yrs</td><td>60 yrs</td><td>65 yes</td></tr>
<tr><td>18</td><td>47 %</td><td>7 %</td><td>14 %</td><td>21 %</td><td>23 %</td><td>26 %</td><td>28 %</td><td>31 %</td><td>33 %</td><td>36 %</td><td>38 %</td><td>41 %</td><td>44 %</td><td>46 %</td></tr>
<tr><td colspan="15">Urban upland load reduction requirements constitute waste load allocations for the California Department of Transportation.</td></tr>
</table>
Other
Submit jurisdiction-specific 2004 baseline load estimates for fine sediment particles, phosphorus, and</td><td>Each five year permit term will include pollutant load reduction requirements consistent with the Table.

Each five</td></tr>
</table>

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
	nitrogen to the Regional Board for review/approval. Develop, implement, and maintain a Pollutant Load Reduction Plan (PLRP) to guide stormwater activities and project implementation.	year permit term

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date
Due Date</th></tr>
<tr>
<td>Coachella Valley Storm Water Channel
Bacterial Indicators

Effective Dates: Pending

BPA: June 17, 2010

Resolution No. R7-2010-0028</td>
<td>WLA
Bacterial Indicator Water Quality Objectives
<table>
<tr><th>Parameter</th><th>30-Day Geometric[a] Mean</th><th>Maximum Instantaneous</th></tr>
<tr><td>E. Coli</td><td>MPN ≤ 126/100 (ml)</td><td>400 MPN/100 ml</td></tr>
<tr><td colspan="3">[a] Based on a minimum of no les than 5 samples equally spaced over a 30-day period.</td></tr>
</table>
Other
Develop and submit two-year bacterial indicator water quality monitoring program and a Quality Assurance Project Plan (QAPP) for Regional Board Executive review and approval.

Monitor CVSC for bacteria loading.</td>
<td>None Specified

90 days after USEPA TMDL approval

Begin monitoring after approval of the CVSC Bacterial Plan by the Regional Water Board Executive Officer</td>
</tr>
</table>

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
Lake Elsinore and Canyon Lake *Nutrients* Effective Date: September 30, 2005 BPA: Attachment to Resolution No. R8-2004-0037 Resolution No. R8-2006-0031 Resolution No.R8-2007-0083	***WLAs*** **Lake Elsinore WLAs** **Final Phosphorus WLA (kg/yr)** / **Final Total Nitrogen WLA (kg/yr)** Not finalized / Not finalized Not finalized / Not finalized **Canyon Lake WLAs** The Department's allocations are part of the overall urban allocation. ***Other*** ***Sediment Nutrient Reduction Strategy:*** Phase 2 Alternatives O & M Agreement for Fishery Management Program O & M Agreement for Aeration and Mixing Systems Phase 2 Project Plans Complete Phase 2 Project Implementation Annual Report – Implementation of In-lake and Watershed Monitoring Programs ***Model Update Plan*** Linkage Analysis Study Watershed Source Loading Study Model Evaluation Construct/Calibrate Model Conduct Model Scenarios Model Update Final Report Comprehensive Nutrient Reduction Plan (CNRP) Commence Phase 2 LE/CL TMDL Monitoring Program Annual Report summarizing the Watershed-Wide Nutrient Water Quality Monitoring Program Begin Joint TMDL Monitoring Program	December 31, 2020 December 31, 2020 December 31, 2010 December 31, 2010 December 31, 2010 June 30, 2011 December 31, 2014 August 31 of every year August 31, 2010 August 31, 2010 December 31, 2010 June 30, 2011 August 31, 2011 November 30, 2011 December 31, 2011 December 31, 2011 August 15 of each Year December 31, 2010
Big Bear Lake *Nutrients for Dry Hydrological Conditions* Effective Date: September 25, 2007 BPA: Attachment to Resolution No. R8-2006-0023 Resolution No. R8-2006-0023,	***WLA*** WLA is held jointly with multiple dischargers. The Department is to demonstrate compliance with the WLA. ***Other*** Annual Reports summarizing data collected for the year and evaluating compliance with WLAs and numeric targets. Submit collectively or in collaboration with the Big Bear TMDL Task Force for the Regional Board approval a plan to evaluate the applicability and feasibility of various in-lake treatment technologies to control noxious and nuisance aquatic plants. Submit Plan and Schedule for updating the existing Big Bear Lake Watershed Nutrient Model. Submit a Proposed Plan and Schedule for In-lake Sediment Nutrient Reduction for Big Bear Lake.	December 31, 2015 February 15 of each year February 26, 2010 March 31, 2010 April 15, 2010

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date Due Date</th></tr>
<tr><td>and R8-2008-0070</td><td>Submit Annual Report summarizing water quality monitoring programs and Lake Management Plan.</td><td>February 15 of each year</td></tr>
<tr><td>San Diego Creek and Upper & Lower Newport Bay Organochlorine Compounds

Effective Date: Pending

BPA:

Resolution No.</td><td>WLA

San Diego Creek Watershed Organochlorine Compounds WLAs
<table>
<tr><th>Total DDT (g/yr)</th><th>Chlordane (g/yr)</th><th>Dieldrin (g/yr)</th><th>PCBs (g/yr)</th><th>Toxaphene (g/yr)</th></tr>
<tr><td>8.7</td><td>6.3</td><td>5.2</td><td>42.3</td><td>0.2</td></tr>
</table>
Upper Newport Bay Organochlorine Compounds WLA
<table>
<tr><th>Total DDT (g/yr)</th><th>Chlordane (g/yr)</th><th>PCBs (g/yr)</th></tr>
<tr><td>8.7</td><td>6.3</td><td>42.3</td></tr>
</table>
Lower Newport Bay Organochlorine Compounds WLA
<table>
<tr><th>Total DDT (g/yr)</th><th>Chlordane (g/yr)</th><th>Dieldrin (g/yr)</th><th>PCBs (g/yr)</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td></tr>
</table>
Other</td><td>None specified

None specified

None specified</td></tr>
</table>

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date
Due Date</th></tr>
<tr><td>Chollas Creek
Diazinon

Effective Date: November 3, 2003

BPA: Attachment A to Resolution No. R9-2002-0123

Resolution No. Investigation Order R9-2004-0277</td><td>WLA

<table><tr><th>Exposure Duration</th><th>Waste Load Allocation (µg/L)</th></tr><tr><td>Acute</td><td>0.072</td></tr><tr><td>Chronic</td><td>0.045</td></tr></table>The WLAs are shared with other municipal dischargers in the watershed and shall not be exceeded more than 1 time in any 3-year period.

If the WLAs are violated in Chollas Creek in more than one sample in any three consecutive years, Caltrans, along with other municipal dischargers, shall submit a report that either 1) documents compliance with the WLA through additional sampling of the urban runoff discharge, or 2) demonstrates, using modeling or other technical or scientific basis, the effectiveness of additional BMPs that will be implemented to achieve the WLAs and 3) an implementation schedule.

Other</td><td>November 3, 2010

Compliance Date to be determined when there is an Exceedance of the WLA</td></tr>
<tr><td>Rainbow Creek
Total Nitrogen and Total Phosphorus

Effective Date: March 22, 2006

BPA: Attachment A to Resolution No. R9-2005-0036

Resolution No. R9-2007-0036</td><td>WLA

Rainbow Creek WLAs for Highway Runoff
<table><tr><th>Nitrogen WLA (kg N/yr)</th><th>Phosphorus WLA (kg N/yr)</th></tr><tr><td>118</td><td>11</td></tr><tr><td>90</td><td>8</td></tr><tr><td>59</td><td>5</td></tr><tr><td>49</td><td>5</td></tr></table>Other

Implement Water Quality Monitoring Plan and submit annual progress reports detailing progress made on attaining the nutrient WLAs in Rainbow Creek (upon issuance of investigative Order by the San Diego Regional Board)</td><td>December 31, 2009
December 31, 2013
December 31, 2017
December 31, 2021

April 1 of each year until the nutrient water quality objectives are attained in Rainbow Creek.</td></tr>
<tr><td>Chollas Creek
Dissolved Copper, Lead and Zinc

Effective Date: December 18, 2008

BPA: Attachment A to Resolution No. R9-2007-0043

Resolution No. R9-2007-0036</td><td>WLA

Chollas Creek Interim Goals for Achieving WLAs
<table><tr><th rowspan="2">Compliance Year</th><th colspan="3">Allowable Exceedance of the WLAs (allowable percentage above)</th></tr><tr><th>Copper</th><th>Lead</th><th>Zinc</th></tr><tr><td>1</td><td>100 %</td><td>100 %</td><td>100 %</td></tr><tr><td>10</td><td>20 %</td><td>2.0%</td><td>20 %</td></tr><tr><td>20</td><td>0%</td><td>0%</td><td>0%</td></tr></table></td><td>December 18, 2009
December 18, 2018
December 18, 2028</td></tr>
</table>

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date Due Date</th></tr>
<tr><td></td><td>
Numeric Targets for Dissolved Metals in Chollas Creek
<table>
<tr><th>Metal</th><th>Numeric Target for Acute Conditions: Criteria Maximum Concentration</th><th>Numeric Target for Chronic Conditions: Criteria Continuous Concentration</th></tr>
<tr><td>Copper</td><td>(1) * (0.96) * {e^ [0.9422 * ln (hardness) - 1.700]}</td><td>(1) * (0.96) * {e^[0.8545 * ln (hardness) - 1.702]}</td></tr>
<tr><td>Lead</td><td>(1) * {1.46203 – [0.145712 * ln (hardness)]} * {e^ [1.273 * ln (hardness) - 1.460]}</td><td>(1) * {1.46203 – [0.145712 * ln (hardness)]} * {e^[1.273 * ln (hardness) - 4.705]}</td></tr>
<tr><td>Zinc</td><td>(1) * (0.978) * {e^ [0.8473 * ln (hardness) + 0.884]}</td><td>(1) * (0.986) * {e^[0.8473 * ln (hardness) + 0.884]}</td></tr>
</table>
Hardness is expressed as milligrams per liter.
Calculated concentrations should have two significant figures [40 CFR 131.38(b)(2)].
The natural log and exponential functions are represented as “ln” and “e,” respectively.

The WLAs are shared with other municipal dischargers in the watershed. WLAs shall be calculated as 90% of the numeric targets. Note numeric target and WLAs are hardness-specific.

Other
Submit Annual Progress Report
</td><td>April 1 of each year and Annually thereafter

Annually</td></tr>
<tr><td>Project 1- Revised Twenty Beaches and Creeks in the San Diego Region (including Tecolote Creek)
Indicator Bacteria

Effective Date: June 22, 2011

BPA: Attachment A to Resolution No. R9-2010-001

Resolution No. R9-2010-0001</td><td>
WLA

Wet & Dry Weather Bacteria Annual Loads (billion MPN/year)
<table>
<tr><th rowspan="2">Watershed</th><th colspan="2">Fecal Coliform WLA</th><th colspan="2">Enterococcus WLA</th><th colspan="2">Total Coliform WLA</th></tr>
<tr><th>Wet Weather</th><th>Dry Weather</th><th>Wet Weather</th><th>Dry Weather</th><th>Wet Weather</th><th>Dry Weather</th></tr>
<tr><td>San Joaquin Hills / Laguna Hills HSAs (901.11 and 901.12)</td><td>179</td><td>0</td><td>365</td><td>0</td><td>7,722</td><td>0</td></tr>
<tr><td>Aliso HAS (901.13)</td><td>260</td><td>0</td><td>516</td><td>0</td><td>11,003</td><td>0</td></tr>
<tr><td>Dana Point HAS ((01.14)</td><td>13</td><td>0</td><td>25</td><td>0</td><td>634</td><td>0</td></tr>
<tr><td>Lower San Juan HAS (901.27)</td><td>1,713</td><td>0</td><td>2,823</td><td>0</td><td>60,480</td><td>0</td></tr>
<tr><td>San Clemente HA (901.30)</td><td>335</td><td>0</td><td>635</td><td>0</td><td>13,534</td><td>0</td></tr>
<tr><td>San Luis Rey HU (901.00)</td><td>1,513</td><td>0</td><td>2,397</td><td>0</td><td>54,508</td><td>0</td></tr>
<tr><td>San Marcos HA (904.50)</td><td>8</td><td>0</td><td>26</td><td>0</td><td>533</td><td>0</td></tr>
<tr><td>San Dieguito HU (905.50)</td><td>1,310</td><td>0</td><td>2,288</td><td>0</td><td>47,969</td><td>0</td></tr>
<tr><td>Miramar</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td>Wet weather: June 22, 2021 if bacteria is only pollutant addressed and June 22, 2031 if multiple pollutants are addressed.

Dry weather: June 22, 2021.</td></tr>
</table>

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date

Reservoir HA (906.10)	0	0	0	0	9	0
Scripps HA (906.30)	0	0	0	0	0	0
Tecolote HA (906.5)	553	0	1,266	0	27,095	0
Mission San Diego/Santee HSAs (907.11 and 907.12)	1,009	0	2,430	0	53,141	0
Chollas HAS (908.22)	892	0	2,062	0	45,652	0

The WLAs are shared with other municipal dischargers in the watersheds.

Other

Bacteria Load Reduction Plan (BLRP) or Comprehensive Load Reduction Plan (CLRP) acceptable to the San Diego Water Board. — October 4, 2012

Progress reports submitted as described in BLRPs or CLRPs and may be submitted jointly with other municipal dischargers. — As described in the BLRPs or CLRPs

Attachment IVb – EPA Established TMDLs

R1- North Coast Regional Water Board

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
Albion River *Sediment* Effective Date: December 2001 BPA: USEPA Established Resolution No.	***WLA*** WLA for point sources is set at zero. ***Other*** Sediment Load Allocation : Road surface erosion - 16 tons/mi^2/yr Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	None Specified December 2001 Annual Report
Big River *Sediment* Effective Date: December 2001 BPA: USEPA Established Resolution No.	***WLA*** WLA for point sources is set at zero . ***Other*** **Sediment Load Allocation:** Road surface erosion: 12 tons/mi^2/yr. Road-related landslides: 20 tons/mi^2/yr. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	None Specified December 2001 Annual Report
Eel River, Lower HA *Sediment and Temperature* Effective Date: December 18, 2007 BPA: USEPA Established Resolution No.	***WLA*** **Temperature:** Zero net Increase in receiving water temperature **Sediment:** **Waste Load Allocation (WLA) is expressed as equivalent to the Load Allocations (LA).** Episodic road sediment sources - 9 tons/mi^2/yr. Chronic road sediment sources - 17 tons/mi^2/yr. ***Other*** Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	 December 18, 2007 December 18, 2007 December 18, 2007 Annual Report
Eel River, Middle Fork, Eden Valley and Round Valley HSAs *Sediment and Temperature* Effective Date: December 2003 BPA: USEPA Established Resolution No.	***WLA*** **Sediment:** Management –related sediment sources expressed by subwatershed in Table 7 of the *Middle Fork Eel River Total Maximum Daily Loads for Temperature and Sediment*. ***Other*** Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	December 2003 Annual Report

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
Eel River , Middle Main HA *Sediment and Temperature* Effective Date: December 2005 BPA: USEPA Established Resolution No.	***WLA*** **Sediment:** Waste load allocation is set at zero. ***Other*** **Sediment Load Allocations:** Road-related large features: 40 tons/mi^2/yr. Road-related small features: 60 tons/mi^2/yr. **Temperature Load Allocations:** 66% average shade for all tributary stream segments. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	December 2005 December 2005 December 2005 Annual Report
Eel River , North Fork HA *Sediment and Temperature* Effective Date: December 30, 2002 BPA: USEPA Established Resolution No.	***WLA*** **Temperature :** The WLA is set at zero . **Sediment:** Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	December 30, 2002 Annual Report
Eel River, South Fork HA *Sediment and Temperature* Effective Date: December 16, 1999 BPA: USEPA Established Resolution No.	***WLA*** **Temperature:** None Specified **Sediment:** The WLA is set at zero as there are no permitted point sources of sediment discharge to the watershed. ***Other*** Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	December 16, 1999 December 16, 1999 Annual Report
Eel River, Upper Main HA *Sediment and Temperature* Effective Date: December 29, 2004 BPA: USEPA Established Resolution No.	***WLA*** **Temperature:** The WLA is set at zero **Sediment:** Road-related sources: 14 tons/mi^2/yr ***Other*** Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	December 29, 2004 December 29, 2004 Annual Report
Gualala River *Sediment* Effective Date: December 2001 BPA: USEPA Established	***WLA*** The WLA is set at zero. ***Other*** **Sediment Load Allocation:** Road-related landslides: 56 tons/mi^2/yr. Road stream crossing failures: 5 tons/mi^2/yr. Road-related gullies: 8 tons/mi^2/yr. Road-related surface erosion: 7 tons/mi^2/yr.	December 2001 December 2001

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date Due Date</th></tr>
<tr><td>Resolution No.</td><td>Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.</td><td>Annual Report</td></tr>
<tr><td>Lost River
Nitrogen and Biochemical oxygen Demand to address Dissolved Oxygen and pH Impairments

Effective Date: December 30, 2008

BPA: Action Plan for Klamath River TMDLs Addressing Temperature, Dissolved Oxygen, Nutrient, and Microcystin Impairments in the Klamath River in California and Lost River Implementation Plan.

Resolution No. R1-2010-0026</td><td>WLA
Dissolved Inorganic Nitrogen: Reach 1: 0.1 metric tons/yr or 0.3 average kg/day. Reach 2: 0.1 metric tons/yr or 0.3 average kg/day. Reach 3: 0.1 metric tons/yr or 0.3 average kg/day.

Carbonaceous Biochemical Oxygen Demand: Reach 1: 0.2 metric tons/yr or 0.5 average kg/day. Reach 2: 0.2 metric tons/yr or 0.5 average kg/day. Reach 3: 0.2 metric tons/yr or 0.5 average kg/day.

Other
Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.

Assessment of fish migration barriers and potential barriers. Develop priority ranking and time schedule for modifying barriers.</td><td>December 30, 2008

December 30, 2008

Annual Report

Annual Report</td></tr>
<tr><td>Mad River
Sediment and Turbidity

Effective Date: December 21, 2007

BPA: USEPA Established

Resolution No.</td><td>WLAs

Total Sediment Load Allocations by Subareas
<table><tr><th>Source</th><th>Upper Mad River</th><th>Middle Mad River</th><th>Lower Mad River</th><th>Basinwide Annual Load</th><th>Basinwide Daily Load</th></tr><tr><td></td><td>Tons/mi^2/yr</td><td>Tons/mi^2/yr</td><td>Tons/mi^2/yr</td><td>Tons/mi^2/yr</td><td>Tons/mi^2/day</td></tr><tr><td>Management - Roads</td><td>28</td><td>279</td><td>57</td><td>174</td><td>0.5</td></tr></table>
Suspended Sediment Load Allocation by Subareas
<table><tr><th>Source</th><th>Upper Mad River</th><th>Middle Mad River</th><th>Lower Mad River</th><th>Basinwide Annual Load</th><th>Basinwide Daily Load</th></tr><tr><td></td><td>Tons/mi^2/yr</td><td>Tons/mi^2/yr</td><td>Tons/mi^2/yr</td><td>Tons/mi^2/yr</td><td>Tons/mi^2/day</td></tr><tr><td>Management - Roads</td><td>23</td><td>251</td><td>54</td><td>158</td><td>0.4</td></tr></table>
Other
Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.</td><td>December 21, 2007

December 21, 2007

December 20. 2003</td></tr>
<tr><td>Mattole River
Sediment

Effective Date: December 30, 2003</td><td>WLA
The WLA is set at zero .

Other
Sediment Load Allocation: Road-related mass wasting: 520 tons/mi^2/yr. Road stream</td><td>December 20, 2003

December 20, 2003</td></tr>
</table>

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
BPA: Resolution No.	crossing failures: 3 tons/mi^2/yr. Road-related gullying: 10 tons/mi^2/yr. Road-related surface erosion: 27 tons/mi^2/yr. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region	 Annual Report
Navarro River *Sediment and Temperature* Effective Date: December 27, 2000 BPA: USEPA Established Resolution No.	***WLA*** **Temperature:** The WLA is set at zero. **Sediment:** WLA is set at zero. ***Other*** Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region	December 27, 2000 Annual Report
Noyo River ***Sediment*** Effective Date: December 16, 1999 BPA: USEPA Established Resolution No.	***WLA*** The WLA is set at zero ***Other*** **Sediment Load Allocation:** Road-related load allocation: 68 tons/mi^2/yr. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region	December 16, 1999 December 16, 1999 Annual Report
Redwood Creek *Sediment* Effective Date: December 30, 1998 BPA: USEPA Established Resolution No.	***WLA*** The WLA is set at zero ***Other*** **Sediment Load Allocation:** Roads, landings, and skid trail erosion: 110 tons/mi^2/yr. Road-related tributary landslides: 70 tons/mi^2/yr. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region Promote and facilitate cooperative public-private implementation and monitoring efforts. Clarify focus on potential erosion sites as well as exiting sites. Comprehensive monitoring plan.	December 1998 Annual Report None Specified None Specified None Specified
Ten Mile River *Sediment* Effective Date: December 2000 BPA: USEPA Established Resolution No.	***WLAs*** The WLA is set at zero. ***Other*** **Sediment Load Allocation:** Road landsliding: 9 tons/mi^2/yr. Road surface erosion: 33 tons/mi^2/yr. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region.	December 2000 December 2000 Annual Report

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
Trinity River, Lower and Middle and Upper HAS *Sediment* Effective Date: December 20, 2001 BPA: USEPA Established Resolution No	***WLA*** Total Management WLAs are listed by subwatersheds within four assessment areas in Tables 5-2, 5-3, 5-4, and 5-5 of the *Trinity River Total Maximum Daily Load for Sediment* (USEPA, 2001). ***Other*** Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region	December 20, 2001 Annual Report
Trinity River, South Fork HA *Sediment* Effective Date: December 1998 BPA: Amendment to Include Introductory Language on TMDLs Resolution No.	***WLA*** The WLA is set at zero. ***Other*** **Sediment Load Allocation:** Road-related mass wasting: 16 tons/mi^2/yr. Road surface erosion: 11 tons/mi^2/yr. Road washouts, gullies, and small slides: 6 tons/mi^2/yr. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region	December 30, 1998 December 30, 1998 Annual Report
Van Duzen River and Yager Creek *Sediment* Effective Date: December 16, 1999 BPA: Amendment to Include Introductory Language on TMDLs Resolution No.	***WLA*** The WLA is set at zero. ***Other*** Sediment Load Allocation: Upper Basin Road LA: 7 yds^3/mi^2/yr. Middle Basin Road LA: 22 yds^3/mi^2/yr. Lower Basin Road LA: 20 yds^3/mi^2/yr. Sediment inventory, prioritization, scheduling, implementation, monitoring, and adaptation steps as described in the Region Specific Requirements (Attachment V) for the North Coast Region	December 16, 1999 December 16, 1999 Annual Report

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date
Due Date</th></tr>
<tr><td>San Gabriel River
Metals

Effective Date:
March 26, 2007

BPA: USEPA Established</td><td>
WLAs
Grouped dry-weather and wet-weather WLAs apply to the MS4 and the Department permits. Allocations for NPDES-regulated storm water discharges from multiple point sources to be expressed as a single categorical WLA when the data and information are insufficient to as assign each source or outfall individual WLAs.

Wet-weather WLAs

Wet-weather allocations are assigned to all upstream reaches and tributaries of San Gabriel River Reach 2 and Coyote Creek because they potentially drain to these impaired reaches during wet weather.

Wet-weather WLA for Lead in San Gabriel River Reach 2
<table>
<tr><th>Percent Area</th><th>Lead Allocations</th><th>Mass- based Values</th></tr>
<tr><td>49%</td><td>49% * 166 ug/l * Daily Storm Volume</td><td>51.8 kg/d</td></tr>
</table>
Notes:
(1) Concentration-based allocations apply to non-stormwater NPDES discharges
(2) Stormwater allocations are expressed as a percent of load duration curve. Mass-based values presented in table are based on a flow of 260 cfs (daily storm volume = 6.4 x 10^8 liters).
(3) In San Gabriel River Reach 2, wet-weather TMDLs apply when the maximum daily flow in the river is equal to or greater than 260 cfs as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam.

Wet-weather WLAs for Copper, Lead, and Zinc in Coyote Creek
<table>
<tr><th>Percent area</th><th>Copper</th><th>Lead</th><th>Zinc</th></tr>
<tr><td>91.5%</td><td>9.41 kg/d</td><td>36.9 kg/d</td><td>55.0 kg/d</td></tr>
</table>
Notes:
(1) Concentration-based allocations apply to non-stormwater NPDES discharges
(2) Stormwater allocations are expressed as a percent of load duration curve. Mass-based values presented in table are based on a flow of 156 cfs (daily storm volume = 3.8 x 10^8 liters).
(3) In Coyote Creek, wet-weather TMDLs apply when the maximum daily flow in the creek is equal to or greater than 156 cfs as measured at LACDPW flow gauge station F354-R, located at the bottom of the creek, just above the Long Beach WRP.
+

Dry-weather WLAs
Dry-weather allocations are assigned to sources that discharge directly to the estuary and to upstream sources that discharge indirectly to the estuary via San Gabriel River Reach 1 and Coyote Creek. The dry-weather storm water allocation is shared by the MS4 permittees and the Department.

Dry-weather Copper Waste Load Allocation (total recoverable metals)
<table>
<tr><th>Point Sources</th><th>San Gabriel River Estuary</th></tr>
<tr><td>MS4s, including the Department</td><td>3.7 ug/l</td></tr>
</table>
Dry-weather Copper Waste Load Allocations (total recoverable metals)
<table>
<tr><th>Point Sources</th><th>San Gabriel River Reach 1</th><th>Coyote Creek</th></tr>
<tr><td>MS4s, including the Department</td><td>18 ug/l</td><td>0.941 kg/d</td></tr>
</table>
</td><td>None Specified

None Specified

None Specified

None Specified

None Specified</td></tr>
</table>

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date
Due Date</th></tr>
<tr><td></td><td>Notes:
(1) The median non-WRP Coyote Creek flow is equal to 19 cfs, measured at LACDPW Station F354-R. A mass-based loading capacity of 0.943 kg/d was calculated by multiplying the target of 20 ug/l by by the median non-WRP flow. The dry-weather stormwater allocation of 0.941 kg/d was assigned after accounting for potential loadings from direct atmospheric deposition.

Dry-weather Selenium Waste Load Allocation (total recoverable metals)
<table><tr><th>Point Sources</th><th>San Jose Creek Reach 1 and Reach 2</th></tr><tr><td>MS4s, including the Department</td><td>5.0 ug/l</td></tr></table>
Other

Dry-weather TMDL Effectiveness Monitoring
The storm water NPDES permittees, including the Department, will be found to be effectively meeting the dry-weather waste load allocations if the in-stream pollutant concentration or load at the first downstream TMDL effectiveness monitoring location is equal to or less than the corresponding concentration- or load-based waste load allocation. Alternatively, effectiveness of the TMDL may be assessed at the storm drain outlet based on the numeric target for the receiving water. For storm drains that discharge to other storm drains, effectiveness will be based on the waste load allocation for the ultimate receiving water for that storm drain system. The final dry-weather monitoring stations shall be located in San Jose Creek Reach 1 and the Estuary. At a minimum the sampling frequency should be sufficient to generate enough samples to evaluate status of the waterbody relative to the State Board listing policy.

Wet-weather TMDL Effectiveness Monitoring
The storm water NPDES permittees, including the Department, will be found to be effectively meeting wet-weather waste load allocations if the load at the downstream monitoring location is equal to or less then the loading capacity identified in the TMDL. For practical purposes, this is when the EMC for a flow-weighted composite is less than or equal to the numeric target. Responsible agencies shall sample at least 4 wet-weather events where flow meets wet-weather conditions (260 cfs in San Gabriel River Reach 2 and 156 cfs in Coyote Creek) in a given storm season (November to March). Final wet-weather TMDL effectiveness monitoring stations may be located at the existing LACDPW mass emission sites in San Gabriel Reach 2 and Coyote Creek or at other locations approved by the Regional Board Executive Officer.</td><td>None Specified

None Specified</td></tr>
<tr><td>Santa Clara River Reach 3
Chloride

Effective Date: June 18, 2003

BPA: USEPA Established</td><td>WLAs

Chloride Waste Load Allocation is applicable to discharges directly to Reach 3, discharges to tributaries to Reach 3, and to discharges from Reach.

Chloride WLA
<table><tr><th>Point Source</th><th>WLAs (mg/L)</th></tr><tr><td>Department</td><td>80</td></tr></table></td><td>None Specified</td></tr>
<tr><td>Malibu Creek
Nutrients

Effective Date: March 21, 2003

BPA: USEPA Established</td><td>WLAs

The WLAs apply to all discharges of runoff from developed areas, including the Department highways and facilities, to listed segments and to upstream, hydrologically connected segments within the Malibu Creek watershed. This means that WLAs apply both to discharges to segments for which TMDLs are established, as well as to discharges to segments that are tributary to the segments for which TMDLs are established.</td><td>None Specified</td></tr>
</table>

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date Due Date</th></tr>
<tr><td></td><td><u>Winter concentration-based nitrogen allocation</u>
8 mg/l (Nitrate-Nitrogen + Nitrite-Nitrogen)*
*Applicable from November 16-April 14

EPA was unable to specifically distinguish the amounts of pollutant loads from allocation categories associated with areas regulated by stormwater permits. Therefore, allocations for these source categories are grouped.

<u>Summer nitrogen and phosphorus allocations for runoff from developed areas</u> (lb/day)
Total Nitrogen – 3.0
Total Phosphorus – 0.3

*Notes:
(1) Applicable from April 15-November 15
(2) Based on long-term (1998-2001) median summer flow value at the Malibu Creek gauging station (below Cold Creek, LACPWD site #F130-R) during the summer season of 5.2 cfs multiplied by the concentration-based numeric targets of 1.0 mg/l total nitrogen and 0.1 mg/l total phosphorus.

Other
Monitoring of pollutant sources is needed to ensure that required reductions are being achieved and if necessary, to refine the allocations presented in these TMDLs.</td><td>None Specified

None Specified

None Specified</td></tr>
<tr><td>Los Cerritos Channel
Metals

Effective Date: March 17, 2010

BPA: USEPA Established</td><td>WLAs

NPDES-regulated MS4 discharges from multiple point sources are allowed to be expressed as a single categorical WLA when data and information are insufficient to assign each source or outfall an individual allocation.

<u>Dry-weather mass-based WLA for Copper</u> (total recoverable metals)
<table><tr><th>Pollutant</th><th>The Department*</th></tr><tr><td>Copper</td><td>1.0 grams/day</td></tr></table>*Based on 140 acres of land area. The area of the Department' right-of-way that drains to the portion of Los Cerritos Channel subject to the TMDLs is approximately 140 acres (approximately 0.79% of the Watershed). This percentage does not represent all of the Watershed area that the Department is responsible for under its stormwater permit; park and ride facilities and maintenance yards are not included in the estimate.

<u>Wet-weather Waste Load Allocations</u> (total recoverable metals)*
<table><tr><th>Metal</th><th>The Department (g/day)</th><th>The Department (g/day)**</th></tr><tr><td>Copper</td><td>0.070 * daily storm volume (L) * 10^{-6}</td><td>6.8</td></tr><tr><td>Lead</td><td>0.397 * daily storm volume (L) * 10^{-6}</td><td>38.9</td></tr><tr><td>Zinc</td><td>0.680 * daily storm volume (L) * 10^{-6}</td><td>66.7</td></tr></table>*Notes:
(1) The wet-weather waste load allocations apply to any day when the maximum daily flow measured at a location within the Los Cerritos Channel above the tidal prism (e.g. Stearns Street Monitoring Station) is equal to or greater than 23 cfs, which is the estimated 90th percentile daily flow.
(2) **Based on daily flow of 40 cfs (daily storm volume = 9.8x10^{7} liters) and 140 acres of land area within the Watershed.

Other
Responsible agencies shall sample at least 4 wet weather-events where flow meets wet-weather conditions (>23 cfs in Los Cerritos Channel above the tidal prism) in a given storm season.

Typically, monitoring options to assess whether the stormwater NPDES permittees are effectively meeting their waste load allocations include: 1) if the in-stream pollutant concentration or load at the first downstream effectiveness monitoring location is equal to or less than the corresponding concentration- or load-based waste load allocation or; 2) if sampling at the storm drain outlet shows that the numeric target for the receiving water is being met.</td><td>None Specified

None Specified

None Specified

None Specified</td></tr>
</table>

<table>
<tr><th>TMDL</th><th>WLAs/Deliverables/Action Required</th><th>Compliance Date
Due Date</th></tr>
<tr><td>San Diego Creek
Selenium

Effective Date:
June 14, 2002

BPA: USEPA Established

Resolution No.</td><td>WLA
WLA is held jointly with multiple dischargers.</td><td>None Specified</td></tr>
<tr><td>R8 - Newport Bay and San Diego Creek
Metals

Effective Date:
June 14, 2002

BPA: USEPA Established

Resolution No.</td><td>WLA

Metals
Mass-based Allocation Schemes for Metals in Newport Bay
<table>
<tr><th>Allocation Scheme</th><th>Copper (lbs/yr)</th><th>Zinc (lbs/yr)</th><th>Lead (lbs/yr)</th><th>Cadmium* (lbs/yr)</th></tr>
<tr><td>WLA</td><td>423</td><td>22,866</td><td>2,171</td><td>1,185</td></tr>
<tr><td colspan="5">* Values apply to Upper Bay only (estimated as 40% of Newport Bay volume.</td></tr>
</table>
If the Department discharges directly to Newport Bay the following concentration based WLAs apply.
<table>
<tr><th rowspan="2">Metal</th><th>Dissolved Saltwater</th><th>Dissolved Saltwater</th></tr>
<tr><th>Acute WLAs (µg/L)</th><th>Chronic WLAs (µg/L)</th></tr>
<tr><td>Cadmium</td><td>42</td><td>9.3</td></tr>
<tr><td>Copper</td><td>4.8</td><td>3.1</td></tr>
<tr><td>Lead</td><td>210</td><td>8.1</td></tr>
<tr><td>Zinc</td><td>90</td><td>81</td></tr>
</table></td><td>June 14, 2002

June 14, 2002</td></tr>
<tr><td>Rhine Channel (Newport Bay)
Chromium and Mercury

Effective Date:
June 14, 2002

BPA: USEPA Established

Resolution No.</td><td>WLA

<table>
<tr><th colspan="2">Mercury</th><th colspan="2">Chromium</th></tr>
<tr><th>WLA (kg/yr)</th><th>% of Total Load</th><th>WLA (kg/yr)</th><th>% of Total Load</th></tr>
<tr><td>0.0027</td><td>3</td><td>0.89</td><td>3</td></tr>
</table></td><td>June 14, 2002</td></tr>
<tr><td>Newport Bay, San Diego Creek and Rhine Channel
Organochlorine Compounds

Effective Date:
June 14, 2002

BPA: USEPA Established</td><td>Note: The term “organochlorine compounds” includes: the phrase ‘organochlorine pesticides and the following pollutants: DDT, chlordane, dieldrin, and toxaphene.

WLA

San Diego Creek Watershed Allocations
<table>
<tr><th>DDT - including</th><th>Chlordane</th><th>Dieldrin</th><th>PCBs</th><th>Toxaphene</th></tr>
</table></td><td>June 14, 2002</td></tr>
</table>

TMDL	WLAs/Deliverables/Action Required	Compliance Date Due Date
Resolution No.		June 14, 2002

Dicofol (g/yr)	(g/yr)	(g/yr)	(g/yr)	(g/yr)
8.7	6.3	5.2	42.3	0.2

Upper & Lower Newport Bay Allocations

	DDT - including Dicofol (g/yr)	Chlordane (g/yr)	Dieldrin (g/yr)	PCBs (g/yr)
Upper Newport Bay	2.8	1.6	-	8.6
Lower Newport Bay	0	0	0	4.10